

Dr. John D. Barge, State School Superintendent "Making Education Work for All Georgians"

Georgia Department of Education

Teacher Keys Effectiveness System

Chapter 1: Teacher Keys Effectiveness System Handbook

<u>Chapter 2</u>: Teacher Keys Effectiveness System Implementation Procedures

<u>Chapter 3</u>: Teacher Keys Effectiveness System Fact Sheets

Chapter 4: Teacher Keys Effectiveness System Research Synthesis

<u>Chapter 5</u>: Teacher Keys Effectiveness System Endnotes for Handbook, Fact Sheets,

and Research Synthesis



Teacher Keys Effectiveness System Handbook

Table of Contents

Introduction to the Teacher Keys Effectiveness System	5
Part I: Teacher Assessment on Performance Standards	7
Step 1: Orientation to the Teacher Assessment on Performance Standards	13
Step 2: Familiarization with Evaluation under the Teacher Assessment on Performance	
Standards	14
Step 3: Self-Assessment	15
Step 4: Documenting Performance	16
Step 5: Rating Performance	18
Step 6: Teacher Effectiveness Measure (TEM) Calculations	22
Summary of TAPS Process	23
Part II: Student Growth and Academic Achievement	25
Overview of Student Learning Objectives	27
Essential SLO Components	
Specific SLO Details	30
Evaluating SLO Attainment	31
Timeline for Student Learning Objectives	33
Making the SLO Process Meaningful at the School Level	
Guidance for Completing the District SLO.	
Guides for SLO Development.	36
Part III: Surveys of Instructional Practice	39
Survey Sample	41
Administration of the Survey	41
Survey Results	
Appendices	
Appendix 1: Performance Standards	45
Performance Standard 1: Professional Knowledge	46
Performance Standard 2: Instructional Planning	47
Performance Standard 3: Instructional Strategies	
Performance Standard 4: Differentiated Instruction	49
Performance Standard 5: Assessment Strategies	50
Performance Standard 6: Assessment Uses	51
Performance Standard 7: Positive Learning Environment	52
Performance Standard 8: Academically Challenging Environment	
Performance Standard 9: Professionalism	
Performance Standard 10: Communication	55

Appendix	2: Forms and Tools	56
Overv	iew of the Teacher Keys Effectiveness System Standards Forms and Tools	557
Self-A	ssessment Form	58
Exam	oles of Documentation Evidence	64
Teach	er Assessment on Performance Standards Reference Sheet	66
Forma	tive Assessment Report	68
Walkt	hroughs	74
Summ	ative Assessment Report	80
Docun	nentation of Conference for the Record	86
Profes	sional Development Plan (PDP)	87
Proces	s Timeline for Evaluators and Teachers	89
Distric	et Student Learning Objective (SLO) Form	92
Teach	er Student Learning Objective (SLO) Form	94
Survey	y Administration Checklist	95
Appendix	3: Glossary	96
References		101
Figures		
_	Theory of Action.	5
· ·	Components of the Teacher Keys Effectiveness System	
_	Relationship between Essential Parts of the Teacher Assessment on	
C	Performance Standards	9
Figure 4:	Domains and Performance Standards	10
_	Performance Indicators	
•	Performance Appraisal Rubric	
=	Teacher Assessment on Performance Standards Process Flow	
Figure 8:	Rating Levels	18
Figure 9:	Frequency of Terminology	19
	Example of Summative Rating	
	Summary of the Teacher Assessment on Performance Standards Process.	
	Theory of Action Part II	
Figure 13:	Overview of Student Learning Objectives Process	27
=	Student Learning Objectives Evaluation Rubric	
Figure 15:	Student Learning Objectives Timeline	33
=	Flesch-Kincaid Readability Level	
-	Sample Survey Prompts	
	Survey Results Summary Sheet	
=	Survey Results Comparison Graph	
Endnotes for	TKES Handbook, Fact Sheets, Research Synthesis	Chapter 5
	TILLS IIUIUSUUN, I UU SIIUUS, IUSUUI UI SYIIIIUSIS	Chapter 3

The contents of this handbook were developed under a grant from the U. S. Department of Education. However, those contents do not necessarily represent the policy of the U. S. Department of Education, and you should not assume endorsement by the Federal Government.

Acknowledgments

The Georgia Department of Education's (GaDOE) Teacher Keys Effectiveness System (TKES) Handbook was developed with the thoughtful contributions of the Georgia State Evaluation Steering Committees, each of which focused on one component of the evaluation system. We wish to express our appreciation for their conscientious and insightful efforts.

Project Consultant

James H. Stronge, Ph.D. Heritage Professor of Educational Policy, Planning, and Leadership College of William and Mary Williamsburg, Virginia

With assistance from: Virginia Caine Tonneson, Ph.D., College of William and Mary Xianxuan Xu, Ph.D., College of William and Mary Leslie W. Grant, Ph.D., Old Dominion University Lauri M. Leeper, Ph.D, College of William and Mary

Teacher Keys Effectiveness System Usage Statement

The TKES Handbook was developed on behalf of the Georgia Department of Education to assist with implementation of Georgia's Race to the Top (RT3) plan. School systems involved in the pilot/full year implementation are required to use this handbook.

The materials in this handbook are copyrighted by either the Georgia Department of Education or Dr. James Stronge (© 2011). The materials may not be revised or modified without the express written permission of the applicable copyright holder. Georgia public schools may use these materials without alteration to meet applicable requirements or for educational purposes as long as the materials continue to reflect: "All Rights Reserved."

Introduction to the Teacher Keys Effectiveness System

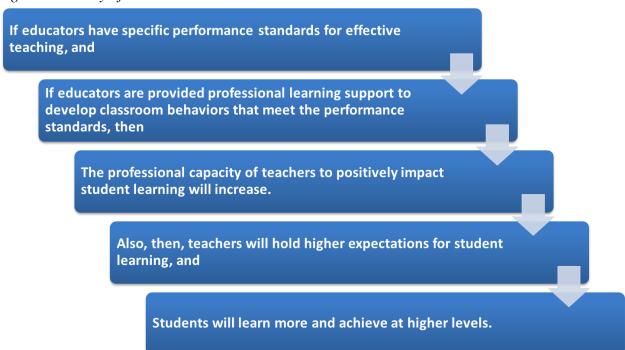
As part of the Race to the Top Initiative (RT3) in 2012-13, Georgia will conduct a pilot/full year implementation of the Teacher Keys Effectiveness System (TKES), a common evaluation system that will allow the state to ensure consistency and comparability across districts, based on a common definition of teacher effectiveness¹.

Primary Purpose of the Teacher Keys Effectiveness System/Theory of Action

The primary purpose of TKES is to:

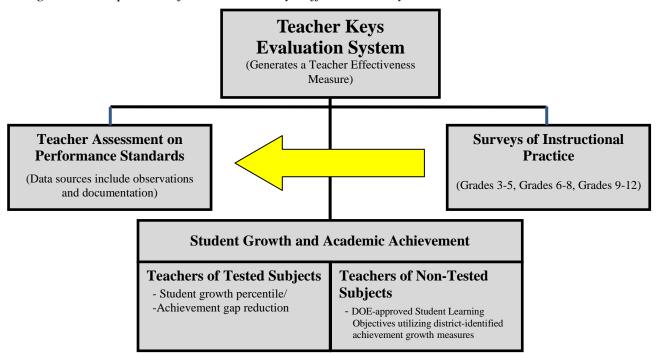
- Optimize student learning and growth.
- Improve the quality of instruction by ensuring accountability for classroom performance and teacher effectiveness.
- Contribute to successful achievement of the goals and objectives defined in the vision, mission, and goals of Georgia Public Schools.
- Provide a basis for instructional improvement through productive teacher performance appraisal and professional growth.
- Implement a performance evaluation system that promotes collaboration between the teacher and evaluator and promotes self-growth, instructional effectiveness, and improvement of overall job performance.
- Focus on student learning as outlined in Figure 1.

Figure 1: Theory of Action



As shown in Figure 2, the <u>Teacher Keys Effectiveness System (TKES)</u> consists of three components which contribute to an overall Teacher Effectiveness Measure (TEM): Teacher Assessment on Performance Standards (TAPS), Student Growth and Academic Achievement, and Surveys of Instructional Practice.

Figure 2: Components of the Teacher Keys Effectiveness System



The amount each component contributes to the <u>overall TEM score</u> depends on whether a teacher is in a tested subject/grade or in non-tested subject/grade. A <u>definite formula</u> for the contribution of each component will be determined at the completion of the pilot and review of the data.

1) <u>Teacher Assessment on Performance Standards (TAPS)</u>: TAPS provides evaluators with a qualitative, rubrics-based evaluation method by which they can measure teacher performance related to quality performance standards.

2) Student Growth and Academic Achievement:

- For teachers of tested subjects, this component consists of a student growth percentile/value-added measure.
- For teachers of non-tested subjects, this component consists of GaDOE-approved Student Learning Objectives utilizing district achievement growth measures.

3) Surveys of Instructional Practice:

- Student survey results will inform the rating of standards 3, 4, 7, and 8 at the Formative and Summative Level.
- Student survey results will impact the TEM score.

^{*}These three components are discussed in further detail in Parts I through III of the TKES Handbook. Documents referenced may also be found on the GaDOE SharePoint at **rt3georgia.com**.

PART I

TEACHER ASSESSMENT ON PERFORMANCE STANDARDS

PART I: Teacher Assessment on Performance Standards

The <u>Teacher Assessment on Performance Standards (TAPS)</u> component of the Teacher Keys Effectiveness System provides evaluators with a qualitative, rubrics-based evaluation method by which they can measure teacher performance related to quality performance standards. TAPS offers a balance between structure and flexibility. It is prescriptive in that it defines common purposes and expectations, thereby guiding effective instructional practice. At the same time, it provides flexibility by allowing for creativity and individual teacher initiative. The overarching goal of TKES is to support the continuous growth and development of each teacher by monitoring, analyzing, and applying pertinent data compiled within a system of meaningful feedback. The <u>GaDOE TLE Electronic Platform</u> will be used for the collection and management of data for the TAPS processes.

Distinguishing Characteristics of the Teacher Assessment on Performance Standards

The TAPS component has several distinctive characteristics. It provides:

- A focus on the relationship between professional performance and improved learner academic achievement.
- Sample performance indicators for each of the teacher performance standards.
- A system for documenting teacher performance based on multiple data sources.
- A procedure for conducting performance reviews that stresses accountability, promotes
 professional improvement, and increases the involvement of teachers in the evaluation
 process.

Foundational Documents of the Teacher Assessment on Performance Standards:

- Georgia Department of Education. (2010). *CLASS KeysSM: Classroom Analysis of State Standards: The Georgia Teacher Evaluation System*. Atlanta, GA: Author.
- Georgia Department of Education. (2011). Quantitative analysis addendum for the selection of potential CLASS KeysSM power elements connecting student achievement growth and teacher evaluation. Atlanta: Author.
- Haynes, L., Randel, B., Allen, J., Englert, K., Cherasaro T., & Michaels, H. (2011). Analysis and recommendations for CLASS KeysSM power elements. Atlanta: Georgia Department of Education.
- Stronge, J. H., & Tonneson, V. C. (2011). *CLASS KeysSM Teacher Evaluation System recommendations for improvement*. Atlanta, GA: Georgia Department of Education.
- Stronge, J. H., & Xu, X. (2011). *State Evaluation Steering Committee focus group report*. Atlanta, GA: Georgia Department of Education.
- Stronge, J. H., & Xu, X. (2011). Research synthesis of Georgia teacher evaluation standards. Atlanta, GA: Georgia Department of Education.

Essential Components of the Teacher Assessment on Performance Standards

Clearly defined professional responsibilities for teachers constitute the foundation for TAPS. A fair and comprehensive evaluation system provides sufficient detail and accuracy so that both teachers and evaluators (*e.g.*, principal or assistant principal) will fully understand their job expectations. TAPS uses a three-tiered approach to define the expectations for teacher performance consisting of 5 domains, 10 standards, and multiple performance indicators. Teachers will be rated on the performance standards using performance appraisal rubrics. The relationship between these components is depicted in Figure 3.

Figure 3: Relationship between Essential Parts of the Teacher Assessment on Performance

Standards **DOMAIN PERFORMANCE STANDARD PLANNING** Standard 1: Professional Knowledge The teacher demonstrates an understanding of the curriculum, subject content, **PERFORMANCE** pedagogical knowledge, and the needs of students by providing relevant learning **INDICATORS** experiences. The teacher: **PERFORMANCE** 1.1 Addresses appropriate curriculum standards and integrates key content elements. APPRAISAL 1.2 Facilitates students' use of higher-level thinking skills in instruction RUBRIC The teacher continually The teacher The teacher inadequa The teacher consistently demonstrates an inconsistently demonstrates demonstrates extensive understanding of the demonstrates understanding of content and pedagogical curriculum, subject understanding of curriculum, subject knowledge, enriches the content, pedagogical curriculum, subject content, pedagogical curriculum and guides knowledge, and the content, pedagogical knowledge and student others in enriching the needs, or does not use needs of students by knowledge, and student curriculum. (Teachers providing relevant needs, or lacks fluidity the knowledge in rated Exemplary learning experiences. in using the knowledge practice. continually seek ways to in practice. serve as role models or teacher leaders.)

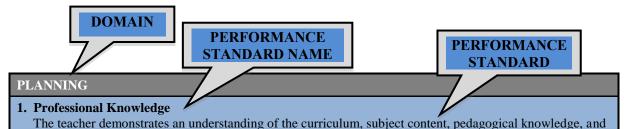
Domains

Domains describe the major categories under which a teacher's duties and responsibilities are comprised. There are five domains in TAPS: Planning, Instructional Delivery, Assessment of and for Learning, Learning Environment, and Professionalism and Communication.

Performance Standards

Performance standards refer to the major duties performed by a teacher. There are ten performance standards that serve as the basis of the evaluation. Figure 4 shows the five domains and their associated standards that are included in TAPS.

Figure 4: Domains and Performance Standards



the needs of students by providing relevant learning experiences. 2. Instructional Planning

The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.

INSTRUCTIONAL DELIVERY

3. Instructional Strategies

The teacher promotes student learning by using research-based instructional strategies relevant to the content area to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.

4. Differentiated Instruction

The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.

ASSESSMENT OF AND FOR LEARNING

5. Assessment Strategies

The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.

6. Assessment Uses

The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.

LEARNING ENVIRONMENT

7. Positive Learning Environment

The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.

8. Academically Challenging Environment

The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.

PROFESSIONALISM AND COMMUNICATION

9. Professionalism

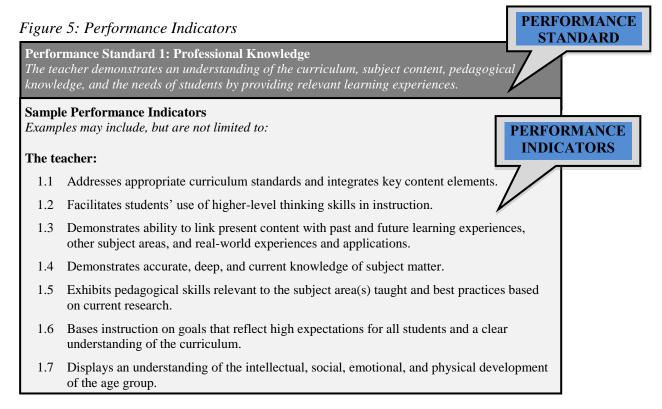
The teacher exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.

10. Communication

The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.

Performance Indicators

Performance indicators provide examples of observable, tangible behaviors for each standard as noted in Appendix 1. That is, the performance indicators are **examples** of the types of performance that may occur if a standard is being successfully met. The list of performance indicators is <u>not</u> exhaustive, is not intended to be prescriptive, and is not intended to be a checklist. Further, **all teachers are not expected to demonstrate each performance indicator.** Using Standard 1 (Professional Knowledge) as an example, a set of teacher performance indicators is provided in Figure 5.



The performance indicators are provided to help teachers and their evaluators clarify job expectations. *Ratings are made at the performance standard level, NOT at the performance indicator level.*

Performance Rubrics

The performance rubric is a behavioral summary scale that guides evaluators in assessing *how well* a standard is performed. It states the measure of performance expected of teachers and provides a qualitative description of performance at each level. In some instances, quantitative terms are included to augment the qualitative description. The resulting performance appraisal rubric provides a clearly delineated step-wise progression, moving from highest to lowest levels of performance.

Each level is intended to be qualitatively superior to all lower levels. The description provided in the *Proficient* level of the performance appraisal rubric is the actual performance standard, thus *Proficient* is the expected level of performance. Teachers who earn an

Exemplary rating must meet the requirements for the *Proficient* level and go beyond it. Performance appraisal rubrics are provided to increase reliability among evaluators and to help teachers focus on ways to enhance their teaching practice. Appendix 1 includes rubrics related to each performance standard. An explanation of each rating level is provided in the *Assessment* section. Figure 6 shows an example of a performance appraisal rubric for Standard 1 (Professional Knowledge).

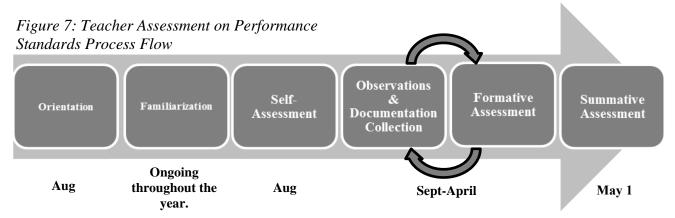
Figure 6: Performance Appraisal Rubric for Standard I

Exemplary* In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually	The teacher consistently	The teacher inconsistently	The teacher inadequately
demonstrates extensive	demonstrates an	demonstrates	demonstrates
content and pedagogical	understanding of the	understanding of	understanding of
knowledge, enriches the	curriculum, subject	curriculum, content,	curriculum, content,
curriculum and guides	content, pedagogical	pedagogical knowledge,	pedagogical knowledge
others in enriching the	knowledge, and the needs	and student needs, or	and student needs, or does
curriculum. (Teachers	of students by providing	lacks fluidity in using the	not use the knowledge in
rated Exemplary	relevant learning	knowledge in practice.	practice.
continually seek ways to	experiences.		
serve as role models or			
teacher leaders.)			

Responsibilities of Site Administrators

The term *site administrator* will be used for principals/supervisors. A site administrator may designate an administrator to collect information on employee job performance. The site administrator remains informed of the assessment process and is responsible for the <u>summative evaluation</u> of the teachers.

The process by which participating school districts will implement the TAPS portion of the Teacher Keys Effectiveness System is depicted in Figure 7.



A detailed description of each step, including an explanation, suggestions, and useful resources, is provided on the following pages.

Step 1: Orientation to the Teacher Assessment on Performance Standards

Explanation

To ensure both teachers and evaluators have a clear understanding of the expectations, building administrators will conduct a <u>Teacher Assessment on Performance Standards (TAPS)</u> <u>orientation</u>. This orientation should be scheduled as soon as possible once school begins or within the first month of hiring a new teacher. During the orientation, administrators should stress that TAPS is only one portion of the Teacher Keys Effectiveness System for evaluating both teachers of tested and of non-tested subjects. Teachers of tested subjects (grades 4-8 and high school EOCTs) are considered to be those who teach subjects with state standardized tests, and teachers of non-tested subjects teach subjects without state standardized tests.

Suggestions

A PowerPoint presentation and video is available to assist with the TAPS orientation. In addition, administrators will be provided with an electronic version of the *TKES Handbook* to distribute to all teachers. There are helpful resources in the GaDOE SharePoint to assist administrators in developing an orientation that is informative and engaging for the teachers.

In addition, the GaDOE has created a Race to the Top *Frequently Asked Questions* document that is beneficial to share with teachers. Administrators are encouraged to make teachers aware of the various resources available from the GaDOE, such as fact sheets on each of the performance standards, samples of completed forms, and an annotated bibliography.

Useful Resources from GaDOE SharePoint

- TAPS Orientation PowerPoint Presentation
- TAPS Orientation Video
- Electronic TKES Handbook
- TKES Handbook Scavenger Hunt Activity
- RT3 Frequently Asked Questions
- Fact Sheet 1: TKES Pilot
- Fact Sheet 2: Why Evaluate?
- Fact Sheet 3: Standard 1: Professional Knowledge
- Fact Sheet 4: Standard 2: Instructional Planning
- Fact Sheet 5: Standard 3: Instructional Strategies
- Fact Sheet 6: Standard 4: Differentiated Instruction
- Fact Sheet 7: Standard 5: Assessment Strategies
- Fact Sheet 8: Standard 6: Assessment Uses
- Fact Sheet 9: Standard 7: Positive Learning Environment
- Fact Sheet 10: Standard 8: Academically Challenging Environment
- Fact Sheet 11: Standard 9: Professionalism
- Fact Sheet 12: Standard 10: Communication
- Annotated Bibliography

Step 2: Familiarization with Evaluation under the Teacher Assessment on Performance Standards

Explanation

Once teachers are initially exposed to the TAPS portion of the Teacher Keys Effectiveness System, it is important that they be provided with an opportunity to become more familiar with exactly how they will be evaluated. As soon as feasible following the orientation, administrators should meet with teachers to continue their <u>TAPS familiarization process</u>.

Suggestions

During the evaluation familiarization session(s), administrators are strongly encouraged to engage the teachers in various activities designed to help teachers learn more about TAPS. The Georgia Department of Education will provide evaluators with a PowerPoint presentation on rating teacher performance that explains the formative and summative evaluation processes, forms, and use of performance rubrics, along with other engaging activities. Additionally, videos on proficient performance for each of the ten standards will be available on the GaDOE TLE Electronic Platform. The following activities will also help teachers build a more in-depth understanding of how they will be evaluated and what skills and competencies indicate successful performance. Evaluators may wish to compile the lists teachers create from these activities to produce a content-specific, grade-specific, or school-specific listing. Suggested activities include:

- Look Fors and Red Flags: Participants explore the ten performance standards to determine the indicators of successful performance and the warning signs of potential difficulty.
- *Matching Observation and Documentation with Performance Standards*: Participants generate a list of possible ways that observation and documentation can provide evidence of a teacher's proficiency within the ten performance standards.
- *Documentation of Performance*: Participants generate a list of documentation that provides evidence of proficiency in each of the ten performance standards.
- A Clean Room: Participants explore the creation of rubrics and the distinction between levels within a rubric.
- What's in a Rubric: Participants generate a description of teacher performance among the various rating levels for each performance standard.

Useful Resources on the GaDOE SharePoint

- TAPS Rating Teacher Performance PowerPoint Presentation
- TAPS Proficient Performance Videos
- *Look-Fors and Red Flags* Activity
- Matching Observation and Documentation with Performance Standards Activity
- Documentation of Performance Activity
- A Clean Room Activity
- What's in a Rubric Activity
- Fact Sheet 19: Performance Rubrics in Evaluation

Step 3: Self-Assessment

Explanation

Understanding one's own strengths and weaknesses is an important part of developing a teacher's instructional skills and competencies. By reflecting on areas where a teacher might be able to assist peers or areas where he or she needs additional development, a teacher is better able to focus professional learning. Further explanation of the teacher <u>self-assessment process</u> can be found in the TKES Implementation Procedures.

Suggestions

Teachers will be required to complete a self-assessment to reflect on areas of strength and growth specifically related to each performance standard. The self-assessment results may be used as a source of information for developing an individualized plan for professional growth using a district developed document.

Useful Resources on the GaDOE SharePoint

• Self-Assessment Form

Step 4: Documenting Performance

Explanation

A fair and equitable performance evaluation system for an educational professional acknowledges the complexities of the job. Thus, multiple data sources are necessary to provide a comprehensive and authentic "performance portrait" of a teacher's work. The Teacher Keys Effectiveness System takes into account several data sources. The TAPS focuses on two data sources, in particular - observation and documentation.

Observations

Classroom <u>observations</u> provide key information on the performance standards. Credentialed <u>evaluators</u> are required to conduct **two** formative observations. These observations may be announced or unannounced and must be at least 30 minutes in duration. In addition, a minimum of four walkthroughs/frequent brief observations consisting of at least 10 minutes each should be conducted for each teacher. Additional observations may be conducted at the building administrator's discretion. All observation feedback will be recorded using the GaDOE TLE Electronic Platform.

To assist evaluators, a <u>TAPS Reference Sheet</u> that lists the performance standards and sample performance indicators is provided in Appendix 2. Evaluators should keep in mind that the indicators are merely examples of the behaviors teachers might display if they are proficient in the standards. **The indicators are not to be used as a checklist.** Evaluators are required to keep their observation notes pertaining to various standards on the *Formative Assessment Report Form*, making sure to annotate (check box) that the comments pertain to the observation. When it is time to make summative ratings of performance, evaluators should not assign ratings to the ten standards based solely on the observations.

Evaluators will conduct a <u>pre-evaluation conference</u>, <u>mid-year conference</u> and <u>summative</u> <u>evaluation conference</u> for all teachers evaluated by the TKES. The evaluator is also responsible for providing timely feedback to the teacher regarding the *Formative Assessment Report Form* through the <u>GaDOE TLE Electronic Platform</u>. Although feedback is required, a formal conference after each formative observation is optional.

Documentation

Documentation of teacher practice and process is the second required data source for TAPS. It provides evaluators with information related to performance standards. Evaluators may request documentation from a teacher when a standard is not observed during an announced or unannounced observation. The request will also provide the teacher with an opportunity for self-reflection, demonstration of quality work, and a basis for two-way communication with an evaluator.

An additional source of documentation to inform ratings of standards 3, 4, 7, and 8 will be the results from the student surveys of instructional practice. Results will inform both the formative and summative ratings

The site administrator will determine whether teachers should provide documentation in hard-copy, electronic form, or both. The emphasis should be on the need to document a standard when it was not observed during an observation and the quality of the documentation. The Examples of Documentation Evidence form, noted in Appendix 2, provides examples of the types of material an evaluator might consider requesting to show evidence of proficiency in any of the ten performance standards. Documentation is not required for all ten standards.

The teacher is responsible for submitting requested documentation in a timely manner to the evaluator for consideration in the formative assessment, either prior to or after the actual classroom observation, and prior to the completion of the *Formative Assessment Report Form* by the evaluator. Evaluators will make notes pertaining to the documentation on the *Formative Assessment Report Form*, making sure to annotate (check box) that the comments pertain to the documentation.

Suggestions

When it comes time to conduct the formative and summative assessments, evaluators must rate teachers on all ten performance standards. Consequently, as evaluators conduct observations and review documentation, it is important that they keep all ten standards in mind. When conducting walkthroughs, evaluators should focus on a limited number of performance standards and/or indicators. They may find it useful to annotate the *TAPS Reference Sheet* as to which data source (observation and/or documentation) is likely to provide evidence related to a particular standard. Evaluators also may find it useful to review the teacher-generated listings from the *Look Fors and Red Flags* activity, and the *Matching Observation and Documentation with Performance Standards* activity used during the Orientation and Familiarization sessions with the teachers.

Useful Resources on the GaDOE SharePoint

- TAPS Reference Sheet
- Formative Assessment Report Form
- Examples of Documentation Evidence Form
- Fact Sheet 14: Observation
- Fact Sheet 15: Documentation

Step 5: Rating Performance

Explanation

To assist with data collection for TAPS, evaluators will be required to provide two formative assessment ratings, four walkthroughs/frequent brief observations for a minimum of ten minutes during the school year, as well as, a summative rating for teachers evaluated using the TKES. On all of these types of assessments, teacher ratings, comments, and documentation are tied directly to one of the ten performance appraisal rubrics. The rubric is a behavioral summary scale that describes acceptable performance levels for each teacher performance standard. The scale states the measure of performance expected of teachers and provides a general description of what a rating entails. Teachers are expected to perform at the **Proficient** level. Figure 8 explains the four levels of ratings.

Figure 8: Rating Levels

Cat.	Description	Definition
Exemplary	The teacher performing at this level maintains performance, accomplishments, and behaviors that continually and considerably surpass the established performance standard, and does so in a manner that exemplifies the school's mission and goals. This rating is reserved for performance that is truly exemplary and is demonstrated with significant student learning gains.	Exemplary performance: continually meets the standards empowers students and exhibits continuous behaviors that have a strong positive impact on student learning and the school climate acquires and implements new knowledge and skills and continually seeks ways to serve as a role model to others
Proficient	The teacher meets the performance standard in a manner that is consistent with the school's mission and goals and has a positive impact on student learning gains.	Proficient performance:
Needs Development	The teacher inconsistently performs at the established performance standard or in a manner that is inconsistent with the school's mission and goals and may result in below average student learning gains. The teacher may be starting to exhibit desirable traits related to the standard, but due to a variety of reasons, has not yet reached the full level of proficiency expected or the teacher's performance is lacking in a particular area.	Needs Development performance: • requires frequent support in meeting the standards • results in less than expected quality of student learning • needs guidance in identifying and planning the teacher's professional growth
Ineffective	The teacher continually performs below the established performance standard or in a manner that is inconsistent with the school's mission and goals and results in minimal student learning gains.	Ineffective performance: does not meet the standards results in minimal student learning may contribute to a recommendation for the employee not being considered for continued employment

The specific language in the TAPS rubrics should be used to help determine the rating for each standard. It is important to remember Figure 9 gives some general guidance related to specific terms like "Consistently" and "Continually". There are distinct differences. When thinking about Professional Knowledge, a teacher who continually demonstrates professional knowledge would do this in every class every day. Continually demonstrating assessment uses might be at intervals that exceed every day and every class. In this situation, the evaluator must look at how the teacher uses assessments and determine if the regularity is appropriate. Figure 9 helps clarify the frequency terminology that is used throughout the TAPS rubrics.

Figure 9: Frequency Terminology

Terms ranked by degree of frequency	Definition	Example
Consistently	Occurs at regular intervals	Every Week (Regular intervals will vary depending on the standard and the task.)
Continually	Occurs with high frequency, appropriately, and over time Every Day, Every C (Frequency will vary depending standard and the task.)	

Formative Assessment

Evaluators make decisions about performance on the ten performance standards based on all available evidence using formal and informal observations, as well as, anecdotal evidence that may be collected during team meetings, examination of student work, conferences, etc. For the TAPS portion of the Teacher Keys Effectiveness System (TKES), this will consist of observation and documentation. Evaluators will use the *Formative Assessment Report Form* to write comments during the observation and subsequent documentation reviews. Using this information, they will then provide a formative assessment rating on each of the ten performance standards using the performance appraisal rubrics.

Evaluators are required to conduct two formative assessments (announced and unannounced) for teachers evaluated by the TKES. Throughout the TKES evaluation process cycle, conferencing with the teacher at the following designated times is required and important to the feedback process.

- 1. A Pre-Evaluation Conference (August/September) is a follow-up to the Orientation and the beginning of the Familiarization process, as well as, a review of the self-assessment. It shall occur before the observations begin with the teacher. The pre-evaluation conference can be held individually or in a small group setting (e.g. grade level, content groups).
- 2. The Mid-Year (December/January) Conference shall focus on Student Learning Objective (SLO) data and performance standards feedback. The mid-year conference can be held individually or in a small group setting (e.g. grade level, content groups).

3. A Summative Evaluation Conference (April/May) will be held to provide written and oral feedback to the teacher regarding the Summative Assessment Report. TAPS, student achievement data trends, and student perception surveys shall be included in the post-conference discussion.

The GaDOE TLE Electronic Platform will have a <u>Documentation of Conference for the Record</u> and a <u>Professional Development Plan (PDP)</u> document to assist evaluators in providing growth and development opportunities for teachers. These documents are located in Appendix 2 for evaluators to use during the evaluation cycle. Additionally, an Evaluation Cycle calendar is provided for school districts and the local schools.

Summative Assessment

After collecting information throughout the evaluation process, evaluators will provide a summative assessment of a teacher's performance. Evaluators will use the <u>Summative</u> <u>Assessment Report Form</u> to evaluate performance on each standard using the four-category rating scale. By receiving a rating on each individual standard, the teacher is provided with a diagnostic profile of his or her performance for the evaluation cycle.

In making judgments for the summative assessment on each of the ten teacher performance standards, the evaluator should determine where the "totality of the evidence and most consistent practice" exists, based on observations, documentation of practice and process provided by the teacher, and Surveys of Instructional Practice. "Totality of the evidence and most consistent practice" as used here is intended to mean the overall weight of evidence. In other words, as applied to the four-point rating scale, the evaluator should ask, "In which rating category does the totality of the evidence fall?" In many instances, there will be performance evidence that may fit in more than one category. To reach a decision for aggregating the total set of data to reach a summative decision, the evaluator should ask "In which rating category does the evidence best fit?"

In addition to the ten separate ratings, the teachers will receive an <u>overall TAPS point score</u>. *Exemplary* ratings are worth 3 points, *Proficient* ratings are worth 2 points, and *Needs Development* ratings are worth 1 point. *Ineffective* ratings have no point value. Through the GaDOE TLE Electronic Platform, evaluators will receive a point value for all ten standards which will produce a final TAPS score. Figure 10 provides an example.

Figure 10: Example of Summative Rating

Rating	Point Value	Number of Standards Rated at that Level	Computation
Exemplary	3	2	$3 \times 2 = 6 \text{ pts}$
Proficient	2	6	2 x 6 = 12 pt
Developing/Needs Improvement	1	1	1 x 1 = 1 pt
Ineffective	0	1	$0 \times 1 = 0 \text{ pts}$
			Total = 19 pts

This score (19 points) then will be appropriately scaled so that it counts for a specified percentage of the overall Teacher Effectiveness Measure (TEM) score. Evaluators will provide feedback to teachers on the summative assessment at a summative evaluation conference. The summative assessment must be completed by May 15, 2013.

Suggestions

The site administrator has the ultimate responsibility for ensuring that the TAPS component of the TKES is executed faithfully and effectively in the school. However, for TAPS to be meaningful, it must provide teachers with relevant and timely feedback. To help with time constraints, administrators, other than the site administrator, such as assistant principals, may be designated by the district to assist as <u>evaluators</u>. The site administrator should remain informed of the assessment process and is responsible for the summative evaluation of the teachers.

Useful Resources on the GaDOE SharePoint

- Formative Assessment Report Form
- Summative Assessment Report Form
- Fact Sheet 20: Using Teacher Evaluation to Improve Performance
- Fact Sheet 21: Evaluation Conferences
- Samples of Completed Forms during the training

Step 6: Teacher Effectiveness Measure (TEM) Calculations

General Guidelines for Teacher Effectiveness Measure (TEM) Score

Teachers will receive a TEM score based on documentation and data from the three components of the TKES as indicated by <u>Figure 2</u> on page 6 of this document. Throughout the 2012-2013 implementation year, the GaDOE will continue to analyze the 2012 pilot data using the draft matrices and make revisions, adjustments, or additions to them as necessary.

GaDOE will also continue to work on decision tables for teachers who have student growth measures from both Student Learning Objectives and Student Growth Percentiles so that an appropriate balance is determined between the growth measures, taking into account the number of courses taught with SLOs and the number of courses for which the teacher has SGPs. GaDOE staff is currently engaged in analyzing <u>possible scenarios</u> and developing detailed processes with technical assistance from external experts.

The Student Growth and Academic Achievement Components of the TKES (SGP and SLO) will be fully implemented, but will not be used for the purpose of annual evaluation ratings at the district level, in 2012-2013. These components will be a "hold harmless rating" during the 2012-13 school year at the district level for contract purposes; however, the results will be calculated into the TEM scores in July 2013.

Teachers employed for the full school year, or for a minimum time equivalent to 65% of the instructional days, shall be evaluated using all components of the TKES. Data will be collected during the appropriate window of each component of the TKES for all teachers employed at the time designated for the specific measure. In some situations, when a teacher may be employed for the full school year, a <u>TEM score</u> may not be calculated. <u>Contributing Professionals</u> will not receive a TEM score.

Teachers, who are not employed for a full year, or for a minimum time equivalent to 65% of the instructional days, will be evaluated using the TKES components as determined by the district to be appropriate, depending upon the time and length of employment.

Another consideration for the TEM score calculation is the <u>length of time a student is taught</u> by the teacher. The student guidelines will be used in the teacher's TEM score calculation. GaDOE will continue to research the appropriate minimum amount of time a student should be enrolled in a course in order to be included in a teacher's performance measures for the purpose of determining annual evaluation ratings. Data from the 2012-2013 implementation year will also be used to inform a final decision on this requirement.

A foundation has been established to designate the level of participation of teachers in the three components of TKES as noted in the <u>TKES Implementation Process</u>. The information is designed to assist evaluators in making decisions about the participation of teachers in the TKES, TAPS, Surveys, and Student Learning Objectives/Student Growth Percentile, based on their teaching position and the <u>program delivery model</u> used with students.

Summary of TAPS Process

Figure 11 provides a summary of the steps, useful materials and timeline that administrators should take during the TAPS component of TKES.

Figure	e 11: Summary of the Teacher Assessment on Perform	nance Standards Proces	SS
Step	Description	Materials Needed	Timeline
1: Orientation	 Building administrators conduct a <u>TAPS orientation</u> session for classroom teachers using the <i>TAPS Orientation</i> PowerPoint Presentation. During this session, all teachers should receive the electronic <i>TKES Handbook</i>. To help teachers become familiar with the contents of the electronic TKES <i>Handbook</i>, administrators may use activities received during the TKES training. Administrators should make teachers aware of the resources available on the GaDOE website and may also want to make additional reference materials (e.g. fact sheets, FAQs) available to teachers. 	Required TAPS Orientation PowerPoint Presentation TKES Handbook Optional TKES Handbook Scavenger Hunt Activity Fact Sheets RT3 Frequently Asked Questions	August 2012
2: Self- Assessment	 Teachers will complete a required self-assessment to reflect on their areas of strength and growth related to each standard. Although a <i>Professional Development Plan (PDP)</i> is not a required component of the TAPS self-assessment, teachers should be encouraged to use the results of their self-assessment to inform their strategies for professional growth. 	Required • Self-Assessment Form	August 2012
3: Familiarization	 Building administrators conduct <u>familiarization</u> session(s) on TAPS to answer questions and to help teachers understand what administrators will be looking for in the evaluation. Administrators present the TAPS Rating Teacher Performance PowerPoint Presentation to describe the formative and summative evaluation process and use of performance rubrics. Administrators may consider doing activities such as Look Fors and Red Flags, Matching Observation and Documentation with Performance Standards, Evidence of Performance, A Clean Room, and/or What's in a Rubric to help teachers develop a greater understanding of how they will be evaluated. Administrators may provide time for ongoing familiarization sessions to allow time for these activities. 	 Required TAPS Rating Teacher Performance PowerPoint Presentation Optional Look-Fors and Red Flags Activity Matching Observation and Documentation with Performance Standards Activity Documentation of Performance Activity A Clean Room Activity What's in a Rubric Activity 	September 2012 to October 2012

Step		Description	Materials Needed	Timeline
ыср	Teacl	ner's performance related to the standards will be evaluated	Whaterials Needed	
		gh a combination of observations and documentation.		
		 To help collect data for the TAPS, evaluators will be required to conduct two formal observations (one announced or unannounced and a minimum of four walkthrough visits during the school year. Each formal observation will be a minimum of 30 	Required • Formative Assessment Report Form Optional	August 2012 to April 2013
mance		minutes and walkthroughs/frequent brief observations will be a minimum of 10 minutes. • Evaluators may find it useful to use the <i>TAPS</i>	TAPS Reference Sheet	
g Perfor	Observations	Reference Sheet as a resource for the types of behaviors that may indicate a teacher is meeting the standard.		
4: Documenting Performance	Obser	• Evaluators will provide feedback to the teacher concerning the evidence related to each standard using the <i>Formative Assessment Report Form</i> through the Electronic platform. A formative conference is optional.		
4		Evaluators will be required to conduct a pre- observation, mid-year and post-observation conference. These conferences may not always coincide with the formal observations.		
		 Evaluators should use a combination of observation and documentation to determine teacher ratings on the ten performance standards. 		_
Step		Description	Materials Needed	Timeline
	ative Assessment	 To collect data, evaluators will be required to fill out two <i>Formative Assessment Report Forms</i>. Evaluators should use a combination of observation and documentation to determine teacher ratings on each of the ten performance standards. 	Required • Formative Assessment Report Form	May 1, 2013
rmance	Formati	 Evaluators are responsible for providing formative feedback by appropriate means through the Electronic platform. A formative conference is optional. 		
5: Rating Performance	Summative Assessment	 Evaluators will use data collected via observation and documentation to determine summative ratings for teachers. Evaluators should use a combination of observation and documentation to determine teacher ratings on each of the ten performance standards on the <i>Summative Assessment Report Form</i>. Evaluators should strive to provide a comprehensive 	Required Summative Assessment Report Form	May 1, 2013
	Sum	and authentic "performance portrait" of the teacher's work. The Electronic platform will give a TAPS score for the teacher which will count as part of the Teacher Effectiveness Measure (TEM).		

STUDENT GROWTH

AND ACADEMIC ACHIEVEMENT

PART II

PART II: Student Growth and Academic Achievement

The second component of the Teacher Keys Effectiveness System is Student Growth and Academic Achievement. For teachers of tested subjects, this component consists of a <u>Student Growth Percentile (SGP)</u> and an achievement gap measure. For teachers of non-tested subjects, this component consists of GaDOE approved <u>Student Learning Objectives (SLOs)</u> utilizing district-identified achievement growth measures. This Theory of Action illustrated in Figure 12 formulates the actions necessary to achieve successful student growth.

Figure 12: Theory of Action Part II

If educators have a clear understanding of growth needed for students to become proficient in a year's time, and

If educators are provided trustworthy data with respect to the academic growth of students, then

Educators will have a deeper understanding of the real extent of student learning in classrooms, schools, districts, and the state.

Also, then, students and their parents will have a clearer understanding of growth needed to reach proficiency and beyond, and

Student learning and achievement will increase in Georgia.

Student Growth Percentile: Student Growth Percentiles (SGPs) will be used as the student growth component of the Teacher Effectiveness Measure (TEM) for teachers of tested subjects. SGPs describe a student's growth relative to his/her academic peers – other students with similar prior achievement (*i.e.*, those with similar history of scores). A growth percentile is generated for each student which describes his or her "rank" on current achievement relative to other students with similar score histories. A growth percentile can range from 1 to 99. Lower percentiles indicate lower academic growth and higher percentiles indicate higher academic growth.

The Criterion-Referenced Competency Tests (CRCT) in grades 4-8 reading, English/language arts, math, science and social studies and End of Course Tests (EOCTs) in Biology, Physical Science, 9th Grade Literature/Composition, American Literature/Composition, US History, Economics/Business/Free Enterprise, Mathematics I, Mathematic II, GPS Algebra, and GPS Geometry will be included in the growth model. As Georgia transitions to the implementation of common assessments developed by the Partnership for Assessment of Readiness for College and Careers (PARCC), the new assessments will be utilized in the growth model.

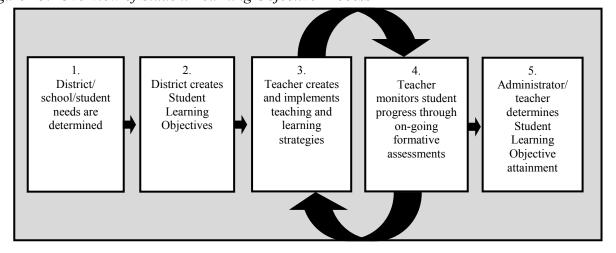
The growth model uses multiple years of prior test data as pretest scores (one year is used when multiple years are not available). For example, growth percentiles for 5th grade students on the 5th grade CRCT are generated using 3rd and 4th grade CRCT results as priors. At least one prior test score is necessary to model growth. Therefore, students in grades 4-8 will receive growth scores. Students in 3rd grade will not have a prior year CRCT test score to determine a growth score. Courses with EOCTs will receive growth scores. During the full implementation year, SGP performance will be weighted at 50% of the TEM for teachers of tested subjects.

Overview of Student Learning Objectives: District-determined SLOs are content specific, grade level learning objectives that are measureable, focused on growth in student learning, and aligned to curriculum standards. As a measure of teachers' impact on student learning, SLOs give educators, school systems, and state leaders an additional means by which to understand, value, and recognize success in the classroom.

The primary purpose of SLOs is to improve student achievement at the classroom level. An equally important purpose of SLOs is to provide evidence of each teacher's instructional impact on student learning. The process of setting and using SLOs requires teachers to use assessments to measure student growth. This allows teachers to plan for student success by ensuring that every minute of instruction is moving students, teachers, and schools toward the common vision of exemplary instruction and high levels of student academic growth. The *Student Learning Objectives Operations Manual* which is located on SharePoint has detailed information and forms regarding SLO development.

Overview of SLO Process

Figure 13: Overview of Student Learning Objective Process



- 1. Districts, in collaboration with teachers and school leaders, examine current data and historical data to determine the focus of the SLO for specified course.
- Prior to the instructional period, district teams develop an SLO based on the needs of students and/or school academic goals as they relate to the specified course. The <u>District</u> <u>SLO form</u> is completed and submitted to the GaDOE for review and approval by the specified date.
- 3. Using the approved district SLO for the specified course, teachers apply the SLO for their particular class(es) and complete the district-designated teacher SLO form which specifies how the teacher will implement the SLO with his/her class(es). Teachers and evaluators meet to discuss the teacher's SLO form/plan. (The GaDOE provides a Teacher SLO form. However, districts may choose to design and utilize their own form or method of reporting.)
- 4. Steps 3 and 4 are part of a recursive process, whereby the teacher continues to monitor student progress toward the given target.
- 5. Teachers and their evaluators will meet at the mid-point of the instructional period to review student progress. The purpose of this review is to determine if all students are on track to meet their growth targets or whether instructional interventions are warranted. This conference should identify the need and type of additional interventions necessary for student success.
- 6. At the end of the instructional period, the evaluator and teacher meet to review student data and progress. The evaluator scores the teacher's progress on the SLO Evaluation Rubric and submits the data to the GaDOE.

Essential SLO Components

Focus on student learning: By focusing on student learning, SLOs help teachers, principals, and districts pay close attention to the annual academic progress made by students (particularly those in non-tested subjects and grade levels). District-determined objectives are set using baseline data and are written with the expectation that student learning in each classroom will be measured against baseline data. Only those topics that clearly state expectations for student learning growth are to be included in objective setting. A teacher's professional growth objectives are not to be included.

Aligned with curriculum standards: SLOs must correlate with the Georgia Performance Standards (GPS), Common Core Georgia Performance Standards (CCGPS), and/or other national standards for the course taught to students. The standards selected by the District for the SLO should warrant the year-long or course-long focus of the students and teachers. They should be rigorous, measureable, and should deepen and extend knowledge for all students in the class/group/course. Each SLO must specify the exact course, subject, grade level, and set of standards for which it was designed.

Interval of instructional time: The interval of instruction is the length of time during which the SLO will be completed. Districts should determine the pre- and post-assessment administration windows for each SLO. The majority of SLOs should be written for the entire length of the course being taught. However, the nature of specific courses may require that the pre-assessment not be given at the very first of the instructional period but should be administered a short time

into the instructional period. For example, in a beginning band class, students may need to learn to position and use their instruments before the progress on music standards can be pre-assessed. For the majority of teachers, the instructional period is the full academic year. However, for teachers with courses that span only part of the academic year, the instructional period will be the duration of that course (*e.g.*, a semester). The interval cannot change once approved.

Scope of SLOs: It is a district decision as to whether the SLO comprehensively addresses all standards taught in each course or if it addresses a prioritized set of standards. If a district chooses a set of prioritized standards, teachers are expected to address the entire curriculum and not exclude standards not assessed in the SLO.

Measureable objective: A measureable objective is one that quantifies growth in student learning, typically based upon the results of administration of pre- and post-assessments. Pre- and post-assessment scores are reported for each student in each teacher's class.

Assessment and measures: An assessment is the instrument used to measure student learning of the objectives chosen. Each SLO must have a pre-assessment and post-assessment measure. Appropriate measures of student learning gains differ substantially based on the learners' grade level, content area, and ability level. Therefore, the type and format of assessments will vary based on the standards to be measured. Careful attention must be paid to how progress in relation to a given set of standards can most effectively be measured.

Commercially developed and validated assessments that correlate with the standards selected for each subject SLO may be used. [Examples of externally developed assessments include Advanced Placement tests, Lexile Framework for Reading, Dynamic Indicators of Basic Early Literacy Skills (DIBELS), etc.)] Externally developed assessments are selected, procured, and used at each district's discretion. The GaDOE does not recommend any particular assessments nor does the GaDOE endorse any particular product or assessment.

If aligned with the SLO's selected standards, the following measurement tools may be appropriate for assessing student progress:

- Criterion-referenced tests, inventories, and screeners (*e.g.*, Scholastic Reading Inventory, Phonological Awareness Literacy Screening).
- School-adopted interim/common/benchmark assessments (*e.g.*, county benchmark tests based on selected state standards, Career and Technical Education competency assessments, President's Physical Fitness Test).
- Authentic measures (*e.g.*, learner portfolio, recitation, performance) using district-developed performance scoring rubrics (*e.g.*, writing rubrics) to document the performance.
- Regionally/locally developed common assessments.

Note: It is recommended that teacher-developed tests be considered as the last option only when other measures do not exist. If other measures do not exist, groups of teacher/district representatives with notable content expertise may develop common assessments (test, rubrics, etc.).

Beginning with Phase II SLOs, all locally/regionally developed common assessments must be locally or regionally reviewed utilizing the SLO Table of Specifications and the SLO Assessment Criteria Table, as developed by the GaDOE. The purpose of these tools is to enable local districts to examine the validity, reliability, and proper construction of items of a given assessment. The GaDOE recommends that assessments are developed by GaDOE-trained assessment teams. District/regional assessment teams need to have proficiency in:

- Aligning assessments with course standards using the Aligning Curriculum and Assessment work tool.
- Completing or evaluating an assessment using the SLO Table of Specifications and the SLO Assessment Criteria Table.
- Assessing cognitive demand for each standard and assessment item.
- Assessing the validity and reliability of the assessment items and assessment as a whole.
- Assessing the assessment construction characteristics.

Public domain assessments for Phase II SLOs: All Phase II SLOs have been placed on SharePoint public domain assessments. These assessments have been developed by local/regional teams that have been trained by the GaDOE Teacher and Leader Effectiveness staff. Districts have the option to adopt public domain assessments or to customize public domain SLOs and SLO assessments. Customized SLOs must be submitted to the GaDOE for approval.

Specific SLO Details

The *Student Learning Objectives Operations Manual* is located on the SharePoint site. It provides detailed guidance on the SLO Assessment Cycle of which the tools listed above are described in greater detail.

- 1. Eventually SLOs will be written for all non-tested subject areas Pre-K through grade 12. This includes:
 - a. All subjects in Pre-K through grade 2 (*e.g.*, language arts/reading, mathematics, science, social studies, fine arts, etc.) are non-tested subjects.
 - b. All subjects in grade 3 are considered non-tested because there is no prior test score on which to determine Student Growth Percentile (SGP).
 - c. By August 1, 2012, district and public domain (collaboratively developed SLOs) will have been completed for 52 State courses. RT3 district teachers, priority schools and SIG schools teachers who teach any of these 52 subjects will be required to utilize the district SLOs. Only pilot teachers in new districts will be required to utilize the SLOs for the courses that they teach.
- 2. Teachers will be evaluated by one district SLO for each non-tested subject/course that they teach. SLOs are designed for the course, not individual teachers.
- 3. Teachers who teach both tested and non-tested subjects will be evaluated by SLOs for their non-tested subjects and by the SGP measure for their tested subjects.

- 4. If a teacher teaches the same course multiple periods/sections during the day, all students are included in the same SLO.
- 5. Prior to submission of district SLOs, appropriate district leaders should collect, review, and verify that each SLO is complete, aligns with content standards, and provides rigor that is comparable to the standardized measures for tested subjects. Each superintendent or his/her designee should approve and sign all SLOs prior to submission to the GaDOE. Beginning with Phase II, locally developed pre- and post-assessments should also be submitted with all SLOs.
- 6. Districts must submit each SLO on the District SLO Form for GaDOE approval before local teachers begin implementation of their SLO plans. A separate District SLO Form should be completed for each district course. SLO Forms should be submitted to the SLO Program Manager at a location to be determined.
- 7. Once SLOs are approved by the GaDOE, districts/evaluators will communicate their SLOs to teachers for the courses they teach. Teachers will administer the appropriate pre-assessment and complete the Teacher SLO form. (The GaDOE has provided a suggested Teacher SLO Form, but districts may either design their own or utilize other goal-setting or action planning form.)
- 8. Teachers and evaluators will meet mid-year or mid-course for a review to determine if students are on track to achieve SLO learning targets. At the end of the SLO period, teachers and evaluators will meet once again to review the results of the teacher's SLO(s). Evaluators will assign a rating using the SLO Evaluation Rubric and submit student and teacher data to the GaDOE by May 15. SLO results are reported at the student and class/group, school, and district level.

Evaluating SLO Attainment

At the end of the instructional period, teachers will administer the post-assessments and will compile their class/group data. Each teacher is responsible for assessing the students' growth toward the SLO. They must submit their completed *Student Learning Objective Teacher Form* to their evaluator. Evaluators will review the pre-assessment and post-assessment data presented by the teacher to make a determination as to whether the SLO was met. They will assign an end-of-year rating using an evaluation rubric with the following levels: *Exemplary, Proficient, Needs Development*, and *Ineffective*, as shown in Figure 14.

Figure 14: Student Learning Objective Evaluation Rubric

Exemplary (3 pts)	Proficient (2 pts)	Needs Development (1 pt)	Ineffective (0 pts)
The work of the teacher results in extraordinary student academic growth beyond expectations during the school year.	The work of the teacher results in acceptable, measurable, and appropriate student academic growth.	The work of the teacher results in student academic growth that does not meet the established standard and/or is not achieved with all populations taught by the teacher.	The work of the teacher does not result in acceptable student academic growth.
Greater than 50% of students exceeded the Student Learning Objective, at least 40% met the Student Learning Objective, and no more than 10% did not meet the Student Learning Objective.	Greater than 80% of students met or exceeded the Student Learning Objective and no more than 20% did not meet the Student Learning Objective.	Greater than 50% of students met or exceeded the Student Learning Objective.	Fewer than 50% of students met or exceeded the Student Learning Objective.
Comments:			

Local district SLO data should be submitted to the GaDOE by May 15.

Timeline for Student Learning Objectives

Figure 15: Student Learning Objectives Timeline

-8	
Summer	 The district considers needs of students, demands of grade-level standards and baseline data, and creates SLOs, including pre- and post-assessments Districts may examine public domain SLOs and SLO assessments and adopt them, customize them, or decide not to utilize them. Customized SLOs must also be submitted to the GaDOE.
August 1	The district submits SLOs to the GaDOE for review and approval.
Fall	• Teachers use District SLOs to administer pre-assessment during district-determined pre-assessment window(s). The results are recorded in the GaDOE TLE Electronic Platform.
Fall (Specific dates determined by district.)	• Teachers complete a spreadsheet with student pre-assessment scores, analyze the class/group data, complete the District or the GaDOE Teacher Form, and implement teaching strategies. Teachers meet with their evaluators to finalize their SLO plan.
Mid-course or mid-year	Evaluators meet with teacher to review interim results and to ascertain if students are on track to meet SLO growth targets.
End-of-course Assessment window	Teachers administer post-assessment during District determined post assessment window.
District determines date	Teachers submit class/group data to building level evaluator.
May 15	• Evaluator completes SLO Evaluation Rubric and submits SLO information to the GaDOE TLE Electronic Platform.

Making the SLO Process Meaningful at the School Level

Once evaluators have a good understanding of the SLO development process, local leaders need to apply that learning at the local school level. The *Student Learning Objectives Manual* located on the SharePoint site has background information which can be helpful in understanding SLOs. District leaders and school leaders need to determine the format of the Teacher SLO form and what documentation or information should be provided for the teacher-evaluation conferences in which the SLO will be discussed. (See suggested Teacher Form located in *Student Learning Objectives Manual* on SharePoint.)

Local evaluators are encouraged to think about the following questions:

- In what ways can I ensure this is meaningful to the teachers and for students in my school?
- How can our leadership team help guide teachers in using their pre-assessment results / SLOs to help improve student achievement and growth?

Consider the following questions. How will you:

- Introduce teachers to the process?
- Incorporate these assessments into your school-wide assessment calendar?
- Help teachers plan for implementation and complete the Teacher SLO Form (or comparable district approved form)?
- Encourage collaboration among teachers as they work to attain SLO results?
- Help guide teachers in using pre-assessment results to inform instruction?
- Check progress throughout the year?
- Ensure completion and collect data?
- Use the end of the year results for reflection?

Guidance for Completing the District SLO Form

1. Selected Standards

Determine which standards are worthy of the students' and teachers' focus for the given instructional period (typically a school year or semester). List the standard reference number and a brief description of the standard in Section 1.

With the input and guidance of content experts and teachers, districts will write SLOs around year-long, semester-long, or course period content, concepts, and/or skills which are worthy of the teachers' and students' focus. It is up to the district as to whether all standards are covered or if overarching standards are selected to determine teacher effectiveness.

2. Pre and Post SLO Assessment Measures

A brief description of the pre- and post-SLO assessment measures should be provided in Section 2 regardless of whether a locally/regionally developed assessment or a commercially procured assessment is used for the SLO.

Teachers will use the district selected/approved pre- and post-assessments to obtain a preassessment measure and a post-assessment measure for each student in the course. If districts choose to use commercial assessments instead of locally/regionally developed assessments, those assessments should be used according to the manufacturers' or designers' requirements for administration and use. In addition, the districts should respect the designers' guidance or requirements provided to maintain fidelity of use. (See section titled "Assessments Used to Measure Student Growth.")

3. Baseline Data or Historical Data/Trends

A brief description of the data, the data analysis, and implications for the SLO growth targets should be summarized and added to Section 3. Baseline data, previous data or data trends are the linchpin of the SLO since it provides the basis for the SLO growth targets and tiers. Before writing SLO growth targets, districts should analyze their assessment data from the selected SLO subjects. These data may include any of the following:

- Formative assessments based on the SLO's standards
- Benchmark tests which focus on SLO's standards
- Unit tests from course that assess SLO's standards
- Grades from SLO course's performance-based tasks
- Student transiency rate for school system (High? Low?)
- Pass/Fail Rate for SLO course for last two years
- Percentage of students receiving As, Bs, Cs, Ds, and Fs in course
- Attendance rate for school (All classes and SLO course)
- Teacher surveys detailing student growth predictions
- Any formal or informal tests or course assignments with pre- and post-results (growth data)
- Tutoring and remediation services provided for course
- Percentage of students in SLO course with IEPs, in gifted classes, etc.
- Acceleration methods for SLO course
- State-mandated standardized tests based on SLO's standards (EOCT, CRCT, GHSGT, etc.)
- Perception survey data from stakeholders related to SLO course
- Any other data that links classroom practices to student achievement

4. SLO Statement

SLOs should be written as SMART objectives: Specific, Measureable, Appropriate, Realistic, and Time-bound. SLOs should be clearly written so that a novice reader, as well as the subject-area teacher, understands exactly **what, how, and when** student growth in the given subject will be measured. The language of the assessments should be reflected in the SLO. For example, if the assessment results are reported by performance level or a score on a 100-point test, that language should be included in the SLO.

SLOs should be written so that local school evaluators can successfully use the *Student Learning Objective Evaluation Rubric* to determine if the teachers' students met the SLO. This rubric is located in this Handbook provided to all trainers, evaluators, and teachers evaluated using TKES. SLOs are written for all students in the class; therefore, the SLO should specifically state 100% of students or "all students." In order to ensure that all students perform well in terms of growth, SLOs may employ target tiers.

Growth targets must be specified and incorporated into the SLO in Section 4. After examining the past history of student progress, appropriate growth targets should be determined. Growth targets describe how students will grow in their learning in the selected content over the interval, as measured by the pre-assessment(s) and post-assessment(s). Expected growth is the amount students are expected to grow over the course of the instructional period. Traditionally, a year's growth is expected for a full school year. The expected growth for students must reflect the learning that would occur over the entire duration of the course. Expectations must be rigorous and attainable.

When there is a wide range of student performance at the beginning of a course, districts may consider building in targeted tiers of growth within SLOs. Based on student pre-assessment levels, targets of growth may be varied by groups of scores. Setting one growth goal is permissible; however, expecting all students in the district to meet the same level of growth may not be realistic especially if there is high variability in initial student performance levels. Therefore, target tiers may be used to determine expected growth based on the variability of skills and knowledge students have upon beginning the course subject. For example, students whose reading levels have been determined to be significantly below grade level may have different growth targets from students who are reading on or above grade level. Districts are reminded that SLOs should also address the highest performers in the district population.

Guides for SLO Development					
Guide 1 - Tiered Targets					
From					
Students scoring [pre-assessment level (grade, score, range, or rubric level)] will increase to [post-assessment level (grade, score, range, or rubric level)] *;					
> Students scoring [pre-assessment level (grade, score, range, or rubric level)] will increase to [post-assessment level (grade, score, range, or rubric level)] *;					
Students scoring [pre-assessment level (grade, score, range, or rubric level)] will maintain or increase by [points (numerical, percentage, level)] or higher. Level 4 students who are at or within [points (numerical, percentage, level)] of the ceiling will increase(can consider a growth target involving another task or concept or one addressing a more challenging concept)					
*Note: For tiers 1-3, students scoring at the ceiling or within [points (numerical, percentage, level)] of the ceiling must increase at least [points (numerical, percentage, level)] to demonstrate measurable progress					

Example

From August 15, 2012 to April 15, 2013, 100% of 10th Grade World Literature students will improve their understanding of literature as measured by the District 10th Grade World Literature SLO Pre-Assessment. Students will increase from their pre-assessment scores to their post-assessment scores on the District 10th Grade World Literature SLO Post-Assessment as follows:

- ➤ Students scoring at Level 1 (0 25%) will increase to Level 2 (26% 49%)*.
- > Students scoring at Level 2 (26% 49%) will increase to Level 3 (50% 74%)*.
- ➤ Students scoring at Level 3 (50% 74%) will increase to Level 4 (75% 100%)*.
- ➤ Students scoring at Level 4 (75% 100%) will maintain and increase by 10 percentage points or higher, if applicable. Level 4 students who are at or within 10 percentage points of the ceiling will increase their rubric scores by one (1) point on all four (4) constructed responses.

*Note: For tiers 1-3, students scoring at the ceiling or within 10 percentage points of the ceiling must increase at least 10 percentage points to demonstrate measurable progress.

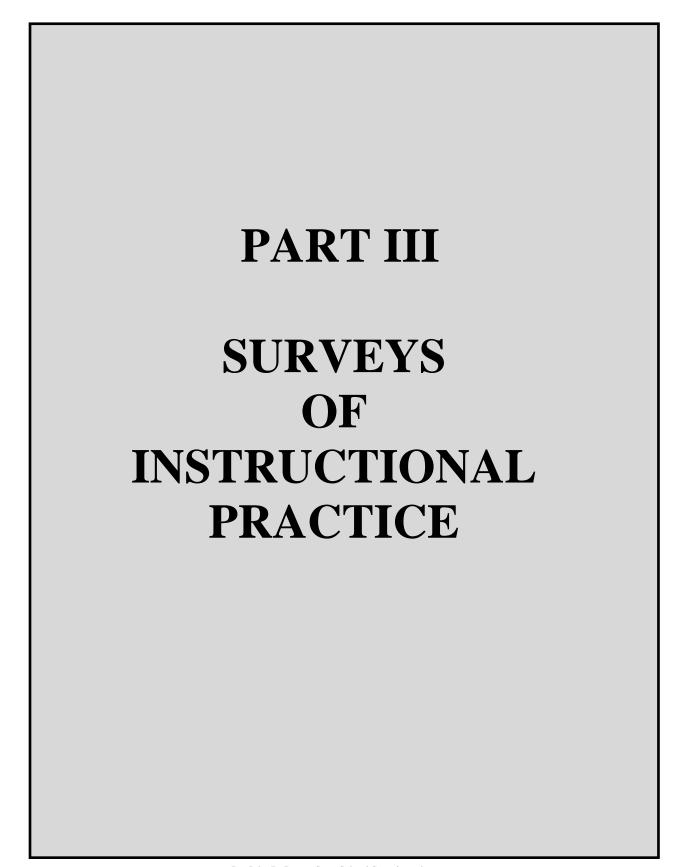
Guides for SLO Development					
Guide 2- Uniform Growth Target					
From					
Guide 3- Individualized Growth Target All enrolled in (class/subject) with the constrate measureable growth from their pretest score to their posttest score as measured by the and the following criteria:					
 Minimum expectation for individual student growth on a 100-point test is based on the formula which requires students to grow by at least ½ of what would be required improve to 100. Pre-assessment score + (100 – pre-assessment score) / 2 = Post-assessment Target Sco (±2) 					

5. Strategies for Attaining SLO

Local districts may choose whether to use Section 5. It is a district's and/or local evaluator's decision as to whether strategies are required or recommended. Districts may recommend or require specific research-based strategies which teachers may/must use to attain the SLO. Specific guidance that includes the frequency of strategy use can be very helpful for struggling or novice teachers.

6. Mid-year Review

A description of the mid-year or mid-term review should be added to Section 6. A mid-year or mid-term review of student progress toward growth targets is required. The purpose of this review is for teachers to examine and share student progress with their evaluator. It is important to determine if students are on track to achieve growth targets and whether instructional adjustments or interventions are needed. The district may determine the format of the mid-year or mid-term review, may recommend/suggest specific mid-year or mid-term actions, or may leave this decision up to the school evaluator and/or teacher.



PART III: Surveys of Instructional Practice

Another measure of the Teacher Keys Effectiveness System consists of student surveys of instructional practice. Surveys are an important data collection tool used to gather client (in this instance, student) data from individuals regarding the clients' perceptions of teacher performance. Among the advantages of using a survey design include the rapid turnaround in data collection, the limited cost in gathering the data, and the ability to infer perceptions of a larger population from smaller groups of individuals. In the Teacher Keys Effectiveness System, surveys will be used as a measure of teacher effectiveness and documentation to support four of the TAPS standards. These four standards: Standard 3- Instructional Strategies, Standard 4-Differentiated Instruction, Standard 7- Positive Learning Environment, & Standard 8-Academically Challenging Environment reflect the direct experience of students in classrooms.

Multiple data sources enable the evaluator to obtain a more accurate picture of performance and assist the teacher in increasing student success. These data sources do not stand-alone but are complementary to each other and should be integrated into the process of evaluation to provide a richer portrait of teacher performance. The flaws of one data source are often the strengths of another, and by combining multiple methods, evaluators can make more solid judgments regarding teacher performance and make decisions that are supported by multiple types of data. Student surveys may help the teacher set goals for continuous improvement (*i.e.*, for formative evaluation) — in other words, to provide feedback directly to the teacher for professional growth and development. Student surveys also may be used to provide information to evaluators that may not be accurately obtained during observation or through other types of documentation.

The surveys ask students to report on items they have directly experienced. Three different versions of the student survey (grades 3-5, 6-8, and 9-12) will be provided. The versions are designed to reflect developmental differences in students' ability to provide useful feedback regarding their teacher. All surveys are to be completed anonymously to promote honest feedback.

In addition, all surveys are examined to ensure they are written at an appropriate readability level using the Flesch-Kincaid Readability Scale. Figure 16 summarizes the results of this analysis.

Figure 16: Flesch-Kincaid Readability Levels of Surveys (TKES survey readability levels for the 2012-2013 implementation will be updated once the redesign and development of the survey items are complete.)

Grade	Flesch-Kincaid Readability Level
3-5	
6-8	
9-12	

An example of a survey question is shown in Figure 17.

Figure 17: Sample Survey Prompts

	Strongly Agree	Agree	Disagree	Strongly Disagree
My teacher uses different ways to teach and help me learn.	4	3	2	1
My teacher sets high learning standards for the class.	4	3	2	1

Survey Sample

Teachers who teach self-contained classes (*e.g.*, elementary teachers, special education teachers) will have all the students in their class surveyed. For departmentalized teachers (*e.g.*, middle and high school teachers, elementary PE and music teachers), designated classes of students will be surveyed. The local school site administrator will determine the selection of the classes. *Note*: There is a possibility that students may be selected to complete surveys on more than one teacher. Teachers of Pre-Kindergarten through Second Grade will not administer surveys to their students.

Administration of the Survey

Classroom teachers will not be involved in administering the survey to their own students; rather, a certified specialist (*e.g.*, library media specialist, instructional technology specialist) will administer the survey in a common media center or computer lab, if at all possible. If a common media center or computer lab is not available, the survey administrator will need to identify a location where the survey can be administered to small groups of students based on the available computers. The survey should be administered in secure conditions outside the presence of the teacher. All appropriate accommodations will be made for students with disabilities, based on Individualized Education Plans (IEP), and the survey will be read to any students not proficient enough to understand the survey questions.

All surveys will be administered using the GaDOE TLE Electronic Platform. The surveys will be accessed through a web-based portal. There will be no option for students to type in comments.

Students are able to comprehend at a higher level when listening to the survey questions read aloud. Therefore, it is considered appropriate for the readability of 3-5 surveys to be written at a slightly higher readability level. All students in Grades 3-5 will have the surveys read aloud. Survey items for **all** students will have read aloud capability within the electronic platform.

All appropriate accommodations will be made for students with disabilities and English Language Learners, based on Individual Education Plans (IEPs) or language instruction education plans (extended time, read aloud, dual language dictionaries, etc.). Severe/Profound

special education students, if sampled for participation in the surveys, may or may not participate, with needed accommodations, as determined to be appropriate by the IEP committee. Surveys will be read to Visually Impaired students. A secure protocol for entering the student responses from a Braille survey into the electronic platform is provided for educators. Auditory devices may also be utilized. The use of a toggle switch within the electronic platform will allow the survey to be read through headphones for any students requiring the accommodation. Additionally, the electronic platform will provide translation into other languages through use of a drop box allowing the selection from a list of multiple languages will be available.

Beginning with 2012-2013 pilot/full implementation year, districts will have multiple options for selecting survey windows. From October to April an open survey window will be available for schools to select a time frame that does not interfere with testing or other uses of computer labs, etc. The multiple survey options will accommodate courses taught only during first semester, only during second semester, all year, or for shorter segments within the school year. The appropriate survey window for a course and/or teacher sample will be selected by the district or principal. Surveys may also be administered multiple times during the year at the district's or principal's discretion.

Surveys will be administered in the following manner.

- All students in self-contained classes (*e.g.*, elementary teachers, special education teachers) will be surveyed unless otherwise determined by the IEP committee including the classroom teacher or case manager, a school administrator, and the parent.
- Principals will select students to be surveyed by class periods in departmentalized settings (*e.g.*, some upper elementary, middle and high school teachers, elementary PE and music teachers). There is a possibility that students may be selected to complete surveys on more than one teacher, but no student should be sampled to respond to surveys on more than two teachers in any given survey administration period.
- Non-departmentalized elementary staff and self-contained teachers—All students will be surveyed. Departmentalized elementary and multi-class (art, music, PE, etc.) teachers—Principals shall choose at least two class periods consisting of different students during which all students in these class periods will complete the survey.
- Special Education, inclusion, ESOL, etc. teachers—The principal shall schedule a time when all students taught by these teachers can complete the survey.
- Middle school and high school teachers—Principals shall choose at least two class periods consisting of different students during which all students will complete the survey so that those surveyed are representative of the students the teacher is teaching.

Survey Results

Survey results will be compiled with the GaDOE TLE Electronic Platform and must be utilized as documentation to support annual performance ratings. A summary of results for each question will be provided to individual teachers. The Survey Results Summary Sheet will include:

- The number of students with valid responses for each question,
- The number of responses for each question that were rated at each level of the response scale (*Yes, Sometimes, No* for Grades 3-5; *Strongly Agree, Agree, Disagree, Strongly Disagree* for Grades 6-12).
- The teacher, district, and state mean, the median, and the standard deviation compared to all other teachers at that grade level band (3-5, 6-8, and 9-12) for each question.

Figure 18: Survey Results Summary Sheet (Sample for Grade 7 teacher)

	Survey Results Summary									
		Pe	ercentage	of Ratin	gs					
Question	Number of Valid Responses	Strongly Agree (3 pts)	Agree (2 pts)	Disagree (1 pts)	Strongly Disagree (0 pt)	Mean	District Mean	State Mean	Median	Standard Deviation
My teacher uses different ways to teach and help me learn.	30	3%	50%	47%	0%	2.57	2.2	2.1	3	0.57
My teacher sets high learning standards for the class.	28	0%	25%	68%	7%	2.18	2.3	2.2	2	0.55

Evaluators and teachers will be provided with a summary chart for each standard by mean score. Figure 19 shows a partial Survey Results table for each standard by mean.

Figure 19: Survey Results for Each Standard by Mean

3. Instructional Strategies	4. Differentiated Instruction	7. Positive Learning Environment	8. Academically Challenging Environment
0.9	2.1	3.0	1.7

Survey data will provide documentation for Standards 3, 4, 7, and 8. The documentation should be used to inform formative and summative assessment ratings for those standards. The GaDOE will compute the overall mean score for each teacher.

APPENDIX I PERFORMANCE STANDARDS RUBRICS

Performance Standard 1: Professional Knowledge

The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 1.1 Addresses appropriate curriculum standards and integrates key content elements.
- 1.2 Implements students' use of higher-level thinking skills in instruction.
- 1.3 Demonstrates ability to link present content with past and future learning experiences, other subject areas, and real world experiences and applications.
- 1.4 Demonstrates accurate, deep, and current knowledge of subject matter.
- 1.5 Exhibits pedagogical skills relevant to the subject area(s) taught and best practices based on current research.
- 1.6 Bases instruction on goals that reflect high expectations for all students and a clear understanding of the curriculum.
- 1.7 Displays an understanding of the intellectual, social, emotional, and physical development of the age group.

Contemporary Effective Teacher Research

- Facilitates planning units in advance to make intra- and interdisciplinary connections.²
- Plans for the context of the lesson to help students relate, organize, and retain knowledge as a part of their long-term memory.³
- ◆ Identifies instructional objectives and activities⁴ to promote students' cognitive and developmental growth.⁵

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually	The teacher consistently	The teacher inconsistently	The teacher inadequately
demonstrates extensive	demonstrates an	demonstrates	demonstrates
content and pedagogical	understanding of the	understanding of	understanding of
knowledge, enriches the	curriculum, subject	curriculum, subject	curriculum, subject
curriculum, and guides	content, pedagogical	content, pedagogical	content, pedagogical
others in enriching the	knowledge, and the needs	knowledge, and student	knowledge and student
curriculum. (Teachers rated	of students by providing	needs, or lacks fluidity in	needs, or does not use the
as Exemplary continually seek	relevant learning	using the knowledge in	knowledge in practice.
ways to serve as role models or teacher leaders.)	experiences.	practice.	

Performance Standard 2: Instructional Planning

The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 2.1 Analyzes and uses student learning data to inform planning.
- 2.2 Develops plans that are clear, logical, sequential, and integrated across the curriculum (*e.g.*, long-term goals, lesson plans, and syllabi).
- 2.3 Plans instruction effectively for content mastery, pacing, and transitions.
- 2.4 Plans for instruction to meet the needs of all students.
- 2.5 Aligns and connects lesson objectives to state and local school district curricula and standards, and student learning needs.
- 2.6 Develops appropriate course, unit, and daily plans, and is able to adapt plans when needed.

Contemporary Effective Teacher Research

- Constructs a blueprint of how to address the curriculum during the instructional time.⁶
- Uses knowledge of available resources to determine what resources s/he needs to acquire or develop.⁷

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually seeks and uses multiple data and real world resources to plan differentiated instruction to meet the individual student needs and interests in order to promote student accountability and engagement. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.	The teacher inconsistently uses state and local school district curricula and standards, or inconsistently uses effective strategies, resources, or data in planning to meet the needs of all students.	The teacher does not plan, or plans without adequately using state and local school district curricula and standards, or without using effective strategies, resources, or data to meet the needs of all students.

Performance Standard 3: Instructional Strategies

The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 3.1 Engages students in active learning and maintains interest.
- 3.2 Builds upon students' existing knowledge and skills.
- 3.3 Reinforces learning goals consistently throughout the lesson.
- 3.4 Uses a variety of research-based instructional strategies and resources.
- 3.5 Effectively uses appropriate instructional technology to enhance student learning.
- 3.6 Communicates and presents material clearly, and checks for understanding.
- 3.7 Develops higher-order thinking through questioning and problem-solving activities.
- 3.8 Engages students in authentic learning by providing real-life examples and interdisciplinary connections.

Contemporary Effective Teacher Research

- Stays involved with the lesson at all stages.
- Uses a variety of instructional strategies.
- Uses research-based strategies to make instruction student-centered.
- Involves students in cooperative learning to enhance higher-order thinking skills.
- Uses students' prior knowledge to facilitate student learning. 12
- Possesses strong communication skills, ¹³ offering clear explanations and directions. ¹⁴

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually facilitates students' engagement in metacognitive learning, higher-order thinking skills, and application of learning in current and relevant ways. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning, and to facilitate the students' acquisition of key skills.	The teacher inconsistently uses-research-based instructional strategies. The strategies used are sometimes not appropriate for the content area or for engaging students in active learning or for the acquisition of key skills.	The teacher does not use research-based instructional strategies, nor are the instructional strategies relevant to the content area. The strategies do not engage students in active learning or acquisition of key skills.

Performance Standard 4: Differentiated Instruction

The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.

Sample Performance Indicators

Examples may include but are not limited to:

The teacher:

- 4.1 Differentiates the instructional content, process, product, and learning environment to meet individual developmental needs.
- 4.2 Provides remediation, enrichment, and acceleration to further student understanding of material.
- 4.3 Uses flexible grouping strategies to encourage appropriate peer interaction and to accommodate learning needs/goals.
- 4.4 Uses diagnostic, formative, and summative assessment data to inform instructional modifications for individual students.
- 4.5 Develops critical and creative thinking by providing activities at the appropriate level of challenge for students.
- 4.6 Demonstrates high learning expectations for all students commensurate with their developmental levels.

Contemporary Effective Teacher Research

- Differentiates for students' needs using remediation, skills-based instruction, and individualized instruction.¹⁵
- ♦ Uses multiple levels of questioning aligned with students' cognitive abilities with appropriate techniques. ¹⁶

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually facilitates each student's opportunities to learn by engaging him/her in critical and creative thinking and challenging activities tailored to address individual learning needs and interests. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.	The teacher inconsistently challenges students by providing appropriate content or by developing skills which address individual learning differences.	The teacher does not challenge students by providing appropriate content or by developing skills which address individual learning differences.

.Performance Standard 5: Assessment Strategies

The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 5.1 Aligns student assessment with the established curriculum and benchmarks.
- 5.2 Involves students in setting learning goals and monitoring their own progress.
- 5.3 Varies and modifies assessments to determine individual student needs and progress.
- 5.4 Identifies and uses formal and informal assessments for diagnostic, formative, and summative purposes.
- 5.5 Uses grading practices that report final mastery in relationship to content goals and objectives.
- 5.6. Uses assessment techniques that are appropriate for the developmental level of students.
- 5.7 Collaborates with others to develop common assessments, when appropriate.

Contemporary Effective Teacher Research

- Offers regular, timely, and specific feedback¹⁷ and reinforcement.¹⁸
- Gives homework and offers feedback on the homework.
- Uses open-ended performance assignments.²⁰

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually demonstrates expertise and leads others to determine and develop a variety of strategies and instruments that are valid and appropriate for the content and student population and guides students to monitor and reflect on their own academic progress. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher systematically and consistently chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.	The teacher inconsistently chooses a variety of diagnostic, formative, and summative assessment strategies or the instruments are sometimes not appropriate for the content or student population.	The teacher chooses an inadequate variety of diagnostic, formative, and summative assessment strategies or the instruments are not appropriate for the content or student population.

Performance Standard 6: Assessment Uses

The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 6.1 Uses diagnostic assessment data to develop learning goals for students, to differentiate instruction, and to document learning.
- 6.2 Plans a variety of formal and informal assessments aligned with instructional results to measure student mastery of learning objectives.
- 6.3 Uses assessment tools for both formative and summative purposes to inform, guide, and adjust instruction.
- 6.4 Systematically analyzes and uses data to measure student progress, to design appropriate interventions, and to inform long- and short-term instructional decisions.
- 6.5 Shares accurate results of student progress with students, parents, and key school personnel.
- 6.6 Provides constructive and frequent feedback to students on their progress toward their learning goals.
- 6.7 Teaches students how to self-assess and to use metacognitive strategies in support of lifelong learning.

Contemporary Effective Teacher Research

- Analyzes student assessments to determine the degree to which the intended learning outcomes align with the test items and student understanding of objectives.²¹
- Interprets information from teacher-made tests and standardized assessments to guide instruction and gauge student progress by examining questions missed to determine if the student has trouble with the content or the test structure.²²

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually demonstrates expertise in using data to measure student progress and leads others in the effective use of data to inform instructional decisions. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher systematically and consistently gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.	The teacher inconsistently gathers, analyzes, or uses relevant data to measure student progress, inconsistently uses data to inform instructional content and delivery methods, or inconsistently provides timely or constructive feedback.	The teacher does not gather, analyze, or use relevant data to measure student progress, to inform instructional content and delivery methods, or to provide feedback in a constructive or timely manner.

Performance Standard 7: Positive Learning Environment

The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 7.1 Responds to disruptions in a timely, appropriate manner.
- 7.2 Establishes clear expectations for classroom rules, routines, and procedures and enforces them consistently and appropriately.
- 7.3 Models caring, fairness, respect, and enthusiasm for learning.
- 7.4 Promotes a climate of trust and teamwork within the classroom.
- 7.5 Promotes respect for and understanding of students' diversity, including but not limited to race, color, religion, sex, national origin, or disability.
- 7.6 Actively listens and pays attention to students' needs and responses.
- 7.7 Creates a warm, attractive, inviting, and supportive classroom environment.
- 7.8 Arranges the classroom materials and resources to facilitate group and individual activities.

Contemporary Effective Teacher Research

- Cares about students as individuals and makes them feel valued. 23
- Acknowledges his or her perspective and is open to hearing their students' worldviews.
- Is culturally competent.²⁵
- Seeks to know about the cultures and communities from which students come.

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually engages students in a collaborative and self-directed learning environment where students are encouraged to take risks and ownership of their own learning behavior. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	The teacher-inconsistently provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	The teacher inadequately addresses student behavior, displays a negative attitude toward students, ignores safety standards, or does not otherwise provide an orderly environment that is conducive to learning or encourages respect for all.

Performance Standard 8: Academically Challenging Environment

The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 8.1 Maximizes instructional time.
- 8.2 Conveys the message that mistakes should be embraced as a valuable part of learning.
- 8.3 Encourages productivity by providing students with appropriately challenging and relevant material and assignments.
- 8.4 Provides transitions that minimize loss of instructional time.
- 8.5 Communicates high, but reasonable, expectations for student learning.
- 8.6 Provides academic rigor, encourages critical and creative thinking, and pushes students to achieve goals.
- 8.7 Encourages students to explore new ideas and take academic risks.

Contemporary Effective Teacher Research

- Adapts teaching to address student learning styles.²⁷
- ♦ Implement good classroom management with an ultimate purpose of establishing and maintaining an environment conducive to instruction and learning. ²⁸
- Conveys high expectations to students.²⁹

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually creates an academic learning environment where students are encouraged to set challenging learning goals and tackle challenging materials. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.	The teacher inconsistently provides a student-centered, academic environment in which teaching and learning occur at high levels or where students are self-directed learners.	The teacher does not provide a student-centered, academic environment in which teaching and learning occur at high levels, or where students are self-directed learners.

Handbook

Performance Standard 9: Professionalism

The teacher exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.

Sample Performance Indicators

Examples may include, but are not limited to:

The teacher:

- 9.1 Carries out duties in accordance with federal and state laws, Code of Ethics, and established state and local school board policies, regulations, and practices.
- 9.2 Maintains professional demeanor and behavior (*e.g.*, appearance, punctuality and attendance).
- 9.3 Respects and maintains confidentiality.
- 9.4 Evaluates and identifies areas of personal strengths and weaknesses related to professional skills and their impact on student learning and sets goals for improvement.
- 9.5 Participates in ongoing professional growth activities based on identified areas for improvement (*e.g.*, mentoring, peer coaching, course work, conferences) and incorporates learning into classroom activities.
- 9.6 Demonstrates flexibility in adapting to school change.
- 9.7 Engages in activities outside the classroom intended for school and student enhancement.

Contemporary Effective Teacher Research

Contemporary research has found that an effective teacher:

- Recognizes levels of involvement, ranging from networking to collaboration.³⁰
- Encourages linking professional growth goals to professional development opportunities.
- Encourages cognizance of the legal issues associated with educational records, and respects and maintains confidentiality. ³²

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually engages in a high level of professional growth and application of skills and contributes to the development of others and the well-being of the school and community. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.	The teacher inconsistently supports the school's mission or seldom participates in professional growth opportunities.	The teacher shows a disregard toward professional ethics or the school's mission or rarely takes advantage of professional growth opportunities.

Across all levels, teachers are expected to abide by the Code of Ethics

(http://www.gapsc.com/Rules/Current/Ethics/505-6-.01.pdf).

Performance Standard 10: Communication

The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.

Sample Performance Indicators

Examples may include, but are not limited to:

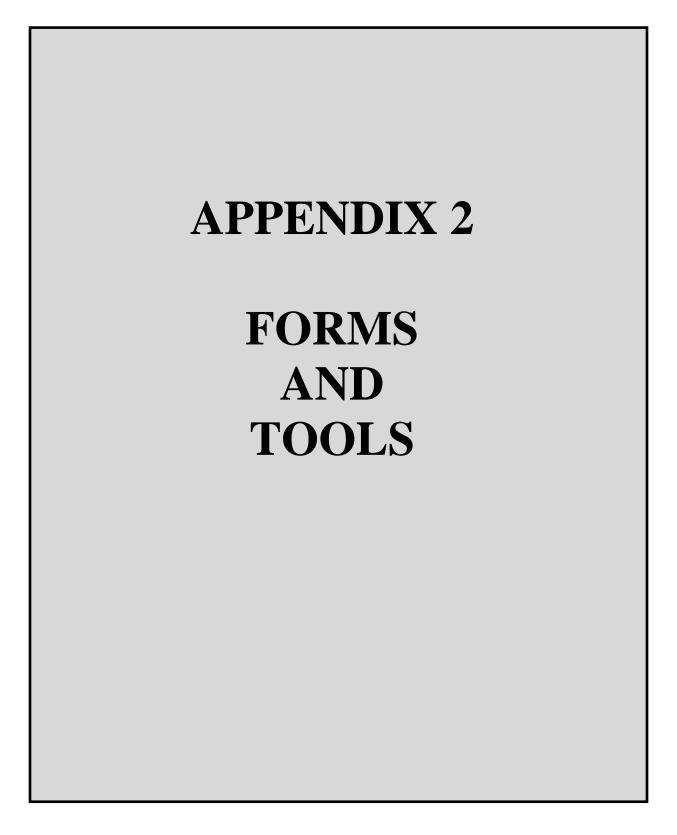
The teacher:

- 10.1 Uses verbal and non-verbal communication techniques to foster positive interactions and promote learning in the classroom and school environment.
- 10.2 Engages in ongoing communication and shares instructional goals, expectations, and student progress with families in a timely and constructive manner.
- 10.3 Collaborates and networks with colleagues and community to reach educational decisions that enhance and promote student learning.
- 10.4 Uses precise language, correct vocabulary and grammar, and appropriate forms of oral and written communication.
- 10.5 Explains directions, concepts, and lesson content to students in a logical, sequential, and age-appropriate manner.
- 10.6 Adheres to school and district policies regarding communication of student information.
- 10.7 Creates a climate of accessibility for parents and students by demonstrating a collaborative and approachable style.
- 10.8 Listens and responds with cultural awareness, empathy, and understanding to the voice and opinions of stakeholders (parents, community, students, and colleagues).
- 10.9 Uses modes of communication that are appropriate for a given situation.

Contemporary Effective Teacher Research

- Recognizes the levels of involvement, ranging from networking to collaboration.³³
- Uses multiple forms of communication between school and home.
- Acknowledges his or her perspective and is open to hearing their students' worldviews.
- Is culturally competent. 36
- Seeks to know about the cultures and communities from which students come.³⁷

Exemplary In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually uses communication techniques in a variety of situations to proactively inform, network, and collaborate with stakeholders to enhance student learning. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher communicates effectively and consistently with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.	The teacher inconsistently communicates with students, parents or guardians, district and school personnel or other stakeholders or communicates in ways that only partially enhance student learning.	The teacher inadequately communicates with students, parents or guardians, district and school personnel, or other stakeholders by poorly acknowledging concerns, responding to inquiries, or encouraging involvement.



Overview of the Teacher Keys Effectiveness System Forms and Tools

The following forms and tools are provided in the Appendix:

The following forms and tools are provided in the Appendix:						
TEACHER ASSESSMENT ON PERFORMANCE STANDARDS						
Self-Assessment Form	Teachers will complete a self-assessment at the beginning of the school year to assess their current levels of performance on each performance standard. Professional learning needs will be identified.					
TAPS Reference Sheet	A summary of the performance standards and indicators for use by teachers and evaluators throughout the evaluation cycle of observations.					
Examples of Documentation Evidence	Evaluators may request documentation from teachers when a standard is not observed during an announced or unannounced observation. The examples in the form will provide ideas that may be helpful when needing further documentation.					
Formative Assessment Report Form	The required form is to be used by evaluators to record evidence for each standard from observations and documentation provided by teachers. From these two sources, evaluators will complete ratings on each standard. Evaluators will be required to complete two Formative Assessment Report Forms from September – April.					
Summative Assessment Report Form	The required form is to be used by evaluators to provide teachers with summative ratings on each of the performance standards and the overall TAPS score. Evaluators will be required to complete the <i>Summative Assessment Report</i> Form by May 15, 2013.					
Documentation of Conference for the Record	The optional form can be used to record the oral counsel that occurs between an evaluator and evaluatee. Counsel is provided as a result of TKES performance standards' feedback to the teacher.					
Professional Development Plan	The form provides guidelines and timelines for specific, mandatory professional learning which supports immediate improvement of teacher practice and increased teacher effectiveness.					
	STUDENT LEARNING OBJECTIVES					
District Student Learning Objective (SLO) Form	The required form assists districts in setting a Student Learning Objective which results in measurable learner progress. A separate District SLO form should be completed for each SLO. Districts must submit the form to the GaDOE by August 1.					
Teacher Student Learning Objective (SLO) Form	This is a required form to assist teachers in meeting the Student Learning Objective set by their district, but districts may modify the form to meet the requirements of their district SLOs.					



teacher leaders.)

Georgia Department of Education Teacher Keys Effectiveness System Handbook

Self-Assessment

Teacher:				School:	
Grade/Subject:				Date	
to each standard.	The indi	cators are examples	s of who	to do a self-assessment of a at successful performance o sive checklist of behaviors.	
Planning	Rating		Comn	nents	
1. Professional Knowledge Exemplary Proficient Needs Development Ineffective Proficient Needs Development Needs Development Needs Development Needs Development Needs Needs Development Needs Needs Needs Needs Development Needs Nee			Strengths: Areas for Growth:		
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually demonstrates extensive content and pedagogical knowledge, enriches the curriculum, and guides others in enriching the curriculum. (Teachers rated as Exemplary continually seek ways to serve as role models or providing relevant learning the teacher consistently demonstrates an understant of the curriculum, subject content, pedagogical known and the needs of students providing relevant learning the teacher consistently demonstrates and the teacher consistently demonstrates of the curriculum, subject content, pedagogical known and the needs of students providing relevant learning the teacher consistently demonstrates and the teacher consistently demonstrates of the curriculum, subject content, pedagogical known and the needs of students are the teacher consistently demonstrates and the teacher consistently demonstrates and the curriculum, subject content, pedagogical known and the needs of students are the teacher consistently demonstrates and the curriculum, subject content, pedagogical known and the needs of students are the teacher consistently demonstrates and the curriculum.		t wledge, by	The teacher inconsistently demonstrates understanding of curriculum, subject content, pedagogical knowledge, and student needs, or lacks fluidity in using the knowledge in practice.	The teacher inadequately demonstrates understanding of curriculum, subject content, pedagogical knowledge and student needs, or does not use the knowledge in practice.	

experiences.

Handbook						
Planning	Ratin	g	Comn	nents		
2. Instructional Planning		Exemplary Proficient Needs Development Ineffective	,	Strengths: Areas for Growth:		
Exemplary		Proficient		Needs Development	Ineffective	
The teacher continually seeks and multiple data and real world reson plan differentiated instruction to individual student needs and interorder to promote student account and engagement. (Teachers rated Exemplary continually seek ways serve as role models or teacher leads to the continual of th	continually seeks and uses and real world resources to diated instruction to meet the ident needs and interests in note student accountability ent. (Teachers rated as continually seek ways to		district ective ata to	district state and local school district curricula and standards, or inconsistently uses effective district curricula and standards, or using effective strategies, resources, or data		
Instructional Delivery	Rati	ng	Comr	nents		
3. Instructional Strategies		_Exemplary _Proficient _Needs Development _Ineffective	Streng	for Growth:		
Exemplary		Proficient		Needs Development	Ineffective	
The teacher continually facilitates students' engagement in metacog learning, higher-order thinking sk application of learning in current relevant ways. (Teachers rated as Exemplary continually seek ways as role models or teacher leaders	The teacher consistently promotes student learning lusing research-based instructed as to engage students in active learning, and to facilitate the		ontent e he	The teacher inconsistently uses research-based instructional strategies. The strategies used are sometimes not appropriate for the content area or for engaging students in active learning or for the acquisition of key skills.	The teacher does not use research-based instructional strategies, nor are the instructional strategies relevant to the content area. The strategies do not engage students in active learning or acquisition of key skills.	

skills.

Instructional Delivery	Rati	ng	Con	iments	
4. Differentiated Instruction		Exemplary Proficient Needs Development Ineffective	Strei	ngths:	
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually facilitates e student's opportunities to learn by engaging him/her in critical and cre thinking and challenging activities tailored to address individual learni needs and interests. (Teachers rated Exemplary continually seek ways to as role models or teacher leaders.)	rative ng <i>l as</i>	The teacher consistently challenges and supports eac student's learning by provid appropriate content and developing skills which add individual learning different	ling	The teacher inconsistently challenges students by providing appropriate content or by developing skills which address individual learning differences.	The teacher does not challenge students by providing appropriate content or by developing skills which address individual learning-differences.

as role models or teacher leaders	s.)				
Assessment of and	Rating		Comr	nents	
5. Assessment Strategies	P	xemplary roficient leeds Development neffective	Strengths: Areas for Growth:		
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually demonstrates expertise and leads others to determine and develop a variety of strategies and instruments that are valid and appropriate for the content and student population and guides students to monitor and reflect on their own academic progress. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher		riety of l ategies alid and	The teacher inconsistently chooses a variety of diagnostic, formative, and summative assessment strategies or the instruments are sometimes not appropriate for the content or student population.	The teacher chooses an inadequate variety of diagnostic, formative, and summative assessment strategies or the instruments are not appropriate for the content or student population.	

			110110				
Assessment of and	Rating	5	Comr	nents			
For Learning							
6. Assessment Uses	Exemplary Proficient		Strengths:				
		leeds Development neffective					
			Areas	for Growth:			
Exemplary		Proficient		Needs Development	Ineffective		
The teacher continually demonst	rates	The teacher systematicall	y and	The teacher inconsistently	The teacher does not gather, analyze, or use		
expertise in using data to measur	e student	consistently gathers, anal		gathers, analyzes, or uses	relevant data to measure student progress, to		
progress and leads others in the e		and uses relevant data to measure student progress	to	relevant data to measure student progress, inconsistently uses	inform instructional content and delivery methods, or to provide feedback in a		
decisions.		inform instructional conte	ent and	data to inform instructional	constructive or timely manner.		
(Teachers rated as Exemplary co seek ways to serve as role model		delivery methods, and to timely and constructive for					
teacher leaders.)	s or	to both students and parer					
Learning Environment	Rating	;	Com	ments			
7. Positive	F	xemplary	Stren	oths:			
Learning		roficient	Stren				
Environment		leeds Development					
	Iı	neffective					
			Areas	s for Growth:			
Exemplary		Proficient	1	Needs Development	Ineffective		
The teacher continually engages		The teacher consistently p		The teacher-inconsistently	The teacher inadequately addresses student		
in a collaborative and self-direct	ed	a well-managed, safe, and	orderly	provides a well-managed, safe,	behavior, displays a negative attitude toward		
learning environment where studencouraged to take risks and own		environment that is condu- learning and encourages re		and orderly environment that is conducive to learning and	students, ignores safety standards, or does not otherwise provide an orderly environment		
their own learning behavior. (Tea	achers	for all.	1	encourages respect for all.	that is conducive to learning or encourages		
rated as Exemplary continually s	eek ways	•			respect for all.		

leaders.)

Learning Environment	Rating	Comments		
8. Academically Challenging Environment	Exemplary Proficient Needs Development Ineffective	Strengths:		
		Areas for Growth:		
Exemplary	Proficient	Needs Develo	elopment Ineffective	ective
The teacher continually cre an academic learning environment where student encouraged to set challengilearning goals and tackle challenging materials. (Tearated as Exemplary continuated ways to serve as role in the corteacher leaders.)	creates a student-ce academic environm mg which teaching and learning occur at hi levels and students self-directed learne	provides a studer centered, academ environment in we teaching and lear are	dent- emic student-centered, academic environment in which teaching and learning occur at high levels, or where students are self-directed learners. s are self-	academic nich teaching and nigh levels, or

Professionalism and Communication	Ratin	g	Com	ments	
9. Professionalism		Exemplary Proficient Needs Development Ineffective	Strengths:		
			Area	s for Growth:	
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually eng in a high level of profession growth and application of sl and contributes to the development of others and t well-being of the school and community. (Teachers rated Exemplary continually seek to serve as role models or teleaders.)	al kills he l d as ways	The teacher consistent exhibits a commitment professional ethics and the school's mission, participates in professional growth opportunities to suppostudent learning, and contributes to the profession.	nt to	The teacher inconsistently supports the school's mission or seldom participates in professional growth opportunities.	The teacher shows a disregard toward professional ethics or the school's mission or rarely takes advantage of professional growth opportunities.

Professionalism and Communication	Rating	5	Com	ments	
10. Communication	P	exemplary Proficient Needs Development neffective		ngths: s for Growth:	
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually uses communication techniques		The teacher communicates effect	ively	The teacher inconsistently communicates with	The teacher inadequately communicates with students, parents
	variety of situations to proactively and con		-	students, parents or	or guardians, district and school
inform, network, and collaborate students, p		students, parents or		guardians, district and	personnel, or other stakeholders by
		guardians, district an		school personnel or other	poorly acknowledging concerns,
student learning. (Teachers as Exemplary continually se		school personnel, and other stakeholders in		stakeholders or communicates in ways that	responding to inquiries, or encouraging involvement.
ways to serve as role model.		ways that enhance		only partially enhance	encouraging involvement.
teacher leaders.)		student learning.		student learning.	

Examples of Documentation Evidence

Evaluators may request documentation from teachers when a standard is not observed during an announced or unannounced observation. The examples below will provide ideas that may be helpful when needing further documentation. **This is not a comprehensive list of examples and should not be used as a checklist**. Documentation may also need to be supplemented with conversation, discussion, and/or annotations to clarify the teacher's practice and process.

g. 1 1	
Standards	Examples of Documentation
1. Professional Knowledge	 Summary of a plan for integrating instruction Class profile Annotated list of instructional activities for a unit Annotated photographs of teacher-made displays used in instruction Annotated samples or photographs of instructional materials created by the teacher Lesson/intervention plan (including goals and objectives, activities, resources, and assessment measures)
2. Instructional Planning	 Course Syllabus Lesson Plan Intervention Plan Team/Department Meeting Minutes Substitute Lesson Plan
3. Instructional Strategies	 Samples of handouts/presentation visuals Technology samples on disk Video of teacher using various instructional strategies
4. Differentiated Instruction	 Summary of consultation with appropriate staff members regarding special needs of individual students Samples of extension or remediation activities Video or annotated photographs of class working on differentiated activities Video of teacher instructing various groups at different levels of challenge
5. Assessment Strategies	 Copy of teacher-made tests and other assessment measures Copy of scoring rubric used for a student project Summary explaining grading procedures
6. Assessment Uses	 Brief report describing your record-keeping system and how it is used to monitor student academic progress Photocopies or photographs of student work with written comments Samples of educational reports, progress reports, or letters prepared for parents or students
7. Positive Learning Environment	 List of classroom rules with a brief explanation of the procedures used to develop and reinforce them Diagram of the classroom with identifying comments Schedule of daily classroom routines Explanation of behavior management philosophy and procedures

8. Academically Challenging Environment	 Samples of materials used to challenge students Samples of materials used to encourage creative and critical thinking Video of lesson with students problem-solving challenging problems
9. Professionalism	 Documentation of presentations given Certificates or other documentation from professional development activities completed (<i>e.g.</i>, workshops, conferences, official transcripts from courses, etc.) Thank you letter for serving as a mentor, cooperating teacher, school leader, volunteer, etc. Reflection on personal goals
10. Communication	 Samples of communication with students explaining expectations Parent communication log Sample of email concerning student progress Sample of introductory letter to parents/guardians Sample of communication with peers



Teacher Assessment on Performance Standards Reference Performance Standards and SAMPLE Performance Indicators*

(*Performance indicators are not inclusive and should not be used as a checklist.)

- 1. Professional Knowledge: The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.
- 1.1 Addresses appropriate curriculum standards and integrates key content elements.
- 1.2 Facilitates students' use of higher-level thinking skills in instruction.
- 1.3 Demonstrates ability to link present content with past and future learning experiences, other subject areas, and real-world experiences and applications.
- 1.4 Demonstrates accurate, deep, and current knowledge of subject matter.
- 1.5 Exhibits pedagogical skills relevant to the subject area(s) taught and best practice based on current research.
- 1.6 Bases instruction on goals that reflect high expectations for all students and a clear understanding of the curriculum.
- 1.7 Displays an understanding of the intellectual, social, emotional, and physical development of the age group.
- **2. Instructional Planning:** The teacher plans using, state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.
- 2.1 Analyzes and uses student learning data to inform planning.
- 2.2 Develops plans that are clear, logical, sequential, and integrated across the curriculum (e.g., long-term goals, lesson plans, and syllabi).
- 2.3 Plans instruction effectively for content mastery, pacing, and transitions.
- 2.4 Plans for differentiated instruction.
- 2.5 Aligns and connects lesson objectives to state and local school district curricula and standards, and student learning needs.
- 2.6 Develops appropriate course, unit, and daily plans, and is able to adapt plans when needed.
- **3. Instructional Strategies:** The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.
- 3.1 Engages students in active learning and maintains interest.
- 3.2 Builds upon students' existing knowledge and skills.
- 3.3 Reinforces learning goals consistently throughout the lesson.
- 3.4 Uses a variety of research-based instructional strategies and resources.
- 3.5 Effectively uses appropriate instructional technology to enhance student learning.
- 3.6 Communicates and presents material clearly, and checks for understanding.
- 3.7 Develops higher-order thinking through questioning and problem-solving activities.
- 3.8 Engages students in authentic learning by providing real-life examples and interdisciplinary connections.
- **4. Differentiated Instruction:** The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.
- 4.1 Differentiates the instructional content, process, product, and learning environment to meet individual developmental needs.
- 4.2 Provides remediation, enrichment, and acceleration to further student understanding of material.
- 4.3 Uses flexible grouping strategies to encourage appropriate peer interaction and to accommodate learning needs/goals.
- 4.4 Uses diagnostic, formative, and summative assessment data to inform instructional modifications for individual students.
- 4.5 Develops critical and creative thinking by providing activities at the appropriate level of challenge for students.
- 4.6 Demonstrates high learning expectations for all students commensurate with their developmental levels.
- **5. Assessment Strategies:** The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.
- 5.1 Aligns student assessment with the established curriculum and benchmarks.
- 5.2 Involves students in setting learning goals and monitoring their own progress.
- 5.3 Varies and modifies assessments to determine individual student needs and progress.
- 5.4 Uses formal and informal assessments for diagnostic, formative, and summative purposes.
- 5.5 Uses grading practices that report final mastery in relationship to content goals and objectives.
- 5.6 Uses assessment techniques that are appropriate for the developmental level of students.
- 5.7 Collaborates with others to develop common assessments, when appropriate.

- **6. Assessment Uses:** The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.
- 6.1 Uses diagnostic assessment data to develop learning goals for students, to differentiate instruction, and to document learning.
- 6.2 Plans a variety of formal and informal assessments aligned with instructional results to measure student mastery of learning objectives.
- 6.3 Uses assessment tools for both formative and summative purposes to inform, guide, and adjust instruction.
- 6.4 Systematically analyzes and uses data to measure student progress, to design appropriate interventions, and to inform long- and short-term instructional decisions.
- 6.5 Shares accurate results of student progress with students, parents, and key school personnel.
- 6.6 Provides constructive and frequent feedback to students on their progress toward their learning goals.
- 6.7 Teaches students how to self-assess and to use metacognitive strategies in support of lifelong learning.
- 7. Positive Learning Environment: The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.
- 7.1 Responds to disruptions in a timely, appropriate manner.
- 7.2 Establishes clear expectations for classroom rules, routines, and procedures and enforces them consistently and appropriately.
- 7.3 Models caring, fairness, respect, and enthusiasm for learning.
- 7.4 Promotes a climate of trust and teamwork within the classroom.
- 7.5 Promotes respect for and understanding of students' diversity, including but not limited to race, color, religion, sex, national origin, or disability.
- 7.6 Actively listens and pays attention to students' needs and responses.
- 7.7 Creates a warm, attractive, inviting, and supportive classroom environment.
- 7.8 Arranges the classroom materials and resources to facilitate group and individual activities.
- 8. Academically Challenging Environment: The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.
- 8.1 Maximizes instructional time.
- 8.2 Conveys the message that mistakes should be embraced as a valuable part of learning.
- 8.3 Encourages productivity by providing students with appropriately challenging and relevant material and assignments.
- 8.4 Provides transitions that minimize loss of instructional time.
- 8.5 Communicates high, but reasonable, expectations for student learning.
- 8.6 Provides academic rigor, encourages critical and creative thinking, and pushes students to achieve goals.
- 8.7 Encourages students to explore new ideas and take academic risks.
- **9. Professionalism:** The teacher exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.
- 9.1 Carries out duties in accordance with federal and state laws, Code of Ethics, and established state and local school board policies, regulations, and practices.
- 9.2 Maintains professional demeanor and behavior (e.g., appearance, punctuality and attendance).
- 9.3 Respects and maintains confidentiality.
- 9.4 Evaluates and identifies areas of personal strengths and weaknesses related to professional skills and their impact on student learning and sets goals for improvement.
- 9.5 Participates in ongoing professional growth activities based on identified areas for improvement (*e.g.*, mentoring, peer coaching, course work, conferences) and incorporates learning into classroom activities.
- 9.6 Demonstrates flexibility in adapting to school change.
- 9.7 Engages in activities outside the classroom intended for school and student enhancement.
- 10. Communication: The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.
- 10.1 Uses verbal and non-verbal communication techniques to foster positive interactions and promote learning in the classroom and school environment.
- 10.2 Engages in ongoing communication and shares instructional goals, expectations, and student progress with families in a timely and constructive manner.
- 10.3 Collaborates and networks with colleagues and community to reach educational decisions that enhance and promote student learning.
- 10.4 Uses precise language, correct vocabulary and grammar, and appropriate forms of oral and written communication.
- 10.5 Explains directions, concepts, and lesson content to students in a logical, sequential, and age-appropriate manner.
- 10.6 Adheres to school and district policies regarding communication of student information.
- 10.7 Creates a climate of accessibility for parents and students by demonstrating a collaborative and approachable style.
- 10.8 Listens and responds with cultural awareness, empathy, and understanding to the voice and opinions of stakeholders (parents, community, students, and colleagues).
- 10.9 Uses modes of communication that are appropriate for a given situation.



Formative Assessment

Teacher:			School:		
Grade/Subject: _	Dat	e Ass	essment: #1□	#2□	
teacher meeting the observation. Based	s form during observations standard. Teachers are no on the observation and do g to indicate whether they t	ot expected cumentatio	l to demonstrate each st on provided, evaluators	andard during a si should check the b	ngle ox of
Planning F	Rating	Specific	Comments		
1. Professional _ Knowledge	Exemplary Proficient Needs Development Ineffective				
Exemplary	Proficient		Needs Development	Ineffe	
The teacher continually demonstrate extensive content and pedagogical knowledge, enriches the curriculum, guides others in enriching the curriculum, treachers rated as Exemplary continuous seek ways to serve as role models or teacher leaders.)	demonstrates an understa of the curriculum, subject content, pedagogical knownually and the needs of students	nding der cur wledge, peo by stu	the teacher inconsistently monstrates understanding of rriculum, subject content, dagogical knowledge, and ident needs, or lacks fluidity in ing the knowledge in practice.	The teacher inadequately understanding of curricu pedagogical knowledge does not use the knowled	and student needs, or

Planning	Ratin	g	Specif	ic Comments	
2. Instructional Planning		Exemplary Proficient Needs Development Ineffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually seeks and multiple data and real world resouplan differentiated instruction to rindividual student needs and interorder to promote student accounts and engagement. (Teachers rated Exemplary continually seek ways serve as role models or teacher leads to the student accounts and engagement.)	meet the rests in ability as	The teacher consistently pla using state and local school curricula and standards, effi strategies, resources, and da address the differentiated na all students.	district ective ata to	The teacher inconsistently uses state and local school district curricula and standards, or inconsistently uses effective strategies, resources, or data in planning to meet the needs of all students.	The teacher does not plan, or plans without adequately using state and local school district curricula and standards, or without using effective strategies, resources, or data to meet the needs of all students.

	l	-		
3. Instructional Strategies	Rating Exemplary Proficient Needs Development Ineffective		ific Comments	
Exemplary The teacher continually facilitates students' engagement in metacogn learning, higher-order thinking skil	lls, and using research-based in	ng by	Needs Development The teacher inconsistently uses research-based instructional strategies. The strategies used are	Ineffective The teacher does not use research-based instructional strategies, nor are the instructional strategies relevant to the content
application of learning in current a relevant ways. (Teachers rated as Exemplary continually seek ways to as role models or teacher leaders.)	to engage students in ac o serve learning, and to facilitat	tive e the	sometimes not appropriate for the content area or for engaging students in active learning or for the acquisition of key skills.	area. The strategies do not engage students in active learning or acquisition of key skills.

Instructional Delivery Ra	ting	Specific Comments	
4. Differentiated	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficient	Needs Development	Ineffective
The teacher continually facilitates each student's opportunities to learn by engaging him/her in critical and creative thinking and challenging activities tailored to address individual learning needs and interests. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently challenges and supports each student's learning by providi appropriate content and developing skills which addrindividual learning difference	appropriate content or by developing skills which address individual learning differences.	The teacher does not challenge students by providing appropriate content or by developing skills which address individual learning-differences.

Assessment of and for Learning	Rating		Speci	fic Comments	
5. Assessment Strategies	P	Exemplary Proficient Needs Development neffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually demonst expertise and leads others to dete and develop a variety of strategic instruments that are valid and appeared for the content and student popul guides students to monitor and retheir own academic progress. (Trated as Exemplary continually sto serve as role models or teacher leaders.)	ermine es and propriate ation and effect on leachers leek ways	The teacher systematically consistently chooses a var diagnostic, formative, and summative assessment str and instruments that are v appropriate for the contenstudent population.	riety of l rategies ralid and	The teacher inconsistently chooses a variety of diagnostic, formative, and summative assessment strategies or the instruments are sometimes not appropriate for the content or student population.	The teacher chooses an inadequate variety of diagnostic, formative, and summative assessment strategies or the instruments are not appropriate for the content or student population.

Assessment of and	Rating	pecific Comments	
For Learning			
6. Assessment Uses	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficie	Needs Development Ineffective	
The teacher continually demonstrexpertise in using data to measure progress and leads others in the eluse of data to inform instructional decisions.	e student consistently gathers, a ffective and uses relevant data	gathers, analyzes, or uses relevant data to measure student progress, inconsistently uses relevant data to measure student progress, inconsistently uses relevant data to measure student progress, inconsistently uses	rogress, to elivery

content and delivery methods, **or** inconsistently provides timely or constructive feedback.

delivery methods, and to provide

timely and constructive feedback

to both students and parents.

(Teachers rated as Exemplary continually

seek ways to serve as role models or

teacher leaders.)

Learning Environment	Ratin	T	Speci	ific Comments	
7. Positive Learning Environment		Exemplary Proficient Needs Development neffective			
Exemplar	y	Proficient		Needs Development	Ineffective
The teacher continually eng in a collaborative and self-d learning environment where encouraged to take risks and their own learning behavior rated as Exemplary continuation.	rected students are ownership of (Teachers	The teacher consistently properties a well-managed, safe, and environment that is conducted learning and encourages refor all.	orderly cive to	The teacher-inconsistently provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	The teacher inadequately addresses student behavior, displays a negative attitude toward students, ignores safety standards, or does not otherwise provide an orderly environment that is conducive to learning or encourages respect for all.

Learning Ra Environment	ting	Specific Comments	
8. Academically Challenging Environment	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficient	Needs Development	Ineffective
The teacher continually creates an academic learning environment where students are encouraged to set challenging learning goals and tackle challenging materials. (Teacher rated as Exemplary continually seek ways to serve as role mode or teacher leaders.)	which teaching and learning occur at high levels and students are self-directed learners.	provides a student- centered, academic environment in which teaching and learning occur at high levels or	The teacher does not provide a student-centered, academic environment in which teaching and learning occur at high levels, or where students are self-directed learners.

Professionalism and Communication	Ratin	g	Spec	eific Comments	
9. Professionalism		Exemplary Proficient Needs Development Ineffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually engin a high level of profession growth and application of sk and contributes to the development of others and twell-being of the school and community. (Teachers rated Exemplary continually seek to serve as role models or teleaders.)	al kills he l as ways	The teacher consistently exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.		The teacher inconsistently supports the school's mission or seldom participates in professional growth opportunities.	The teacher shows a disregard toward professional ethics or the school's mission or rarely takes advantage of professional growth opportunities.

			manu	DOOK	
Professionalism and	Ratin	g	Spec	ific Comments	
Communication					
10. Communication		Exemplary			
		Proficient			
		Needs Development			
		neffective			
Evomplom		Proficient		Needs Davidanment	Ineffective
Exemplary The teacher continually uses	~	The teacher		Needs Development	
The teacher continually uses communication techniques is		communicates effect	المامين	The teacher inconsistently communicates with	The teacher inadequately communicates with students, parents
variety of situations to proac		and consistently with		students, parents or	or guardians, district and school
inform, network, and collab		students, parents or	•	guardians, district and	personnel, or other stakeholders by
with stakeholders to enhance		guardians, district an	d	school personnel or other	poorly acknowledging concerns,
student learning. (Teachers	rated	school personnel, and		stakeholders or	responding to inquiries, or
as Exemplary continually se		other stakeholders in		communicates in ways that	encouraging involvement.
ways to serve as role model.	s or	ways that enhance		only partially enhance	
teacher leaders.)		student learning.		student learning.	
Areas Noted for		vement:			
Teacher's Signati	ıre/Dai	re	_	Evaluator's Signature	e/Date



seek ways to serve as role models or

teacher leaders.)

Georgia Department of Education Teacher Keys Effectiveness System Handbook Walkthrough

Teacher:			School:		
Grade/Subject:			D	Pate Wa	alkthrough #
meeting the select	ed stande	ards. Teachers are	not exp	servation to comment on e ected to demonstrate each on the observable evidence	standard during a single
lanning	Rating		Specif	ic Comments	
. Professional Knowledge	Exemplary Proficient Needs Development Ineffective				
Exemplary		Proficient		Needs Development	Ineffective
ne teacher continually demonst tensive content and pedagogic towledge, enriches the curricul- tides others in enriching the cur- teachers rated as Exemplary co	al um, and riculum.	The teacher consistently demonstrates an understa of the curriculum, subjec- content, pedagogical kno and the needs of students	t wledge,	The teacher inconsistently demonstrates understanding of curriculum, subject content, pedagogical knowledge, and student needs, or lacks fluidity in	The teacher inadequately demonstrates understanding of curriculum, subject conterpedagogical knowledge and student needs, does not use the knowledge in practice.

providing relevant learning

experiences.

using the knowledge in practice.

Planning	Ratin	UG	Specif	ic Comments	
2. Instructional Planning		Exemplary Proficient Needs Development Ineffective			
Exemplary		Proficient		Needs Development	Ineffective
multiple data and real world resorband differentiated instruction to individual student needs and interest order to promote student account and engagement. (Teachers rated Exemplary continually seek ways	teacher continually seeks and uses tiple data and real world resources to differentiated instruction to meet the vidual student needs and interests in to promote student accountability engagement. (Teachers rated as		district ective ata to	The teacher inconsistently uses state and local school district curricula and standards, or inconsistently uses effective strategies, resources, or data in planning to meet the needs of all students.	The teacher does not plan, or plans without adequately using state and local school district curricula and standards, or without using effective strategies, resources, or data to meet the needs of all students.

Instructional Delivery	Rating	Specific Comments	
3. Instructional Strategies	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficient	Needs Development	Ineffective
The teacher continually facilitates students' engagement in metacogn learning, higher-order thinking skil application of learning in current a relevant ways. (Teachers rated as Exemplary continually seek ways to as role models or teacher leaders.)	using research-based instrategies relevant to the control to serve learning, and to facilitate	ructional strategies. The strategies used are sometimes not appropriate for the content area or for engaging students in active learning or for	The teacher does not use research-based instructional strategies, nor are the instructional strategies relevant to the content area. The strategies do not engage students in active learning or acquisition of key skills.

Instructional Delivery	Rating	Specific Comments	
4. Differentiated Instruction	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficient	Needs Development	Ineffective
The teacher continually facilitates estudent's opportunities to learn by engaging him/her in critical and creathinking and challenging activities tailored to address individual learnin needs and interests. (Teachers rated Exemplary continually seek ways to as role models or teacher leaders.)	challenges and supports ear student's learning by provi- appropriate content and developing skills which ad- individual learning differer	ding appropriate content or by developing skills which address individual learning differences.	The teacher does not challenge students by providing appropriate content or by developing skills which address individual learning-differences.

Assessment of and for Learning	Rating	<u></u>	Speci	fic Comments	
5. Assessment Strategies	F	Exemplary Proficient Needs Development neffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually demonstrates expertise and leads others to determine and develop a variety of strategies and instruments that are valid and appropriate for the content and student population and guides students to monitor and reflect on their own academic progress. (Teachers rated as Exemplary continually seek ways to serve as role models or teacher leaders.) The teacher systematically consistently chooses a vari diagnostic, formative, and summative assessment strate and instruments that are valid and instruments that are valid and instruments that are valid in the content student population.		riety of l rategies ralid and	The teacher inconsistently chooses a variety of diagnostic, formative, and summative assessment strategies or the instruments are sometimes not appropriate for the content or student population.	The teacher chooses an inadequate variety of diagnostic, formative, and summative assessment strategies or the instruments are not appropriate for the content or student population.	

Assessment of and Ratin	ig S	Specific Comments	
For Learning			
	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficient	Needs Development	Ineffective
The teacher continually demonstrates expertise in using data to measure student progress and leads others in the effective use of data to inform instructional decisions.	The teacher systematically a consistently gathers, analyze and uses relevant data to measure student progress, to inform instructional content	es, gathers, analyzes, or uses relevant data to measure student progress, inconsistently uses	The teacher does not gather, analyze, or use relevant data to measure student progress, to inform instructional content and delivery methods, or to provide feedback in a constructive or timely manner.

content and delivery methods, **or** inconsistently provides timely or constructive feedback.

delivery methods, and to provide

timely and constructive feedback

to both students and parents.

(Teachers rated as Exemplary continually

seek ways to serve as role models or

teacher leaders.)

leaders.)

Learning Environment	Rating		Speci	fic Comments	
7. Positive Learning Environment	P	xemplary roficient eeds Development neffective			
Exemplary		Proficient		Needs Development	Ineffective
in a collaborative and self-direct learning environment where studencouraged to take risks and own their own learning behavior. (<i>Te</i>	the teacher continually engages students a collaborative and self-directed arming environment where students are couraged to take risks and ownership of eir own learning behavior. (Teachers ted as Exemplary continually seek ways		orderly cive to	The teacher-inconsistently provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	The teacher inadequately addresses student behavior, displays a negative attitude toward students, ignores safety standards, or does not otherwise provide an orderly environment that is conducive to learning or encourages respect for all.

Learning Environment	Ratin	g	Spec	ific Comments	
8. Academically Challenging Environment		Exemplary Proficient Needs Development Ineffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually creat an academic learning environment where students encouraged to set challengin learning goals and tackle challenging materials. (Teach rated as Exemplary continuations seek ways to serve as role more teacher leaders.)	s are ng chers ally	The teacher consistent creates a student-center academic environment which teaching and learning occur at high levels and students are self-directed learners.	ered, at in	The teacher inconsistently provides a student-centered, academic environment in which teaching and learning occur at high levels or where students are self-directed learners.	The teacher does not provide a student-centered, academic environment in which teaching and learning occur at high levels, or where students are self-directed learners.

Professionalism and Communication	Ratin	g	Spec	eific Comments	
9. Professionalism		Exemplary Proficient Needs Development Ineffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually eng in a high level of profession growth and application of sl and contributes to the development of others and t well-being of the school and community. (Teachers rated Exemplary continually seek to serve as role models or teleaders.)	al kills he l d as ways	Proficient The teacher consistently exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.		The teacher inconsistently supports the school's mission or seldom participates in professional growth opportunities.	The teacher shows a disregard toward professional ethics or the school's mission or rarely takes advantage of professional growth opportunities.

r Key	ys E	ffect	ivenes	S		
Handbook						
		• 🐠	~			

Handbook					
Professionalism and	Ratin	g	Spec	ific Comments	
Communication					
10. Communication	Exemplary Proficient Needs Development Ineffective				
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually uses	2	The teacher		The teacher inconsistently	The teacher inadequately
communication techniques		communicates effect	ivelv	communicates with	communicates with students, parents
variety of situations to proac	ctively	and consistently with		students, parents or	or guardians, district and school
inform, network, and collab		students, parents or		guardians, district and	personnel, or other stakeholders by
with stakeholders to enhance		guardians, district an		school personnel or other	poorly acknowledging concerns,
student learning. (Teachers as Exemplary continually se		school personnel, and other stakeholders in		stakeholders or communicates in ways that	responding to inquiries, or encouraging involvement.
ways to serve as role model.		ways that enhance		only partially enhance	encouraging involvement.
teacher leaders.)	3 01	student learning.		student learning.	
Commendations	:				
Areas Noted for	Impro	vement:			

Teacher's Signature/Date

Evaluator's Signature/Date



Teacher: _____

Georgia Department of Education Teacher Keys Effectiveness System Handbook

Summative Assessment

School:

Grade/Subject:			School Yo	ear:		
<u>Directions</u> : Evaluators should use this form at the end of the year to provide teachers with a summative assessment of performance. For each standard, rate how well the teacher met the performance standard based the totality of evidence and consistency of practice. The TAPS score will be used as part of a teacher's overall Teacher Keys Effectiveness Measure.						
Planning	Rating	Specif	fic Comments			
1. Professional Knowledge	Exemplary Proficient Needs Developr Ineffective					
Exemplary		ricient	Needs Development		ective	
The teacher continually demonstrextensive content and pedagogical knowledge, enriches the curricular guides others in enriching the cur (Teachers rated as Exemplary coseek ways to serve as role models teacher leaders.)	continually demonstrates ontent and pedagogical enriches the curriculum, and rs in enriching the curriculum. ated as Exemplary continually o serve as role models or The teacher consistently demonstrates an understan of the curriculum, subject content, pedagogical know and the needs of students by providing relevant learning		The teacher inconsistently demonstrates understanding of curriculum, subject content, pedagogical knowledge, and student needs, or lacks fluidity in using the knowledge in practice.		culum, subject content, ge and student needs, or	

Planning	Ratin	g	Specif	fic Comments	
2. Instructional Planning		Exemplary Proficient Needs Development Ineffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually seeks and multiple data and real world resort plan differentiated instruction to a individual student needs and interpreted in the promote student accounts and engagement. (Teachers rated Exemplary continually seek ways serve as role models or teacher leads to the promote in the pr	rests in ability as	The teacher consistently pla using state and local school curricula and standards, eff strategies, resources, and da address the differentiated n all students.	district ective ata to	The teacher inconsistently uses state and local school district curricula and standards, or inconsistently uses effective strategies, resources, or data in planning to meet the needs of all students.	The teacher does not plan, or plans without adequately using state and local school district curricula and standards, or without using effective strategies, resources, or data to meet the needs of all students.

	l — ·			
3. Instructional Strategies	Rating Exemplary Proficient Needs Development Ineffective		ific Comments	
Exemplary The teacher continually facilitates students' engagement in metacogn learning, higher-order thinking skil		ng by	Needs Development The teacher inconsistently uses research-based instructional strategies. The strategies used are	Ineffective The teacher does not use research-based instructional strategies, nor are the instructional strategies relevant to the content
application of learning in current a relevant ways. (Teachers rated as Exemplary continually seek ways to as role models or teacher leaders.)	to engage students in ac learning, and to facilitat	tive e the	sometimes not appropriate for the content area or for engaging students in active learning or for the acquisition of key skills.	area. The strategies do not engage students in active learning or acquisition of key skills.

Instructional Delivery I	Rating	Specific Comments	
4. Differentiated Instruction	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficient	Needs Development	Ineffective
The teacher continually facilitates each student's opportunities to learn by engaging him/her in critical and creative thinking and challenging activities tailored to address individual learning needs and interests. (Teachers rated as Exemplary continually seek ways to see as role models or teacher leaders.)	challenges and supports eac student's learning by provid appropriate content and developing skills which add individual learning difference	ding appropriate content or by developing skills which address individual learning differences.	The teacher does not challenge students by providing appropriate content or by developing skills which address individual learning-differences.

Assessment of and for Learning	Rating	5	Speci	fic Comments	
5. Assessment Strategies	P	Exemplary Proficient Needs Development neffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually demonstrexpertise and leads others to dete and develop a variety of strategie instruments that are valid and app for the content and student populinguides students to monitor and retheir own academic progress. (To rated as Exemplary continually stop serve as role models or teached leaders.)	rmine s and propriate ation and flect on peachers eek ways	The teacher systematically consistently chooses a var diagnostic, formative, and summative assessment str and instruments that are v appropriate for the contenstudent population.	riety of l ategies alid and	The teacher inconsistently chooses a variety of diagnostic, formative, and summative assessment strategies or the instruments are sometimes not appropriate for the content or student population.	The teacher chooses an inadequate variety of diagnostic, formative, and summative assessment strategies or the instruments are not appropriate for the content or student population.

Assessment of and	Rating	pecific Comments	
For Learning			
6. Assessment Uses	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficien	Needs Development Ineffective	
The teacher continually demonstrates expertise in using data to measure student progress and leads others in the effective use of data to inform instructional decisions. (Tracebars rated as Examplars continually) The teacher systematical consistently gathers, and and uses relevant data to measure student progress inform instructional continually.		relevant data to measure student progress, inconsistently uses and data to inform instructional relevant data to measure student progress, inconsistently uses data to inform instructional relevant data to measure student progress inform instructional content and deliviments of the progress, inconsistently uses and data to inform instructional relevant data to measure student progression inform instructional content and deliviments of the progression inform instructional content and deliviments of the progression inform instructional content and deliviments of the progression information in the progression in the progression information in the progression in	ress, to

timely and constructive feedback

to both students and parents.

seek ways to serve as role models or

teacher leaders.)

or inconsistently provides timely or constructive feedback.

Learning Environment 7. Positive Learning Environment	P	Exemplary Proficient Needs Development neffective	Speci	ific Comments	
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually engages in a collaborative and self-direct learning environment where stud encouraged to take risks and owr their own learning behavior. (Teached as Exemplary continually sto serve as role models or teached leaders.)	ed ents are tership of achers eek ways	The teacher consistently pr a well-managed, safe, and environment that is conductlearning and encourages re- for all.	orderly cive to	The teacher-inconsistently provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	The teacher inadequately addresses student behavior, displays a negative attitude toward students, ignores safety standards, or does not otherwise provide an orderly environment that is conducive to learning or encourages respect for all.

Learning	Rating	Specific Comments	
8. Academically Challenging Environment	Exemplary Proficient Needs Development Ineffective		
Exemplary	Proficient	Needs Development	Ineffective
The teacher continually crea an academic learning environment where students encouraged to set challengin learning goals and tackle challenging materials. (Teac rated as Exemplary continuates seek ways to serve as role mor teacher leaders.)	creates a student-cent academic environment which teaching and learning occur at high levels and students at self-directed learners	tered, provides a student- centered, academic environment in which teaching and learning occur at high levels or	The teacher does not provide a student-centered, academic environment in which teaching and learning occur at high levels, or where students are self-directed learners.

Professionalism and Communication	Rating	g	Spec	cific Comments	
9. Professionalism	I	Exemplary Proficient Needs Development Ineffective			
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually eng in a high level of profession growth and application of sl and contributes to the development of others and t well-being of the school and community. (Teachers rated Exemplary continually seek to serve as role models or teleaders.)	al kills he l d as ways	The teacher consistent exhibits a commitmer professional ethics and the school's mission, participates in professional growth opportunities to suppostudent learning, and contributes to the profession.	nt to	The teacher inconsistently supports the school's mission or seldom participates in professional growth opportunities.	The teacher shows a disregard toward professional ethics or the school's mission or rarely takes advantage of professional growth opportunities.

			папи	DOOK	
Professionalism and	Ratin	g	Spec	ific Comments	
Communication					
10. Communication		Exemplary			
		Proficient			
		Needs Development			
		Ineffective			
F		D C		N. d. D. d. d. d.	T CC 4 *
Exemplary		Proficient		Needs Development	Ineffective
The teacher continually uses		The teacher	1	The teacher inconsistently	The teacher inadequately
communication techniques i		communicates effect and consistently with		communicates with students, parents or	communicates with students, parents
variety of situations to proad inform, network, and collab		students, parents or	l	guardians, district and	or guardians, district and school personnel, or other stakeholders by
with stakeholders to enhanc		guardians, district an	А	school personnel or other	poorly acknowledging concerns,
student learning. (<i>Teachers</i>	-	school personnel, and		stakeholders or	responding to inquiries, or
as Exemplary continually se		other stakeholders in		communicates in ways that	encouraging involvement.
ways to serve as role model.		ways that enhance		only partially enhance	
teacher leaders.)		student learning.		student learning.	
Commendations Areas Noted for		vement:			
Teacher's Signati	ıre/Dai	te		Evaluator's Signature	e/Date

Documentation of Conference for the Record

The optional form can be used to record the oral counsel that occurs between an evaluator and evaluatee. Counsel is provided as a result of TKES performance standards' feedback to the teacher.

Teacher:	Grade/Subject
Persons in Attendance:	.
(Name)	(Title)
(Name)	(Title)
Conference Purpose:	
Statement of TKES Standard/s Need:	
Supporting Documentation (if applicabl	e):
Action/Solution/Resolution Plan:	
Date for Review (if applicable):	
This Documentation of Oral Counseling we the basis for future action.	vill be maintained by the evaluator and may be used as
Signed:	
Evaluatee	Date
Signed:	
Evaluator	Date
(Signature acknowledges receipt of form an	d presence at meeting, not necessarily concurrence.)
Attachments (if applicable) Yes	No

Teacher Keys Effectiveness System Professional Development Plan (PDP)

Teacher	Grade/Subject	School/District
Evaluator	Beginning Date	Projected End Date
	Performance Standard(s) for Improvement	
	Actions and Expectations	
Actions	Timeline	Support/Resources Professional Learning
	Data for Consideration	
	Review Dates	
Date	Results	Next Review Date
Teacher's Signature		Date
Evaluator's Signature		Date

	Final Results	
The teacher has achieved		The teacher has not
the Performance Standard(s) improvement		achieved the Performance Standard(s) improvement
measures.		measures.
Check		Check
CIICCK	Comments/Next Steps	CHECK
Teacher's Signature		Date
Evaluator's Signature		Date

Teacher Keys Effectiveness System Process Timeline for Evaluators and Teachers

Process Timeline for Evaluators and Teachers				
Month/Date	Task	Materials Needed and/or Follow Up		
July	GaDOE trains the district TKES trainers			
August	 Evaluators conduct TKES Orientation Districts determine SLO pre- assessment administration timeframe Teachers administer SLO pre- assessment, record data in preparation for pre-observation conference Teachers complete TAPS Self- Assessment in preparation for pre- observation conference Principal or designated evaluator develops/monitors Performance Development Plans (PDP) as needed. 	 TKES training materials GaDOE approved SLO preassessment 		
August/September	Principal or designated evaluator conducts pre-evaluation conference with teachers	Record conference results on GaDOE TLE Electronic Platform		
September	 Evaluators conduct TAPS and SLO (when applicable) pre-conference with teacher Principal or designated evaluator develops/monitors Performance Development Plans (PDP) as needed. 	 TAPS Self-Assessment Previous year student performance data SLO teacher form 		
	Evaluators conduct announced and unannounced observations and walkthroughs/frequent brief observations	Evaluators provide TKES Formative Assessment observation feedback to teachers within five school days.		
September/October	 Principal or designee plans for administration of Student Surveys using GaDOE Protocol 	GaDOE Survey Protocol		
October	 Evaluators conduct observations and walkthroughs/frequent brief observations Evaluators monitor SLO data Evaluators provide TKES Familiarization training to teachers as needed. TKES Student Survey window opens 	 Evaluators provide TKES Formative Assessment observation feedback to teachers within five school days. TKES Familiarization training materials GaDOE Student Survey Protocol 		

	Hallubuuk	
	 Principal or designated evaluator develops/monitors Performance Development Plans (PDP) as needed. 	
November	 Evaluators conduct announced and unannounced observations and walkthroughs/frequent brief observations Principal or designated evaluator develops/monitors Performance Development Plans (PDP) as needed. 	Evaluators provide TKES Formative Assessment obser-vation feedback to teachers within five school days.
	TKES Student Survey window	GaDOE Student Survey
December	 opens Teachers administer SLO post-assessments for semester courses. Principal or designated evaluator develops/monitors Professional Development Plans (PDP) as needed. 	Protocol • GaDOE approved SLO post-assessments.
	Evaluators conduct announced and unannounced observations and walkthroughs/frequent brief observations	Evaluators provide feedback to teachers within five school days.
	 Teachers record SLO post- assessment data into TNL Evaluators monitor SLO data 	SLO post-assessment data
December/ January	 Evaluators meet with teachers to discuss SLO progress to date. Revisions to instruction made as needed. Principal or designated evaluator conducts mid-year evaluation conference with teachers 	 SLO student performance data to date Record conference results on GaDOE TLE Electronic Platform
January	 Evaluators provide TKES Familiarization training to teachers as needed. Principal or designated evaluator develops/monitors Professional Development Plans (PDP) as needed. 	Evaluators provide feedback to teachers within five school days.
	Evaluators conduct announced and unannounced observations and walkthroughs/frequent brief observations.	Evaluators provide feedback to teachers within five school days.

	Handbook	
February	 Evaluators conduct announced and unannounced observations and walkthroughs/frequent brief observations Evaluators monitor SLO data Principal or designated evaluator develops/monitors Professional Development Plans (PDP) as needed. 	Evaluators provide feedback to teachers within five school days.
March	 Evaluators conduct observations and walkthroughs/frequent brief observations Evaluators monitor SLO data Principal or designated evaluator develops/monitors Professional Development Plans (PDP) as needed. 	Evaluators provide feedback to teachers within five school days.
April	 Evaluators conduct observations and walkthroughs/frequent brief observations Evaluators monitor SLO data Principal or designated evaluator develops/monitors Professional Development Plans (PDP) as needed. 	Evaluators provide feedback to teachers within five school days.
April/May	 Teachers administer SLO post-assessment—administration (date determined by district) Teachers compile assessment data to determine SLO attainment and inform instructional planning. Principal or designated evaluator develops/monitors Professional Development Plans (PDP) as needed. SLO attainment data due to GaDOE by May 15th Student Survey window closes 	
May	 Evaluators conclude TAPS Summative Evaluation Conference TKES Summative Assessment data to GaDOE by May 15 	SLO attainment dataStudent Survey data
	 Principal or designee evaluator develops/monitors Professional Development Plan (PDP) based on teacher performance as needed. 	TKES PDP forms



District Student Learning Objectives Form (*Required***)**

	SLO GENERAL	INFORMATION	
A. District Name			
B. State Funded Course Number			
C. State Funded Course Title			
D. Grade(s)			
E. Pre-Assessment	Commercially Developed	Locally/Regionally Developed	
F. Pre-Assessment Window	Within the first 10 days of when a student enters the course.		
G. Post-Assessment	Commercially Developed	Locally/Regionally Developed	
H. Post-Test Window			
I. Collaboratively Developed			
J. Developed by GADOE Trained Assessment Team	☐ Yes	□No	



	SLO CONTEXT AND STATEMENT
1. Selected Standards	
2. Pre- and Post- Assessment	
Indicate level of proficiency.	
3. Baseline Data or Historical Data/Trends	
4. SLO Statement	
5. Strategies for Attaining Objective	Required Recommended
6. Mid-year Review	



Teacher Student Learning Objective (SLO) Form

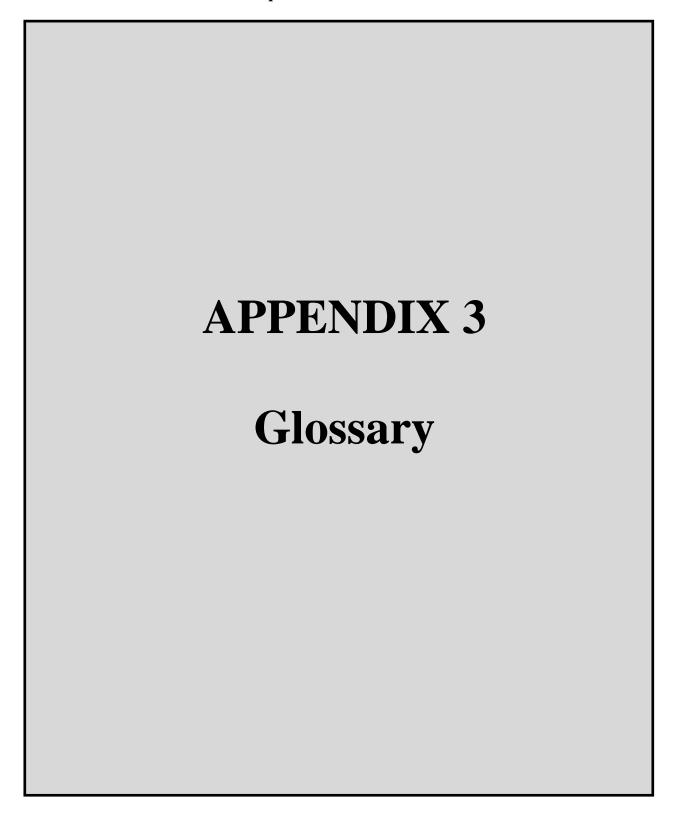
<u>Directions</u>: This suggested form is a tool to assist teachers in meeting the student learning objective set by their district. (See district SLO for this course.) A separate SLO form is needed for each course SLO.

Teacher Cour	se Title	Course N	umber
Grade Date(s) of pre asso	essment	Date(s) of post as	sessment
TI. Setting (Describe class population and any special circumstances)			
T2. Content/Subject/Field Area (The area/topic addressed based on learner achievement, data analysis, or observational data)			
T3. Classroom Baseline Data (Results of pre assessment)	☐ Data attached		
T4. Means for Attaining Obje	ective (Strategies	used to accomplish the	he objective)
Strategy	Evidence	Tar	get Date
T5. Mid-year or Mid-course Review			
T6. End-of-year Results			
☐ Appropriate Data Received			
Teacher's Signature			Date
Evaluator's Signature			Date

Survey Administration Checklist

Note: A checklist similar to the example below can assist districts/schools in planning for an effective survey administration.

Before		
☐ Analyze the protocol documents/TKES procedures		
☐ Identify the teachers		
Create student rosters including access codes		
Prepare the survey schedule		
☐ Arrange for accommodations for students		
Identify survey administrators and proctors		
During		
☐ Administer using certified personnel		
Read from published scripts		
Ensure uniform survey administration		
Protect integrity and security		
☐ Report irregularities		
After		
☐ Review the data reports		
☐ Use results to inform the formative/summative assessment		
ratings on Standards 3, 4, 7, and 8.		
Address survey results through commentary in the		
formative/summative assessment report		
☐ Conduct conference with the teacher		
☐ Plan for continuous improvement		



Glossary

Academic Peers: Students with similar prior academic achievement (i.e., those with similar history scores).

Academic risks: Student behavior to reach beyond their comfort zone to expand their learning. Risk-taking may be in a form in which students select tasks with a possibility of failure but value the feedback elicited from error-making.

Authentic learning: Authentic learning is a teaching method that allows students to explore, discuss, and meaningfully develop concepts and skills in the authentic contexts of students' real life.

Contributing professionals: Contributing professionals are credentialed with teaching or service certificates or are licensed therapists who are not directly involved in providing instruction for students.

Diagnostic assessment: Assessments, often applied in a pre-assessment time frame, that are administered prior to or during instruction to ascertain each student's strengths, weaknesses, knowledge, and skills, and to permit teachers to remediate, enrich, accelerate, or differentiate the instruction to meet each student's readiness for new learning.

Differentiated instruction: Differentiated instruction is a general term for an approach to teaching that responds to the range of student needs, abilities, and preferences in the classroom, and attempts to account for those differences in instructional planning and delivery, as well as in the content, process, product, and learning environment.

Documentation (referring to evidence & artifacts): Documentation is a general term for a collection of information or evidence that can serve as a record of a teacher's practice.

Domain: Comprehensive categories which describe the major areas of teachers' work. There are five domains in TAPS, each of which includes two teacher performance standards.

Electronic platform: Georgia's statewide longitudinal data system (SLDS) enhances the ability of Georgia educators to effectively manage, use, and analyze education data to support instruction. The vendor-based electronic platform for TKES will provide web-based access to multiple TKES component measures. This platform will communicate with Georgia's SLDS to pull data for student records, student course schedules, and roster verification. Other data may also be pulled from the system. The electronic platform will be provide school districts and schools (SIG, Priority, etc.) with the resources necessary for implementing or piloting the TKES beginning with the 2012-2013 school year.

Formal assessment: The collection of student learning data using standardized tests or procedures under controlled conditions. These tests or other assessment tools have a history of application and have statistics which support educational conclusions, such as "the student is below or above average for her age/grade." Formal assessments can also refer to assessments for a grade, as opposed to an informal assessment where a teacher is simply surveying the students to see if they understand a concept.

Formative assessment: Assessments that are administered to regularly/continuously study and document the progress made by learners toward instructional goals and objectives. Formative assessment is integral to the instructional process. Use of formative assessment allows teachers to target lessons to the areas in which students need to improve, and focus less on areas in which they already have demonstrated mastery.

Growth Percentile: A growth prediction generated for each student which describes his rank on current achievement relative to other students with similar score histories.

Growth Projection: A student growth projection describes where on the assessment scale a student may score on the next assessment for all possible levels of growth (1st-99th percentile).

Growth Target: A student growth target describes the level of growth a student must demonstrate to reach or exceed proficiency in three years or by the last tested grade, whichever comes first.

Higher-level thinking: Generally, the skills involving application, analysis, evaluation, etc., identified in Webb's Depth of Knowledge and a Bloom's Cognitive Taxonomy are regarded as higher-level thinking.

Informal assessment: Appraisal of student learning by causal/purposeful observation or by other non-standardized procedures.

Inter-rater Reliability: The consistency with which two or more scorers apply the rating or grading criteria of an assessment thereby resulting in stable assessment results among students; it is not influenced by factors that are not the intended criteria of learning. Training, education and monitoring skills enhance inter-rater reliability.

Metacognitive strategies: Strategies for thinking about thinking. They refer to higher-order thinking that involves a high level of awareness of one's own knowledge and ability to understand, monitor, and modify thinking processes involved in learning.

Pedagogical knowledge/skills: The information and skills about instructional methods and strategies that are gathered from research and experience of accomplished teachers intended to help optimize the connections between teaching and learning.

Peer coaching: Peer coaching is a professional development approach which joins teachers together in an interactive and collaborative learning community. As applied to education, peer coaching often is used for teachers to help one another improve their pedagogical skills and competencies, instructional and assessment practices, and other attributes of teacher effectiveness.

Performance appraisal rubric: Performance appraisal rubric is a behavioral summary scale that guides evaluators in assessing how well a standard is performed. The design and intent of a rubric is to make the rating of teachers' performance efficient and accurate, and to help the evaluator justify to the evaluatees and others the rating that is assigned.

Professional Development Plan: A Professional Development Plans (PDP) focuses on increasing the teachers' ability to improve student achievement in specified area. The PDP provides guidelines and timelines for specific, mandatory professional learning which supports immediate improvement of teacher practice and effectiveness. A Performance Development may also be used when a teacher does not meet the professional duties, responsibilities and ethical expectation required by the teacher.

Performance indicator: Performance indicators provide examples of observable, tangible behaviors for each teacher performance standard. They are <u>examples</u> of the type of performance that will occur if a standard is being successfully met.

Performance portrait: Performance portrait is a rhetorical expression to refer to a faithful and thorough representation of a teacher's effectiveness.

Performance standard: Performance standards are the major duties performed by a teacher and serve as the basic unit of analysis in the TAPS component of the Teacher Keys Effectiveness System. The teacher performance standards are well supported by extant research as the essential elements that constitute teacher effectiveness.

Purposeful sample: A sample that is generated through a non-random method of sampling. Purposeful sampling is often used to select information-rich cases for in-depth study.

Self-assessment: Self-assessment is a process by which teachers judge the effectiveness and adequacy of their practice, effects, knowledge, and beliefs for the purpose of performance improvement.

SGP: Student Growth Percentile is a component of the Student Growth and Academic achievement section of the TKES framework. SGP is used to calculate student growth for teachers of tested subjects.

SLO: Student Learning Objective is a component of the Student Growth and Academic Achievement section of the TKES framework. SLOs are used to measure growth for teachers of non-tested subjects.

SLDS: Statewide Longitudinal Data System

SMART Criteria: A critical way to self-assess a learning objective's feasibility and value with regards to learning and learning outcomes. The acronym stands for *Specific, Measurable, Appropriate, Realistic,* and *Time-bound.*

Step-wise progression: A format of evaluation rubric design that arranges the levels of a rubric to make a qualitative distinction among different levels of performance. The differentiated descriptions of four levels of performance, ranging from ineffective to exemplary, on each of the ten teacher standards are marked by a gradual progression as if step by step.

Stratified random sample: A method of sampling that involves the division of a population into smaller homogeneous subgroups known as strata. The strata are formed based on members' shared attributes or characteristics. A random sample is taken from each stratum that may be proportional to the stratum's size when compared to the total population. These subsets of the random sample are then pooled together. Stratified random sampling is particularly advantageous for a population of diversity.

Summative assessment: Assessment that summarizes the development of learners at a particular time, usually at the end of a unit, semester or a school year. Summative assessment can be used for judging success or attainment in such diverse areas as teacher performance or student attainment of curricular standards.

TAPS: Teacher Assessment on Performance Standards

Teacher of record: The teacher of record is an individual (or individuals in the case of co-teaching assignments) who has been assigned responsibility for a student's learning in a subject/course. Students can have more than one teacher of record in a specific subject/course. The teacher of record is not necessarily the teacher who assigns the course grade.

Teachers of tested subjects: Teachers of tested subjects are considered to be those who teach subjects with state standardized tests, in particular those who will have state-generated value-added or growth scores available.

TEM: Teacher Effectiveness Measure

TKES: Teacher Keys Effectiveness System

Walkthroughs/Frequent Brief Observations: Informal classroom observations of a minimum of 10 minutes used to provide additional information on teacher performance.

References

- Bloom, B. S. (1984). The search for methods of group instruction as effective as one-to-one tutoring. *Educational Leadership*, 41(8), 4-17.
- Buttram, J. L., & Waters, J. T. (1997). Improving America's schools through standards-based education. *Bulletin*, 81(590), 1-5.
- Cawelti, G. (1999). *Handbook of research on improving student achievement* (2nd ed.). Arlington, VA: Educational Research Service.
- Collinson, V., Killeavy, M., & Stephenson, H. J. (1999). Exemplary teachers: Practicing an ethic of care in England, Ireland, and the United States. *Journal for a Just and Caring Education*, 5 (4), 349-366.
- Cotton, K. (2000). *The schooling practices that matter most*. Portland, OR: Northwest Regional Educational Laboratory and Alexandria, VA: ASCD.
- Covino, E. A., & Iwanicki, E. (1996). Experienced teachers: Their constructs on effective teaching. *Journal of Personnel Evaluation in Education*, 11, 325-363.
- Cruickshank, D. R., & Haefele, D. (2001). Good teachers, plural. *Educational Leadership*, 58(5), 26-30.
- Darling-Hammond, L. (2001). The challenge of staffing our schools. *Educational Leadership*, 5(8), 12-17.
- Education USA Special Report. (n. d.). *Good teachers: What to look for*. Rockville, MD: National School Public Relations Association.
- Educational Review Office. (1998). *The capable teacher*. Retrieved from http://www.ero .govt.nz/Publications/eers1998/98no2hl.html
- Eisner, E. W. (1999). The uses and limits of performance assessment. *Phi Delta Kappan*, 80(9), 658-660.
- Emmer, E. T., Evertson, C. M., & Anderson, L. M. (1980). Effective classroom management at the beginning of the year. *The Elementary School Journal*, 80(5), 219-231.
- Georgia Department of Education (n.d.) Great Teachers and Leaders. Retrieved from http://public.doe.k12.ga.us/DMGeTAPSument.aspx/RT3%20GREAT%20TEACHERS%20 AND%20LEADERS.pdf
- Good, T. L., & Brophy, J. E. (1997). Looking in classrooms (7th ed.). New York: Addison-Wesley.
- Gronlund, N. E. (2002). Assessment of student achievement (7^{th} ed.). Boston: Allyn & Bacon.
- Johnson, B. L. (1997). An organizational analysis of multiple perspectives of effective teaching: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 69-87.
- Marzano, R. J., Norford, J. S., Paynter, D. E., Pickering, D. J., & Gaddy, B. B. (2001). *A handbook for classroom instruction that works*. Alexandria, VA: ASCD.
- Marzano, R. J., Pickering, D., & McTighe, J. (1993). Assessing student outcomes: Performance assessment using the dimensions of learning model. Alexandria, VA: ASCD.

- McAllister, G., & Irvine, J. J. (2000). Cross cultural competency and multicultural teacher education. *Review of Educational Research*, 70(1), 3-24.
- McEwan, E. K. 2002. 10 traits of highly effective teachers: How to hire, coach, and mentor successful teachers. Thousand Oaks, CA: Corwin Press.
- My Byline Media (2011). Readability Formulas: The Flesch Reading Ease Readability Formula. Retrieved from http://www.readabilityformulas.com/flesch-reading-ease-readabilityformula.php
- National Association of Secondary School Principals (NASSP). (1997). Students say: What makes a good teacher? *Schools in the Middle*, *6*(5), 15-17.
- Panasuk, R., Stone, W., & Todd, J. (2002). Lesson planning strategy for effective mathematics teaching. *Education*, 2(2), 714, 808-827.
- Peart, N. A., & Campbell, F. A. (1999). At-risk students' perceptions of teacher effectiveness. *Journal for a Just and Caring Education*, 5(3), 269-284.
- Rockwell, R. E., Andre, L. C., & Hawley, M. K. (1996). *Parents and teachers as partners: Issues and challenges*. Fort Worth, TX: Harcourt Brace College.
- Shellard. E., & Protheroe, N. (2000). Effective teaching: How do we know it when we see it? *The Informed Educator Series*. Arlington, VA: Educational Research Service.
- Stronge, J. H. (2007). Qualities of effective teachers (2nd Ed). Alexandria, VA: ASCD.
- Stronge, J. H. (2010). Evaluating what good teachers do: Eight research-based standards for assessing teacher excellence. Larchmont, NY: Eye on Education.
- Stronge, J. H., & Grant, L. W. (2009). Student achievement goal setting: Using data to improve teaching and learning. Larchmont, NY: Eye on Education.
- Stronge, J. H., & Tonneson, V. C. (2011). *CLASS Keys* SM *Teacher Evaluation System recommendations for improvement*. Atlanta, GA: Georgia Department of Education.
- Stronge, J. H., & Xu, X. (2011). *Research synthesis of Georgia teacher evaluation standards*. Atlanta, GA: Georgia Department of Education.
- Stronge, J. H., & Xu, X. (2011). *State Evaluation Steering Committee focus group report*. Atlanta, GA: Georgia Department of Education.
- Swap, S. A. (1993). *Developing home-school partnerships from concepts to practice*. New York: Teachers College Press.
- Tobin, K. (1980). The effect of extended teacher wait-time on science achievement. *Journal of Research in Science Teaching*, 17, 469-475.
- Tucker, P. D., & Stronge, J. H. (2005). *Linking teacher evaluation and student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wang, M., Haertel, G. D., & Walberg, H. (1993). What helps students learn? *Educational Leadership*, 51(4), 74-79.
- Weinsten, C., Curran, M., & Tomlinson-Clarke, S. (2003). Culturally responsive classroom management: Awareness into action. *Theory Into Practice*, 42(4), 269-276.

Wright, S. P., Horn, S. P., & Sanders, W. L. (1997). Teacher and classroom context effects on student achievement: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 57-67.



Dr. John D. Barge, State School Superintendent "Making Education Work for All Georgians"

Teacher Keys Effectiveness System Implementation Procedures

Table of Contents

Table of Contents	
Figures and Appendices	4
Georgia's Race to the Top Overview	5
I. GaDOE Teacher Keys Effectiveness System Introduction	6
Primary Purpose of Teacher Keys Effectiveness System	6
II. Teacher Effectiveness Measure (TEM) Calculations	7
General Guidelines for TEM Score	7
III. Teacher Keys Effectiveness System Process	9
Positions to be Evaluated	9
Evaluators	10
Teacher Orientation and Familiarization	11
TKES Self-Assessment	11
IV. Components of the Teacher Keys Effectiveness System	11
Teacher Assessment on Performance Standards	13
TAPS Performance Rating	14
TAPS Observation	15
TAPS Documentation	16
TAPS Summative Assessment	17
Surveys of Instructional Practice	18
Survey Accommodations	19
Student Growth and Academic Achievement	23
Student Learning Objectives	23
Student Learning Objectives Process	25
Student Learning Objectives Assessment Measures	28
Student Growth Percentiles	30
V. GaDOE Electronic Platform for TKES	31

VI. Human Resources Guidelines	32
Addendum I	32
Professional Development Plan	33
Addendum II	33
TKES Logistical Review	33
VII. TKES Program Delivery Models and Accountability	34
Alternative Education Delivery Models	34
Early Intervention Program (EIP) Delivery Models	36
English Language Learners Program (ELL) Delivery Models	37
Gifted Program Delivery Models	38
Remedial Education Program (REP) Delivery Models	40
Special Education Program Delivery Models	41
Charter Schools	43
International Baccalaureate	43
Virtual Schools	44
Investing in Education Excellence (IE2) Systems	45
VIII. Teacher Effectiveness Measure Annual Report	45
Closing	49

Figures		
Figure 1:	TKES Framework	
Figure 2:	TAPS Domains and Standards	
Figure 3:	TAPS Rating Definitions	
Figure 4:	Frequency Terminology	
Figure 5:	Example of Summative Rating	
Figure 6:	TAPS Annual Process	
Figure 7:	Flesh-Kincaid Readability Levels of Survey	
Figure 8:	Updated Common Core Lexile Reading Measures	
Figure 9:	Table of Specifications for Surveys of Instructional Practice	
Figure 10:	Survey Results Summary Sheet Sample	
Figure 11:	Survey Results for Each Standard by Mean	
Figure 12:	SLO Phase II Courses for 2012-2013 School Year	
Figure 13:	Student Learning Objective Evaluation Rubric	
Figure 14:	Student Learning Objective Process	
Figure 15:	SLO Attainment Summary & Teacher Rating	
Figure 16:	Alternative Education Delivery Models with Participation Guidelines	
Figure 17:	Early Intervention Delivery Models with Participation Guidelines	
Figure 18:	English Language Learner Delivery Models with Participation Guidelines	
Figure 19:	Gifted Delivery Models with Participation Guidelines	
Figure 20:	Remedial Education Program Delivery Models with Participation Guidelines	
Figure 21:	Special Education Delivery Models with Participation Guidelines	
Figure 22:	Charter Schools with Participation Guidelines	
Figure 23:	International Baccalaureate with Participation Guidelines	
Figure 24:	Virtual Schools with Participation Guidelines	
Figure 25:	IE2 Systems with Participation Guidelines	
Figure 26:	TEM Matrix for SLO Courses	
Figure 27:	TEM Matrix for SGP Courses	
Appendice	S	
Appendix A:	Teacher Keys Effectiveness System Timeline	
Appendix B:	Acronyms; Definitions	
Appendix C:	Human Resources Documents	
Appendix D:	TKES Procedures Alternative Proposal Flowchart	
Appendix E:	Crosswalks (In progress)	
Appendix F:	Ongoing Teacher and Leader Effectiveness Cycle	

The contents of this manual were developed under a grant from the U. S. Department of Education. However, those contents do not necessarily represent the policy of the U. S. Department of Education, and you should not assume endorsement by the Federal Government.

Georgia's Race to the Top (RT3) Overview

The Race to the Top fund is a \$4 billion grant opportunity provided in the American Recovery and Reinvestment Act of 2009 (ARRA) to support new approaches to school improvement. The funds are made available in the form of competitive grants to encourage and reward states that are creating conditions for education innovation and reform, specifically implementing ambitious plans in four education reform areas:

- Recruiting, preparing, rewarding, and retaining effective teachers and principals, especially where they are needed most,
- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy;
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction;
- Turning around our lowest-achieving schools.

Georgia's vision as set forth in the application:

"To equip all Georgia students, through effective teachers and leaders and through creating the right conditions in Georgia's schools and classrooms, with the knowledge and skills to empower them to 1) graduate from high school, 2) be successful in college and/or professional careers, and 3) be competitive with their peers throughout the United States and the world."

Georgia's application was prepared through a partnership among the Governor's Office, the Georgia Department of Education, and the Governor's Office of Student Achievement and education stakeholders. Four working groups and a fifth critical feedback team consisting of teachers, principals, superintendents, higher education faculty, non–profit and informal education organizations, state policy makers, and members of the business and philanthropic communities developed the ideas for inclusion in the state's winning application. Georgia was awarded \$400 million to implement its Race to the Top (RT3) plan and the State Board of Education has direct accountability for the grant.

Georgia is partnering with 26 school systems around the state. Half of the awarded funds will remain at the state level and half will go directly to partnering local education authorities (LEAs)/school districts via their Title I formula. All funds are to be used to implement Georgia's RT3 plan. A Memorandum of Understanding (MOU) was signed by each district superintendent and board chair. These districts, which make up 40 percent of public school students, 46 percent of Georgia's students in poverty, 53 percent of Georgia's African American students, 48 percent of

Hispanics and 68 percent of the state's lowest achieving schools, are: Atlanta, Ben Hill, Bibb, Burke, Carrolton, Chatham, Cherokee, Clayton, Dade, DeKalb, Dougherty, Gainesville, Gwinnett, Hall, Henry, Meriwether, Muscogee, Peach, Pulaski, Rabun, Richmond, Rockdale, Spalding, Treutlen, Valdosta and White. These schools districts will begin full implementation of Teacher Keys and Leader Keys Effectiveness Systems for the 2012-2013 school year.

Research indicates the most important factor in a student's education is first and foremost, the teacher. When students are assigned to ineffective teachers for three years in a row, insurmountable academic losses occur. The goal of Georgia's Teacher Keys Effectiveness System (TKES) is to provide teachers with meaningful feedback and support opportunities which lead to improved teacher performance and consequently, improved student outcomes. The new evaluation system offers clear and precise indicators and resources to guide teachers and evaluators through the process. This document outlines the TKES framework, as well as the initiative's procedures which apply to full implementation years beginning 2012-2013, unless otherwise specified.

I. GADOE TEACHER KEYS EFFECTIVENESS SYSTEM INTRODUCTION

The Georgia Department of Education has designed the Teacher Keys Effectiveness System with multiple components that provide data and feedback regarding teacher performance from different sources and perspectives. The evaluation system is designed to provide information that will guide professional growth and development for each teacher, as well as to provide information that will be used in the calculation of the annual Teacher Effectiveness Measure (TEM). The collection of educator effectiveness data and feedback to educators will occur throughout the process for the TKES and the effectiveness system is designed to provide another forum for ongoing instructional dialogue.

Primary Purpose of the Teacher Keys Effectiveness System

The primary purposes of TKES are to:

- Optimize student learning and academic growth.
- Improve the quality of instruction by ensuring accountability for classroom performance and teacher effectiveness.
- Contribute to successful achievement of the goals and objectives defined in the vision, mission, and goals of Georgia Public Schools.
- Provide a basis for instructional improvement through productive teacher performance appraisal and professional growth.
- Implement a performance evaluation system that promotes collaboration between the teacher and evaluator and promotes self-growth, instructional effectiveness, and improvement of overall job performance.

II. TEACHER EFFECTIVENESS MEASURE (TEM) CALCULATIONS

General Guidelines for TEM Score

Teachers will receive a TEM score based on documentation and data from the three components of the TKES as indicated by Figures 26 and 27 on pages 47 of this document.

GaDOE will continue to analyze the 2012 pilot data using the draft matrices and make revisions, adjustments, or additions to them as necessary throughout the 2012-2013 implementation year.

GaDOE will continue to work on decision tables for teachers who have student growth measures from both Student Learning Objectives (SLO) and Student Growth Percentiles (SGP) so that an appropriate balance is determined between the growth measures, taking into account the number of courses taught with SLOs and the number of courses for which the teacher has SGPs. GaDOE staff is currently engaged in analyzing possible scenarios and developing detailed processes with technical assistance from external experts.

Where more information is required for a decision, evaluators will review all information regarding a teacher's performance within the context of the classroom, taking into account prior performance by both the teacher and the group of students and any unusual circumstances that should be considered. In determining the appropriate TEM rating, the evaluator will determine if either measure should be considered an aberration given the extenuating circumstances or if the measure reflects a consistent performance trend.

Teachers who receive a Teacher Effectiveness Measure of Needs Development or of Ineffective must be placed on a formal Professional Development Plan (PDP) that includes specific guidelines and timelines for improvement in the area(s) rated below Proficient.

The Student Growth and Academic Achievement Components of the TKES (SGP and SLOs) will be fully implemented, but will not be used for the purpose of annual evaluation ratings at the district level, in 2012-2013. These components will be a "hold harmless rating" during the 2012-2013 school year at the district level for contract purposes; however, the results will be calculated into the TEM scores in July 2013.

The following paragraphs describe scenarios related to teachers and the TEM score.

Teachers employed for the full school year, or for a minimum time equivalent to 65% of the instructional days, shall be evaluated using all components of the TKES. Data will be collected during the appropriate window of each component of the TKES for all teachers employed at the time designated for each specific measure. Teachers, who are not employed for a full year, or for a minimum time equivalent to 65% of the instructional days, will be evaluated using the TKES components as determined by the district to be appropriate, depending upon the time and length of employment.

Teachers employed for the full school year will have a Teacher Effectiveness Measure (TEM) score. In some situations, a TEM score may not be utilized for the purpose of annual evaluation ratings. These may include:

- Teachers hired mid-year shall receive feedback on TAPS and student surveys but may not have adequate time for SLO and/or SGP components of the TKES.
- Teachers who take leave for a specified period of time of more than half of the school year.
- Teachers who take leave for more than half of the minimum time equivalent of 65% of the instructional days.
- Itinerant teachers who serve students in more than one school will be designated a home school/lead evaluator by the school district. The arrangement will require collaboration among administrators, schools, district personnel, and GaDOE to make appropriate decisions on utilizing the Teacher Assessment on Performance Standards (TAPS), surveys and SLO summative evaluation components.

GaDOE will continue to research the appropriate minimum amount of time a teacher should be employed and in the classroom in order to determine which TKES components should be used for the purpose of annual evaluation ratings. Data from the 2012-2013 implementation year will also be used to inform a final decision on this requirement.

Another consideration for the TEM score calculation is the length of time a student is taught by the teacher. The following student guidelines will be used in the teacher's TEM score calculation.

- A Full Student Roster Model which links students to each of their teachers will be utilized. The growth scores of students who are enrolled for 65% of the school year and who have growth measures are incorporated into a teacher's TEM score.
- Utilizing a Full Student Roster Model, transient students' attendance will be monitored for inclusion according to the TEM score guidelines given above.
- Retained students will be weighted the same as non-retained students.

GaDOE will continue to research the appropriate minimum amount of time a student should be enrolled in a course in order to be included in a teacher's performance measures for the purpose of determining annual evaluation ratings. Data from the 2012-2013 implementation year will also be used to inform a final decision on this requirement.

In describing the general guidelines for a teacher's TEM score calculation, the length of time a student is taught by a teacher for their participation in the TEM score calculation is considered. The following information is designed to assist evaluators in making decisions about the participation of teachers in the TKES, TAPS, Surveys, and Student Learning Objectives/Student Growth Percentile, based on their teaching position and the program delivery model used with students.

III. TEACHER KEYS EFFECTIVENESS SYSTEM (TKES) PROCESS

During 2012-2013, the first full implementation year, RT3 teachers will be evaluated using the full TKES process cycle as set forth in the GaDOE TLE Electronic Platform. In subsequent years, teachers who obtain specified TEM scores will be evaluated using an adjusted process cycle, requiring fewer formative observations using the Teacher Assessment on Performance Standards (TAPS). The adjusted process cycle is as follows:

- The adjusted process cycle would require two observations and a minimum of four walkthroughs if the teacher's Teacher Effectiveness Measure (TEM) score is within a range to be determined.
- One observation as well as a minimum of four walkthroughs are required if the teacher's TEM score is above a TEM score to be determined. The district will retain the right to conduct more observations as it determines appropriate.

A walkthrough is defined as a more frequent, brief observation that focuses on a limited number of TAPS performance standards and/or indicators. Data from the walkthrough observations will be used to support and enhance performance ratings on formative assessments, whether announced or unannounced, and in the summative assessment.

In subsequent implementation years (after the completion of school year 2012-2013), the following teachers **will** be required to be evaluated using the full TKES process cycle:

- All teachers who did not meet the specified TEM score in the previous school year.
- All beginning teachers in years one, two, and three.
- All teachers new to the district.
- Any teacher, regardless of years of experience or years in the district, who is on a Professional Development Plan (PDP) due to demonstrated ineffectiveness or need for improvement.

Positions to be Evaluated

The TKES is designed for use with teachers, grades Pre-K through 12, who are full-time or part-time for the full year. The teachers, or Teachers of Record, must be providing direct instruction to students. Teachers should be full year or full year part-time for the evaluation cycle. It is **not** designed to be used with personnel in positions of *Contributing Professionals*, unless they are required by the district, as stated in their job descriptions, to provide direct instruction to students for part of the school day. In general, *Contributing Professionals* are credentialed with teaching or service certificates or are licensed therapists who are not directly involved in providing instruction for students. RT3 districts should continue to use the appropriate instruments already identified by the district for use with the following positions that have been designated *Contributing Professionals* until new instruments are developed and recommended by the GaDOE.

Contributing Professionals include but are not limited to:

- Behavior Interventionists
- Behavior Specialists
- Graduation Coaches
- Guidance Counselors
- In-school Suspension Teachers
- Instructional Coaches / Instructional Lead Teachers / Academic Coaches who do not have responsibility for direct instruction
- Instructional Technology Specialists
- Interpreters (sign language and other language)
- Media Specialists
- Mobility Training Specialists
- Occupational Therapists
- Paraprofessionals, even if they also have a valid teaching certificate
- Physical Therapists
- Psychologists
- School Social Workers
- Special Education Coordinators / Case Managers who do **not** provide direct instruction
- Speech Language Pathologists
- Teachers on Special Assignment who do **not** have responsibility for direct instruction
- Translators

Evaluators

Beginning with the 2012-2013 pilot/full implementation year, evaluators must be fully trained and credentialed by a state and/or district credentialed trainer in using the components of the TKES. The credentialing process will provide calibration and further increase the alignment of evaluation ratings.

As the instructional leader in the school, the principal will serve as the model for appropriate evaluation practices, will coordinate all evaluation activities within the school, and has ultimate responsibility for all evaluation activities within the school. Following the evaluator training and credentialing, instructional leaders are encouraged to review classroom observation videos and discuss ratings and judgment of practice based on the TKES standards rubric.

Other evaluators may include members of the school and/or district leadership teams who have been appropriately trained and credentialed as evaluators in the TKES. The district may designate assistant principals, department chairs, assistant/associate/area superintendents, district or school department heads, etc., as evaluators. Whenever possible, mentors and instructional coaches should not evaluate teachers whom they serve in these capacities. School districts have the option to

include credentialed evaluators from outside the school. The principal may assign multiple evaluators to any teachers participating in TKES.

Teacher Orientation and Familiarization

All teachers must receive an orientation regarding the requirements of the TKES prior to the beginning of the evaluation cycle. Orientation materials and guides are provided by GaDOE and should be used by the district and/or building principal to orient teachers. This shall take place prior to the first observation. Documentation of the orientation for each teacher must be maintained within the GaDOE TLE Electronic Platform.

Teacher familiarization training, ongoing professional learning utilizing GaDOE-provided materials on each of the ten performance standards which are the basis of the evaluation system, may occur and/or be repeated at any time during the school year. Teachers who participate in familiarization activities earlier in the year will have a clearer understanding of the ten performance standards and the expectations for classroom practice and performance. The GaDOE TLE Electronic Platform will be used to record the teacher's participation.

TKES Self-Assessment

In a full implementation year, beginning with 2012-2013, the teacher shall complete a self-assessment on the ten TKES standards as soon as possible following orientation. The self-assessment will be completed within the GaDOE TLE Electronic Platform, and it will be available to both the teacher and the school evaluator for review and professional learning planning.

IV. COMPONENTS OF THE TEACHER KEYS EFFECTIVENESS SYSTEM (TKES)

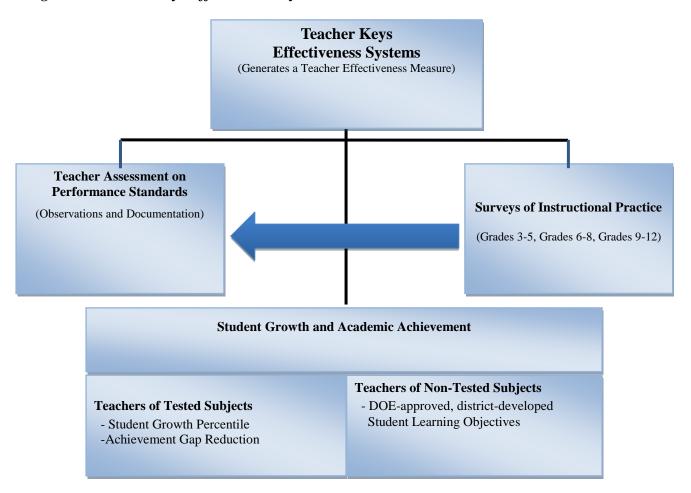
As shown in Figure 1, the Teacher Keys Effectiveness System (TKES) consists of three components which contribute to an overall Teacher Effectiveness Measure (TEM): Teacher Assessment on Performance Standards (TAPS), Student Growth and Academic Achievement, and Surveys of Instructional Practice (student perception surveys). The amount that the TAPS component and the Student Growth component contribute to the overall TEM score depends upon whether a teacher is assigned a tested subject/grade or a non-tested subject/grade. The survey component provides data that is used as documentation for the corresponding TAPS performance standards and supplements the observation and other documentation. The three components include:

1. Teacher Assessment on Performance Standards (TAPS): Observations, including walkthroughs and documentation of a teacher's practice will inform multiple formative assessments and one summative assessment each year.

- 2. Student Growth and Academic Achievement:
 - **a. Student Growth Percentile Measures:** Annual calculations of student growth based on state assessment data (4th-8th grade CRCT and high school EOCT) which are indicators of teacher effectiveness.
 - **b. Student Learning Objective Measures:** Annual calculations of student growth based on district-determined, GaDOE approved, student growth goals in subjects that are not assessed using state assessments.
- **3. Student Surveys of Instructional Practice (student perception surveys):** Student surveys are administered annually to gather perception data regarding teacher practice

The Teacher Keys Effectiveness System Timeline is provided in Appendix A. Acronyms and Definitions are noted in Appendix B.

Figure 1: Teacher Keys Effectiveness System Framework



The Teacher Assessment on Performance Standards (TAPS)

The Teacher Assessment on Performance Standards (TAPS) component of the TKES comprised of five domains and ten performance standards is outlined in Figure 2. TAPS provides evaluators with a qualitative, rubric-based evaluation method by which they can measure teacher performance related to quality performance standards. The overarching goal of TKES is to support the continuous growth and development of each teacher by monitoring, analyzing, and applying pertinent data compiled within a system of purposeful feedback. TAPS includes observation and documentation of a teacher's practice and utilizes ten standards-based performance rubrics to guide multiple formative assessments and one summative assessment during the pilot/full implementation year.

Figure 2: TAPS Domains and Standards

Figure 2: TAPS Domains and Standards
TKES: TEACHER ASSESSMENT ON PERFORMANCE STANDARDS
PLANNING
 Professional Knowledge Instructional Planning
INSTRUCTIONAL DELIVERY
Instructional Strategies Differentiated Instruction
ASSESSMENT OF AND FOR LEARNING
5. Assessment Strategies6. Assessment Uses
LEARNING ENVIRONMENT
7. Positive Learning Environment 8. Academically Challenging Environment
PROFESSIONALISM AND COMMUNICATION
9. Professionalism 10. Communication

TAPS Performance Rating

Evaluators will be required to provide two formative assessment ratings as well as a summative rating on each teacher. On both formative assessments and the summative assessment, teachers will be rated on all ten performance standards using a performance appraisal rubric.

Ratings on both types of assessments will be determined by:

- Considering the collection of formative data during 30 minute classroom observations.
- Appropriate documentation of classroom practice gathered from the teacher, from conferencing, or created by the evaluator.
- Walkthrough/ frequent brief observations.
- Student perception survey data.

The rubric rating describes each performance standard. The scale states the measure of performance expected of teachers and provides a general description of what the rating entails. Figure 3 provides suggested criteria for each of the TAPS performance rubric ratings.

Figure 3: TAPS Rating Definitions

Cat.	Description	Definition
Exemplary	The teacher performing at this level maintains performance, accomplishments, and behaviors that continually and considerably surpass the established performance standard, and does so in a manner that exemplifies the school's mission and goals. This rating is reserved for performance that is truly exemplary and is demonstrated with significant student learning gains.	continually meets the standards empowers students and exhibits continuous behaviors that have a strong positive impact on student learning and the school climate acquires and implements new knowledge and skills and continually seeks ways to serve as a role model to others
Proficient	The teacher meets the performance standard in a manner that is consistent with the school's mission and goals and has a positive impact on student learning gains.	Proficient performance: consistently meets the standards engages students and exhibits consistent behaviors that have a positive impact on student learning and the school climate demonstrates willingness to learn and apply new skills
Needs Development	The teacher inconsistently performs at the established performance standard or in a manner that is inconsistent with the school's mission and goals and may result in below average student learning gains. The teacher may be starting to exhibit desirable traits related to the standard, but due to a variety of reasons, has not yet reached the full level of proficiency expected or the teacher's performance is lacking in a particular area.	Needs Development performance: • requires frequent support in meeting the standards • results in less than expected quality of student learning • needs guidance in identifying and planning the teacher's professional growth
Ineffective	The teacher continually performs below the established performance standard or in a manner that is inconsistent with the school's mission and goals and results in minimal student learning gains.	Ineffective performance: does not meet the standards results in minimal student learning may contribute to a recommendation for the employee not being considered for continued employment

Figure 4: Frequency Terminology

FREQUENCY TERMINOLOGY					
Terms ranked by degree of frequency	Definition	Example			
Consistently	Occurs at regular intervals	Every week (Regular intervals will vary depending on the standard and the task.)			
Continually	Occurs with high frequency, appropriately, and over time.	Every day, every class (Frequency will vary depending on the standard and the task.)			

Proficient is the expected level of performance. Teachers who earn an *Exemplary* rating must meet the requirements for the *Proficient* level and exceed the standard continually. Teachers who are rated *Exemplary* on a standard will be considered model teachers who may provide building and/or district leadership in performance on that standard.

TAPS Observation

There are two types of TAPS observations: formative observations and walkthroughs. Teachers will be observed using the TAPS rubrics to determine formative ratings on the ten performance standards. During the pilot/full implementation year, each teacher will be observed a minimum of two times for no less than 30 minutes per observation. It is recommended that one be an announced observation and one be an unannounced observation. However, the district may determine whether the two 30 minute observations will be both announced, both unannounced, or one of each. Additional observations may be conducted at the discretion of the district.

- Walkthroughs shall be conducted periodically for a minimum of four walkthrough visits per year per teacher. Walkthroughs should be approximately 10-15 minutes in length.
- A walkthrough is defined as a more frequent, brief observation that focuses on a limited number of TAPS performance standards.
- The electronic platform will assist evaluators in collecting walkthrough documentation.
- Data from the walkthrough observations will be used to support and enhance performance ratings on formative assessments, whether announced or unannounced, and in the summative assessment. Walkthroughs may connect with School Improvement Plans and/or specific TKES standards (*i.e.*, Differentiation, Assessment Uses).

The TAPS observation process is composed of two 30 minute formative observations. Written feedback is to be provided on the Formative Assessment Report Form for the teacher within five school days as a follow-up to the observation. At the end of the evaluation cycle for the school year, the evaluator will complete a Summative Assessment Report for the teacher that is based on the two Formative Assessment Reports and other appropriate data sources identified in this document and by the district. Throughout the TKES evaluation process cycle, conferencing with

the teacher at the following designated times is required and important to the feedback process. All conferences should be documented using the Documentation of Conference for the Record available in the GaDOE TLE Electronic Platform.

- 1. A Pre-Evaluation Conference (August/September) is a follow-up to the Orientation as well as an opportunity to review the teacher's self-assessment. It shall occur before the observations begin with the teacher. The pre-evaluation conference can be held individually or in a small group setting (*e.g.*, grade level, content groups).
- 2. The Mid-Year (December/January) Conference should focus on Student Learning Objective (SLO) data and performance standards feedback. The mid-year/course conference can be held individually or in a small group setting (*e.g.*, grade level, content groups).
- 3. A Summative Evaluation Conference (May) will be held to provide written and oral feedback to the teacher regarding the Summative Assessment Report. TAPS, student achievement data trends, and student perception surveys shall be included in the post-conference discussion.

TAPS Documentation

For any classroom observation, announced or unannounced, both the teacher and the evaluator may submit documentation. Documents may be uploaded into the GaDOE TLE Electronic Platform during pilot/full implementation year, as needed to support the ratings and/or commentary. Upon request from the administrator, the teacher is responsible for submitting documentation to the evaluator for consideration in the formative assessment, either prior to or following the actual classroom observation. Specifically, if any of the ten standards were not observed during the period of the formative assessment, the teacher will be responsible for submitting requested documentation to the evaluator. The documentation shall provide evidence of the teacher's level of performance on the standard. A time limit of five school days for submission and review of additional documentation requested by the evaluator will be set in the electronic platform. Documentation evidence may be collected from the weeks preceding the beginning of the school year up until the completion of the TKES summative assessment. Documentation may be requested by the evaluator at any time and is not necessarily associated with a formal observation.

Documentation of data from the Surveys of Instructional Practice (student perception surveys) is required for Standards 3, 4, 7, and 8. This documentation should be used by evaluators to inform formative and summative assessment ratings for those standards. The use of survey data is recommended for the formative assessment and required for the summative assessment. If the TAPS rating on any of the standards for which survey data is provided differs significantly from the rating that would be indicated by those data, the evaluator is required to provide written justification within the GaDOE TLE Electronic Platform to explain why the performance rating on the standard is not aligned with the survey data.

Neither specific documents nor a specific amount of documentation are required by the GaDOE except the documentation from the Survey of Instructional Practice (student perception survey). However, districts, in conjunction with local schools, shall determine the scope of the required documentation. All documentation relative to a classroom observation must be finalized within five school days following the classroom observation. Evaluators may upload additional documentation of a teacher's performance relative to the TKES standards, as needed, at any time during the pilot/full implementation year. The documentation should accurately reflect and support the evaluator's rating of the teacher on the formative and summative assessment.

TAPS Summative Assessment

Every TAPS Formative Assessment observation will provide ratings for the teacher on each of the ten TKES performance standards. The evaluator is required to review all TAPS observations and supporting documentation. The evaluator will provide each teacher with a summative evaluation on TAPS that is based on a "totality of the evidence and most consistent practice" during the evaluation period. In completing a summative assessment on each of the ten teacher performance standards, the evaluator shall determine where the "totality of the evidence and most consistent practice" exists, based on observations and the documentation of practice and process, and Surveys of Instructional Practice for standards 3, 4, 7, 8. Evaluators will provide feedback to teachers on the summative assessment at a summative evaluation conference.

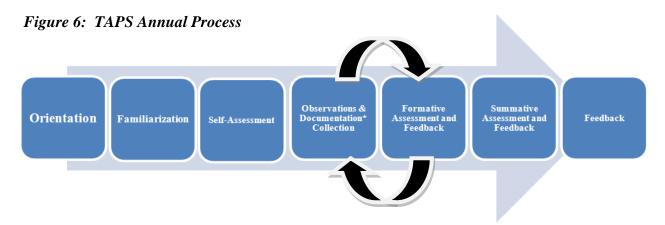
The summative evaluation on TAPS will be scored as follows. *Exemplary* ratings earn 3 points, *Proficient* ratings earn 2 points, and *Needs Development* ratings earn 1 point. *Ineffective* ratings have no point value. Evaluators will use the GaDOE TLE Electronic Platform to add the point value for all ten standards to produce a final score. The summative assessment is **not** an average of ratings on the standards during formative observations. The following Figure 5 provides an example.

Figure 5: Example of Summative Rating

Rating	Point Value	Number of Standards Rated at that Level	Computation	Summative Rating
Exemplary	3	2	$3 \times 2 = 6 \text{ pts}$	25-30 pts.
Proficient	2	6	2 x 6 = 12 pts	17-24 pts.
Needs Development	1	1	1 x 1 = 1 pt	6-16 pts.
Ineffective	0	1	$0 \times 1 = 0 \text{ pts}$	0-5 pts.
			Total = 19 pts	

The summative rating indicated by the overall score (0-30) will be applied within the appropriate matrix or decision tables to determine the Teacher Effectiveness Measure (TEM) for the year.

The process by which school districts will implement the TAPS portion of the TKES is depicted in Figure 6.



* Documentation includes data from walkthroughs and surveys.

TKES Component: Surveys of Instructional Practice

In the TKES, student surveys will be one source of data and documentation of teacher effectiveness. Surveys provide information about student perceptions of a teacher's performance. A benefit of using student surveys is that the collected information may help the teacher set goals for continuous improvement by providing feedback directly to the teacher for professional growth and development. Student surveys also may be used to provide information to evaluators that may not be obtained during observation or through other types of documentation.

During the 2012-2013 pilot/full implementation year, Surveys of Instructional Practice will provide documentation in the form of data that is required for Standards 3, 4, 7, and 8. This documentation should be used to inform formative and summative assessment ratings for those standards. If the TAPS rating on any of the standards for which survey data is provided differs significantly from the rating that would be indicated by those data, the evaluator is required to provide written justification within the GaDOE TLE Electronic Platform to explain why the performance rating on the standard is not aligned with the survey data. To gain valid survey results, a minimum of 15 students shall complete the survey for their Teacher of Record; student data cannot be disaggregated for groups smaller than 15 for confidentiality purposes related to identifying a student respondent.

The surveys utilized in the pilot/full implementation year ask students to report on items they have directly experienced, Standards 3, 4, 7, and 8. Three different versions of the student survey (Grades 3-5, 6-8, and 9-12) will be provided. These different versions will be designed to reflect developmental differences in students' ability to provide useful feedback regarding their teacher.

All surveys are to be completed anonymously to promote honest feedback. Students will be provided with anonymous sign-in credentials for the surveys.

Students will complete the surveys online within the GaDOE TLE Electronic Platform while under the supervision of a professional with a valid teaching certificate, service certificate, or leadership certificate. Consistent with state testing requirements, paraprofessionals may <u>not</u> administer the student surveys unless they also have a valid teaching certificate. The administration will follow scripted protocols for administration. The survey will be administered in secure conditions outside the presence of the Teacher of Record.

Figure 7 will outline the TKES survey readability levels for the 2012-2013 implementation once the redesign and development of the survey items are complete.

Figure 7: Flesch-Kincaid Readability Levels of Surveys

Grade	Flesch-Kincaid Readability Level
3-5	
6-8	
9-12	

Survey Accommodations

Students are able to comprehend at a higher level when listening to the survey questions read aloud. Therefore, it is considered appropriate for the readability of 3-5 surveys to be written at a slightly higher readability level. All students in Grades 3-5 will have the surveys read aloud. Survey items for **all** students will have read aloud capability within the electronic platform. Figure 8 will provide the Lexile reading measures used by the GaDOE for the student perception surveys once the redesign and development of the survey items are complete.

Figure 8: Updated Common Core Lexile Reading Measures

Grade	Lexile Measures 25 th to 75 th Percentile (IQR)
2-3	
4-5	
6-8	
9-10	
11-12	

All appropriate accommodations will be made for students with disabilities and English Language Learners, based on Individual Education Plans (IEPs) or language instruction education plans (extended time, read aloud, dual language dictionaries, etc.). Severe/profound special education

students may participate, with needed accommodations, as determined to be appropriate by the IEP committee. Surveys will be read to visually impaired students. Auditory devices may also be utilized. The use of the electronic platform will allow the survey to be read through headphones for any students requiring the accommodation.

The GaDOE TLE Electronic Platform will provide the following accommodations.

- A read-aloud option will provide survey access for visually impaired or blind students.
- Translation into other languages through use of a drop box allowing the selection from a list of multiple languages will be available 2013-2014.

Beginning with the 2012-2013 pilot/full implementation year, districts will have multiple options for selecting survey windows. From October through April, an open survey window will be available for districts/schools to select a time frame that does not interfere with testing or other uses of computer labs, etc. The multiple survey options will accommodate courses taught only during first semester, only during second semester, all year, or for shorter segments within the school year. The appropriate survey window for a course and/or teacher sample will be selected by the district and principals. Surveys may also be administered multiple times during the year at the district's or principal's discretion.

Surveys will be administered in the following manner:

- All students in self-contained classes (*e.g.*, elementary teachers, special education teachers) will be surveyed unless otherwise determined by the IEP committee or subcommittee, including the classroom teacher or case manager, a school administrator, and the parent.
- Principals will select students to be surveyed by class periods in departmentalized settings (*e.g.*, some upper elementary, middle and high school teachers, elementary PE and music teachers). There is a possibility that students may be selected to complete surveys on more than one teacher, but no student should be sampled to respond to surveys on more than two teachers in any given survey administration period.
- Non-departmentalized elementary staff and self-contained teachers—All students will be surveyed.
- Departmentalized elementary and multi-class (art, music, PE, etc.) teachers—Principals shall choose at least two class periods consisting of different students during which all students in these class periods will complete the survey.
- Special Education, inclusion, ESOL, etc., teachers—The principal shall schedule a time when all students taught by these teachers can complete the survey.
- Middle school and high school teachers—Principals shall choose at least two class periods
 consisting of different students during which all students in these class periods will complete
 the survey so that students surveyed are representative of the students the teacher is
 teaching.

Teachers, who **cannot** utilize the Surveys of Instructional Practice based on the procedures established for the students he or she teaches, will not have this type of data to supplement the documentation or inform the ratings on the TAPS performance Standards 3, 4, 7, and 8. For example, collaborative gifted teachers and contributing professionals will not have surveys counted for a TEM score.

Each survey contains questions that address four of the ten teacher performance standards in the TKES. The table of specifications in Figure 9 will illustrate the alignment between the survey items and TKES performance standards for the 2012-2013 implementation once the redesign and development of the survey items are complete.

Figure 9: Table of Specifications for Surveys of Instructional Practice

Teacher Performance Standards	Grade 3-5 Student Survey Item #	Grade 6-8 Student Survey Item #	Grade 9-12 Student Survey Item #
3-Instructional			
Strategies			
4-Differentiated			
Instruction			
7-Positive Learning			
Environment			
8-Academically			
Challenging			
Environment			

Documentation of data from the Surveys of Instructional Practice (student perception surveys) is required for Standards 3, 4, 7, and 8. This documentation should be used by evaluators to inform formative and summative assessment ratings for those standards. Prior to the closing of the survey window on April 30, but as soon as the administration of the survey for a particular teacher is complete, the evaluator should access the survey data report and provide a copy to the teacher through the electronic platform. At the close of the survey window, teachers will automatically receive a final report of survey results in the GaDOE TLE Electronic Platform.

The use of survey data is recommended for the formative assessment and required for the summative assessment. If the TAPS rating on any of the standards for which survey data is provided differs significantly from the rating that would be indicated by those data, the evaluator is required to provide written justification within the GaDOE TLE Electronic Platform to explain why the performance rating on the standard is not aligned with the survey data. Survey results will be compiled with the GaDOE TLE Electronic Platform and must be utilized as documentation to support annual performance ratings.

A summary of results for each question will be provided to individual teachers. The Survey Results Summary Sheet will include:

- The number of students with valid responses for each question.
- The number of responses for each question that were rated at each level of the response scale (*Yes, Sometimes, No* for Grades 3-5; *Strongly Agree, Agree, Disagree, Strongly Disagree* for Grades 6-12).
- The teacher, district, and state mean, the median, and the standard deviation compared to all other teachers at that grade level band (3-5, 6-8, and 9-12) for each question.

A partial Survey Results Summary Sheet for a teacher in Grade 7 is shown in Figure 10.

Figure 10: Survey Results Summary Sheet (Sample for Grade 7 teacher)

Survey Results Summary										
		Pe	ercentage	of Rating	gs					
Question	Number of Valid Responses	Strongly Agree (3 pts)	Agree (2 pts)	Disagree (1 pts)	Strongly Disagree (0 pt)	Mean	District Mean	State Mean	Median	Standard Deviation
My teacher uses different ways to teach and help me learn.	30	3%	50%	47%	0%	2.57	2.2	2.1	3	0.57
My teacher sets high learning standards for the class.	28	0%	25%	68%	7%	2.18	2.3	2.2	2	0.55

Additionally, teachers will be provided with a summary chart for each standard by mean score. Figure 11 shows a partial Survey Results table for each standard by mean.

Figure 11: Survey Results for Each Standard by Mean

Teacher	3. Instructional Strategies	4. Differentiated Instruction	7. Positive Learning Environment	8. Academically Challenging Environment
	0.9	2.1	3.0	1.7

TKES Component: Student Growth and Academic Achievement

This TKES component consists of a student growth percentile for teachers of tested subjects. For teachers of non-tested subjects, this component consists of GaDOE approved Student Learning Objectives (SLOs) utilizing district-identified achievement growth measures. District-determined SLOs are content-specific objectives that are measureable, focused on growth, and aligned to the curriculum standards.

The Student Growth and Academic Achievement Components of the TKES (SGP and SLOs) will be fully implemented, but will not be used for the purpose of annual evaluation ratings at the district level, in 2012-2013. These components will be a "hold-harmless rating" during the 2012-2013 school year at the district level for contract purposes. The results will be calculated into the TEM scores in July 2013, however, for diagnostic and general information.

Student Learning Objectives

Student Learning Objectives (SLOs) will be used to assess student growth in non-tested courses and will contribute performance data to the calculation of the TEM for teachers of those courses. After all SLOs are phased in, teachers will be evaluated using one district-determined SLO for each non-tested course they teach. Teachers of non-tested subjects will be evaluated by district-determined SLOs for their non-tested courses. Teachers of tested subjects will be evaluated by the student growth percentile measure for their tested courses.

The tested courses are reading, language arts, math, science, and social studies, as tested in grades 4-8 by the CRCT, and the courses tested by the high school End of Course Tests (biology, physical science, 9th grade literature/composition, 11th grade literature/composition, US History, economics/business/free enterprise, Math I, Math II, GPS algebra, GPS geometry).

All other courses are considered non-tested courses. Teachers of students whose learning progress is evaluated using the GAA or the CRCT-M will implement SLOs upon their development. Following the pilot, the SLO measures will be implemented in two phases during the 2012-2013 and 2013-2014 school years. Figure 12 outlines the courses selected for the 2012-2013 school year.

Figure 12: SLO Phase II Courses for 2012-2013 School Year

COURSE NUMBER	COURSE DESCRIPTION	MAIN SUBJECT AREA
Pre-K Literacy		
	Pre-K Numeracy	
23.0010000	Kindergarten English Language Arts	23. English Language Arts

	MAIN SUBJECT	
COURSE NUMBER	COURSE DESCRIPTION	AREA
23.0011	Kindergarten Reading	23. English Language Arts
27.0110000	Kindergarten Mathematics	27. Mathematics
23.0012	First Grade Reading	23. English Language Arts
27.0120000	First Grade Math	27. Mathematics
23.0020000 23.0013	First Grade English Language Arts Second Grade Reading	23. English Language Arts23. English Language Arts
27.0130000	Second Grade Math	27. Mathematics
23.0030000	Second Grade English Language Arts	23. English Language Arts
23.0014	Third Grade Reading	23. English Language Arts
27.0140000	Third Grade Math	27. Mathematics
23.0040000	Third Grade English Language Arts	23. English Language Arts
23.0320000	Journalism I	23. English Language Arts
23.0330000	Journalism II	23. English Language Arts
23.0340000	Advanced Composition	23. English Language Arts
23.0520000	British Literature/Composition	23. English Language Arts
23.0620000	Tenth Grade Literature/and Composition	23. English Language Arts
23.0630000	World Literature/Composition	23. English Language Arts
26.0130000	Biology II (Grades 9-12)	26. Life Sciences
26.0611000	Environmental Science	26. Life Sciences
26.0710000	Zoology	26. Life Sciences
26.0730000	Human Anatomy/Physiology	26. Life Sciences
27.0624	GPS Pre-Calculus	27. Mathematics
27.065	Advanced Algebra and Trigonometry	27. Mathematics
27.0710000	Calculus	27. Mathematics
27.0830000	Mathematics III-Advanced Algebra / Statistics	27. Mathematics
27.0840000	Mathematics IV-Pre-Calculus - Trigonometry/Statistics	27. Mathematics
40.0510000	Chemistry I	40. Physical Sciences
40.0520000	Chemistry II	40. Physical Sciences
07.4411005	CTAE Computer Apps I	40. I Hysical Sciences
54.01100	Fine Arts—Beginning Chorus Grades 4-5	54. Fine Arts
40.0640000	Earth Systems	40. Physical Sciences
40.0810000	Physics I	40. Physical Sciences
40.0820000	Physics II	40. Physical Sciences
45.0150000	Psychology	45. Social Sciences
45.0160000	AP Psychology	45. Social Sciences
45.0310000	Sociology	45. Social Sciences
45.0570000	American Government/Civics	45. Social Sciences
45.0620000	AP Macroeconomics	45. Social Sciences
45.0630000	AP Microeconomics	45. Social Sciences
45.0711000	World Geography	45. Social Sciences
45.0830000	World History	45. Social Sciences
60.0110000	French I	60. Romance Languages
60.0710000		
00.0710000	Spanish I	60. Romance Languages

COURSE NUMBER	COURSE DESCRIPTION	MAIN SUBJECT AREA
23.0430000	AP Language Composition	23. English Language Arts
23.0530000	AP English Literature & Composition	23. English Language Arts
45.0520000	AP Government/Politics: USA	45. Social Sciences
45.0530000	AP Government/Politics/ Comparative	45. Social Sciences
45.0811000	AP World History	45. Social Sciences
45.082000	AP US History	45. Social Sciences
27.072000	AP Calculus AB	27. Math
27.074000	AP Statistics	27. Math

Student Learning Objectives (SLO) Process

Learning expectations describe how students will grow in their learning of the selected content over the instructional interval, as measured by the pre-assessment(s) and post-assessment(s). The expected growth for students must reflect the learning that would occur over the entire duration of the course. Expectations must be rigorous and attainable. Expected growth is the amount students are expected to grow over the course of the instructional period.

Districts must follow an SLO development process as set forth in the GaDOE training materials for TKES or as approved by GaDOE, and districts must submit each SLO for GaDOE approval before local teachers begin implementation of their SLO plans. Districts will submit SLOs on the District SLO Form for the GaDOE approval before, but no later than August 1. A separate form should be used for each SLO. GaDOE will review, request revisions as necessary, and approve SLOs as quickly as possible with a target date of no later than September 1.

Districts may set their own pre-assessment and post-assessment windows, making sure that all data will be submitted within the GaDOE TLE Electronic Platform no later than May 15. Students must be enrolled in a course for 65% of the instructional period, and have both a pre- and post-assessment score, in order for the student's data to be included in the SLO measures. The district should ensure that students who enroll after the pre-assessment window, but who will be enrolled for 65% of the instructional period, have the opportunity to take the pre-assessment. Pre- and post-assessments must be administered to all students enrolled in applicable SLO courses.

Teachers will use their students' pre-assessment scores, along with other diagnostic information, and complete the Teacher SLO instructional planning form within the GaDOE TLE Electronic Platform. Use of the state developed Teacher SLO instructional planning form is optional; however, districts must collect the SLO data from each teacher within the GaDOE electronic platform. After the SLO pre-assessment is administered and Teacher SLO Forms are completed, teachers will meet with their evaluators to review SLO plans and obtain approval for implementation. Before approving the plan, principals should review and assess the teacher's plan for rigor and appropriateness. The review/approval process shall be completed prior to implementation of the SLO during the pilot/full implementation year.

Individual teachers then create and implement strategies and monitor progress while making adjustments to the teaching and learning strategies as required. SLO results are reported at the student and class/group level. As teachers work with the district-designated SLOs, they should maintain a record of each student's pre-assessment score and post-assessment score, as well as any other data needed to ascertain attainment of the SLO for the summative evaluation. In addition, the record of pre-assessment scores should be turned into the teacher's evaluator within the electronic platform. A mid-year or mid-course review should be conducted during the pilot/full implementation year.

At the mid-year or mid-course point, teachers should utilize one or more appropriate formative measures to determine individual student progress toward attainment of the SLO(s). Teachers should meet with their evaluators to review student progress at mid-year. The teacher and evaluator shall discuss whether adjustments to classroom instruction, etc., should be made to increase the probability of students achieving or exceeding the target levels of growth as determined in the SLO(s). A Professional Development Plan (PDP) may be developed at this time if the evaluator determines it is needed to provide guidance and support for the teacher. Note that no changes can be made to the SLO during the instructional period.

At the end of the instructional period, teachers will administer the post-assessments and will compile their class/group data into the GaDOE TLE Electronic Platform. Each teacher is responsible for assessing the students' growth toward the SLO goal. Teachers must submit their completed *Student Learning Objective Forms* along with the pre-assessment, post-assessment, and growth results for each student in the GaDOE TLE Electronic Platform to their evaluators. Evaluators will review the pre-assessment and post-assessment data presented by each teacher to make a determination as to whether the SLO was met. The evaluator will assign an end-of-year rating using the evaluation rubric with the following levels: *Exemplary, Proficient, Needs Development*, and *Ineffective* as shown in Figure 13.

Figure 13: Student Learning Objective Evaluation Rubric (Normal mathematical rules for

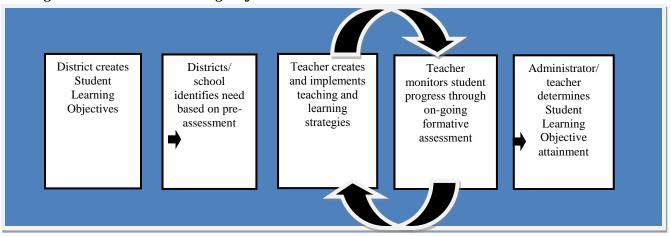
rounding should	apply so	that $>.5$	rounds ur) .)
Tourism's briodia	appr, so	111ut / .5	TOUTION OF	, , ,

Exemplary	Proficient	Needs Development	Ineffective
The work of the teacher results in extraordinary student academic growth beyond expectations during the school year. Greater than 50% of students exceeded the Student	The work of the teacher results in acceptable, measurable, and appropriate student academic growth. Greater than 80% of students	The work of the teacher results in student academic growth that does not meet the established standard and/or is not achieved with all populations taught by the teacher.	The work of the teacher does not result in acceptable student academic growth.
Learning Objective, at least 40% met the Student Learning Objective, and no more than 10% did not meet the Student Learning Objective.	met or exceeded the Student Learning Objective and no more than 20% did not meet the Student Learning Objective.	Greater than 50% of students met or exceeded the Student Learning Objective.	Fewer than 50% of students met or exceed the Student Learning Objective.
Comments:			

GaDOE will continue to research the most effective SLO performance goals that should be used for the purpose of the teachers' annual evaluation ratings as analysis of the 2012 pilot data continues. Data from the 2012-2013 implementation year will also be used to inform a final decision on this rubric.

Figure 14 outlines the SLO process.

Figure 14: Student Learning Objective Process



Stronge, J. H. & Grant, L. H. (2009). Adapted from *Student achievement goal setting: Using data to improve teaching and learning*. Larchmont, NY: Eye on Education.

Student Learning Objectives Assessment Measures

District-determined SLOs are content-specific, grade level learning objectives that are measureable, focused on growth in student learning, and aligned to curriculum standards. Appropriate measures of student learning gains differ substantially based on the learners' grade level, content area, and ability level. When possible, externally developed and validated assessments that correlate with the grade level and subject being taught should be used for such purposes.

To ensure SLO assessment content and construct validity, the GaDOE is facilitating collaborative SLO Development and Evaluation Cycle training for districts and regions throughout the state of Georgia. The process includes the development of an SLO Assessment Team that is responsible for selecting, developing, and evaluating district SLOs as well as balanced district SLO pre- and post-assessment measures for selected or assigned courses.

SLO Development and Evaluation Cycle training prepares districts to:

- Develop effective SLO statements and growth goals.
- Align pre- and post-assessment tasks/items to course standards.
- Ensure congruency between the cognitive demand of the standard and the pre- and post-assessment tasks/items.
- Analyze standards/items.
- Ensure balance between instruction and pre- and post-assessment emphasis.
- Determine appropriate growth targets.

An SLO Table of Specifications is utilized to draft or evaluate a pre- or post-assessment. The SLO Assessment Criteria Table is used to construct, select and/or evaluate pre- or post-assessment items and/or tasks. Locally developed pre- and post-assessments will be reviewed by the district, using quality indicators provided by the GaDOE, and district quality ratings will be monitored by the GaDOE.

If the submitted SLO utilizes district developed pre- and post-assessments, the assessments must be submitted to GaDOE with the SLO. If the SLO pre- and post-assessments are externally developed, a description of the assessments must be submitted with the SLO. If the assessment is locally developed, a Content Alignment Form, the Table of Specifications and the SLO Assessment Criteria Table must be submitted with the pre- and post-assessments and the SLO.

The GaDOE will communicate approval of the SLOs to the district. The districts will then inform the schools. Within the first few weeks of the instructional period, teachers will administer an SLO pre-assessment. Districts shall determine the pre- and post- assessment windows for their teachers. The purpose of these assessments is to measure student learning on the selected standards from the beginning of the interval of instruction to the end of the instructional period.

Students must be enrolled in a course for 65% of the instructional period, and have both a pre- and post-assessment score, in order for the student's data to be included in the SLO measures. The district should ensure that students who enroll after the pre-assessment window, but who will be enrolled for 65% of the instructional period, have the opportunity to take the pre-assessment. The SLO then will be weighted so that it counts for a specific amount of the overall TEM. During the 2012-2013 pilot/implementation year, a TEM matrix and/or decision tables will be used to determine the impact of the SLO performance on the TEM score. GaDOE will continue to analyze the 2012 pilot data using the draft matrices and make revisions, adjustments, or additions to them as necessary throughout the 2012-2013 implementation year.

Figure 15 provides an example of a SLO attainment and teacher rating.

Figure 15: SLO Attainment Summary & Teacher Rating

	<u> </u>				
	Student Learning Objective Attainment Summary/Teacher SLO Rating				
Number	Percentage of	Percentage	Percentage of	Percentage of	Teacher SLO Rating
of	Students	of Students	Student Who Did	Students	
Students	Exceeding	Meeting	Not Meet SLO	Meeting &	
Tested	SLO Criteria	SLO	Criteria	Exceeding	
	SLO CIIteria	Criteria		SLO Criteria	
50	38%	36%	26%	74%	Needs Development

GaDOE will continue to work on matrices and/or decision tables for teachers who have student growth measures from multiple SLOs, or from both Student Learning Objectives and Student Growth Percentiles, so that an appropriate balance is determined between the growth measures, taking into account the number of courses taught with SLOs and the number of courses for which the teacher has SGPs. GaDOE staff is currently engaged in analyzing possible scenarios and developing detailed processes with technical assistance from external experts.

Due to the limitations on data analysis and development of state reports created by the differences in SLOs and SLO goals developed in each district, the state reports will be limited to the percent of teachers who met the SLO growth goals and the percent of students who met SLO goals. Districts will have the option to review SLO performance data at the student, teacher, school, and district level to ensure consistency of the SLOs and SLO goals across the district.

Student Growth Percentiles (SGP)

Student Growth Percentiles (SGPs) will be used as the student growth component of the TEM for teachers of courses that have state assessments (CRCT 4-8 and EOCT). SGPs describe a student's growth relative to his/ her academic peers-other students with similar prior achievement (*i.e.*, those with similar history of scores). A growth percentile is generated for each student which describes his or her "rank" on current achievement relative to other students with similar score histories. A growth percentile can range from 1 to 99. Lower percentiles indicate lower academic growth and higher percentiles indicate higher academic growth.

There are multiple ways of summarizing SGPs for groups of students (such as a classroom or a school). Most commonly, a group's SGP is the median growth percentile for each student in the group. The median is obtained by rank ordering the percentiles for all students in the group and selecting the middle percentile (50% of the group would have a higher percentile and 50% a lower percentile). Additionally, the percentage of students demonstrating at or above the specific level of growth (for example 60th percentile growth) can be reported. Growth can be compared across grade levels and across subject areas, meaning summary measures also can be aggregated across grade levels and content areas.

SGPs do not require a vertical or developmental scale (a continuous scale spanning multiple grades in the same content area) in order to describe student growth. This growth model does not calculate how many scale score points a student improved from year to year. Rather, this growth model describes growth in terms of how a student performed this year relative to other students who have a similar academic history.

The Criterion-Referenced Competency Tests (CRCT) in grades 4-8 reading, English/language arts, math, science and social studies and End of Course Tests, (EOCTs) in Biology, Physical Science, 9th Grade Literature/Composition, American Literature/Composition, US History, Economics/Business/Free Enterprise, Mathematics I, Mathematic II, GPS Algebra, and GPS Geometry will be included in the growth model. As Georgia transitions to the implementation of common assessments developed by the Partnership for Assessment of Readiness for College and Careers (PARCC), the new assessments will be utilized in the growth model.

The growth model uses multiple years of prior test data as pretest scores (one year is used when multiple years are not available). For example, growth percentiles for 5th grade students on the 5th grade CRCT are generated using 3rd and 4th grade CRCT results as priors. Because at least one prior test score is necessary to model growth, grades 4-8 and courses with EOCTs will receive growth scores.

During the 2012-2013 pilot/implementation year, a TEM matrix and/or decision tables will be used to determine the impact of the SGP measure on the TEM score. GaDOE will continue to analyze the 2012 pilot data using the draft matrices and make revisions, adjustments, or additions to them as necessary throughout the 2012-2013 implementation year.

GaDOE will continue to work on matrices and/or decision tables for teachers who have student growth measures from multiple courses with SGP measures, or from both Student Learning Objectives and Student Growth Percentiles, so that an appropriate balance is determined between the growth measures, taking into account the number of courses taught with SLOs and the number of courses for which the teacher has SGPs. GaDOE staff is currently engaged in analyzing possible scenarios and developing detailed processes with technical assistance from external experts.

V. GaDOE Electronic Platform for TKES

Georgia's electronic platform for TKES will provide web-based access to multiple component measures. This platform will communicate with existing GaDOE data and information systems to pull data for personnel, student records, student course schedules, and roster verification. Other data may also be pulled from the system. The GaDOE TLE Electronic Platform will be provided by the GaDOE to school districts and schools (SIG, Priority, and Relocation Bonus Grant schools) implementing or piloting the TKES beginning with the 2012-2013 school year.

The electronic platform will include the following:

- Templates for multiple formative assessments and a summative end of year assessment.
- Documentation upload capabilities.
- Templates for Professional Development Plans.
- Walkthrough customization capabilities utilizing TAPS standards and indicators.
- Multiple surveys (teachers and staff on principals and assistant principals; students on teachers).
- Rolling windows for administering surveys October through April.
- Options for survey to be read aloud electronically.
- Options for multiple languages within the student surveys beginning in 2013-2014.
- Survey data aligned to TAPS performance standards with required justification if rating not aligned with survey data.
- SGP data gathered through GaDOE SLDS.
- SLO templates and options in multiple categories (*e.g.*, set targets, pre- and post-assessment student data, teacher rating by administrators).
- Professional learning materials, modules, and other opportunities directly linked to the TKES performance standards (functionality will be built over the 2012-2014 school years).
- Data calculated and updated data at various times in the school year.

Numerous calculation processes will be implemented for TKES in the GaDOE TLE Electronic Platform which will include the following:

- SGP and SLO calculations school and district level aggregated and disaggregated student data.
- TAPS calculations and reports teacher, school, district, and state level.
- TEM (Teacher Effectiveness Measure) calculations and reports teacher, school, district, and state level.
- State, district and school level calculations and reports -ongoing at strategic intervals during the school year.

The robust electronic platform for TKES will maintain all of the evaluation system measures-including completion of orientation and self-assessment; TAPS formative and summative assessments and documentation; professional development plans; student survey data; electronic signatures and date/time stamps maintained for all documents and data submissions; SLO data and performance calculations; student growth percentile measures; and TEM calculations. The GaDOE TLE Electronic Platform will also provide access to videos, links, and other resources that support the ongoing professional learning needed for continuous improvement of professional practice as measured by the TEM score.

VI. Human Resources Guidelines

In general terms, human resources management encompasses selecting quality teachers and staff, inducting and supporting new teachers, mentoring novice teachers, providing professional growth opportunities, and retaining quality faculty and staff in schools. During the pilot/full implementation year 2012-2013, only the TAPS component for the TKES will be used for the purpose of annual evaluation ratings. The Student Growth and Academic Achievement Components of the TKES (SGP and SLOs) will not be used for the purpose of annual evaluation ratings. These components will be a "hold harmless rating" during the 2012-2013 school year and will not be factored into the TEM score for 2012-2013. In the TKES it is essential to provide support for professional growth. The GaDOE TLE Electronic Platform will have electronic resources needed to assist evaluators in providing support for the growth and development of teachers. The following three addenda may be utilized in the electronic platform during the evaluation process of the TKES components; the documents can be located in Appendix C.

Addendum I: Documentation of Conference for the Record

The document template may be used to identify and document oral and written counsel that occurs between an evaluator and evaluatee. The document will provide written information regarding a conference between an evaluator and evaluatee. If this document is not used by the evaluators in the school district, the oral and written documentation should be recorded on a school or district developed document, by email, letter, or within the electronic platform or any other appropriate means of communication regarding appropriate or inappropriate performance by the teacher.

Professional Development Plan (PDP): A Professional Development Plan (PDP) is a plan mandated by the evaluator and approved by the principal within the GaDOE TLE Electronic Platform. It may be developed by the evaluator in collaboration with the teacher, coaches, mentors, or other qualified individuals. The PDP provides guidelines and timelines for specific, mandatory professional learning which supports immediate improvement of teacher practice and increased teacher effectiveness, or any other enhancement opportunity to include clear expectations about changes needed in performance to be demonstrated in the classroom and school. The PDP is an intensive effort toward improvement of teacher practice and effectiveness. A PDP may also be used when a teacher does not meet the professional duties, responsibilities and ethical expectations required by the teacher. The following guidelines will be used in determining the use of a PDP in two components of the TKES.

The evaluator, with the approval of the principal, may choose to place a teacher on a Professional Development Plan at any time during the school year if there are major issues with any performance standard including, but not limited to, professionalism, the Georgia Code of Ethics, *Needs Development* or *Ineffective* ratings on the formative and/or summative assessments, or the Teacher Effectiveness Measure (TEM). Principals and other evaluators may also provide suggestions and guidance to teachers at any time during the school year without the development of a PDP. Administrators/evaluators shall supervise and provide guidance to the teacher as outlined in the PDP. Teachers beginning the school year on a Professional Development Plan (PDP) will be monitored and supported by the building-level administrator/evaluator. The PDP and subsequent expectations and actions will align to the appropriate Teacher Assessment on Performance Standards. All components of the PDP must be entered into the electronic TKES Professional Development (PDP) form.

Addendum II: TKES Evaluation Cycle Suggested Calendar

The document may be used by the school district to create an evaluation cycle calendar appropriate for the school district's teachers and administrators. Dates may be added as appropriate for the school district. The main components of TKES should be in the school district calendar in addition to other changes/additions as needed by the school district.

TKES Logistical Review: Districts in the full implementation year should be reassured that while a completely validated instrument is valuable for research and public perception, the new evaluation system can be effectively used for the purpose of annual evaluation ratings in the 2012-2013 school year. New school districts piloting TKES with a percentage of teachers in the district shall use their existing evaluation system parallel to the TKES evaluation system. School districts entering a full implementation year will use only the TKES evaluation system.

The Student Growth and Academic Achievement Components of the TKES (SGP and SLO) will be fully implemented, but will not be used for the purpose of annual evaluation ratings at the district level, in 2012-2013. These components will be a "hold harmless rating" during the 2012-2013

school year at the district level for contract purposes; however the results will be calculated into the TEM scores in July 2013.

VII. TKES Program Delivery Models and Accountability

The delivery model descriptions of the following programs are listed alphabetically in chart form on the following pages. Unique to the following program delivery models is co-teaching. In most of these programs, co-teachers will be accountable for all students in the Teacher of Record's classroom.

In Georgia, there are two instructional program delivery models that use terms relating to collaboration. For the Special Education Collaborative, teachers who provide direct instruction to a student or students for less than a full segment (who are not co-teaching with the Teacher of Record) will be accountable for that student's/students' academic performance. For the Gifted Collaborative Delivery Model, Gifted Instructional Facilitators, who plan only with the Teacher of Record, will not be accountable for student performance. Rather, the Teacher of Record, who provides direct instruction to students, will be accountable for student performance. Figures 16-21 will indicate the teacher's participation in the components of the TKES.

- Alternative Education Program Models
- Early Intervention Program (EIP) Models
- English Language Learners (ELL) Program Models
- Gifted Program Models
- Remedial Education Program (REP) Models
- Special Education Program Models

Alternative Education Delivery Models

Alternative/Non-Traditional Education Program: Alternative/Non-traditional Education Programs operate in affiliation with a school(s). A program does not report Full-Time Equivalent (FTE) or receive an Adequate Yearly Progress (AYP) designation. Achievement data for students enrolled in the program are reported back to the school where the student is reported for FTE. The program may be housed within a school, the same site, or at a different location. Adherence to all requirements as stated in SBOE Rule 160-4-8-17 Case Management Consultation for Agency Placed Transfer Students is required. Programs may include Attendance Recovery, Credit Recovery, Disciplinary Program, Early College, Evening School, and Open Campus.

Alternative/Non-Traditional Education School: An Alternative/Non-traditional Education School has an official school code and serves as the home school for enrolled students. The school receives an AYP designation, reports FTE counts for all enrolled students and earns Quality Basic Education (QBE) formula funds directly. Adherence to all requirements as stated in SBOE Rule 160-3-8-17 Case Management Consultation for Agency Placed Transfer Students is required.

Attendance Recovery Program: An Attendance Recovery Program designed to allow students the opportunity to make up an absence(s) by attending a program outside the normal school day (*e.g.*, Saturday School).

Community-based Alternative Education/Non-Traditional Program: A Community-based Alternative Education/Non Traditional Program engages students in educationally relevant and meaningful learning experiences in the school and larger community. The academic curriculum is integrated into work-based learning and structured work experiences utilizing partnerships among business, industry, government, community, and school, including Performance Learning Centers.

Credit Recovery Program: A Credit Recovery Program is designed to allow students the opportunity to retake a course for the purpose of earning credits toward graduation.

Education Management Organization: An Education Management Organization is operated by a private vendor. The program or school may operate on or off campus.

Figure 16: Alternative Education Delivery Models with Participation Guidelines

	<u> </u>	1	
Delivery Models for Teachers of Alternative Education Programs	TAPS	Survey	SLO/SGP (if SLO developed for course)
Alternative Programs	Y	Y	Y
Alternative Schools	Y	Y	Y
Attendance Recovery Program	TBD	TBD	TBD
Community-Based Alternative Education Program (i.e., Performance Learning Centers)	N	N	N
,	Y	Y	Y
Credit Recovery Program	(Only full time)	(Only full time)	(Only full time)
Educational Management Organization	N	N	N

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

Early Intervention Program (EIP) Delivery Models

Augmented: The augmented model incorporates EIP services into the regular group class size by providing an additional early childhood certified teacher to reduce the teacher/pupil ratio while providing EIP services.

Self-Contained: The self-contained model is used to reduce the class size in order to provide more emphasis on instruction and increased academic achievement. The teacher has a limited number of students, all of whom qualify for EIP services. This may be a multi-grade class.

Pull-Out: In the pull-out model, EIP students are removed from the classroom for instruction by an additional certified teacher. This model may serve a maximum of 14 students at a time. The teacher may, and usually does, serve multiple groups of 14 or fewer students throughout the school day.

Reduced Class Model: The reduced class model allows for the combination of EIP students with regular education students in smaller classes. The reduced class model uses a sliding scale in which the class size reduces as the number of EIP students increases.

Reading Recovery Program: In the Reading Recovery Program students are removed from the classroom for one segment of reading. One segment of Reading Recovery is defined as a minimum of 30 minutes. Students must be served a minimum of 45 days. Students served by Reading Recovery may be counted for one segment of EIP instruction for the entire year.

Figure 17: Early Intervention Program (EIP) Delivery Models with Participation Guidelines

Delivery Models for Teachers of Early Intervention Program (EIP) Students	TAPS	Survey	SLO/SGP (if SLO developed for course)
Augmented	Y	Y	Y
Self-Contained	Y	Y	Y
Pull-out	Y	Y	Y
Reduced Class	Y	Y	Y
Reading Recovery Program	Y	Y	Y

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

English Language Learners (ELL) Delivery Models

Pull Out Model: Students are taken out of a non-academic class for the purpose of receiving small group instruction.

Push in Model: Students remain in their general education class where they receive content instruction from their content area teacher along with language assistance from the ESOL teacher.

Scheduled Class Model: Students at the middle and high school levels receive language assistance and/or content instruction in a class composed of ELLs only.

Cluster Center Model: Students from two or more schools are grouped in a center designed to provide intensive language assistance.

Resource Center/Laboratory Model: Students receive language assistance in a group setting supplemented by multimedia materials.

Monitored Model: Students who score at the proficient level on both the state-adopted English proficiency measure and on the state reading assessment shall be considered English proficient. These students shall not be eligible for continued language assistance services and shall be exited from language assistance services and mainstreamed. For two years after exit from language assistance services, these students shall be considered ELL Monitored, and coded ELL-M in Student Records. Monitoring during these two years shall consist of review of report card grades, state assessment results, classroom performance and teacher observations for the purpose of ensuring the successful transition to the mainstream classroom.

Other Alternative Models Approved by GaDOE: Alternative models that are approved in advance by the GaDOE through a process described in state guidance. Two examples are the following:

Immersion Model: Instruction takes place in an environment in which only one language is used; however, there are attempts made to adjust the learning experience for the student.

Dual Language Model: Two-way immersion (TWI) is an instructional approach that integrates native English speakers and native speakers of another language (usually Spanish) and provides instruction to both groups of students in both languages.

Figure 18: English Language Learners (ELL) Delivery Models with Participation Guidelines

Delivery Models for Teachers of English Language Learner Students	TAPS	Survey	SLO/SGP (if SLO developed for course)
Pull-Out	Y	Y	Y
Push-In	Y	Y	Y
Monitored	N	N	N
Scheduled Class	Y	Y	Y
Cluster Center	Y	Y	Y
Resource Center Laboratory Model	Y	Y	Y
Alternative Models Approved by GaDOE/ Immersion	TBD	TBD	TBD
Alternative Models Approved by GaDOE/ Dual Language	TBD	TBD	TBD

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

Gifted Program Delivery Models

Advanced Content Class: (6-12) Students are homogeneously grouped on the basis of achievement and interest in a specific academic content area. The district may elect to include students who are not identified as gifted but who have demonstrated exceptional ability and motivation in a particular content area. In that case the local district must establish criteria and guidelines that identify students who will be successful with the advanced curriculum to be offered in these classes. These classes include Advanced Placement (AP) courses, International Baccalaureate (IB) courses, and Honors courses.

Cluster Grouping: (K-12) Identified gifted students are placed as a group into an otherwise heterogeneous classroom, rather than being dispersed among all of the rooms/courses at that grade level. To count any gifted student at the gifted weight when this delivery model is used, the regular classroom teacher must have the gifted endorsement. One or two segments per day provided in this setting may be counted at the gifted weight if the teacher documents the curriculum modifications he/she has made for the gifted students by way of separate lesson plans and individual student contracts.

Collaborative Teaching: (K-12) Direct instruction may be provided by a regular classroom teacher, but there must be substantial, regularly scheduled collaborative planning between the content area teacher and the gifted specialist (the teacher with the gifted endorsement who is serving as the instructional facilitator). There are specific requirements for release time for the gifted instructional facilitator to plan with the regular classroom teacher.

Joint Enrollment/Postsecondary Options: (9-12) High school students may be enrolled in college, university, or technical school courses. Students enrolled in such courses receive both high school and college credits, and the instruction may serve as the gifted instruction local districts are required to provide for qualified students.

Mentorship/Internship: (9-12) A gifted student works with a mentor to explore a profession of interest. The gifted education specialist maintains close contact with both the participating student(s) and the selected mentor(s) to ensure acceptable progress toward the student's individual learning goals. One or two instructional segments per day may be counted at the gifted weight for students participating in a gifted mentorship/internship with the appropriate documentation.

Resource Class: (K-12) All students must have been identified as gifted by GA SBOE criteria. The class size is limited to the maximum size specified in SBOE rules. The teacher must have gifted endorsement. The curriculum must have an academic content foundation but it should focus on interdisciplinary enrichment activities. The content and pacing should be differentiated to the degree that the activities are clearly not appropriate for more typical students at that grade level. Gifted students may receive no more than ten segments per week of resource class service.

Figure 19: Gifted Delivery Models with Participation Guidelines

Delivery Models for Teachers of Gifted Program Students	TAPS	Survey	SLO/SGP (if SLO developed for course)
Resource Class	Y	Y	Y
Advanced Content Class	Y	Y	Y
Cluster Grouping	Y	Y	Y
Collaborative Teaching	N	N	N
Mentorship/Internship	N	N	N
Joint Enrollment/Post- Secondary Options	N	N	N
Other Models Approved by GaDOE	TBD	TBD	TBD

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

Remedial Education Program (REP) Delivery Models

Augmented Class: An additional state certified teacher, referred to as a REP augmented teacher, will work in the same classroom with the regular classroom teacher and provide instruction for 50-60 minutes per segment a day to no more than 15 REP students. Student instruction under this model cannot exceed two instructional segments per day per student. Core credit may be earned at the high school level for this model if the course content follows the 9-12 state adopted curriculum.

Parallel Block Scheduling: In this model, students are provided daily instruction in two-hour (minimum) blocks. These blocks of instruction include the following components:

- Students will be heterogeneously grouped.
- Students are in small groups (15 or fewer) in the extension room or homeroom during one hour of the two-hour block.
- Students receive direct instruction from the state-certified teacher on their instructional level for a minimum of 50-60 minutes in reading/writing or mathematics.

Reduced Class Size: Students receive English or mathematics instruction from a state-certified teacher designated as an REP teacher. High school students participating in Remedial Education Program classes may earn core credit in English or mathematics if a) the class size is reduced to 18 without a paraprofessional and 24 with a paraprofessional, and b) the course content follows the 9-12 state adopted curriculum.

Other School-Design Models: Schools may submit to the GaDOE a school designed model that must include the following components:

- An appropriate and effective program in remediating student deficiencies.
- Remedial services through a state-certified teacher. A paraprofessional may be added to reduce the class size and serve as an assistant to the teacher.
- The use of REP funds shall provide supplemental instruction above and beyond those services provided by the state.
- Compliance with the remedial maximum class size.

Figure 20: Remedial Education Program (REP) Delivery Models with Participation Guidelines

Delivery Models for Teachers of Remedial Education Program (REP) Students	TAPS	Survey	SLO/SGP (if SLO developed for course)
Augmented	Y	Y	Y
Parallel Block Scheduling	Y	Y	Y
Other School Designed Models	TBD	TBD	TBD
Reduced Class	Y	Y	Y

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

Special Education Program Delivery Models

General Education: Students with disabilities are served in the general education class with no personnel support.

Consultation: Students with disabilities receive at least one segment per month of direct service from the special education teacher.

Resource: Individual needs are supported in resource room as defined by the student's IEP. The child receiving this type of support will receive some time in the resource room and some time in the regular classroom with modifications and/ or accommodations.

Supportive Instruction: Students with disabilities receive services from personnel other than a certified teacher in the general education classroom (i.e., a paraprofessional, interpreter, or job coach).

Collaboration: A special education teacher works with identified students with disabilities and the general education teacher within the general education classroom (less than full segment daily).

Collaborative Co-Teaching: The special education teacher provides service in the general education classroom by sharing teaching responsibility with the general education teacher (full segment every day).

Alternative Placement: The special education teacher provides instruction to students with disabilities in a separate classroom, special schools, home environment, hospitals, or institutions.

Self-Contained: A self-contained learning environment provides academic support in a controlled setting. Located within a regular education school, the self-contained setting is a full day or mostly full day program. The self-contained classroom is usually comprised of children in the same categorical grouping who require highly individualized, closely supervised specialized instruction.

Departmentalized Model: When a student is served through the departmentalized model, the student must receive at least one segment per month from a teacher certified in a student's primary area of disability. The student receives special education or related services from a certified teacher, but not one who is certified in the student's area of disability. For example, a student who is deaf/hard of hearing may receive specialized instruction in mathematics, but from a teacher highly qualified in mathematics and not certified in deaf/hard of hearing.

Hospital/homebound Services: Hospital/homebound instruction may be used for students who have a medically diagnosed condition that will significantly interfere with their education and that requires them to be restricted to home or a hospital for a period of time. Specific documentation requirements are in place. The length of time for which these services may be provided varies with the individual student and his/her circumstances.

Home-based Services: This may be used as a short term placement option on occasions when the parent and district agree and FAPE is provided. During the time the student is being served in the home-based setting, access to the general education curriculum, as well as IEP services, should be provided.

Multiple Setting Services: Based upon a student's needs and the extent to which those needs affect educational performance, the IEP Team may recommend that related services be provided. Multiple setting services which are developmental and corrective based on student needs may be required to support students with disabilities. They are intended to assist students in meeting their instructional education plan goals, to be served in the Least Restrictive Environment, and to experience success in the classroom setting.

Residential Setting: The student lives on campus of a residential facility and school. Programs are highly structured and services are provided 24 hours a day, 7 days a week. Residential setting services are designed to ensure continuity of instruction for students who cannot attend public schools for reasons of health and/or safety.

The student with disabilities may be placed in any of the following models/programs if the IEP committee determines one is required in order to meet that student's needs.

Figure 21: Special Education Delivery Models with Participation Guidelines

Delivery Models for Teachers of Special Education Students	TAPS	Survey	SLO/SGP (if SLO developed for course)
Collaborative Co- Teaching	Y	Y	Y
Supportive Instruction	N	N	N
Resource	Y	Y	Y
Self-Contained	Y	Y	Y
Hospital Home-Bound	N	N	N
Home-Based Services	N	N	N IEP Committee Decision
Collaboration	Y	Y	Y
Consultation	N	N	N
Multiple Services	N	N	N
Residential Setting Programs	TBD	TBD	TBD

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

The Teacher Effectiveness Measure for special education teachers serving students in both tested and non-tested subjects in the resource setting, as determined by the students' IEPs, will be calculated based on the aggregate score of all resource students served by the special education teacher.

The following information is designed to assist evaluators in making decisions about the participation of teachers in the TKES, TAPS, Surveys, and Student Learning Objectives/Student Growth Percentile, based on their teaching position in a specialized school/district with unique components. Figures 22-25, which follow, indicate the teacher's participation in the components of the TKES in the specialized school/district.

Charter Schools: Georgia's charter schools are public schools. They receive public funding, cannot charge tuition and must provide fair and open enrollment for all student populations. Autonomy and flexibility distinguish charter schools from traditional public schools. Currently, there are 88 start-up charter schools and 31 conversion charter schools in Georgia. Additionally, 14 charter school systems which include 107 schools operate under the terms of a charter or contract. A charter system is a local district that operates under the terms of a charter between the State Board of Education and the local school district. The system receives flexibility from certain state rules and regulations in exchange for greater accountability. Pursuant to the Charter Schools Act, charter schools, as public schools, are subject to the Georgia statewide accountability assessments. Charter schools and systems are subject to all provisions outlined in O.C.G.A. 20-2-2065(b) and may not waive state laws or State Board of Education rules pertaining to accountability provisions.

Figure 22: Charter Schools with Participation Guidelines

Charter Programs	TAPS	Survey	SLO/SGP (if SLO developed for course)
Charter Systems	Y	Y	Y
Charter Schools	Y	Y	Y

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

International Baccalaureate Schools: The International Baccalaureate® (IB) program strives to develop inquiring, knowledgeable and caring young people who exhibit intercultural understanding and respect.

The IB program focuses on the following areas:

- Development of curriculum.
- Assessment of students.
- Training and professional development of teachers.
- Authorization and evaluation of schools.

In the state of Georgia, IB schools align teaching and learning to the Common Core Georgia Performance Standards (CCGPS). Teachers and staff members are evaluated using the state or system-developed evaluation instrument.

Figure 23: International Baccalaureate Schools with Participation Guidelines

International Baccalaureate Schools	TAPS	Survey	SLO/SGP (if SLO developed for course)
IB Teachers of Record	Y	Y	Y

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

Virtual Schools: A variety of online learning programs are afforded students in the state of Georgia. These programs include, but are not limited to: virtual online schools and blended learning programs in local districts which occur in a variety of venues and models. Blended learning occurs at the district and school level, where both online and face-to-face classes are offered. At the classroom level, blended learning can occur when online courses are supported with in-class instruction or instructional support.

Another program offered across the state is the Georgia Virtual School (GVS). GVS is a SACS CASI accredited program of the Georgia Department of Education's Office of Technology Services which offers middle school and high school level courses. Georgia Virtual School provides a teacher led, virtual classroom environment. Most GVS staff members serve in an adjunct capacity. GVS teachers are currently evaluated using the iNACOL standards rubric.

School districts should consider the iNACOL standards rubric when evaluating on-line teachers, as well as the TKES. When considering the evaluation of on-line learning teachers, all full-time employees will be evaluated using the TKES components as reflected in the chart below. Part-time on-line learning teachers will be evaluated according to the school district's guidelines for evaluation of part-time employees.

Figure 24: Virtual Schools with Participation Guidelines

Virtual Schools	TAPS	Survey	SLO/SGP (if SLO developed for course)
Georgia Virtual Schools	Y	Y	Y
System-level online learning	Y	Y	Y

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

Investing in Educational Excellence (IE2): IE2 Partnership Contracts provide local school districts with greater governance flexibility as a means of increasing student achievement. As outlined by House Bill 1209 (2008), Local Boards of Education (LBOE) can enter into multi-year contracts with the State Board of Education (SBOE) based on strategic plans developed in partnership with Georgia Department of Education (GaDOE) and Governor's Office of Student Achievement (GOSA). Such plans must identify specific school-level student achievement goals that are in addition to current federal accountability requirements.

Progress towards meeting those goals will be monitored by GOSA on an annual basis and reported to the State Board of Education (SBOE). The role of GaDOE and GOSA with respect to the development of these contracts is to ensure that the school-level student achievement goals are sufficiently rigorous to warrant granting the flexibility requested by the local school district. Strategic plans shall:

- 1. Demonstrate a proportional relationship between the amount of flexibility being granted and the rigor of the proposed performance goals.
- 2. Be based on clear, straightforward, independently verifiable state-level data that is meaningful and understandable to all stakeholders.
- 3. Identify performance goals for the local district that are aligned with the state's student achievement priorities.

IE2 school systems are subject to all provisions outlined in O.C.G.A. 20-2-84.3 and may not waive state laws or State Board of Education rules pertaining to accountability provisions.

Figure 25: IE2 Systems with Participation Guidelines

Partnership Contracts	TAPS	Survey	SLO/SGP (if SLO developed for course)
IE2 Systems	Y	Y	Y

Key: Y indicates participation in TKES Component; N indicates non-participation in TKES Component

If there is a questionable TKES Business Rule for the school or program, a TKES Procedures Alternative Proposal Flowchart is provided in Appendix D.

VIII. Teacher Effectiveness Measure (TEM) Annual Reports

As teachers engage in the challenging work of enabling and empowering students to learn, the use of multiple measures for teacher performance, and guidelines for ensuring these measures are of high quality, will provide a more accurate picture of the teacher's professional practice and impact on student growth. Districts, administrators and teachers will receive the TEM score reports when

the TKES TEM data is finalized. Within the GaDOE TLE Electronic Platform, data reports regarding performance on the components of the TKES will be available and updated in an ongoing manner throughout the school year.

The use of performance standards to rate teacher performance allows for more precision about professional expectations, identifies teachers in need of improvement, and recognizes performance that is of exemplary quality. In the TKES all teachers will receive a TEM score based on the three components of the TKES. If a teacher does not receive a score on all components of the TKES, the remaining components will be evaluated accordingly.

There are many reasons for including student academic progress and achievement information as part of the teacher evaluation process. Despite evidence that the most important school related factor in a student's education is the quality of his or her teacher, teacher evaluation models frequently ignore the results of student learning. Using student academic progress to inform teacher evaluation makes sense because the most direct measure of teacher quality appears to be student achievement.

Based on this compelling information, the following rules and requirements have been established for the TEM score calculation.

- 1. Teachers of tested courses will be measured by the Georgia Criterion-Referenced Competency Tests (CRCT) in grades 4-8 reading, English/language arts, math, science and social studies and End of Course Tests, (EOCTs) in Biology, Physical Science, 9th-Grade Literature/Composition, American Literature/Composition, US History, Economics/Business/Free Enterprise, Mathematics I, Mathematic II, GPS Algebra, and GPS Geometry. Teachers of non-tested courses will be measured through student attainment of growth expectations outlined by the GaDOE/District-determined SLO for that course. Teachers will receive a TEM score based on documentation and data from the three components of the TKES as indicated by Figures 26 and 27 on pages 47 of this document. The TEM score will be reported as a rating of *Exemplary, Proficient, Needs Development, or Ineffective*.
- 2. Teachers of multiple non-tested subjects will be measured using the 53 GaDOE/District-determined SLOs for the 2013-2014 school year. If school districts choose to implement additional SLOs, the results of additional district chosen SLOs will not be factored into the TEM's score calculation. Teachers will receive a TEM score based on documentation and data from the three components of the TKES as indicated by Figures 26 and 27 on pages 47 of this document. The TEM score will be reported as a rating of *Exemplary*, *Proficient*, *Needs Development*, *or Ineffective*.

3. Teachers of both tested and non-tested subjects will be measured using the results of the SGP and GaDOE/District-determined SLOs. GaDOE will continue to work on decision tables for teachers who have student growth measures from both SLOs and SGP so that an appropriate balance is determined between the growth measures, taking into account the number of courses taught with SLOs and the number of courses for which the teacher has SGP measures. GaDOE staff is currently engaged in analyzing possible scenarios and developing detailed processes with technical assistance from external experts. The TEM score will be reported as a rating of *Exemplary, Proficient, Needs Development, or Ineffective*.

Teachers who receive a Teacher Effectiveness Measure (TEM) of *Needs Development* or of *Ineffective* must be placed on a formal Professional Development Plan (PDP) that includes specific guidelines and timelines for improvement in the area(s) rated below *Proficient*.

In Figures 26 and 27, matrices for calculating the TKES overall TEM score are presented.

Figure 26: Teacher Effectiveness (TEM) Matrix for SLO Courses

	STUDENT GROWTH MEASURES – SLOs				
		Exemplary	Proficient	Needs Development	Ineffective
	Exemplary	Exemplary	Exemplary	Proficient	Needs More Information Before Rating
TAPS	Proficient	Exemplary	Proficient	Needs Development OR Proficient	Needs Development
	Needs Development	Proficient	Needs Development OR Proficient	Needs Development	Ineffective
	Ineffective	Needs More Information Before Rating	Needs Development	Ineffective	Ineffective

Figure 27: Teacher Effective Measure (TEM) Matrix for SGP Courses

STUDENT GROWTH MEASURES – SGPs				
		High Growth	Typical Growth	Low Growth
	Exemplary	Exemplary	Proficient	Need More Information Before Rating
TAPS	Proficient	Exemplary	Proficient	Need More Information Before Rating
	Needs Development	Need More Information Before Rating	Needs Development	Ineffective
	Ineffective	Need More Information Before Rating	Need More Information Before Rating	Ineffective

GaDOE will continue to analyze the 2012 pilot data using the draft matrices and make revisions, adjustments, or additions to them as necessary throughout the 2012-2013 implementation year.

GaDOE will continue to work on decision tables for teachers who have student growth measures from both Student Learning Objectives and Student Growth Percentiles so that an appropriate balance is determined between the growth measures, taking into account the number of courses taught with SLOs and the number of courses for which the teacher has SGPs. GaDOE staff is currently engaged in analyzing possible scenarios and developing detailed processes.

Where more information is required for a decision, evaluators will review all information regarding a teacher's performance within the context of the classroom, taking into account prior performance by both the teacher and the group of students and any unusual circumstances that should be considered. In determining the appropriate TEM rating, the evaluator will determine if either measure should be considered an aberration given the extenuating circumstances or if the measure reflects a consistent performance trend.

Teachers who receive a Teacher Effective Measure (TEM) of Needs Development or of Ineffective must be placed on a formal Professional Development Plan that includes specific guidelines and timelines for improvement in the area(s) rated below Proficient.

Closing

In Georgia, as a Race to the Top state, the development of a comprehensive evaluation system with clear approaches to measuring student growth is a priority. Designing and implementing a rigorous, transparent teacher evaluation system is the cornerstone for increasing student achievement. Conducting annual evaluations in a continuous improvement format will allow school leaders to give constructive feedback to teachers in order to inform their ongoing professional development and growth. By doing so, the evaluation process will support the ultimate goal of increased student achievement.

To accomplish this result, Georgia has established procedures to accompany the TKES. A high level of communication will be an ongoing aspect of the TKES procedures as noted by Appendices E and F. Crosswalks have been created for educational initiatives which have influenced the development of Teacher Keys Effectiveness System (TKES) while Appendix F provides an overview of the trainings, data collection, and TEM process. By monitoring, analyzing and identifying areas of strength and areas for growth, teacher performance and effectiveness will be continually enhanced and refined through the ongoing teacher evaluation cycle.

Appendix A

Teacher Keys Effectiveness System Timeline

Pilot Year (2012)	Full Implementation Year
December 1: SLOs submitted to GaDOE for	August 1: SLOs submitted to GaDOE for
Review	Review
December 15: SLOs returned to districts by	September 1: SLOs returned to Districts by
GaDOE	GaDOE
January: Teacher Orientation for TKES	20 th day following pre-assessment Teacher
January. Teacher Orientation for TRES	SLO Forms due to Evaluators
January: Optional Teacher Self-Assessment (TAPS)	August: Teacher Orientation for TKES
January 15: Teacher SLO Forms due to	August 31: Teacher Self-Assessment (TAPS)
Evaluators	Completed
January-April: Teacher Familiarization	
Activities with Ten TKES Performance	August-September: Pre-Evaluation Conference
Standards	August April: Topobor Femiliarization
February-April: Formative TAPS	August-April: Teacher Familiarization Activities with Ten TKES Performance
Observations and Documentation Collection	Standards
February 20-March 30: Student Surveys of	September-April: Formative TAPS
Instructional Practice Administered	observations and documentation collection
April 15: SLO Post-Assessments Completed	October – December 15: Survey Window for Courses taught only in First Semester
May 1: SLO Class Data and Performance	October – April 30: Survey Window for
Report due from Teacher to Evaluator	Courses taught All Year
Date specified by Georgia Code: TAPS	December-January: Mid-Year Evaluation
Summative Evaluation Due	Conference
May-August: GaDOE calculates TEM using	January 2 – April 31: Survey Window for
all Components of TKES	Courses taught only in Second Semester
	May: Summative Evaluation Conference
	May 1: SLO Post-Assessments Completed
	May 1: Date specified in Georgia Code for TAPS Summative Evaluation due Completed
	May 15: SLO Class Data and Performance
	Report due to GaDOE in electronic platform
	May-August: GaDOE calculates TEM using
	all Components of TKES

Appendix B

ACRONYMS

GaDOE: Georgia Department of Education

IEP: Individual Education Plan

JAD: Joint Application Development

LAPS: Leader Assessment on Performance Standards

LDS: Longitudinal Data System

LKES: Leader Keys Evaluation System

PDP: Professional Development Plan

SGP: Student Growth Percentile

SLO: Student Learning Objective

TAPS: Teacher Assessment on Performance Standards

TEM: Teacher Effectiveness Measure

TLE: Teacher and Leader Effectiveness

TKES: Teacher Keys Effectiveness System

DEFINITIONS

Approved Innovative Models: If a school district desires to implement a gifted program delivery model other than one of the models described above, the district must submit a description of that plan to the GaDOE's gifted education specialist for review and approval.

Blended Learning Centers: Blended learning environments provide opportunities for students and teachers to access to real time collaboration, instructional tools, and learning resources anytime, whether in school or at home.

Contributing Professional: The contributing professional is an individual who has been assigned the responsibility to provide additional student services that support and increase a student's learning. These individuals include those in the following positions.

- Behavior Interventionists
- Behavior Specialists
- Graduation Coaches
- Guidance Counselors
- In-school Suspension Teachers
- Instructional Coaches/Instructional Lead Teachers/Academic Coaches who do **not** have responsibility for direct instruction

- Instructional Technology Specialists
- Interpreters (sign language and other language)
- Media Specialists
- Mobility Training Specialists
- Occupational Therapists
- Paraprofessionals, even if they also have a valid teaching certificate
- Physical Therapists
- Psychologists
- School Social Workers
- Special Education Coordinators/Case Managers who do **not** provide direct instruction
- Speech Language Pathologists
- Teachers on Special Assignment who do **not** have responsibility for direct instruction
- Translators

Early Intervention Program (EIP) Delivery Models

- **Augmented**: The augmented model incorporates EIP services into the regular group class size by providing an additional early childhood certified teacher to reduce the teacher/pupil ration while providing EIP services.
- **Pull-Out**: In the pull-out model, EIP students are removed from the classroom for instruction by an additional certified teacher. This model may serve a maximum of 14 students at a time. The teacher may, and usually does, serve multiple groups of 14 or fewer students throughout the school day.
- Reading Recovery Program: In the Reading Recovery Program students are removed from the classroom for one segment of reading. One segment of Reading Recovery is defined as a minimum of 30 minutes. Students must be served a minimum of 45 days.
 Students served by Reading Recovery may be counted for one segment of EIP instruction for the entire year.
- **Reduced Class Model**: The reduced class model allows for the combination of EIP students with regular education students in smaller classes. The reduced class model uses a sliding scale in which the class size reduces as the number of EIP students increases.
- **Self-Contained**: The self-contained model is used to reduce the class size in order to provide more emphasis on instruction and increased academic achievement. The teacher has a limited number of students, all of whom qualify for EIP services. This may be a multigrade class.

English Language Learners (ELL) Delivery Models

Cluster Center Model: Students from two or more schools are grouped in a center designed to provide intensive language assistance.

Dual Language Model: Two-way immersion (TWI) is an instructional approach that integrates native English speakers and native speakers of another language (usually Spanish) and provides instruction to both groups of students in both languages.

Immersion Model: Instruction takes place in an environment in which only one language is used; however, there are attempts made to adjust the learning experience for the student.

Language Assistance Curricula: Plans of instruction are adapted to the English language proficiency of students and are designed to develop: 1) listening, speaking, reading, writing and American cultural concepts, and 2) the language of academic instruction used in language arts, mathematics, science, and social studies.

Monitored Model: Students who score at the proficient level on both the state-adopted English proficiency measure and on the state reading assessment shall be considered English proficient. These students shall not be eligible for continued language assistance services and shall be exited from language assistance services and mainstreamed. For two years after exit from language assistance services, these students shall be considered ELL Monitored, and coded ELL-M in Student Records. Monitoring during these two years shall consist of review of report card grades, state assessment results, classroom performance and teacher observations for the purpose of ensuring the successful transition to the mainstream classroom.

Other Alternative Models Approved by GaDOE: An alternative model that is approved in advance by the GaDOE through a process described in state guidance.

Pull Out Model: Students are taken out of a non-academic class for the purpose of receiving small group instruction.

Push in Model: Students remain in their general education class where they receive content instruction from their content area teacher along with language assistance from the ESOL teacher.

Resource Center/Laboratory Model: Students receive language assistance in a group setting supplemented by multimedia materials.

Scheduled Class Model: Students at the middle and high school levels receive language assistance and/or content instruction in a class composed of only ELLs.

Gifted Program Service Delivery Models

Resource Class: (K-12) All students must have been identified as gifted by GA SBOE criteria. The class size is limited to the maximum size specified in SBOE rules. The teacher must have gifted endorsement. The curriculum must have an academic content foundation, but it should focus on interdisciplinary enrichment activities. The content and pacing should be differentiated to the degree that the activities are clearly not appropriate for more typical students at that grade level. Gifted students may receive no more than ten segments per week of resource class service.

Advanced Content Class: (6-12) Students are homogeneously grouped on the basis of achievement and interest in a specific academic content area. The district may elect to include students who are not identified as gifted but who have demonstrated exceptional ability and motivation in a particular content area. In that case, the local district must establish criteria and guidelines that identify students who will be successful with the advanced curriculum to be offered in these classes. These classes include: Advanced Placement (AP) courses, International Baccalaureate (IB) courses, and Honors courses.

Cluster Grouping: (K-12) Identified gifted students are placed as a group into an otherwise heterogeneous classroom, rather than being dispersed among all of the rooms/courses at that grade level. To count any gifted student at the gifted weight when this delivery model is used, the regular classroom teacher must have the gifted endorsement. One or two segments per day provided in this setting may be counted at the gifted weight if the teacher documents the curriculum modifications he/she has made for the gifted students by way of separate lesson plans and individual student contracts.

Collaborative Teaching: (K-12) Direct instruction may be provided by a regular classroom teacher, but there must be substantial, regularly scheduled collaborative planning between the content area teacher and the gifted specialist (the teacher with the gifted endorsement who is serving as the instructional facilitator). There are specific requirements for release time for the gifted instructional facilitator to plan with the regular classroom teacher.

Mentorship/Internship: (9-12) A gifted student works with a mentor to explore a profession of interest. The gifted education specialist maintains close contact with both the participating student(s) and the selected mentor(s) to ensure acceptable progress toward the student's individual learning goals. One or two instructional segments per day may be counted at the gifted weight for students participating in a gifted mentorship/internship with the appropriate documentation.

Joint Enrollment/Postsecondary Options: (9-12) High school students may be enrolled in college, university, or technical school courses. Students enrolled in such courses receive both high school and college credits, and the instruction may serve as the gifted instruction local districts are required to provide for qualified students.

Performance Learning Centers: A Performance Learning Center (PLC) is a non-traditional high school geared toward students who are not succeeding in the traditional school setting. It creates a business-like environment and emphasizes personal support and an intense academic program anchored by an online instructional system and project-based learning.

Performance Learning Centers work to focus students not just on graduation, but life and education beyond high school. Preparation for college and a career are the standards of success for PLCs. PLC students are encouraged to start actively planning their future and take the steps necessary to make their plans a reality. The PLC's business-like environment challenges students to complete assignments at their own pace, using an online computer-based curriculum. Students who have fallen behind in their credits will be able to move ahead in their classes more quickly, as well as have opportunities for dual enrollment in college courses.

Professional Development Plan: A Professional Development Plan (PDP) is a plan mandated by the evaluator and approved by the principal. It may be developed by the evaluator or by the evaluator in collaboration with the teacher, coaches, mentors, or other qualified individuals. The PDP provides guidelines and timelines for specific, mandatory professional learning that supports immediate improvement of teacher practice and increased teacher effectiveness. The evaluator, with the approval of the principal, may choose to place a teacher on a Professional Development Plan at any time during the school year if there are major issues with any performance standard including, but not limited to, professionalism, the Georgia Code of Ethics, *Needs Development* or *Ineffective* ratings on the formative and/or summative assessments, or the Teacher Effectiveness Measure (TEM). Principals and other evaluators may also provide suggestions and guidance to teachers at any time during the school year without the development of a PDP.

Remedial Education Program (REP) Delivery Models

Reduced Class Size (High School): Students receive English or mathematics instruction from a state-certified teacher designated as an REP teacher. High school students participating in Remedial Education Program classes may earn core credit in English or mathematics if a) the class size is reduced to 1 without a paraprofessional and 24 with a paraprofessional, and b) the course content follows the 9-12 state adopted curricula.

Augmented Class Model: An additional state certified teacher, referred to as a REP augmented teacher, will work in the same classroom with the regular classroom teacher and provide instruction for 50-60 minutes per segment a day to no more than 15 REP students. Student instruction under this model cannot exceed two instructional segments per day per student. Core credit may be earned at the high school level for this model if the course content follows the 9-12 state adopted curricula.

Parallel Block Scheduling: In this model, students are provided daily instruction in two-hour (minimum) blocks. These blocks of instruction include the following components:

- Students will be heterogeneously grouped.
- Students are in small groups (15 or fewer) in the extension room or homeroom during one hour of the two-hour block.
- Students receive direct instruction from the state-certified teacher on their instructional level for a minimum of 50-60 minutes in reading/writing or mathematics.

Other School-Design Models: Schools may submit to the GaDOE a school designed model that must include the following components:

- An appropriate and effective program in remediating student deficiencies.
- Remedial services through a state-certified teacher. A paraprofessional may be added to reduce the class size and serve as an assistant to the teacher.
- The use of REP funds shall provide supplemental instruction above and beyond those services provided by the state.
- Compliance with the remedial maximum class size.

REP Evaluation: Reporting of student achievement will include, at a minimum, the following:

- For students in grades 6-8, a report of the number and percentage of REP students who passed the grade-level appropriate CRCT in reading, writing, or mathematics.
- For students in grades 9 and 10, a report of the number and percentage of REP students who passed a system-made test in reading, writing, or mathematics where test items came from the GaDOE On-Line Assessment System at grade 8 and above in the appropriate subject area(s) or any grade appropriate End-of-Course-Test. Districts may also choose to use standard district level assessments of achievement.
- For students in grades 11-12, a report of the percentage of REP students passing the GHSGT in the content area(s) in which they are served, in addition to any grade appropriate EOCT.

Special Education Delivery Models

General Education: Students with disabilities are served in the general education class with no personnel support.

Consultation: Students with disabilities receive at least one segment per month of direct service from the special education teacher.

Supportive Instruction: Students with disabilities receive service from personnel other than a certified teacher in the general education classroom (*i.e.*, a paraprofessional, interpreter, or job coach).

Collaboration: A special education teacher works with identified students with disabilities and the general education teacher within the general education classroom (less than full segment daily).

Co-Teaching: The special education teacher provides service in the general education classroom by sharing teaching responsibility with the general education teacher (full segment every day).

Alternative Placement: The special education teacher provides instruction to students with disabilities in a separate classroom, special schools, home environment, hospitals, or institutions.

Departmentalized Model: When a student is served through the departmentalized model, the student must receive at least one segment per month from a teacher certified in a student's primary area of disability. The student receives special education or related services from a certified teacher, but not one who is certified in the student's area of disability. For example, a student who is deaf/hard of hearing may receive specialized instruction in mathematics, but from a teacher highly qualified in mathematics and not certified in deaf/hard of hearing.

Hospital/Homebound Services: Hospital/homebound instruction may be used for students who have a medically diagnosed condition that will significantly interfere with their education and that requires them to be restricted to home or a hospital for a period of time. Specific documentation requirements are in place. The length of time for which these services may be provided varies with the individual student and his/her circumstances.

Home-based Services: This may be used as a short term placement option on occasions when the parent and district agree and FAPE is provided. During the time the student is being served in the home-based setting, access to the general education curriculum, as well as IEP services, should be provided.

Multiple Setting Services: Based upon a student's needs and the extent to which those needs affect educational performance, the IEP Team may recommend that related services be provided. Multiple setting services which are developmental and corrective based on student needs may be required to support students with disabilities. They are intended to assist students in meeting their instructional education plan goals, to be served in the Least Restrictive Environment, and to experience success in the classroom setting.

Residential Setting: The student lives on campus of a residential facility and school. Programs are highly structured and services are provided 24 hours a day, 7 days a week. Residential setting services are designed to ensure continuity of instruction for students who cannot attend public schools for reasons of health and/or safety.

Teacher Effectiveness: Effective teachers possess the knowledge, skills, and dedication that ensure optimal learning opportunities and growth for all students. They strive to close achievement gaps and prepare diverse student populations for post-secondary success. Effective teachers build relationships with students, parents, colleagues and staff. They facilitate mastery of content and skill development utilizing highly effective learning strategies. Effective teachers create differentiated, engaging learning environments. They communicate high expectations to students. Collaboration is routine practice with colleagues, as well as self-reflection, modeling continuous learning and leadership within the school setting and beyond.

Teacher of Record: The teacher of record is an individual (or individuals in the case of coteaching assignments) who have been assigned responsibility for a student's learning in a subject/course. Students can have more than one teacher of record in a specific subject/course. The teacher of record is not necessarily the teacher who assigns the course grade. Teachers of record **will include** the following teachers.

- K-12 academic content teachers (including world language teachers)
- K-12 art, music, physical education teachers
- PreK teachers
- Early Intervention Program (EIP) teachers
- Remedial Education Program (REP) teachers
- Gifted program teachers
- Special education teachers
- Co-teachers
- CTAE teachers
- ESOL teachers
- Teachers in Performance Learning Centers
- Teachers in blended learning programs
- Instructional Coaches/Instructional Lead Teachers/Academic Coaches who <u>do</u> have responsibility for direct instruction

Addendum I: Documentation of Conference for the Record

The document records the oral counsel that occurs between an evaluator and evaluatee. Counsel is provided as a result of TKES Performance Standards conference needs for the evaluatee as documented in a conference for the record. This document will be available within the GaDOE TLE Electronic Platform.

Teacher:	Grade/Subject
Persons in Attendance:	
(Name)	(Title)
(Name)	(Title)
Conference Purpose:	
Statement of TKES Standard(s) Need:	
Supporting Documentation (if applicable)	:
Action/Solution/Resolution Plan:	
Date for Review (if applicable):	
This Documentation of Oral Counseling will basis for future action.	l be maintained by the evaluator and may be used as the
Signed:Evaluatee	
Signed:Evaluator	Date
(Signature acknowledges receipt of form and	presence at meeting, not necessarily concurrence.)
Attachments (if applicable)Yes	No

Addendum II - Human Resources Department and Evaluator Documents

The following addenda are forms that may be used through the GaDOE TLE Electronic Platform by Human Resources Departments and local school evaluators when working with teacher growth and improvement:

Addendum I: Documentation of Conference for the Record

The document may be used to document the oral counsel that occurs between an evaluatee and evaluator. This counsel is provided as a result of concerns or unacceptable conduct/performance of the evaluatee.

Addendum II: Human Resources Department and Evaluator Documents

Professional Development Plan (PDP)

The purpose of a PDP is to focus on increasing the teacher's ability to improve student achievement in a specified area or areas. An effective PDP is designed with school district goals, performance standards, student growth targets, timelines and professional learning related to the components of the Georgia Teacher Keys Effectiveness System (TKES). The evaluator, with the principal's approval, will make the decision as to the most appropriate plan.

Professional Development Plan (PDP)

A Professional Development Plan (PDP) is a plan mandated by the evaluator. It shall be developed by the evaluator, with the approval of the principal, in collaboration with the teacher, coaches, mentors, or other qualified individuals. The PDP provides guidelines and timelines for specific, mandatory professional learning which supports immediate improvement of teacher practice and increased teacher effectiveness, or any other enhancement opportunity to include clear expectations about changes needed in performance to be demonstrated in the classroom and school. The PDP is an intensive effort toward improvement of teacher practice and effectiveness. A PDP may also be used when a teacher does not meet the professional duties, responsibilities and ethical expectations required by the teacher. The following guidelines will be used in determining the use of a PDP in two components of the TKES.

The evaluator, with the approval of the principal, may choose to place a teacher on a Professional Development Plan at any time during the school year if there are major issues with any performance standard including but not limited to professionalism, the Georgia Code of Ethics, *Needs Development* or *Ineffective* ratings on the formative and/or summative assessments, or the Teacher Effectiveness Measure (TEM). Principals and other evaluators may also provide suggestions and guidance to teachers at any time during the school year without the development of a PDP.

Administrators/evaluators shall supervise and provide guidance to the teacher as outlined in the PDP. Teachers beginning the school year on a Professional Development Plan (PDP) will be monitored and supported by the building-level administrator/evaluator. The PDP and subsequent expectations and actions will align to the appropriate Teacher Assessment on Performance Standards. All components of the PDP must be entered into the electronic TKES Professional Development Plan (PDP) form.

Teacher Keys Effectiveness System Professional Development Plan			
Teacher	Grade/Subject	School/District	
Evaluator	Beginning Date	Projected End Date	
	Performance Standard(s) for Improvement		
	Actions and Expectations		
Actions	Timeline	Support/Resources	
	Data for Consideration		
	Review Dates		
Date	Results	Next Review Date	
Teacher's Signature		Date	

Evaluator's Signature	Date
	Final Results
The teacher has achieved the Performance Standard(s) improvement measures.	The teacher has not achieved the Performance Standard(s) improvement measures.
Check	Check
	Comments/Next Steps
Teacher's Signature	Date
Evaluator's Signature	Date

Teacher Keys Effectiveness System Suggested 2012-13 Evaluation Cycle Calendar Draft

Documents on the GaDOE TLE Electronic Platform Formative Assessment Report Summative Assessment Report Student Learning Objective (SLO) Information

The document may be used by the school district to create an evaluation cycle calendar appropriate for the school district's teachers and administrators. Dates may be added as appropriate for the school district. The main components shall be in the school district calendar in addition to other change/additions as needed.

Date	Completed	Task
August		
		Principal or designee conducts orientation for Teacher Keys Effectiveness System (TKES) including the Teacher Assessment of Performance Standards (TAPS), Student Learning Objectives (SLO), Student Growth Percentile (SGP), and Student Surveys.
		Principal or designee conducts TKES familiarization activities with teachers (August and ongoing throughout the school year).
		Principal or designee provides teachers with TAPS Self-Assessment Form to complete in preparation for the Pre-Evaluation Conference.
		Principal or designee provides teachers with the District Student Learning Objective (SLO) and the Teacher Student Learning Objective Form.
		Teachers complete their individual Teacher Student Learning Objective Form prior to the Pre-Evaluation Conference.

	Implementation 1 Toceutres	
Santambar		Teachers administer the SLO pre-assessment and enter results into the GaDOE electronic platform prior to the Pre-Evaluation Conference. Principal or designated evaluator monitors previous year's Professional Development Plans (PDP) as needed.
September		Principal or designee conducts TKES familiarization activities with teachers (ongoing throughout the school year). Principal or designated evaluator conducts TAPS Pre- Evaluation Conference with teachers. Principal or designated evaluator reviews Self-Assessment, previous year's Student Performance data, Teacher Student Learning Objective Form (SLO), and Professional Development Plan (PDP) if appropriate. Principal or designated evaluator begins TAPS
		announced and unannounced observations. Principal or designated evaluator develops and monitors Professional Development Plans (PDP) as needed. Principal or designee plans for administration of Student Surveys using GaDOE Protocol.

Principal or designee condu TKES familiarization activ with teachers (ongoing throughout the school year) Principal or designated evaluator conducts TAPS announced and unannounce observations and completes Formative Assessment Rep based on observation and documentation. Teachers of Student Learni Objective (SLO) courses th are semester based will formatively assess student progress toward meeting th SLO.	
TKES familiarization activ with teachers (ongoing throughout the school year) Principal or designated evaluator conducts TAPS announced and unannounce observations and completes Formative Assessment Rep based on observation and documentation. Teachers of Student Learni Objective (SLO) courses the are semester based will formatively assess student progress toward meeting the SLO.	
evaluator conducts TAPS announced and unannounce observations and completes Formative Assessment Rep based on observation and documentation. Teachers of Student Learni Objective (SLO) courses th are semester based will formatively assess student progress toward meeting th SLO.	
Objective (SLO) courses the are semester based will formatively assess student progress toward meeting the SLO.	S
	nat
Principal or designated evaluator develops and monitors Professional Development Plans (PDP) needed.	as
Principal or designee plans administration of Student Surveys using GaDOE Protocol.	for
November	
Principal or designee condu TKES familiarization activ with teachers (ongoing throughout the school year)	ities
Principal or designated evaluator conducts TAPS announced and unannounce observations and completes Formative Assessment Rep based on observation and documentation.	S

	Teachers and administrators plan for the administration of the Student Learning Objective (SLO) post-assessment for semester bound courses. Principal or designated evaluator develops and monitors Professional Development Plans (PDP) as needed.
	Principal or designee plans for administration of Student Surveys using GaDOE Protocol.
December	
	Principal or designee conducts TKES familiarization activities with teachers (ongoing throughout the school year). Principal or designated evaluator conducts TAPS announced and unannounced observations and completes Formative Assessment Reports based on observation and documentation. Teachers of semester bound Student Learning Objective (SLO) courses complete Post- Assessment and prepare spreadsheet of results for the Summative Evaluation Conference. Principal or designated evaluator develops and monitors Professional Development Plans (PDP) as needed. In full-year courses, teachers formatively assess student progress toward meeting the annual SLO.

	•	Principal or designated evaluator begins the Mid-Year Evaluation Conference process including a review of the Student Learning Objective (SLO). Principal or designee plans for administration of Student Surveys using GaDOE
*		Protocol.
January		
		Principal or designee conducts TKES familiarization activities with teachers (ongoing throughout the school year). Principal or designated evaluator concludes Mid-Year Evaluation Conferences including a review of the Student Learning Objective (SLO). Principal or designated evaluator conducts TAPS announced and unannounced observations and completes Formative Assessment Reports based on observation and documentation. Principal or designated evaluator develops and monitors and Professional Development Plans (PDP) as needed. Principal, following district guidelines and timelines, notifies in writing the appropriate Human Resources Director or district designee regarding possible non-renewal of any certified staff.

	Implementation Frocedures	D: 1 1 1 1 2
		Principal or designee plans for administration of Student Surveys using GaDOE Protocol.
February		
		Principal or designee conducts TKES familiarization activities with teachers (ongoing throughout the school year). Principal or designated evaluator conducts TAPS announced and unannounced observations and completes Formative Assessment Reports based on observation and documentation. Principal or designated evaluator develops and monitors Professional Development Plans (PDP) as needed.
		Principal or designee plans for administration of Student Surveys using GaDOE Protocol.
March		
		Principal or designee conducts TKES familiarization activities with teachers (ongoing throughout the school year). Principal or designated evaluator conducts TAPS announced and unannounced observations and completes Formative Assessment Reports based on observation and documentation. Principal or designated evaluator develops and monitors Professional Development Plans (PDP) as needed.

	Implementation i roccutres	
		Principal or designee plans for administration of Student Surveys using GaDOE Protocol.
April		
		Principal or designee conducts TKES familiarization activities with teachers (ongoing throughout the school year).
		Teachers complete post- assessment for Student Learning Objective (SLO) and prepare spreadsheet of results for the Summative Evaluation Conference.
		Principal or designated evaluator conducts TAPS Summative Conferences including Student Learning Objective (SLO) results.
		Principal or designated evaluator develops and monitors Professional Development Plans (PDP) as needed.
		Principal or designee plans for administration of Student Surveys using GaDOE Protocol.
May		
		Principal or designated evaluator concludes Summative Evaluation Conferences including Student Learning Objective (SLO) results.
		Principal or designated evaluator develops and monitors Professional Development Plans (PDP) as needed.

- All TAPS components forms are incorporated into the GaDOE TLE Electronic Platform.
- Teachers will have a pre-evaluation, mid-year, and summative evaluation conference during the 2012-2013 school year.
- Every teacher will have two 30-minute observations (announced or unannounced) during the school year unless the district is given written approval for an alternate plan by GaDOE prior to the beginning of the school year.
- Formative Assessment Report Form will be electronically submitted to the teacher within five (5) school days of the announced or unannounced observation, so that any further needed documentation should be submitted to the evaluator within an appropriate period in order for it to inform the rating of each standard. When the Formative Assessment Report Form is complete, it cannot be changed.
- Summative Assessment Report Form will be electronically submitted to the teacher within five (5) school days of the summative evaluation conference. When the Summative Assessment Report Form is complete, it cannot be changed.
- If a teacher is placed on a Professional Development Plan (PDP), the following information will provide guidance to the evaluator.

The Professional Development Plan (PDP) is designed to focus on improving teacher performance in a specified standard(s) or TKES component(s). The evaluator, with the approval of the principal, will make the decision as to the most appropriate plan. An effective PDP is designed with school district goals, performance standards, and student growth targets, timelines and professional learning related to the components of the Georgia Teacher Keys Effectiveness System (TKES).

Professional Development Plan (PDP)

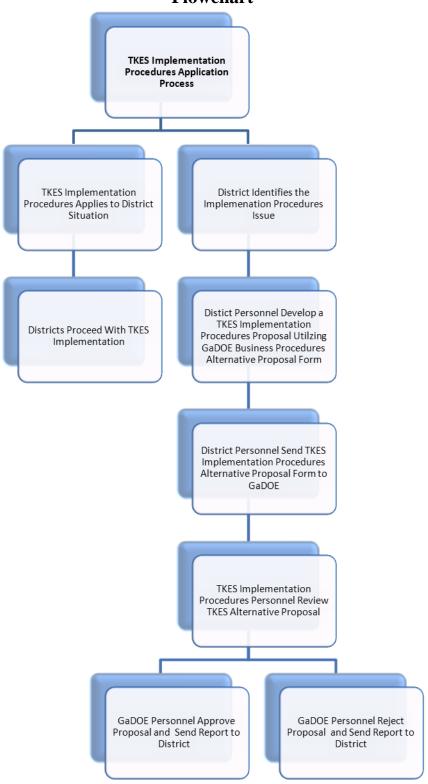
A Professional Development Plan (PDP) is a plan mandated by the evaluator, and approved by the principal within the GaDOE TLE Electronic Platform. It may be developed by the evaluator in collaboration with the teacher, coaches, mentors, or other qualified individuals. The PDP provides guidelines and timelines for specific, mandatory professional learning which supports immediate improvement of teacher practice and increased teacher effectiveness, or any other enhancement opportunity to include clear expectations about changes needed in performance to be demonstrated in the classroom and school. The PDP is an intensive effort toward improvement of teacher practice and effectiveness. A PDP may also be used when a teacher does not meet the professional duties, responsibilities and ethical expectations required by the teacher. The following guidelines will be used in determining the use of a PDP in the TKES.

The evaluator, with the approval of the principal, may choose to place a teacher on a Professional Development Plan (PDP) at any time during the school year if there are major issues with any performance standard including but not limited to professionalism, the Georgia Code of Ethics, *Needs Development* or *Ineffective* ratings on the formative and/or summative assessments, or the

Teacher Effectiveness Measure (TEM). Principals and other evaluators may also provide suggestions and guidance to teachers at any time during the school year without the development of a PDP.

Administrators/evaluators shall supervise and provide guidance to the teacher as outlined in the PDP. Teachers beginning the school year on a Professional Development Plan (PDP) will be monitored and supported by the building-level administrator/evaluator. The PDP and subsequent expectations and actions will align to the appropriate Teacher Assessment on Performance Standards. All components of the PDP must be entered onto the Professional Development Plan (PDP) form on the GaDOE TLE Electronic Platform.

TKES Procedures Alternative Proposal Flowchart



Dr. John D. Barge, State School Superintendent July 16, 2012 ● Page 72 of 78 All Rights Reserved

Georgia Department of Education Crosswalk

Teacher Assessment on Performance Standards and CLASS KeysSM

Domain	TKES Standards	CLASS Keyssm
Planning	1. Professional Knowledge	CP 1.1: Plans with deep knowledge of content and delivery techniques. CP 1.2: Demonstrates clear understanding of the curriculum. CP 1.3: Plans interdisciplinary instruction with real-world connections.
	2. Instructional Planning	CP 2.1: Uses the required curriculum to plan instruction and assessment. CP 2.2: Uses an organizing framework to plan instruction. CP 2.3: Plans assessment to measure mastery of the curriculum.
Instructional Delivery	3. Instructional Strategies	SBI 1.1: Demonstrates research-based practices for student engagement. SBI 1.2: Engages students in higher-order thinking skills. SBI 2.2: Clearly communicates the learning expectations. SBI 1.5: Uses accessible technology to enhance learning.
	4. Differentiated Instruction	SBI 2.1: Demonstrates high expectations with students playing roles in learning. SBI 1.3: Uses appropriate differentiation. SBI 1.4: Uses flexible grouping based on assessment.
Assessment of and for Learning	5. Assessment Strategies	AL 1.1: Uses diagnostic assessment strategies to inform planning. AL 1.2: Uses formative assessment strategies to adjust instruction. AL 1.3: Uses a variety of summative strategies to evaluate mastery of curriculum.
	6. Assessment Uses	AL 2.1: Uses data to design appropriate, timely interventions. SBI 2.3: Provides effective feedback/commentary on student performances.
Learning Environment	7. Positive Learning Environment	P 1.1: Maintains a positive learning environment through rules and procedures. P 1.3: Fosters a sense of community and belonging.
	8. Academically Challenging Environment	P 1.2: Maximizes instructional time. P 1.4: Helps students take responsibility for behavior and learning.
Professionalism and Communication	9. Professionalism	P 3.1: Grows professionally through job-embedded learning. P 3.2: Enhances knowledge and skills through professional learning. P 4.1: Actively supports the school improvement plan.
	10. Communication	P 2.1: Establishes relationships with families and the community.

Georgia Department of Education Teacher Keys Effectiveness System Handbook

Crosswalk of TAPS and National Virtual School Teaching Standards

Teacher Keys Evaluation System Teacher Assessment on Performance Standards	SREB Online Teaching Evaluation for State Virtual Schools	iNACOL National Standards for Quality Online Teaching
Performance Standard 1: Professional Knowledge The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.	Content Knowledge and Skills for Instructional Technology The teacher has the prerequisite technology skills to teach online. Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery The teacher has experienced online learning from the perspective of a student.	Standard A The online teacher knows the primary concepts and structures of effective online instruction and is able to create learning experiences to enable student success.
Performance Standard 2: Instruction Planning The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery The teacher plans, designs and incorporates strategies to encourage active learning, interaction, participation and collaboration in the online environment.	Standard C The online teacher plans, designs, and incorporates strategies to encourage active learning, application, interaction, participation, and collaboration in the online environment. Standard K The online teacher arranges media and content to help students and teachers transfer knowledge most effectively in the online environment.

Georgia Department of Education Teacher Keys Effectiveness System Handbook

Teacher Keys Evaluation System Teacher Assessment on Performance Standards	SREB Online Teaching Evaluation for State Virtual Schools	iNACOL National Standards for Quality Online Teaching
Performance Standard 3: Instructional Strategies The teacher promotes student learning by using research-based instructional strategies relevant to the content area to engage students in active learning and to promote key skills.	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery The teacher develops and delivers assessments, projects, and assignments that meet standards-based learning goals and assesses learning progress by measuring student achievement of learning goals.	Standard B The online teacher understands and is able to use a range of technologies, both existing and emerging, that effectively support student learning and engagement in the online environment.
Performance Standard 4: Differentiated Instruction The teacher challenges students by providing appropriate content and developing skills which address individual learning differences.	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery The teacher understands and is responsive to students with special needs in the online classroom.	Standard F The online teacher is cognizant of the diversity of student academic needs and incorporates accommodations into the online environment.
Performance Standard 5: Assessment Strategies The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery The teacher demonstrates competencies in creating and implementing assessments in online learning environments in ways that assure validity and reliability of instruments and procedures.	Standard G The online teacher demonstrates competencies in creating and implementing assessments in online learning environments in ways that ensure validity and reliability of the instruments and procedures.

Georgia Department of Education Teacher Keys Effectiveness System Handbook

	SREB	iNACOL
Teacher Keys Evaluation System Teacher Assessment on Performance Standards	Online Teaching Evaluation for State Virtual Schools	National Standards for Quality Online Teaching
	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery	Standard H
Performance Standard 6: Assessment Uses The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods,	The teacher demonstrates competencies in using data and findings from assessments and other data sources to modify instructional methods and content and to guide student learning.	The online teacher develops and delivers assessments, projects, and assignments that meet standards-based learning goals and assesses learning progress by measuring student achievement of the learning goals.
and to provide timely and constructive feedback to both students and parents.	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery	Standard I
	The teacher demonstrates frequent and effective strategies that enable both teacher and students to complete self- and pre-assessments.	The online teacher demonstrates competency in using data from assessments and other data sources to modify content and to guide student learning.
Performance Standard 7: Positive Learning Environment	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery	Standard E
The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	The teacher models, guides and encourages legal, ethical, safe and healthy behavior related to technology use.	The online teacher models, guides, and encourages legal, ethical, and safe behavior related to technology use.
Performance Standard 8: Academically Challenging Environment	Online Teaching and Learning Methodology, Management, Knowledge, Skills and Delivery	Standard D
The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.	The teacher provides online leadership in a manner that promotes student success through regular feedback, prompt response and clear expectations.	The online teacher promotes student success through clear expectations, prompt responses, and regular feedback.

Georgia Department of Education Teacher Keys Effectiveness System Handbook

Teacher Keys Evaluation System Teacher Assessment on Performance Standards	SREB Online Teaching Evaluation for State Virtual Schools	iNACOL National Standards for Quality Online Teaching
Performance Standard 9: Professionalism The teacher demonstrates a commitment to professional ethics and the school's mission, participates in professional growth opportunities, and contributes to the profession.	Academic Preparation The teacher meets the professional teaching standards established by a state-licensing agency or the teacher has academic credentials in the field in which he or she is teaching.	
Performance Standard 10: Communication The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.		Standard J The online teacher interacts in a professional, effective manner with colleagues, parents, and other members of the community to support students' success.

Ongoing Teacher and Leader Effectiveness Cycle

Teacher and Leader Keys Evaluation Systems Implementation August - May Other
Quantitative
Measures:
Surveys
Conduct and
Collect
October – April

Growth Score
for Tested
Subjects
(based on
student growth
percentiles –
CRCT & EOCT)
Calculate

Calculate
June-July

Growth Score for Non-Tested Subjects (based on student learning objectives) Calculate May

Summer Training

Comprehensive Evaluation System June-August

Merit Pay Awarded September

(Beginning September 2014)

TEM/LEM
Calculate July

Talent Management Decisions

May
Determine interventions for
teachers and leaders
Renewal/Retention or Dismissal

TEM/LEM

Share with
administrators/teachers
August
Modify School Improvement
Plan, Develop Performance
Growth Plans, Develop Due
Process and Professional
Development Plans

Professional DevelopmentAugust-April

Dr. John D. Barge, State School Superintendent
July 16, 2012 ● Page 78 of 78
All Rights Reserved



Dr. John D. Barge, State School Superintendent "Making Education Work for All Georgians"

Table of Contents

Page	Topic Topic
2	Fact Sheet 1: TKES
6	Fact Sheet 2: Why Evaluate?
8	<u>Fact Sheet 3: Standard 1 – Professional Knowledge</u>
12	Fact Sheet 4: Standard 2 – Instructional Planning
18	<u>Fact Sheet 5: Standard 3 – Instructional Strategies</u>
24	<u>Fact Sheet 6: Standard 4 – Differentiated Instruction</u>
29	Fact Sheet 7: Standard 5 – Assessment Strategies
33	Fact Sheet 8: Standard 6 – Assessment Uses
38	<u>Fact Sheet 9: Standard 7 – Positive Learning Environment</u>
47	Fact Sheet 10: Standard 8 – Academically Challenging Environment
53	<u>Fact Sheet 11: Standard 9 – Professionalism</u>
59	Fact Sheet 12: Standard 10 – Communication
63	Fact Sheet 13: Multiple Data Sources
65	Fact Sheet 14: Observation
67	Fact Sheet 15: Documentation
68	Fact Sheet 16: Self-Assessment
70	Fact Sheet 17: Surveys of Instructional Practice
72	Fact Sheet 18: Objective Setting for Student Growth
74	Fact Sheet 19: Performance Rubrics in Evaluation
76	Fact Sheet 20: Using Teacher Evaluation to Improve Performance
78	Fact Sheet 21: Evaluation Conferences
80	Fact Sheet 22: TKES Crosswalk
84	Fact Sheet 23: Student Growth Percentiles
87	Fact Sheet 24: Evaluator Credentialing
Chapter 5	Endnotes for TKES Handbook, Fact Sheets, and Research Synthesis

The contents of these fact sheets were developed under a grant from the U. S. Department of Education. However, those contents do not necessarily represent the policy of the U. S. Department of Education, and you should not assume endorsement by the Federal Government.



Fact Sheet #1: TKES

THE TEACHER KEYS EFFECTIVENESS SYSTEM

As part of the Race to the Top Initiative (RT3), Georgia will continue to introduce the Teacher Keys Effectiveness System (TKES), a common evaluation system that will allow the state to ensure consistency and comparability across districts, based on a common definition of teacher effectiveness. The Teacher Keys Effectiveness System consists of multiple components which contribute to an overall Teacher Effectiveness Measure (TEM). These components include Teacher Assessment on Performance Standards (TAPS), Surveys of Instructional Practice, and Student Growth and Academic Achievement.

TEACHER ASSESSMENT ON PERFORMANCE STANDARDS

The TAPS component of TKES provides evaluators with a qualitative, rubrics-based evaluation method by which they can measure teacher performance related to quality performance standards. TAPS offers a balance between structure and flexibility. It is prescriptive in that it defines common purposes and expectations, thereby guiding effective instructional practice. At the same time, it provides flexibility by allowing for creativity and individual teacher initiative. The overarching goal of TKES is to support the continuous growth and development of each teacher by monitoring, analyzing, and applying pertinent data compiled within a system of meaningful feedback.

Performance Indicators

Performance indicators provide suggested examples of observable, tangible behaviors for each standard. That is, the performance indicators are examples of the types of performance that may occur if a standard is being successfully met. The list of performance indicators is not exhaustive, is not intended to be prescriptive, and it is not intended to be a checklist. Further, all teachers are not expected to demonstrate each performance

indicator. An example of performance indicators for Standard 1 (Professional Knowledge) includes: The teacher:

- 1.1 Addresses appropriate curriculum standards and integrates key content elements.
- 1.2 Implements students' use of higher-level thinking skills in instruction.
- 1.3 Demonstrates ability to link present content with past and future learning experiences, other subject areas, and real-world experiences and applications.

Domains, Standards, and Indicators

TAPS uses a three-tiered approach to define the expectations for teacher performance consisting of five domains, ten standards, and multiple performance indicators. The five domains and ten performance standards are:

PLANNING

1. Professional Knowledge

The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.

2. Instructional Planning

The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.

INSTRUCTIONAL DELIVERY

3. Instructional Strategies

The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.

4. Differentiated Instruction

The teacher challenges and supports students' learning by providing appropriate content and developing skills which address individual learning differences.

ASSESSMENT OF AND FOR LEARNING

5. Assessment Strategies

The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.

6. Assessment Uses

The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.

LEARNING ENVIRONMENT

7. Positive Learning Environment

The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.

8. Academically Challenging Environment

The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.

PROFESSIONALISM & COMMUNICATION

9. Professionalism

The teacher exhibits a commitment to professional ethics and the school's mission, participates in professional growth opportunities to support student learning, and contributes to the profession.

10. Communication

The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.

Performance Appraisal Rubrics

Teachers will be rated on the performance standards using performance appraisal rubrics. The performance rubric is a behavioral summary scale that guides evaluators in assessing *how well* a standard is performed. It states the measure of performance expected of teachers and provides a qualitative description of performance at each level. In some instances, quantitative terms are included to augment the qualitative description. The resulting performance appraisal rubric provides a clearly delineated step-wise

progression, moving from highest to lowest levels of performance. Each level is intended to be qualitatively superior to all lower levels. The description provided in the *Proficient* level of the performance appraisal rubric is the actual performance standard, thus *Proficient* is the expected level of performance. Teachers who earn an *Exemplary* rating must meet the requirements for the *Proficient* level and go beyond it. The performance appraisal rubric for Performance Standard 1 (Professional Knowledge) is shown below:

Exemplary* In addition to meeting the requirements for Proficient	Proficient Proficient is the expected level of performance.	Needs Development	Ineffective
The teacher continually demonstrates extensive content and pedagogical knowledge, enriches the curriculum, and guides others in enriching the curriculum. (Teachers rated as exemplary continually seek ways to serve as role models or teacher leaders.)	The teacher consistently demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences	The teacher inconsistently demonstrates understanding of curriculum, subject content, pedagogical knowledge, and student needs, or lacks fluidity in using the knowledge in practice.	The teacher inadequately demonstrates understanding of curriculum, subject content, pedagogical knowledge and student needs, or does not use the knowledge in practice.

Documenting Performance

<u>Self-Assessment</u>: As a requirement of the TAPS, teachers will conduct a self-assessment at the beginning of the school year.

Observations: Evaluators are required to conduct two formal observations and four walkthroughs/ frequent brief observations of teachers evaluated by the TKES. All formal observations must be at least 30 minutes in duration. Walkthroughs should be a minimum of ten minutes and should focus on a limited number of teacher performance standards and/or indicators. Walkthroughs will inform the Formative Assessment Report Form. Evaluators will record their observation notes on the Formative Assessment Report Form. A conference with the teacher after the formal

observations is optional, but written feedback through the electronic platform is required.

Documentation: The teacher is responsible for submitting documentation as requested by the evaluator for consideration in the formative assessment, either prior to or after the actual classroom observation. Teachers may organize the material as they see fit and they are not required to use the *Documentation Cover Sheet* provided in the *TKES Handbook*. The emphasis should be on the quality of work, not the quantity of material presented. Evaluators will make notes pertaining to the documentation on *the Formative Assessment Report Form*.

Rating Performance

Formative Assessment: Evaluators will make decisions about performance on the 10 performance standards based on observation, documentation, and anecdotal information. Using this information, they will then provide a formative assessment rating on each of the 10 performance standards using the performance appraisal rubrics. The evaluator must ensure the teacher receives feedback in some appropriate manner. Both formative assessments and four walkthroughs/frequent brief observations must be completed prior to the summative evaluation.

Summative Assessment: After collecting information throughout the assessment period, evaluators will provide a summative assessment of a teacher's performance. Evaluators will use the Summative Assessment Report Form to evaluate performance on each standard using the fourcategory rating scale. By receiving a rating on each individual standard, the teacher is provided with a diagnostic profile of his/her performance for the evaluation cycle. In making judgments for the summative assessment on each of the ten performance standards, the evaluator should determine where the "totality of the evidence and most consistent practice" exists, based on observations and the documentation of practice and process provided by the teacher. In addition to the ten separate ratings, the teachers will receive

an overall TAPS point score. *Exemplary* ratings are worth 3 points, *Proficient* ratings are worth 2 points, and *Needs Development* ratings are worth 1 point. *Ineffective* ratings have no point value. The TAPS rating will be appropriately scaled to represent a specific percentage of the Teacher Effectiveness Measure. The TAPS Summative Assessment should be completed by May.

STUDENT GROWTH AND ACADEMIC ACHIEVEMENT

The second component of the Teacher Keys Evaluation System is Student Growth and Academic Achievement. For teachers of tested subjects, this component consists of a student growth percentile/value-added measure. For teachers of non-tested subjects, this component consists of GaDOE-approved Student Learning Objectives (SLOs) utilizing district-identified achievement growth measures.

Student Learning Objectives

District-determined SLOs using SMART criteria are content-specific, grade level learning objectives that are measureable, focused on growth in student learning, and aligned to curriculum standards. Districts must submit each SLO for GaDOE approval before local teachers begin implementation of their SLO plans.

Within the first few weeks of the instructional period, teachers administer a pre-assessment to all students they teach. Using the district developed SLOs, teachers will use their students' pre-assessment scores, along with other diagnostic information, and complete a *Student Learning Objective Form*. Teachers should meet with their local evaluators to review SLO plans and obtain approval for implementation. Before approving the plan, principals should review and assess the plan's rigor and appropriateness. This review/approval process should be completed within 20 school days following the pre-assessment.

The next part of the process is recursive in that individual teachers create and implement strategies

and monitor progress toward the SLOs, making adjustments to the teaching and learning strategies, as required.

Teachers will administer the post-assessment and assess the students' growth toward the SLO. By May 15, they must submit their completed *Student Learning Objective Form* to their evaluator. Evaluators will review the pre-assessment and post-assessment data presented by the teacher to determine the teacher's level of performance using the rubric for the SLOs as *Exemplary, Proficient, Needs Development*, and *Ineffective*. They will assign an end-of-year rating using an evaluation rubric with the following levels: *Exemplary, Proficient, Needs Development*, and *Ineffective*.

SURVEYS OF INSTRUCTIONAL PRACTICE

The third component of the Teacher Keys Evaluation System consists of student surveys of instructional practice. The surveys to be included in the program ask students to report on items they have directly experienced. There are three different versions of the student survey (grades 3-5, 6-8, and 9-12) designed to reflect developmental differences in students' ability to provide useful feedback regarding their teacher. All surveys are to be completed anonymously to promote honest feedback. Each survey contains questions that address four teacher performance standards in the TAPS component of the evaluation system: Instructional Strategies, Differentiated Instruction, Positive Learning Environment, and Academically Challenging Environment. Students will answer questions that address teacher performance standards to which they can respond from personal experience in the classroom.

Surveys will only be administered to students assigned to the teacher of record. Teachers who teach self-contained classes (e.g., elementary teachers, special education teachers) will have all the students in their class surveyed. Departmentalized teachers (e.g., middle and high school teachers, elementary PE and music teachers) will have designated classes of students surveyed. The local school site administrator will determine the selection of the classes.

District and site administrators will also select a time frame period during the academic year in which to administer the surveys. An open survey window will be available for schools to select a time frame that does not interfere with testing or other uses of computer labs, etc. The multiple survey options will accommodate courses taught only during first semester, only during second semester, all year, or for shorter segments within the academic year. Furthermore, surveys may be administered multiple times during the school year at the district's discretion.

Teachers of record will not be involved in administering the survey to their own students; rather, a certified specialist (e.g., media specialist, instructional technology specialist) will administer the survey in a common media center or computer lab, if at all possible. All surveys will be administered using a vendor-hosted electronic platform. The surveys will be accessed through a web-based portal.



Fact Sheet #2: Why Evaluate?

THE VALUE OF EVALUATION

The core of education is teaching and learning, and the teaching-learning connection works best when we have effective teachers working with every student every day. Teacher effectiveness has proven time after time to be the most influential school-related factor in student achievement. If teacher quality is the pillar of the success of education, then it logically follows that a robust teacher evaluation system should be in place, since the purpose of evaluation is to "recognize, cultivate, and develop good teaching." Stronge and Tucker stated:

Without capable, high-quality teachers in America's classrooms, no educational reform effort can possibly succeed. Without high quality evaluation systems, we cannot know if we have high-quality teachers. Thus, a well-designed and properly implemented teacher evaluation system is essential in the delivery of effective educational programs and in school improvement.

Among the many roles assumed by the principals, one of their most important responsibilities is to evaluate teacher performance. This is important for several reasons: (1) the improvement of the instructional program, (2) the improvement of student performance, and (3) the improvement of professional development activities and opportunities for teachers. Evaluation is a tool, not the outcome — it serves as a systematic tool that enables data-driven personnel and school improvement decisions.

The Purposes of Teacher Evaluation

There are many ways to conceptualize the purposes of teacher evaluation. For example, Wheeler and Scriven identified 14 different purposes, including hiring, assigning, performance evaluation, pre-tenured retention/termination, granting tenure or a continuing contract, post-tenure retention/termination, promotion/career ladder, salary decisions, reduction in force, retirement exemption, licensing/recognition, self-assessment, and mentoring assignment.⁵

The Personnel Evaluation Standards of the Joint Committee on Standards for Educational Evaluation identified ten distinct purposes for teacher evaluation:⁶

- Evaluate entry-leave educators before certifying or licensing them to teach.
- Identify promising job candidates.
- Assess candidates' qualifications to carry out particular assignments.
- Guide hiring decisions.
- Assess performance of educators for continuing contract and promotion decisions.
- Determine recognition and awards for meritorious contributions.
- Assist faculty and administrators in identifying strengths and needs for improvement.
- Plan meaningful staff development activities.
- Develop remediation goals and activities.
- When necessary, support fair, valid, and legal decisions for termination.

The literature succinctly summarizes two major purposes of teacher evaluation—professional growth and accountability.⁷

The Benefits of Teacher Evaluation

The benefits of an effective teacher evaluation system are numerous and well documented. The process of teacher evaluation can be valuable in several ways including involving teachers in professional development efforts by identifying areas in need of improvement, improving instruction school-wide, and assessing the effectiveness of classroom teachers. Stronge summarized the advantages of a quality teacher evaluation system:⁸

- Joint involvement of administrators and teachers in the evaluation process.
- Inclusion of entire professional staff.
- Rationally linked school goals and individual responsibilities.

- Clearly established objectives for the teacher.
- A basis for an objective evaluation.
- Efficiently channeled, system-wide resources.
- Manageable and meaningful training for evaluators, who are also instructional leaders.
- Appropriate systematic opportunities for improvement for all professional employees.
- More school accountability through meaningful inclusion of all professional employees.
- A legally defensible evaluation system in terms of its treatment of teachers and others.



Fact Sheet #3 - Performance Standard 1: Professional Knowledge

PROFESSIONAL KNOWLEDGE

The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.

Classroom teaching is a complex activity that demands teachers possess substantial thinking skills and a solid knowledge base. Knowledge of subject matter is a prerequisite for effective classroom instruction. A teacher's understanding of subject facts, concepts, principles, methodology, and important generalizations determines his/her pedagogical thinking and decision-making. Furthermore, according to research, the professional knowledge that is essential to be an effective teacher extends well beyond knowledge of subject matter to encompass the factors identified in the following table.¹

Key elements of Professional Knowledge

Knowledge Area	Focus
Subject-matter	Content to teach
knowledge	
Pedagogical	How to teach
knowledge	
Curricular knowledge	What to teach
 Learner knowledge 	Whom to teach
Cultural/community	Sensitivity to
knowledge	settings where
	one teaches

Content knowledge, the disciplinary understanding of the subject taught, exerts a significant influence on teachers' classroom behavior. Various studies suggest that teachers with stronger content knowledge are more likely to use practices that can help students construct and internalize knowledge, such as:

- Asking higher-level questions.
- Encouraging students to explore alternative explanations.
- Involving students in more inquiry-based learning.
- Allowing more student-directed activities.
- Engaging students in the lessons.²

Many researchers have explored the impact of teachers' content knowledge on student achievement. They have measured teachers' content knowledge through tallying coursework taken by the teachers and administering questionnaires or classroom observations. The literature has been consistent in the findings about the positive association between teacher content knowledge and students' learning at all grade levels, particularly in mathematics.³

Research has found that when a teacher's subject-matter knowledge is insecure (for instance, when a teacher is teaching unfamiliar areas of curriculum) his/her ability to give appropriate and effective explanations in the classroom is limited, rendering them ineffective.⁴ Teachers who lack subject-matter knowledge usually lack confidence in the classroom, which in turn, has significant impact on their planning and teaching. For instance, they are more likely to adopt closed and constrained pedagogy developing the pedagogy to a more discursive style, keeping a tighter rein on what is taught, avoiding asking open-ended questions and conducting discussion sessions, and being more authoritative in what they plan and do in the classroom.

Effective teaching requires teachers to have not only sufficient knowledge in their own fields, but also an interdisciplinary understanding that ranges across multiple branches of human knowledge. The real world does not completely organize itself according to the disciplines or the traditional school subjects. Many phenomena cannot be adequately understood solely from one disciplinary perspective. Making connections across subject areas is an effective way to engage students in challenging, integrated, and exploratory learning around personal and social concerns that appeal to them. In addition, the

integration of disciplines can prompt students to learn to think critically and develop a common core of knowledge necessary for success. Effective teachers use a wide variety of sources and make meaningful connections to sustain students' inquiry across disciplines.

Effective teaching resides not simply in the knowledge a teacher has accrued, but also in how this knowledge is translated into student learning in classrooms. For instance, teachers who are highly proficient in mathematics or writing will help others learn mathematics or writing only if they are able to use their own knowledge to enact learning activities that are appropriate to students. Therefore, a teacher's subject matter knowledge and pedagogical knowledge are complementary and interdependent. These two knowledge categories can be synthesized by what Shulman called "pedagogical content knowledge," which he defined as "the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction."8

The professional knowledge of effective teachers reaches beyond merely the knowledge of subject matter (content knowledge) and instructional strategies (pedagogical knowledge); indeed, professional knowledge also encompasses an understanding of students and environmental contexts. Effective teachers often use the knowledge of their students (for instance, knowledge of students' learning ability, prior achievement, cultural background, and personal interests) to decide what to teach and how to teach. Based on this expansive knowledge, teachers can anticipate the conceptions, misconceptions, and possible difficulties their students are likely to encounter while learning particular content.

Research has found that an effective teacher:

- Possesses a great deal of knowledge about the content and curriculum areas taught, and knows how the material fits into the educational landscape.¹⁰
- Is certified in his or her field, resulting in higher levels of student achievement on standardized tests. 11
- Determines and teaches the essential knowledge and skills through effective instruction. 12
- Cares about students as individuals and makes them feel valued. 13
- Adapts teaching to address student learning styles.¹⁴
- Acknowledges his or her perspective and is open to hearing their students' worldviews. 15
- Is culturally competent. 16
- Seeks to know about the cultures and communities from which students come. 17

Sample performance indicators for the professional knowledge of teachers

- 1.1 Addresses appropriate curriculum standards and integrates key content elements.
- 1.2 Implements students' use of higher-level thinking skills in instruction.
- 1.3 Demonstrates ability to link present content with past and future learning experiences, other subject areas, and real-world experiences and applications.
- 1.4 Demonstrates accurate, deep, and current knowledge of subject matter.
- 1.5 Exhibits pedagogical skills relevant to the subject area(s) taught and best practices based on current research.
- 1.6 Bases instruction on goals that reflect high expectations for all students and a clear understanding of the curriculum.
- 1.7 Displays an understanding of the intellectual, social, emotional, and physical development of the age group.

Sample student evidence that the teacher has met the criteria for proficiency

- Observe (through surveys and conversations) that teachers help them understand rather than judge them for misconceptions.
- Grasp the meaning as well as the facts of the content they are learning.
- Recognize and discuss issues related to the content area.
- Acknowledge the teacher's efforts to make the curriculum challenging, relevant, and rewarding for all learners.
- Perform tasks that are varied and appropriate for all learning levels.
- Engage in learning activities that lead to most students achieving standards and some exceeding them.
- Engage in projects, essays, and research that relate to content areas to real life experiences.
- Explain how major concepts in content areas relate.

Sample conference prompts

- When did you have to teach a complex concept the year? How did you ensure that all students understood and grasped the concept that you were teaching?
- How did you develop your unit plans and decide what to include or exclude from the unit of study?
- How have you worked to expand your understanding of the issues in your content area this year?
- What collaborative planning experiences have you participated in this year?
- How have you worked with your colleagues this year to ensure vertical alignment?
- How have you worked with your colleagues this year to ensure that there has been consistency and fairness across the course in different classrooms?
- What are your expectations and the appropriate learning outcomes for the grade level/subject matter you teach? How did the results at the end of the year compare with

- the expectations you held and the results you anticipated at the beginning of the year?
- What are some ways that you added relevance to the curriculum and helped students make real-world connections?

Teacher Self-	Assessment Checklist				
Performance	Standard 1: Professional Knowledge				
Quality		Exemplary	Proficient	Needs Development	Ineffective
Subject-matter Knowledge	Have accurate, cohesive, and in-depth subject-matter knowledge. Possess a coherent body of knowledge about the facts, concepts, principles, methodology, and important generalization of the subject areas taught.				
	Make interdisciplinary connections across subject areas to engage students in challenging, integrated, and exploratory learning.				
Curricular Knowledge	Know the school district curriculum guides and benchmarks. Understand the scope and sequence of learning goals and objectives.				
	Develop appropriate curriculum guides and set up outlines for unit plans. Be able to perceive the gap between planned curriculum and received curriculum.				
Pedagogical Knowledge	Choose the most effective pedagogical strategies that can best communicate subject content. Design and organize learning activities that are appropriate for				
	learners of different interests and abilities to explore the topics, problems, or issues. Exhibit instructional practices that are supported by current research.				
Learner Knowledge	Have an understanding of special education and gifted education. Relate subject-matter to the personal and social concerns that appeal to the learners.				
	Know students as individuals regarding their learning abilities, prior achievement, cultural background, and personal interests. Anticipate the conceptions, misconceptions, and possible				
	difficulties the students are likely to have when learning particular content area.				



Fact Sheet #4 - Performance Standard 2: Instructional Planning

INSTRUCTIONAL PLANNING

The teacher plans using state and local school district curricula and standards, effective strategies, resources, and data to address the differentiated needs of all students.

In general terms, planning means the "act or process of making or carrying out plans."¹ Instructional planning is a process of the teacher using appropriate curricula, instructional strategies, resources and data during the planning process to address the diverse needs of students. A teacher's teaching begins before he or she steps into the classroom. Prior to each lesson, unit, semester, or school year, teachers plan the content of instruction, select teaching materials, design learning activities and grouping methods, decide on the pacing and allocation of instructional time, and identify learning opportunities for students. Teachers use state or district curriculum standards, school district curriculum goals and objectives, and learning outcomes developed by professional organizations to plot the scope and sequence of subject topics. Teachers also apply their knowledge of research-based practices to plan strategies and techniques for delivering instruction. The most informative source for all of the instructional planning is the student.

Effective teachers also evaluate the quality of available resources when designing a unit or lesson. They use criteria such as appropriateness for grade level, alignment to national, state, or local standards, accuracy of information, the time allowed for the lesson or unit, and the learning benefits that come from using the resource. Effective teachers maximize the instructional benefits of resources while minimizing time allocated to less relevant or unnecessary material.

Research indicates the following key questions that teachers need to consider for effective instructional planning:

- 1) What should be taught?
- 2) How should it be taught?

3) How should instruction and student learning be assessed?

What should be taught? Effective student learning requires a progressive and coherent set of learning standards. Effective teachers excel in delineating the intended outcomes of each lesson and describing the behaviors or actions that students should be able to perform after participating in the learning activities. Effective teachers conceive a lesson along two dimensions simultaneously:

- 1) The teacher's own actions, thoughts, and habits.
- 2) The students' thinking and understanding of the content.

Thus, effective teachers not only plan what to teach, but more importantly, they plan for whom they are going to teach. They exert effort to reach beyond their comfort zone of disciplinary thinking and actions to incorporate their students' learning preferences.

How Should It Be Taught? Once the learning objectives are developed, evidence suggests that expert teachers are more competent in translating their instructional plans into actions than nonexpert teachers.³ Additionally, effective teachers follow the predefined plan while remaining open to changes and continuously adjusting their instruction based on student needs. Further, expert teachers anticipate the difficulties students might encounter while learning the content of the lesson. They consider students' thinking in order to assess the success of the lesson plan and then modify their instruction promptly. 4 Having a lesson plan cannot ensure that the actual lesson will be implemented as prescribed. The classroom is full of ebbs and flows. Consequently, teachers need to be opportunistic

and tap into their pedagogical and content resources in a fluid and flexible manner in order to proceed smoothly.⁵

How Should Instruction and Student Learning **Be Assessed?** When the learning objectives are set up, in addition to aligning activities to them, teachers also need to link the assessment plan to the learning objectives. Alignment of curriculum, learning activities, and assessment is integral to any quality instructional design. This type of alignment is referred to as "Opportunity to Learn." Before the actual instruction starts, teachers need to decide upon valid and reliable assessment techniques that elicit student learning data and judge the success of the instructional plan. Additionally, teachers should communicate to their students what they are expected to achieve and inform them how they will be assessed after participating in the learning activities.

Teachers must consider a variety of factors when planning instruction, including how to pace the actual delivery in the classroom. The feasibility of a particular lesson largely depends on student ability and variation, content goals and mandated objectives, time and material resources, and so forth. Many of these factors present teachers with constraints that are beyond their immediate control. For example, there is a prescribed, fixed amount of time each day in which formal instruction may occur. Typically, hours of the day are chunked into units that are dedicated to the study of a certain subject or discipline as determined by a legislative body, school board, or a school administrator. Within those chunks of time, however, teachers traditionally have enjoyed a great deal of flexibility and autonomy. That is, what they did with class time was largely up to them. Over the past decade that flexibility has begun to wane -a by-product of high-stakes testing. Teachers report a narrowing of the curriculum that focuses on tested items and breadth of content while sacrificing depth.⁶

Many school districts require teachers to follow strict pacing guides, which prescribe how much time to spend on certain lessons or concepts. Pacing guides are intended to be instruments that teachers use to measure the amount of instructional time devoted to certain topics in light of the total content that must be taught. Properly used, pacing guides are tools to steer daily instructional decisions within the context of the entire curriculum. Used improperly, however, pacing guides unduly restrict the proper ebb and flow of the classroom and restrict the instructional pace regardless of student ability. On this topic, one researcher stated:

Pacing guides are not an inherently bad idea. Their effects depend on their design and how district and school leaders use them. The best pacing guides emphasize curriculum guidance instead of prescriptive pacing. These guides focus on central ideas and provide links to exemplary curriculum material, lessons, and instructional strategies.⁷

Thus, pacing is an important component of instructional planning. It allows teachers to see the curriculum in its entirety and avoid the trap of overemphasizing one area of content at the expense of others. Because instructional time with students is fixed, teachers must value class time.

In the process of classroom instruction, a teacher needs to make decisions regarding how to pace learning activities and how to allocate instructional time on a regular basis. Anderson, Evertson, and Brophy concluded that "at some point during the lesson, the teacher must make a fundamental decision about whether the group as a whole can or cannot meet the objectives of a lesson." When should a teacher decide to move on to the next goals? Should the teacher wait until every single student in the class masters the new content or skill? Should the teacher steer the

class to new directions as long as half of the class attained the learning goal?

Ideally, students are sensitive to the difficulty of the content and objectives to be learned and will allocate their study time accordingly – they will devote more time to more difficult learning. However, Perrin, Banks and Dargue found that students' control of pace is not perfect and they do not always increase study sufficiently for more difficult learning objectives. ⁹ An optimum learning approach is to create adaptive learning strategies that diagnose student learning needs on specific learning areas, develop learning activities that conform to the evolving skill level of the student, and adjust time/pace on a content area according to student performance. This purposeful way of scheduling and rescheduling the learning progress, with flexible incorporation of additional practice and review, can significantly increase the study time allocated to challenging content areas and increase student learning outcomes.

One important misconception that many teachers hold about learning is to perceive it as a mechanical process of information being transferred from textbooks to students who acquire it through listening, reading, and memorization. ¹⁰ However, in reality, the way learners interact with new information is influenced by their experiences and prior knowledge and beliefs, and they often fail to remember, understand, and apply new information that has no connection to them and no context for acquiring meaning. 11 Materials and equipment serve as a supportive rather than a central role in the curriculum and instruction.¹² That is, the school district's core curricula and the teachers' instructional strategies should not be dictated by textbooks. On one hand, materials aligned with curriculum and instruction is indispensable for each student's academic success. Effective teaching is much more than the acting out of scripts written by the publishers of textbooks and tests. 13 Students are frequently

conditioned in their approach to learning by experience in teacher-centered, textbook-driven classrooms. Hill stated:

Traditional textbooks are fact- rather than process-oriented. They stress "what" instead of "how" and "why"...when teachers allow textbooks to dominate instruction they are unlikely to meet today's educational demands for critical thinking, problemsolving, skill-building, and inquiry about the real world. 14

In addition, some topics are too specific to be included in textbooks and some are too new to be included in textbooks. To enrich students' learning, teachers need to be well-informed and resourceful investigators and expect their students to cultivate the same qualities. ¹⁵ Furthermore, to prepare students for the world outside the school, teachers need to "develop ways for them to learn from information as they will encounter in the real-life situations, information that is not predigested, carefully selected, or logically organized." ¹⁶

Planning is preparation for action. Without prior thought and planning, ongoing review, and adjustment as the plan unfolds in practice, and reflection on what worked, what didn't, and how to improve, teachers seldom improve practice. Indeed, planning is an essential tool for effective teaching. Teaching is a complex activity that involves careful preparation and planning, both for short-term learning purposes and for long-term learning purposes. Misulis commented that "regardless of the teaching model and methods used, effective instruction begins with careful, thorough, and organized planning on the part of the teacher." 17

Comparatively, novice teachers have more difficulty responding to individual student needs in their planning. They tend to develop a "one-size fits all" approach to planning, whereas more experienced teachers build in differentiation and

contingencies at different points during the lesson. ¹⁸ To further assist with meeting individual needs, effective teachers typically plan a blend of whole-group, small-group, and individualized instruction.

As an illustration, Haynie examined the planning practices of ten effective and ten less effective teachers whose effectiveness was identified by their students' achievement gains. He found that most top teachers collaborated with one or more teachers while planning lessons; however, the less effective teachers reported they always planned lessons alone. The top teachers also were not restricted by pacing guides, and reached beyond prepared resources to plan their own activities, while the less effective teachers used resources already prepared. In addition, the top teachers used student assessment data in the planning of instruction. Based on data drawn from frequent assessments, they made datadriven decisions about what goals and objectives to address. 19

Allington and Johnston also found that the instruction of effective teachers was multisourced. Exemplary teachers were inclined to stretch the reading and writing beyond the textbooks. Although effective teachers did often dip into prescribed textbooks, they hardly ever followed traditional plans for these materials. For instance, while planning for a lesson in social science, the effective teachers usually used historical fiction, biography, information on the Internet and in magazines, and other nontraditional content sources.

Borko and Livingston investigated the

Borko and Livingston investigated the pedagogical expertise in instructional planning by comparing novice teachers and experienced teachers. They found that novices showed more time-consuming, less efficient planning. While implementing the planned lessons, their attempts to be responsive to students were likely to lead them away from scripted lesson plans. The novice teachers were less successful in translating their instructional plans into actions

than expert teachers. The expert teachers were better able to predict where in a course the students were likely to have problems and predict misconceptions the students would have and areas of learning these misconceptions were likely to affect.

Various research studies have found that effective teachers tend to have the following behaviors while making planning decisions:

- Construct a blueprint of how to address the curriculum during the instructional time. ²²
- Collaborate with one or more teachers while planning, rather than plan lessons alone. ²³
- Facilitate planning units in advance to make intra- and interdisciplinary connections.²⁴
- Use student assessment data to plan what goals and objectives to address. ²⁵
- Plan for the context of the lesson to help students relate, organize, and make knowledge become a part of students' long-term memory.²⁶
- Sequence material to promote student's cognitive and developmental growth.²⁷
- Use knowledge of available resources to determine what resources they need to acquire or develop.²⁸
- Plan instruction in a multi-sourced manner. 29
- Take into account the abilities of their students and the students' strengths and weaknesses as well as their interest level.³⁰

Sample performance indicators for the professional knowledge of teachers

- 2.1 Analyzes and uses student learning data to inform planning.
- 2.2 Develops plans that are clear, logical, sequential, and integrated across the curriculum (e.g., long-term goals, lesson plans, and syllabi).

- 2.3 Plans instruction effectively for content mastery, pacing, and transitions.
- 2.4 Plans for instruction to meet the needs of all students.
- 2.5 Aligns and connects lesson objectives to state and local school district curricula and standards, and student learning needs.
- 2.6 Develops appropriate course, unit, and daily plans, and is able to adapt plans when needed.

Sample student evidence that the teacher has met the criteria for proficiency

- See a logical sequence and purpose for most instruction and activities.
- Describe a variety of activities the teacher uses to engage students in meeting specific standards.
- Learn from assessment tasks that clearly measure progress and mastery of standards.
- Engage in learning activities that lead to achieving and exceeding standards.
- Understand teacher's reasons behind activities, organization of learning, and assessments.
- Understand the connections between CCGPS/GPS and classroom assessments.
- Experience assessments using format, language, and content aligned with district, state, and national mandated tests.
- Demonstrate the use of higher-order thinking skills on assessments.

Sample conference prompts

What process or rationale do you use in selecting standards for lessons or units?

- How do you engage students in planning, learning, and assessing their learning?
- How do you plan for assessment of student progress and mastery of standards?
- In what ways have you worked with colleagues toward deeper assessments and use of assessment data to plan?

- How do you build high-quality, demanding assessments?
- How do you plan for the different needs of your students?

Teacher Self-A	Assessment Checklist				
Performance	Standard 2: Instructional Planning				
Quality		Exemplary	Proficient	Needs Development	Ineffective
Learning Objectives	Set clear, specific, and unambiguous learning objectives to communicate intended learning outcomes. Identify learning objectives that focus on high cognitive levels of student learning (e.g., analysis, synthesis, evaluation, and creation). Use learning objective to design instructional strategies and organize learning activities. Encourage students to objectively evaluate their progress against the benchmark.				
Differentiated Planning	Use student assessment and diagnostic data in instructional planning. Plan a learner-centered environment that allows for student choice, flexibility, and independence. Use a variety of grouping arrangements and ensure high mobility within the classroom. Plan advanced learning (e.g., enrichment, curriculum compacting) for gifted learners. Plan remediated learning for struggling students.				
Alignment with Curriculum	Construct a blueprint of how to address the curriculum during the instructional time at the beginning of the school year or semester. Plan appropriate long-range learning and developmental goals for students. Align daily lesson plans with district curriculum guides. Sequencing learning materials and activities logically and develop appropriate timelines for the completion of instructional units of study. Identify and develop assessment strategies to determine the extent that intended learning has occurred.				
Resources and Materials	Integrate other content areas when appropriate. Use materials from a wide variety of resources for lesson planning. Determine available technology resources and integrate technology into instruction when it is value-added. Evaluate the quality of available resources when designing a unit or lesson.				
Team Planning	Collaborate with other teachers to make intra- and inter-disciplinary connections.				



Fact Sheet #5 - Performance Standard 3: Instructional Strategies

INSTRUCTIONAL STRATEGIES

The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.

Instruction is a process in which teachers apply a repertoire of instructional strategies to communicate and interact with students around academic content, and to support student engagement. An array of studies reveals that teachers who have similar professional qualifications (e.g., degree, certification, years of experience) instruct differently in their classroom and vary significantly in their ability to help students grow academically. However, the primary difference between effective and ineffective teachers does not lie in the amount of knowledge they have about disciplinary content,² the type of certificate they hold, 3 the highest degree they earned, 4 or the years they have been in the teaching profession.⁵ Rather, the difference lies more fundamentally in the manner in which they deliver their knowledge and skills while interacting with the students in their classrooms.⁶ Numerous studies reveal that schools and teachers with the same resources yield strikingly different results in terms of student learning. Thus, it seems clear that these differences depend on how the resources are used by those who work in instruction.⁷

Based on a synthesis of over 500,000 studies of student achievement, Hattie suggested that teachers account for 30% of student achievement variance, with the rest attributable to school, family, and student variables. It is estimated that only about 3% of the contribution teachers make to student learning is associated with teacher experience, educational level, certification status, and other readily observable characteristics. The remaining 97% of teachers' effects on student achievement is associated with intangible aspects of teacher quality that defy easy measurement, such as classroom practices. Thus, teachers' practices inside classrooms have not only statistical significance, but also practical

significance in terms of student learning. Numerous studies and literature reviews have begun to focus upon identifying the classroom practices of effective teachers. ¹⁰ Figure 3 summarizes the findings of two literature reviews conducted by Hattie on a range of variables relating to student achievement. ¹¹ The elements highlighted below are descriptors of classroom-level instructional practices and their corresponding effect sizes.

An essential aspect of effective instruction that helps build and sustain student engagement is relevance of the instruction. Making instruction relevant to real-world problems is among the most powerful instructional practices a teacher can use to increase student learning. 12 This kind of instruction allows students to explore, inquire, and meaningfully construct knowledge of real problems that are relevant to their lives. Moreover, students are motivated and engaged when their learning is authentic, especially when the real-world tasks performed have personalized results. Research indicates that students have higher achievement when the focus of instruction is on meaningful conceptualization, especially when it emphasizes their own knowledge of the world. 13

Selected research-supported key elements of effective instructional delivery include:

Note: This list is not intended to be a comprehensive set of research-based instructional strategies, but rather an indicative set of those strategies for which there exists solid evidence of success.

Key Elements of Effective Instructional Delivery

	Delivery			
Key	Descriptions			
Elements				
Differentiatio	The teacher uses multiple			
n	instructional materials,			
	activities, strategies, and			
	assessment techniques to meet			
	students' needs and maximize			
	the learning of all students. 14			
Variety	The teacher implements a			
	variety of classroom			
	techniques and strategies that			
	enhance student motivation			
	and decrease discipline			
	problems. ¹⁵			
Cognitive	The teacher provides in-depth			
challenge	explanations of academic			
	content and covers higher-			
	order concepts and skills			
	thoroughly. ¹⁶			
Student	The teacher is supportive and			
engagement	persistent in keeping students			
	on task and encouraging them			
	to actively integrate new			
	information with prior			
	learning. ¹⁷			
Recognizing	The teacher recognizes the			
patterns of	schema or pattern in student			
student	learning, makes inferences			
learning and	about the situation (such as			
adjusting	identifying the difficulties the			
	students are having), and			
	promptly adjusts the materials,			
	learning activities, and			
	assessment techniques to			
	maximize student learning. 18			
Questioning	The teacher uses multiples			
	levels (particularly higher			
	cognitive levels) of			
	questioning to stimulate			
	student thinking and monitor			
	student learning. ¹⁹			

Relevance	The learning process and the
	outcomes of learning have
	authentic relevance with
	students' life. ²⁰

Students arrive at school with a variety of backgrounds, interests, and abilities. This means that a one-size-fits-all approach to instruction is ineffective, probably counterproductive, and perhaps even unethical. If the goal of instruction is to provide an opportunity for all students to learn, then the instructional practices that teachers choose to employ in the classroom matter and matter greatly. ²¹ In an analysis of educational productivity in the United States and other countries, teachers' classroom instruction was identified as one of the most significant variables having a great effect on student affective, behavioral, and cognitive outcomes.²²For instance, the instructional practice of reinforcement has a magnitude of 1.17 standard deviations on educational outcomes. The effect of cues, engagement, and corrective feedback is approximately one standard deviation each. Personalized and adaptive instruction, tutoring, and diagnosticprescriptive methods also have strong effects on student learning, with effect sizes* of .57 (i.e., 22 percentile gain), .45 (i.e., 17 percentile gain), .40 (i.e., 16 percentile gain), and .33 (i.e., 13 percentile gain), respectively.²³

Questioning can be another highly effective instructional tool when used properly.²⁴ In particular, the types of questions asked, wait time, and types of responses play a role in the propitious use of questioning.²⁵There are substantial differences in the adept use of

^{*}Effect size is a measure of the magnitude of a treatment effect. Effect size helps us determine if the treatment effect is practically significant. The effect size can be interpreted as the average percentile standing of the students who received the treatment relative to the average untreated students. For instance, the strategy of mastery learning has an effect size of 0.58 on student achievement. An effect size of .58 would translate into a percentile gain of approximately 20 points.

questioning between effective teachers and ineffective teachers. On the negative side, in a study of mathematics classrooms, Craig and Cairo found that teachers asked more than 99% of the questions. They also found that teachers tended to provide little wait time, asked recall and use questions, and designated a particular student to answer a question. ²⁶ On the positive side, one case study found that teachers deemed effective asked approximately seven times higher cognitive-level questions than those considered ineffective. ²⁷

Effective teachers ask questions that are sensitive to students' differential levels of learning abilities, and that the questions are more closely aligned with learning outcomes and learning activities. Effective teachers try to accommodate their teaching to students of different levels. They take students' individual needs into account while differentiating the learning objectives, learning activities, and assessments, so that ALL students can engage with meaningful learning. Effective teachers have also been found to be more self-reflective and critical about their own classroom instruction. They are more adept in planning, evaluating, and modifying their instructional process, and more skillful in deploying strategies flexibly to attain their instructional goals.²⁸

The complexities of teaching involve the focus on not only the breadth of content and skills that students should possess, but also the depth of the content and skills.²⁹ Effective teachers focus on meaningful connections rather than isolated facts and ideas.³⁰ A study of student performance on the NAEP found that when teachers emphasized facts over reasoning, students performed more poorly than those of teachers who emphasized reasoning.³¹ Effective teachers emphasize meaning. They encourage students to respond to questions and activities that require them to discover and assimilate their own understanding. rather than to simply memorize material.³² These teachers also present and engage students in content at various levels of complexity, using a

broad range of objectives and activities and employing activities and questions that address higher and lower levels of cognitive complexity.

Techniques that have been found to substantially increase student achievement include direct instruction, simulated instruction, and integrated instruction.³³ Integrating technology has also been associated with better academic achievement.³⁴ In addition, instruction that includes hands-on activities and cooperative groups has been associated with increased academic performance.³⁵ Furthermore, questioning as an instructional strategy has also been found to be effective among students.³⁶ A study of student reading growth revealed that the more teachers focused on higher level questions, the better students performed in reading.³⁷ Teachers also provided wait time for students to reflect on their answers.³⁸ Throughout instruction, effective teachers model and provide scaffolding to support student achievement.³⁹ While extant empirical studies focus on specific techniques and their impact on student achievement, the common thread among the studies is the focus on using a variety of instructional strategies.

Selected instructional practices exhibited by effective teachers are noted in the following list. The effective teacher:

- Stays involved with the lesson at all stages so that adjustments can be made based on feedback from the students.⁴⁰
- Uses a variety of instructional strategies, as no one strategy is universally superior with all students.⁴¹
- Uses research-based strategies to enhance the time students spend with teachers by making instruction student-centered.⁴²
- Involves students in appropriate and challenging learning activities, such as cooperative learning, to enhance higher order thinking skills.⁴³

- Knows that instructional strategies that use students' prior knowledge in an inquiry-based, hands-on format facilitate student learning.⁴⁴
- Uses remediation, skills-based instruction, and differentiated instruction to meet individual student's learning needs.⁴⁵
- Uses multiple levels of questioning aligned with students' cognitive abilities. 46

There is no single classroom practice that is necessarily effective with all subject matter and all grade levels. 47 Effective teachers recognize that no single instructional strategy can be used in all situations. Rather, they develop and call on a broad repertoire of approaches that have proven successful for them with students of varying abilities, backgrounds, and interests.⁴⁸ Effective instruction involves a dynamic interplay among content to be learned, pedagogical methods applied, characteristics of individual learners, and the context in which the learning is to occur. 49 Ultimately, subject matter knowledge, pedagogical skills, and an inspiration for instructional innovation and development can liberate individual teachers to explore the diversification and richness of daily practice.

Impact of Teacher Instructional Strategies on Student Achievement⁵⁰

<u>Variables</u>	Effect	Source of
	<u>Size</u>	<u>Influence</u>
Providing formative	.90	Teache
evaluation		r
Acceleration	.88	School
Teacher clarity	.75	Teache
		r
Feedback	.73	Teache
		r
Teacher-student	.72	Teache
relationships		r
Meta-cognitive	.69	Teache
strategies		r
Students' prior	.67	Student
achievement		
Not labeling students	.61	Teache
		r

Ducklana calvina	61	,	Tasalas
Problem-solving	.61		Teache
instruction		r	
Direct instruction	.59	ĺ	Teache
		r	
Mastery learning	.58	,	Teache
		r	
Concept mapping	.57	,	Teache
		r	
Socioeconomic status	.57		Home
Class environment	.56	,	Teache
		r	
Challenge level of	.56	,	Teache
learning goals		r	
Peer tutoring	.55	,	Teache
C		r	
Parental involvement	.51		Home
Expectations	.43		Teache
p ••••••••	,	r	
Matching students'	.41		Teache
learning styles	. 11	r	1 caciic
Cooperative learning	.41		Teache
Cooperative learning	,71		1 Caciic
Advance organizers	.41	r	Teache
Advance organizers	.41		Teache
Higher cognitive	.46	r	Teache
	.40		Teache
questioning Peer effects	.38	r	Student
	.38		Teache
Time on task	.38		reache
	27	r	T 1
Computer-assisted	.37		Teache
instruction	2.4	r	- ·
Frequent testing/	.34		Teache
Effects of testing		r	
Homework	.29	,	Teache
		r	
School aims and	.24		School
policies			
Affective attributes of	.24		Student
students			
Finances	.23		School
Individualization	.23	,	Teache
		r	
Teaching test-taking	.22	,	Teache
and coaching		r	
Physical attributes of	.21		Student
-		•	

students		
Personality	.19	Student
Family structure	.17	Home
Ability grouping	.18	School
Reducing class size	.13	School
from 25 to 13		
Teacher subject matter	.09	Teache
knowledge		r
Student control over	.04	Teache
learning		r
Retention	16	School
Television	18	Home

Sample performance indicators for the professional knowledge of teachers

- 3.1 Engages students in active learning and maintains interest.
- 3.2 Builds upon students' existing knowledge and skills.
- 3.3 Reinforces learning goals consistently throughout the lesson.
- 3.4 Uses a variety of research-based instructional strategies and resources.
- 3.5 Effectively uses appropriate instructional technology to enhance student learning.
- 3.6 Communicates and presents material clearly, and checks for understanding.
- 3.7 Develops higher-order thinking through questioning and problem-solving activities.
- 3.8 Engages students in authentic learning by providing real-life examples and interdisciplinary connections.

Sample student evidence that the teacher has met the criteria for proficiency

- Make transitions from prior knowledge to new concepts with teacher support.
- Grasp meaning, not just facts.
- Create a range of products that provide evidence of learning in a unit.
- Use multiple strategies in learning new concepts.
- Take reasonable risks in responding, questioning, and/or producing products that reflect higher order thinking.

- Use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decision.
- Demonstrate an ease of use with a wide variety of technology and software resources to complete assignments and show understanding of learning.
- Examine his/her own work and can explain how it relates to GPS/CCGPS.
- Describe learning expectations for which they are responsible, either in their own language or the language of the standard.
- Compare his/her work against standardspecific benchmarks and show evidence of the standards in their work.

Sample conference prompts

- What is an example of a research based strategy you have used to successfully engage students?
- How do you learn about proven researchbased strategies?
- How do you share what works with other colleagues?
- In what ways have you sought to keep instruction focused at a higher level of thinking?
- In what ways do you use technology and resources to promote higher-order thinking?
- How do you challenge special education students to use higher-order thinking skills?
- How have you worked with colleagues to locate and use technology tools and resources?
- What is an example of a lesson you developed that incorporated technology?
- How have you used benchmarks and exemplars this year as related to student mastery of standards?
- How have you worked with colleagues to develop exemplars and benchmarks?
- How have you created, modified, or used rubrics to communicate expectations?

	-Assessment Checklist				
	e Standard 3: Instructional Strategies		ı		
Quality		Exemplary	Proficient	Needs Development	Ineffective
Instructional strategies	Employ a variety of techniques and instructional strategies to enhance student motivation and decrease discipline problems.				
	Use both direct instruction and indirect instruction flexibly to serve appropriate learning purposes.				
	Stress meaningful conceptualization, emphasizing the students' own knowledge of the world.				
	Match instruction on students' achievement levels and needs.				
	Think through likely misconceptions that may occur during instruction and monitor students for these misconceptions.				
	Connect the learning process and outcomes to the authentic contexts in students' real life.				
	Adjust the delivery and pacing of the lesson in response to student cues.				
Content and Expectation	Choose appropriate pedagogical strategies that can best present the content.				
	Give clear examples and offer guided practice.				
	Make the learning student-centered.				
	Stress student responsibility and accountability in mastery of content and skills.				
	Teach students to reflect on learning progress.				
Cognitive Challenge	Is concerned with having students learn and demonstrate higher-order thinking skills rather than memorization of facts.				
	Provide in-depth explanations of academic content and cover higher- order concepts and skills thoroughly.				
	Stress meaningful concept mapping to connect new knowledge with prior learning.				
Questioning	Ask questions that reflect type of content and goals of the lesson.				
	Ask questions of varying depths of knowledge.				
	Use wait time during questioning.				
	Recognize the pattern in student learning and promptly adjust instruction to maximize student learning.				



Fact Sheet #6 - Performance Standard 4: Differentiated Instruction

DIFFERENTIATED INSTRUCTION

The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.

Effective teachers differentiate instruction and individualize for the range of student needs, abilities, and preferences in the classroom. Instead of using uniform strategies for all students, effective teachers design instruction that motivates each student and they communicate content in such a way that students are able to comprehend based on their individual prior learning and ability. Because students learn in a variety of ways and at a variety of rates. teachers should deliver their lessons with appropriate variety. As Weiss explained, differentiation to maximize the learning of individual students is the cornerstone of effective teaching. He pointed out that "we do our kids a disservice by choosing one pedagogy and using it all the time." Carolan and Guinn stated that: "Diversity is a gold mine. It offers all members of a diverse group multiple ideas, perspectives, and solutions to problems. Teachers can nurture this diversity early on by maximizing the potential of each student in their classroom."²Effective teachers tend to recognize individual and group differences among their students and accommodate those differences in their instruction.³ They adapt instruction to meet student needs, which requires careful assessment and planning for all students in the classroom, as well as the ability to select from a range of strategies to find the optimal match to the context. Differentiation requires teachers to reflect on students as individuals. They also need to be clear about what students should know, understand, and able to do as the result of a segment of learning, and they also need to have a repertoire of instructional approaches to manage and facilitate flexible student-centered instruction.⁵

Studies on student achievement and on perceptions of teacher effectiveness have emphasized the importance of appropriate differentiation in instruction, including the following findings:

- Students are most engaged and achieve most successfully when instruction is appropriately suited to their achievement levels and needs.⁶
- Instructional differentiation requires careful monitoring and assessment of student progress, as well as proper management of activities and behavior in the classroom.
 Placing students into groups based on ability without tailoring instruction to the different groups is insufficient to support academic success.⁷
- Effective teachers know and understand their students as individuals in terms of their abilities, achievement, learning styles, and needs and give greater emphasis to individualization in their teaching.⁸

A meta-analysis of the extant research suggests that instruction based on learning styles is positively related to student attitudes and achievement. Dunn et al. conducted a metaanalysis of 36 experimental studies to examine the effects of teaching students through their learning-style preferences. 10 They found that instructional interventions designed to meet the learning needs of the students showed a statistically significant difference in achievement over students not being accommodated, with an effect size of .353. That means students whose learning styles are accommodated would achieve 75% of a standard deviation higher than their counterparts whose learning styles are not accommodated. Dunn et al. also extended this finding to at-risk students, reporting that mean achievement increased nearly one standard deviation (i.e., approximately 84th percentile versus 50th percentile) when teachers accommodated for learning styles. 11 Implementing a variety of classroom techniques and strategies also enhances student motivation

and decreases discipline problems. 12 Furthermore, differentiated instruction enables teachers to adjust their curriculum, materials, learning activities, and assessment techniques to ensure that all students in a mixed-ability classroom can have different avenues to process new knowledge and develop skills, while having equal access to high-quality learning. 13

Studies have found that a learning unit that has been enhanced or modified based on student learning abilities can improve students' learning outcomes compared with a regular textbook unit. 14 Furthermore, students from all socioeconomic backgrounds and of different prior achievement levels make significant gains during the implementation of a differentiated unit. They also present higher motivation for learning. These studies indicate that teachers can differentiate the regular teaching materials, through the use of flexible grouping practices based on pre-assessment of student learning, and the increase of the breath (i.e., interest, choices, and learning style variation) and depth (lessons for different ability levels), to create more meaningful learning for students. Beck also noted that accommodating student differences can be beneficial in many ways. 15 First, it motivates teachers to broaden their instructional versatility and creativity. Second, students are more likely to respond favorably to the subject content that is presented in a way that is compatible to their learning preferences. Third, students' positive attitudes can lead to higher commitment to learning and decrease behavioral problems. Research and best practice indicate that teachers can differentiate at least three classroom elements as shown in Figure 4, according to students' readiness and preference.

How to Differentiate¹⁶

110	w to Differenti	uit
Content	What do we want our students to know? How do we present the curriculum so that all children can learn the content?	Differentiation can take the form of varying the modalities in which students gain access to important learning, for example by (a) listening, reading, and doing; (b) presenting content in incremental steps, like rungs on a ladder, resulting in a continuum of skill-building tasks; and (c) offering learners a choice in the complexity of content with which they will begin a learning task that matches their current level of understanding and from which every learner can experience academic success.
Process	What do we want our students to be able to do? How can we integrate basic and higher-level thinking skills into the curriculum?	Differentiation takes the form of grouping flexibly, for example, by (a) varying from whole class, to collaborative groups, to small groups, to individuals, and (b) providing incentives to learn based on a student's individual interests and current level of understanding.
Product	What do we want our students to create? How can we teach them to become more self-directed learners?	Differentiation can also the take the form of varying assessment methods, such as (a) providing students a menu of choices that may include oral responses, interviews, demonstrations and reenactments, portfolios, and formal tests; (b) keeping each learner challenged at his or her level of understanding with content at or slightly above his or her current level of functioning; and (c) allowing students to have some choice in the means in which they can express what they know for example, writing a story, drawing a picture, or telling about a real-life experience that involves what is being taught.

As general education classrooms are increasingly inclusive, differentiation is becoming more essential to enable all students to achieve their optimal levels of learning. Despite the importance of differentiation, teachers are still not implementing it on a regular basis. Many teachers are resistant to differentiation because:

- They do not receive administrative support.
- They fear that straying from the mandated curriculum may result in lower standardized test scores.

- They have classroom management or student behavioral problems.
- They are resistant to long-term changes in teaching style.
- They do not have time to plan for differentiation.
- They fear that students' parents may not agree with the practice. ¹⁷

Carolan and Guinn pointed out that many educators mistakenly think that differentiation means teaching everything in at least three different ways. A differentiated classroom does look different from a one-size-fits-all classroom, but often the differences between students are less dramatic. For instance, differentiation can be in form of developing a metaphor matched to a student' cognitive ability and personal interests, or pushing the thinking of an advanced student during a whole-class discussion. Through observations and interviews with five outstanding teachers, they found that their strategies that addressed student individual needs had four common characteristics:

- Offering personalized scaffolding, often inventing supports on the spot as a student faltered. In order to deliver tailored explanations, these teachers had a rich mental database of examples, metaphors, and enrichment ideas to draw on.
- Using flexible means or multiple paths to reach defined ends.
- Mining subject-area expertise. These teachers not only knew the landscape of their subject matter, they also showed multiple ways to navigate it and translate it into their instruction in a manner that led to student learning.
- Creating a caring classroom in which student differences in ability, culture, language, or interests were seen as assets, rather than hurdles.

Sample performance indicators for the professional knowledge of teachers

- 4.1 Differentiates the instructional content, process, product, and learning environment to meet individual developmental needs.
- 4.2 Provides remediation, enrichment, and acceleration to further student understanding of material.
- 4.3 Uses flexible grouping strategies to encourage appropriate peer interaction and to accommodate learning needs/goals.
- 4.4 Uses diagnostic, formative, and summative assessment data to inform instructional modifications for individual students.
- 4.5 Develops critical and creative thinking by providing activities at the appropriate level of challenge for students.
- 4.6 Demonstrates high learning expectations for all students commensurate with their developmental levels.

Sample student evidence that the teacher has met the criteria for proficiency

- Meet the same standards through the same content/process but may demonstrate learning through differentiated products.
- Discover and examine their strengths, talents, interests, and resources with teacher guidance.
- Complete individualized activities designed to achieve success in specific content and/or skills.
- Participate successfully in group learning activities designed to help peers of varied academic strengths and weaknesses work together.
- Practice leadership and support roles in groups with teacher's help.
- Provide feedback to the teacher about how they learn best, when they are confused, and what help they need.
- Learn and enact explicit roles and responsibilities (e.g., group member, listener, partner, worker, etc.)

- Learn in ways that are comfortable and productive for them.
- Explain different group options typically used by the teacher.
- Grasp the meaning, not just the facts, of the content they learn.
- Explain and demonstrate how they can meet or have met the standards.
- Explain personal learning goals and how they have met them.
- Use agenda (or other forms of communication) to record individual learning goals.

Sample conference prompts

- How have you determined which differentiation strategies are appropriate for your students?
- How have you adapted instruction?
- How have you worked with teachers to develop differentiation strategies for special needs and gifted students?
- How do you use technology and resources to differentiate instruction?
- What is your process for determining how to group students for particular lessons?
- How do you use data to support your grouping practices?
- How do you determine whether or not a group is working well? How do you make adjustments to improve effectiveness?
- How do students set their own learning goals in the classroom?
- How do you support student goal-setting and self-assessment during your lesson?

Teacher Self-Assessment Checklist									
Performance Standard 4: Differentiated Instruction									
Quality		Exemplary	Proficient	Needs Development	Ineffective				
Differentiating Content	Increase the breath of learning materials to enhance student learning motivation.								
	Offer students choice regarding the complexity (depth) of content they want to start with so that they can experience academic success.								
	Offer multiple modes of learning for students to be exposed to the target content through their learning-style preferences (such as reading, listening, or doing).								
	Re-teach an idea or skill in small groups of struggling learners.								
	Extend and enrich the thinking or skills of advanced learners.								
Differentiating	Vary instructional strategies and activities for students.								
Process	Vary types of assignment to assess student learning.								
	Routinely combine instructional techniques that involve individual, small-group, and whole-class instruction.								
	Monitor and pace instruction based on the individual needs of students.								
	Draw on a mental database of examples, metaphors, and enrichment ideas to provide personalized scaffold.								
	Offer optimal amount of support/intervention and structure learning tasks to ensure the learning demand is appropriately challenging.								
Differentiating Product	Provide students with choices regarding the method to express required learning, such as presentation, portfolios, or formal tests.								
	Use rubrics that match and extend students' varied ability levels.								
	Encourage students to produce their own product assignment.								
	Allow students to work alone or in small groups on projects.								
Learning Environment	Create an environment in which student differences in ability, cultural background, academic needs and interest are respected and treated as assets.								
	Know and understand students as individual in terms of ability, achievement, learning styles, and needs.								



Fact Sheet #7 - Performance Standard 5: Assessment Strategies

ASSESSMENT STRATEGIES

The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.

A teacher's skill in assessment must be more than merely testing students or measuring achievement. Teacher assessment skill "must center not on how [they] assess student achievement but on how [they] use assessment in pursuit of student success." Researchers usually draw a distinction between assessment of learning and assessment for learning. Gronlund described assessment of learning as "a broad category that includes all of the various methods for determining the extent to which students are achieving the intended learning outcomes of instruction."²Assessment of student learning can emerge in various formats, such as teacher observation, oral questioning, journal entries, portfolio entries, exit cards, skill inventories, homework assignments, project products, student opinions, interest surveys, criterion-referenced tests, or norm-based tests. ³ In comparison, assessment for learning involves the teacher gathering, analyzing, and using data, including state and district assessment data, to measure learner progress, guide instruction, and provide timely feedback. Educators distinguish three different types of assessment based on the purpose and principles that drive assessment:

- Diagnostic assessment the purpose of diagnostic assessment is to ascertain, prior to instruction, each student's strengths, weaknesses, knowledge, and skills and to permit the teachers to remediate, accelerate, or differentiate the instruction to meet each student's readiness for new learning.
- Formative assessment formative assessment is an assessment that is integral to the instructional process to help teachers adjust and modify their teaching practices so as to reflect the progress and needs of the students.
- Summative assessment summative assessment can occur at the end of a chapter, unit, semester or a school year to determine

the student attainment of the standards of certain subject areas.

The practice of assessing student learning is essential for effective instruction and learning. High quality assessment provides teachers with the information regarding the extent to which students have attained the intended learning outcomes, and it informs teachers' instructional decision making (what to teach and how to teach) as well. The goals of assessment are to provide teachers with evidence of student learning and to facilitate teachers in making informed decisions on revising instruction and advancing student learning.

Assessment can facilitate instruction and learning in many ways, including:

- Providing diagnostic information regarding students' mental readiness for learning new content.
- Providing formative and summative information needed to monitor student progress and adjust instruction.
- Keeping students motivated.
- Holding students accountable for their own learning.
- Providing opportunities to re-expose students to content.
- Helping students to retain and transfer what they have learned.⁴

Research has indicated that teachers who introduce assessment into their classroom practice can affect substantial achievement gains. In their 1998 research review, Black and Wiliam examined a multitude of empirical studies to determine whether improvement in classroom assessments can lead to improvement in learning. They found that formative assessment has substantial positive effects on student

achievement, with effect size ranging from 0.3 to 0.7 standard deviations. Particularly, they found that formative assessment is more effective for low achievers than other students, thus, reducing an achievement gap while raising achievement overall at the same time. Wenglinsky found that teachers' use of frequent assessment and constructive feedback had a positive effect on student mathematics and science achievement at all grade levels. Stronge et al. also noted that effective teachers and ineffective teachers differed in their student assessment practices. In particular, effective teachers were found to provide more differentiated assignments for students than those deemed ineffective.

Research has found that an effective teacher:

- Gives regular feedback and reinforcement.9
- Offers timely and specific feedback. 10
- Gives homework and offers feedback on the homework. 11
- Uses open-ended performance assignments. 12
- Analyzes student assessments to determine the degree to which the intended learning outcomes align with the test items and student understanding of objectives.
- Interprets information from teacher-made tests and standardized assessments to guide instruction and gauge student progress by examining questions missed to determine if the student has trouble with the content or the test structure.¹⁴

Assessments are more likely to have a positive influence on student learning when they exhibit the following characteristics:

- Aligned with the framework of learning targets and instruction.
- Of sufficient validity and reliability to produce an accurate representation of student learning.
- Accompanied with frequent informative feedback, rather than infrequent judgmental feedback.

- Involve students deeply in classroom review and monitoring.
- Processes and results are timely and effectively communicated.
- Documented through proper record keeping of learning results. 15

As noted earlier, there are multiple methods for assessing student learning. Guskey found that teachers and administrators believed student portfolios were the most important type of assessment tool used to measure student learning, while division, state, and national assessments ranked the lowest. 16 Interestingly. homework ranked in the middle of Guskey's analysis of assessment types. Regardless of the type of assessment used, the more important issue is the practical value of the assessment in use. Tomlinson suggested that teachers must find a proper fit between students and the method being used to assess their learning. ¹⁷ Assessment is a form of communication. Teachers must allow students to communicate their learning in a manner best suited to their needs.

Given the prevalence of standardized assessments at the state, regional, and national levels, in the United States and in numerous countries around the globe, a brief summary on this particular type of assessment seems in order. Extant literature has documented both positive and negative impacts of standardized assessments on teachers' instruction and assessment at the classroom level. The positive evidence indicates that standardized tests motivate teachers to:

- Align their instruction to standards.
- Maximize instructional time.
- Work harder to cover more material in a given amount of instructional time.
- Adopt a better curriculum or more effective pedagogical methods. 18

However, other research reveals that high-stakes assessments force teachers to:

- Narrow the curriculum.
- Focus on memorization, drills, and worksheets.
- Allocate less time to higher-order skills.
- Restrict their teaching to formulated approaches of instruction. ¹⁹

Standardized assessment is not primarily concerned with what is going on in the daily classroom. Consequently, teachers should maintain a balance between state/national-level assessments and classroom-level assessments to optimize student learning.

Sample performance indicators for the professional knowledge of teachers

- 5.1 Aligns student assessment with the established curriculum and benchmarks.
- 5.2 Involves students in setting learning goals and monitoring their own progress.
- 5.3 Varies and modifies assessments to determine individual student needs and progress.
- 5.4 Identifies and uses formal and informal assessments for diagnostic, formative, and summative purposes.
- 5.5 Uses grading practices that report final mastery in relationship to content goals and objectives.
- 5.6. Uses assessment techniques that are appropriate for the developmental level of students.
- 5.7 Collaborates with others to develop common assessments, when appropriate.

Sample student evidence that the teacher has met the criteria for proficiency

- Give examples of how the teacher assesses prior knowledge at the beginning of most instructional units/courses, etc.
- Give several examples of how the teacher gave different tasks to different individuals or groups.

- Learn from their misconceptions as the teacher uses formative assessment to adjust teaching to meet student needs.
- Participate in and learn from a variety of appropriate formative assessments.
- Explain teacher feedback on summative assessments as well as re-teaching that promotes specific knowledge of the GPS/CCGPS content.
- Describe their strengths and weaknesses based on assessments.

Sample conference prompts

- How are you using assessment data to plant your lesson or unit plans?
- How are you differentiating based on diagnostic data?
- What is your process for analyzing and interpreting diagnostic data you collect on your students?
- How are you using formative assessments to adjust instruction? How do you differentiate based on formative assessments?
- What is your process for analyzing and interpreting formative assessments data?
- What is an example of how you used data to adjust instruction?
- How are the summative assessments connected to the GPS/CCGPS or other standards?
- How does the data from the summative assessment inform your future instruction?

Teacher Self-Assessment Checklist Performance Standard 5: Assessment Strategies							
Quality		Exemplary	Proficient	Needs Development	Ineffective		
Use Different Formats of Teacher-Made	Use conventional multiple-choice, matching, alternate choice, true/false, and fill-in-the-blank questions appropriately.						
Assessment	Use short answer, constructed response, and essay to encourage students to explain their understanding of important ideas and principles.						
	Design performance tasks to ask students to show what they can do with the knowledge and skills learned.						
	Observe students informally in the classroom to assess their ongoing learning.						
	Encourage students' self-assessment of their own thinking, reasoning, processes, and products.						
	Clearly explain homework.						
	Design diagnostic assessment to identify students' strengths, weaknesses, and mental readiness for learning new content or skill.						
	Use formative assessment to monitor student learning progress and modify instruction.						
	Use summative assessment to determine the student attainment of the standards of subject areas.						
	Be a critical consumer of available assessment resources.						
Validity of	Relate assessment to the content under study and to student capacity.						
Assessment	Match assessment to intended learning objectives.						
	Align assessment with written and taught curriculum.						
	Use assessment that can truly reveal whether students understand the learning.						
	Use ongoing assessment to monitor student progress.						
	Use multiple assessments to determine whether a student has mastered a skill.						
	Design assessments to assess both higher- and lower-level content and skills.						
	Exercise accommodations in assessment for students with special needs.						
	Use robust rubrics or scoring guides for student assignments, products, and projects.						



Fact Sheet #8 - Performance Standard 6: Assessment Uses

ASSESSMENT USES

The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.

Effective teachers not only assess student learning, but also they use the results of student assessment systematically and intelligently. That is a commonly adopted strategy by effective teachers and an integral attribute of their instruction. Using assessment means assessment of student learning is not just the end, but also the means to reach an end by continuously monitoring success and step-by-step moving to desired learning outcomes. Assessment is a waste of time and effort if its results are shelved and collect dust. The essence of assessment is how it can lead to improvements in teaching and learning. Assessment use can be defined as the practice that helps teachers use student performance data to continuously evaluate the effectiveness of their teaching and make more informed instructional decisions.² The purposes of assessment use include:³

- Gathering important information about student understanding to make prompt instructional modification - evidence of students' knowledge and understanding.
- Providing timely and informative feedback to students - the nature of feedback given to students.
- Enabling students to set and attain meaningful goals shifts in the way that students learn.

A review of research by Natriello⁴ and Crooks⁵ and more recently by Black and Wiliam⁶ has demonstrated that substantial student learning gains are possible when teachers introduce assessment results into their classroom practice. Assessment data can be used for tasks such as setting annual, intermediate, and ongoing goals. Assessment results also can be used to visually depict goals and visions, motivate students, and celebrate achievements and progress.⁷ Effective teachers provide instruction and support that

leads to quality learning opportunities on a dayto-day basis. Additionally, an experimental study reached the following conclusions for teachers who monitored their students' progress on a regular basis:

- They effected greater student achievement than those who used conventional monitoring methods.
- They had more improvement in their instructional structure.
- Their pedagogical decisions reflected greater realism and responsiveness to student progress.
- Their students were more knowledgeable of their own learning and more conscious of learning goals and progress.

The practice of assessing and documenting student growth is essential for effective instruction and learning. It determines the effectiveness of a period of teaching (e.g., a lesson, a unit, a semester, or a school year) in terms of student learning and provides a basis for continuing instruction. Collecting evidence of students' learning progress provides teachers with day-to-day data on students' mental preparedness for certain learning targets and facilitates teachers in making data-based decisions for instruction modification. The data can come from small-group discussion with the teacher and a few students, whole-class discussion, journal entries, portfolio entries, exit cards, skill inventories, pretests, homework assignments, student opinion, or interest surveys. In addition, reviewing student work (e.g., student writing samples and project-based work) is also an important way of assessing student performance on curricular goals and identifying desired changes in instructional practices.

Student progress monitoring is a technique that can provide teachers with data on students' performance to evaluate the effectiveness of their instruction and make adjustments in their pedagogical behavior. Progress monitoring also can help teachers set meaningful student achievement goals to tap into greater student learning potential. Teachers who use progress monitoring also are better informed of the strengths and weaknesses in student learning and can better decide on what instructional modifications are necessary. Empirical research has found that when progress monitoring is combined with goal-raising, student learning profiles, and appropriate instructional modifications, it can help teachers build stronger instructional programs that are more varied and more responsive to students' learning needs, and effect better academic performance for students. 10 Stecker, Fuchs, and Fuchs noted that teachers effected significant growth in student learning with progress monitoring only when they modified instruction based on progress monitoring data; however, frequent progress monitoring alone did not boost student achievement.11

Effective teachers are often described as flexible and opportunistic. They use various techniques (such as questioning, classroom observation) to diagnose student learning and then adjust instruction promptly to close the gap between where the students are now and where the students should be. Effective teachers are aware that when students begin to indicate unengaged behaviors, that can be the result of poorly planned activities, inadequate scaffolding and modeling, or insufficient attention to developing norms and participation routines in the classroom. 12 To address student off-task behaviors, they not only use behavior control, but also, more importantly, modify their instruction to make it more engaging. Effective teachers ask appropriate questions at appropriate times to solicit information regarding how well students have mastered the basic facts, skills, or

ideas in a lesson. The technique of questioning not only provides students an opportunity to think critically and become more informed about their learning, it also provide important input for teachers to make instructional modifications.

An instructional technique that is complimentary to questioning is feedback. Questions and answers, from teachers to students and back again, represent much of the academic interaction that takes place in schools. This process supports student engagement in learning and enhances teachers' ability to monitor the learning process. 13 Feedback to students that focuses on developing skills, understanding, and mastery, and treat mistakes as opportunities to learn is particularly effective. ¹⁴ Effective feedback targets students' specific misconceptions or errors that occur in a content area or a skill set and that provide informative guidance on what they need to do to maximize their performance. Effective teachers avoid simple yes or no answers; rather, they provide informative explanations of what students are doing correctly, what they are not doing correctly, and how to fix it. 15 Students as well as teachers have strong beliefs about the importance of feedback. Students report that informative feedback makes them aware of their mistakes, highlights ways to make corrections, and informs them of teacher expectations. Teachers report that providing feedback can be arduous and painstaking, but also they feel that it is an important part of instruction.¹⁶

Based on a large-scale research review, Hattie found that compared to their ineffective colleagues, effective teachers were adept at monitoring student problems and assessing their level of understanding and progress, and they provided much more relevant, useful feedback. The research also shows that effective teachers are more adept at developing and testing hypotheses about learning difficulties or instructional strategies. Wenglinsky found that teachers' use of frequent assessment and

constructive feedback had a positive effect on student mathematics and science achievement at all grade levels.¹⁸ Some other characteristics of teachers' effective use of student assessment data include:

- Aligning intended learning outcomes, instruction, and assessment to effectively keep track of students' progress.¹⁹
- Using high-quality homework and classroom quizzes to review student performance on key knowledge and skills, and providing meaningful and timely feedback.²⁰
- Targeting areas of strength and weakness to provide appropriate remediation. ²¹

When teachers monitor students' ongoing learning and use student assessment data to inform their own teaching, they:

- Effect greater student achievement.
- Have more improvement in their instruction and make their pedagogical decisions more responsive to student learning.
- Exhibit greater concerns about learning and higher academic emphasis in their classroom practices.
- Are better at supervising the adequacy of student learning, identifying students in needs of additional or different forms of instruction, and modifying practices to maximize student learning.²²

Fuchs and Fuchs found that teacher use of ongoing student assessment data can be beneficial to student learning in many ways, such as:

- To identify students in need of additional or different forms of instruction.
- To enhance instructional decision-making by assessing the adequacy of student progress.
- To determine when instructional modifications are necessary.
- To prompt teachers to build stronger instructional programs that are more varied and responsive to student needs.²³

Sample performance indicators for the professional knowledge of teachers

- 6.1 Uses diagnostic assessment data to develop learning goals for students, to differentiate instruction, and to document learning.
- 6.2 Plans a variety of formal and informal assessments aligned with instructional results to measure student mastery of learning objectives.
- 6.3 Uses assessment tools for both formative and summative purposes to inform, guide, and adjust instruction.
- 6.4 Systematically analyzes and uses data to measure student progress, to design appropriate interventions, and to inform long- and short-term instructional decisions.
- 6.5 Shares accurate results of student progress with students, parents, and key school personnel.
- 6.6 Provides constructive and frequent feedback to students on their progress toward their learning goals.
- 6.7 Teaches students how to self-assess and to use metacognitive strategies in support of lifelong learning.

Sample student evidence that the teacher has met the criteria for proficiency

- Recognize that the teacher tries to meet the needs of all students.
- Be engaged in learning and on task.
- Explain how they need to perform on most tasks to-meet standard
- Be aware that the teacher works individually with struggling students and high achieving ones on what they need to learn and where they need to focus their efforts.
- Have multiple opportunities to achieve mastery and improve grades.
- Articulate assessment procedures.

Sample conference prompts:

 How do you use assessment data to plan instruction based on student and sub-group need?

- How to you contribute to the RTI process?
- How do you monitor students and use various types of data to assess student needs? What types of data do you use?
- Give an example of a student for whom you identified a need and provided an intervention?

Teacher Self- A	Assessment Checklist				
Performance S	Standard 6: Assessment Uses				
Quality		Exemplary	Proficient	Needs Development	Ineffective
Identify and Enhance	Use assessment data to check for understanding and adequacy of learning.				
Student learning	Return student work in a timely manner.				
	Assess, comment on, and discuss homework in class.				
	Give clear, timely, and informative oral or written feedback.				
	Document student progress and achievement over time.				
	Share progress reports with students and parents in a timely manner.				
	Remediate the learning of students who did not achieve mastery.				
	Provide differentiated instruction based on assessment analysis.				
	Interpret data of teacher-made assessment and standardized assessment accurately and make inferences about student progress and challenges.				
	Provide students with opportunities to reflect on their performance themselves and ask questions.				
	Provide opportunities for students to reengage with the content and skills of the curriculum, rather than focusing solely on the grades.				
	Use assessment data to set future achievement goals.				
Improve Instruction	Use assessment data to self-assess instructional effectiveness and identify areas of strengths and weaknesses.				
	Make instructional decisions based on student achievement data analysis.				
	Make pedagogical decisions more responsive to student learning needs.				
	Design appropriate interventions for students in needs of additional or different forms of instruction.				
	Use information gained from ongoing assessment for remediation and instructional planning.				



Fact Sheet #9 - Performance Standard 7: Positive Learning Environment

POSITIVE LEARNING ENVIRONMENT

The teacher provides a well-managed, safe, and orderly environment that is conducive to learning and encourages respect for all.

Students need an engaging, stimulating, and enriching learning environment to grow and thrive. In order to achieve this type of rich environment, effective teachers establish and communicate guidelines for expected behavior, monitor student behavior, keep students on task, and infuse humor, care, and respect into the classroom interactions, so as to develop a climate that is conducive to student learning. As a result, research has indicated that a positive learning environment can shape student outcomes in cognitive, motivational, emotional, and behavioral domains.¹

Among others, the attributes of caring, supportive, safe, challenging, and academically robust help define what it means to have a positive learning environment that is conducive to student success.² However it is defined, virtually all teachers and administrators, and even students, themselves, recognize how valuable a positive classroom climate is to learning. The most prevalent criteria used to define learning environments are probably the physical arrangement of the classroom, discipline and routines, organization of learning activities, and the engagement of students with tasks, among others. The key features highlighted next can elucidate what research indicates about an effective learning environment.³

Key Features of an Effective Learning Environment

Environment	
Defining Characteri stics	Focus
Physical arrangemen t of the classroom	The teacher develops functional floor plans with teacher and student work areas and furniture/materials placement for optimal benefit. ⁴
Discipline and routines	The teacher establishes classroom rules and procedures early on in the school year. ⁵
Organizatio n of learning activities	Classroom activities have an academic focus. The teacher orchestrates smooth transitions and maintains momentum throughout teaching and learning. ⁶
Engagemen t of students	The teacher uses effective questioning, smooth transitions, and challenging but interesting activities to increase student engagement in learning and student accountability. ⁷
Maximizin g instructiona l time	The teacher protects instruction from disruption and makes the most out of every instructional moment. ⁸
Communic ation of high expectation s	The teacher assumes responsibility for student learning, sets high (but reasonable) expectations for all students, and supports students in achieving them. 9
Care and respect	The teacher establishes rapport and trustworthiness with students by being fair, caring, respectful, and enthusiastic. 10

Research has found that an effective teacher:

- Is adept at organizing and maintaining an effective classroom environment. 11
- Has a sense of "with-it-ness," which can be translated as being aware of when routines need to be altered or an intervention may be needed to prevent behavior problems.¹²
- Fosters relationships where respect and learning are central so students feel safe in taking risks that are associated with learning and believes in the students. 13
- Is culturally competent and attuned to students' interests both in and out of school. 14
- Establishes good discipline, effective routines, smooth transitions, and ownership of the environment as components of establishing a supportive and collaborative climate. 15

A review of research connecting learning environment and student achievement emphasizes a number of key dimensions, including classroom management and structure, positive classroom climate, and classroom talk.

Classroom management and structure:

Teachers who emphasize structure in the classroom are more effective than those who do not. In general, structure means "an aggregate of elements of an entity in their relationships to each other." For our purposes in education, specifically, structure involves physically orienting the classroom for instruction, preparing and organizing materials, and framing lessons in a coherent and logical manner. Effective teachers implement good classroom management to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning. Two key features of effective classroom management are:

- 1. Good management is preventive rather than reactive.
- 2. Teachers create well-managed classrooms by identifying and teaching

desirable behaviors to students.

Effective teachers were found to maintain their management system by "monitoring and providing prompt feedback, pacing class activities to keep them moving, and by consistently applying classroom procedures and consequence." The extant research is fairly clear that good classroom management has a positive influence on students' motivational development.

Positive classroom climate: Effective teachers build a classroom climate where error (i.e., risk taking) is welcomed, where student questioning is high, where engagement is the norm, and where students can gain reputations as effective learners.²⁰ Teachers who make the effort to engage in positive interactions with students make a difference in the academic and social development of their students.²¹

Classroom talk: The interaction between teacher and students, and among students, is another significant indicator of learning environment. Authority is more distributed than centralized through the communication that happens in a positive classroom environment. Additionally, the talk between teacher and student is personalized and personal. Exemplary teachers have been found to use authentic conversation to learn about students and encourage students to engage their peers' ideas.²²

A safe school always starts with individual safe classrooms. Cornell and Mayer stated that "academic success for students begins with a trusting and mutually respectful relationship between student and teacher, extends to classroom order, and culminates in a safe and supportive school climate that is profoundly and inextricably linked to learning outcomes." The classroom environment refers to the conditions, circumstances and influences surrounding and affecting the development and performance of learners. The classroom climate is the shared perceptions of learners about the classroom

environment. The classroom climate can range from a warm, welcoming and nurturing atmosphere to one characterized by coldness and indifference.²⁴

Attributes of Positive Learning Environment

Attributes of Positive Learning Environment						
Positive	Descriptions					
Attributes						
Classroom management and structure	 identifying and communicating desirable behavior consistently applying rules and procedures monitoring student behavior taking preventive rather than reactive management actions pacing class activities and transitioning between tasks smoothly maximizing instructional time keeping students on task making learning meaningful²⁵ 					
Positive classroom climate	 cooperation among teachers and students common interest and values pursuit of common goals a clear academic focus well-organized and well-planned lessons explicit leaning objectives appropriate level of task difficulty for students appropriate instructional pace²⁶ 					
Classroom talk	 respectful, supportive, and productive modeled by teachers practiced to students 					

Anderson suggested that classes have a distinctive personality or "climate" which influences the learning efficiency of their members. The properties that make up a classroom environment include interpersonal relationships among students, relationships between students and their teachers, relationships

between students and both the subject being studied and the method of learning, and the students' perception of the structure of the class.²⁷

As early as 1973, Moos, the first researcher who popularized the concept of classroom climate, developed a measurement scale that measures the climate within a classroom on three broad categories:²⁸

- Relationships the degree to which individuals in the environment help and support each other and express themselves openly and freely.
- *Personal development* the degree to which personal self-enhancement can occur.
- *Maintenance and change in the system* the degree to which the environment is orderly, clear in its expectations, maintains control, and is able to change.

Similarly, the scale developed by Sinclair and Fraser measures classroom environment from five aspects:²⁹

- Cooperation the extent to which students cooperate with each other during class and activities.
- *Teacher Support* the extent to which the teacher helps, encourages, and is interested in the students.
- *Task Orientation* the extent to which it is important to the class to stay on task and complete class work.
- *Involvement* the extent to which students participate actively in their class activities and discussions.
- Equity the extent to which the teacher treats all students equally, including the distribution of praise and questioning and the inclusion in discussion.

Research has demonstrated that students in cooperative learning environments typically perform better than those in competitive or individualistic situations in terms of their reasoning, the generation of new ideas and

solutions, and how well they transfer what they learn from one situation to another, as well as on traditional test measures.³⁰ The trust between the teacher and students and among students themselves is a key element to effective classroom environment. Tschannen-Moran explained the importance of trust in this way: "Without trust, students' energy is diverted toward self-protection and away from learning."³¹

A synthesis of research studies indicates that learning outcomes and gains are positively associated with learning environment characteristics like cohesiveness, satisfaction. task difficulty, formality, goal direction, democracy, and the material environment, but negatively associated with characteristics like friction, cliqueness, apathy, and disorganization.³² Students' perceptions of their learning environment impact their self-concept as a learner. Byer found a positive relationship between students' perceptions of classroom social climate, students' perceptions of classroom affiliation, and academic selfconcept.³³ Byer also found a positive relationship between students' perceptions of classroom involvement and academic self-concept.³⁴ Research also found that students' perceptions of the classroom social environment (teacher support, promotion of mutual respect, promotion of task-related interaction, student support) were related to their engagement in the classroom (self-regulation and task-related interaction). 35

The interaction between teacher and students is a significant indicator of learning environment. Teachers and students spend much of their day interacting academically. However, social interactions and those that give the teacher opportunities to demonstrate caring, fairness, and respect have been shown to be an important element of teacher effectiveness. A teacher's ability to relate to students and to make positive, caring connections with them plays a significant

role in cultivating a positive learning environment and promoting student achievement.³⁶

Teachers who make the effort to engage in positive interactions with students make a difference in the academic and social development of their students. A constructive interaction with students is a motivator for students to act in accordance with the expectation of their teacher. Studies confirm that low student achievement can result from stressful student-adult relationships, while positive relationships can lead to higher levels of student participation and engagement.³⁷

Teacher interactions with students have been found to have effects at all grade levels. Hamre and Pianta found that first grade teachers who engaged in positive interactions with at-risk students reduced the probability of those students experiencing failure in the early grades. Barney found that middle school students developed a more positive attitude toward course content when their teachers took the time to interact with them. Pressley, Raphael, Gallagher, and DiBella found that secondary teachers who got to know their students personally were able to work with them to develop and achieve goals.

Cornelius-White synthesized 119 studies that examined the impact of learner-centered teacherstudent relationships on student outcomes.⁴¹ Specifically, the author focused on the teacherstudents relationships that are characterized by empathy, warmth, genuineness, nondirectiveness, higher-order thinking, encouraging learning/challenge, adapting to individual and social differences, and composites of these. Overall, the meta-analysis found that these student-centered teacher variables have positive association with student cognitive (e.g., academic achievement in math, science, social science, and verbal achievement), affective (e.g., positive motivation, self-esteem/mental health, social connections), and behavioral (e.g., student participation/initiation, outcomes, attendance/absences, disruptive behavior)

outcomes. The mean correlations (r = .31) are above the average compared with other educational interventions.

The following table offers an overview of five basic emotional needs of students that need to be addressed to create a classroom environment for optimal learning and growth:⁴²

Student Emotional Needs and Building an Affectively Healthy Learning Environment

	nealing Learning	
Domains	Characteristics	What Teachers
of	of an	Can Do?
Student	Affectively	
Emotiona	Healthy	
1 Needs	Learning	
	Environment	
Psychological safety	Learners know what is expected, feel safe, and protected, are able to trust others and are able to anticipate or predict the sequence of events from experience.	 Establish clearly defined classroom procedures, policies and practices. Act responsibly and confidences. Maintain neat, clean and orderly physical conditions within the classroom.
A positive self-image	Learners have a strong sense of personal worth and feel capable of being loved and entitled to happiness.	 Give positive feedback that can help students to become aware of their strengths and areas for growth. Build rapport with students. Honor each child's uniqueness. Demonstrate acceptance and caring.

Feelings of belongings	Learners feel that they are equal to others and they are accepted and valued as a member of something larger. The whole class is characterized by bonding, class cohesiveness and a sense of group pride.	 Create an accepting, warm classroom culture. Reduce feelings of isolation or competition by involving students in classroom activities. Provide students with opportunities to be of service to others.
Purposeful behavior	Learners bring meaning to their efforts and sustain an intrinsic joy of learning and the achievement of solving their own problems.	 Be a model to take responsibility for and initiative in the learning process. Set challenging but achievable expectations. Convey clear expectations. Express confidence and faith in their students' abilities. Strengthen values such as responsibility, effort, honesty, perseverance, determination, and commitment.
A sense of personal competence	Learners are attaining optimal learning and performance, both cognitively and affectively.	 Provide options of learning materials and tasks based on students' ability. Be the support and the cheerleader for the students. Recognize the efforts exerted and the growth achieved by individual students. Provide constructive, informative feedback to help students become better. Celebrate success.

Allington and Johnston observed and interviewed 30 fourth-grade literacy teachers in 24 schools from five states, who were identified as exemplary through a snowball nomination process. ⁴³ These teachers' classroom talk was found to have the following characteristics:

- The classroom talk could be described as respectful, supportive, and productive and was not only modeled by the teacher in interactions with students, but also deliberately taught, and expected.
- The talk between teacher and student was personalized and personal. Exemplary teachers used authentic conversation to learn about students. They encouraged students to engage each other's ideas. The authority was more distributed than centralized.
- "No" or "Yes" were rarely uttered by the teachers except in response to gross social transgression.

Effective teachers were found to maintain their management system by "monitoring and providing prompt feedback, pacing class activities to keep them moving, and by consistently applying classroom procedures and consequence."44 Wang, Haertel, and Walberg analyzed a knowledge base comprising 11,000 statistical findings connecting a variety of variables and student achievement in order to answer the question: What helps students learn? They found effective classroom management was the one of the most influential variables in student learning. They concluded, "Effective classroom management increases student engagement, decreases disruptive behaviors, and makes good use of instructional time."45 Their definition of effective classroom management included effective questioning/recitation strategies, learner accountability, smooth transitions, and teacher "with-it-ness."

Taylor et al. also found the most accomplished teachers were experts at classroom management. In general, they had well-established classroom routines and procedures for handling behavior problems, smooth transitions between activities, and a rapid rate of instruction, thus, allowing for high instructional density. They managed, on average, to engage virtually all (96%) of their students in the work of the classroom.⁴⁶

Classroom management includes actions taken by teachers to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning. ⁴⁷ Two key features of effective classroom management are:

- 1. Good management is preventive rather than reactive.
- 2. Teachers help create well-managed classrooms by identifying and teaching desirable behaviors to students.

Elements of effective classroom management include establishing routines and procedures to limit disruption and time taken away from teaching and learning, maintaining momentum and variety in instructional practices, and monitoring and responding to student activity. These elements contribute to students' active engagement in the learning process. 48 Research on the classroom management skills of effective teachers has consistently found that they establish routines for all daily tasks and needs. 49 Effective classroom managers orchestrate smooth transitions and continuity of momentum throughout the day to increase the amount of time spent on academic tasks. An exploratory study of effective versus ineffective teachers found that teachers whose students make greater achievement gains use more routines for everyday tasks than teachers whose students made less than expected achievement gains.⁵⁰ Most effective teachers admit that rules, procedures, and routines take precedence over academic lessons during the first week of school, noting that organization takes a considerable investment of time but has tremendous payback benefits.⁵¹ Another research team noted that

teachers who spend more time establishing instructional routines at the beginning of the school year did not need to exert as much effort on similar tasks later in the year. The investment in initial organizational strategies yielded significant gains in reading scores throughout the year. In comparison, achievement gains were lower among students whose teachers did not demonstrate similar organization skills.

A study conducted by one research team found that students' perception of rule clarity and teacher monitoring are positively related to their development of academic interest in secondary school mathematics classes.⁵³ Another empirical study revealed that the top quartile teachers (i.e., the most effective teachers as identified by the high academic achievement of the students they taught) were more organized with efficient routines and procedures for daily tasks, and they communicated higher behavioral expectations to students than ineffective teachers. The top teachers also were found to have less disruptive student behaviors (on average, once every two hours) than did the less effective teachers (on average, a disruption every 12 minutes).⁵⁴ Disruptive behavior takes away precious classroom learning time. Teachers who can implement effective classroom management can decrease disruptive classroom behaviors and increase student engagement in academic tasks. Disruptive behaviors are particularly problematic for classrooms in that they can interfere with learning, compete with instruction, create an unsafe learning environment, and make it less likely that students will achieve academic objectives.⁵⁵ Teachers often report disruptive behavior as a major classroom concern. Based on a poll of the America Federation of Teachers, 17% of responding teachers said they lost four or more hours of teaching time per week due to disruptive student behavior.⁵⁶

Goldstein stated that teachers may inadvertently contribute to student misbehavior if they do not know how to effectively use praise, attention, reward, privileges, differential attention, time out, and punishment.⁵⁷ Some common mistakes made by teachers are using behavior management techniques inconsistently, having unrealistic expectations, inadvertently reinforcing undesirable behavior, and modeling negative behavior. For example, when attempting to manage problem behavior, teachers may pay attention to a child when the child is noncompliant and withdraw the attention when the child is compliant. Teachers may also overrely on punishment, most frequently reprimands, rather than positive reinforcement.

Sample performance indicators for the professional knowledge of teachers

- 7.1 Responds to disruptions in a timely, appropriate manner.
- 7.2 Establishes clear expectations for classroom rules, routines, and procedures and enforces them consistently and appropriately.
- 7.3 Models caring, fairness, respect, and enthusiasm for learning.
- 7.4 Promotes a climate of trust and teamwork within the classroom.
- 7.5 Promotes respect for and understanding of students' diversity, including but not limited to race, color, religion, sex, national origin, or disability.
- 7.6 Actively listens and pays attention to students' needs and responses.
- 7.7 Creates a warm, attractive, inviting, and supportive classroom environment.
- 7.8 Arranges the classroom materials and resources to facilitate group and individual activities.

Sample student evidence that the teacher has met the criteria for proficiency

- Follow classroom procedures consistently, contributing to a safe and orderly environment.
- Show respect for classmates and the teacher.
- Expect consequences for inappropriate behaviors because they are informed.
- Work well with others.

- Report that the teacher recognizes them as unique learners and strives to acknowledge their differences.
- Engage in discussions of differences.
- Be receptive to working with other students from all groups.
- Receive and give regular acknowledgements, celebrations, and recognitions.

Sample discussion prompts

- What are some examples of the ways you make connections with your students?
- How have you strived this year to make your classroom an inclusive one?
- What is your process for developing classroom rules and procedures?
- How do you address inappropriate behavior?
- How do you recognize and celebrate diversity in your classroom?
- How do you encourage students to celebrate other students' success?

Teacher Self-	Teacher Self-Assessment Checklist				
Performance	Standard 7: Positive Learning Environment				
Quality		Exemplary	Proficient	Needs Development	Ineffective
Caring	Show concerns for students' emotional and physical well-being. Create a warm and supportive classroom climate. Respond to misbehavior on an individual level and privately.				
Fairness and respect	Prevent situations in which a student loses peer respect. Treat students fairly. Create situations for all students to succeed. Show respect to all students.				
Interactions with students	Maintain professional role while being friendly. Give students responsibility. Value what students say. Encourage student cohesiveness and cooperation. Emphasize functional communication between teacher and students and among fellow students.				
Classroom Management	Use consistent and proactive discipline. Establish rules, routines, and procedures early on in the school year. Orchestrate smooth transitions and continuity of classroom momentum. Is aware of all activities in the classroom. Anticipate potential problems. Use space, proximity, or movement around the classroom for nearness to trouble spots and to encourage attention. Prepare materials in advance and have them ready to use. Organize classroom space efficiently to support learning activities. Manage the physical factors (e.g., spatial environment, visual environment) to optimize student learning. Use effective questioning, smooth transitions, and challenging but interesting activities to increase student engagement and minimize disruption.				
Discipline of students	Interpret and respond to inappropriate behavior promptly. Implement rules of behavior fairly and consistently. Reinforce and reiterate expectations for positive behavior. Use both punishment and positive reinforcement to encourage desirable student behavior.				



Fact Sheet #10 - Performance Standard 8: Academically Challenging Environment

ACADEMICALLY CHALLENGING ENVIRONMENT

The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.

The nature of classroom climate is a function of numerous variables, for instance, the implicit rules of the group structure, the style of leadership of the dominant members of the group, norms, cultural traditions, expectancies, affective history, and demographic composition of the group members. Based on research findings, Evans, Harvey, Buckley, and Yan also concluded that classroom climates described as positive have been found to be related to important educational outcomes such as enhanced academic achievement, constructive learning processes, and reduced emotional problems. Nevertheless, classroom climates can also be negative and toxic and related to undesirable outcomes, such as increased bullying and aggression and social and emotional maladjustment.²

Learning can be viewed as a cognitive development process in which individuals actively construct systems of meaning and understanding of reality through their interactions and experiences with their environments.³ In this cognitive developmental process, a quality learning environment is crucial to students' learning, and it is the teacher's responsibility to create conditions of active engagement in the classroom. It is not surprising to see that every decision that effective teachers make and every action they take in their classrooms, either instructional or managerial, serve the ultimate purpose of student academic learning and growth.

Various studies have found that students' perceptions of the classroom environment explain a substantial amount of variance in student achievement, after controlling for their background characteristics, across grade levels, and across subject areas. 4 Classroom learning environment is associated with students'

academic behaviors and academic achievement. Students are more engaged with their learning when they receive high expectations, believe that being in school will enable them to do something positive in their lives, have the ability to learn new things, create new challenges, and prepare them for college.⁵ A study by Barth et al. found that negative classroom environments are associated with a lack of academic focus and lower student outcomes.⁶ Various teacher characteristics that are identified as contributing to positive climate relate to teaching methods – both instructional strategies and discipline management skills – for instance, clear and wellstructured procedural rules, together with opportunities for active participation and engagement.⁷ To illustrate:

- Effective teachers implement effective classroom management to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning.⁸
- Classroom activities have an academic focus. The teacher protects instruction from disruption and makes the most out of every instructional moment. Additionally, the teacher orchestrates smooth transitions and maintains momentum throughout teaching and learning. 9
- The teacher assumes responsibility for student learning, sets high (but reasonable) expectations for all students, and supports students in achieving them. The teacher uses effective questioning and challenging, but interesting, activities to increase student engagement in learning and student accountability. 10

The following set of attributes of high quality learning environments, drawn from the socio-

cultural constructivist perspective, are helpful in describing prominent attributes of an academically robust learning environment:

- Active engagement: learners are directly involved in actions that support cognition and intentional learning.
- Authenticity and relevance: learners attribute value to the learning task and see the relationship between the knowledge to be gained and their personal life.
- Collaboration and community: noncompetitive social interaction of learners with others about the nature of the content and its meaning to themselves and others allowing for the co-construction of knowledge.
- *Learner autonomy*: the learner has some degree of control over or self-selection of the content or methods of learning.
- *Cognitive complexity*: learning tasks are sufficiently representative of reality, with a myriad of web-like interacting forces that must be organized and made sense of.
- *Generativity*: learner engagement in disciplined inquiry that involves using existing knowledge to discover or formulate new ideas, concepts, or information.
- *Multiple perspectives*: experiences allow learners to see the same information in different ways, from different points of view or use it for different purposes.
- *Pluralism*: learners develop a flexible view of reality, rather than a fixation on one single view of reality as correct.
- Reflectivity and metacognitive awareness: learners think about their own learning processes, are involved in identifying strategies to increase their learning, and selfmonitor progress.
- Self-regulation and ownership: learners are and asked to assume personal responsibility for their own learning.
- *Transformation*: learners are expected to comprehend meaning and to use insights gained to reorganize, synthesize, or transform

- information into new forms or for some new purposes.
- Productivity: learners are expected to do something with knowledge required, or use it in some way that is beneficial to themselves or others.

Building on the above attributes, practical instructional and managerial strategies that can help establish and maintain an academically robust learning environment include the following:

- Establishing a clear academic focus.
- Developing well-organized and well-planned lessons.
- Making explicit learning objectives.
- Maximizing instructional time.
- Pacing class activities and transitioning between tasks smoothly.
- Keeping students on task.
- Making learning meaningful.
- Identifying and communicating desirable behavior.
- Consistently applying rules and procedures.
- Monitoring student behavior.
- Taking preventive rather than reactive management actions.
- Building cooperation among teachers and students.
- Focusing on common interests and values;
- Pursuing common goals.
- Determining the appropriate level of task difficulty for students.
- Providing an appropriate instructional pace.

An academically challenging learning environment is often reflected in the degree of teachers' expectations for student performance. When children come to school with lower levels of language and cognitive development, or more behavioral and attention problems, teachers frequently expect less from them, rather than providing them with a rich, challenging curriculum and supports for learning. The cycle of low expectations and low performance

perpetuates when students who are considered less able are required to read less and asked to recall only simple facts and events, while high performing students are challenged to engage in advanced cognitive learning. Holding high performance expectations has an important impact on teachers' instructional practices. By having reasonable expectations for students' growth, teachers can plan carefully linked experiences and provide the foundation for students to meet high expectations. The beliefs that teachers have about their students and their ability to learn can positively or negatively impact their actual learning. The reality is that "students typically don't exceed their own expectation, particularly with regard to academic work. But students will go beyond what they think they can do under certain conditions, one of which is that their teachers expect, challenge, and support them to do so."13

The expectations a teacher holds for students, whether consciously or subconsciously, are demonstrated through his or her interactions with the students during instruction. ¹⁴Student academic performance is influenced by a teacher's expectations and goals for student achievement. In a study of 452 sixth graders, findings revealed that teachers' high expectations served as a significant predictor of student performance both socially and academically. 15 Rubie-Davies found that just by one single school year, the students' selfperceptions of their own abilities in academic areas altered substantially in line with teachers' expectations. 16 To make students experience challenges and success, the teacher provides opportunities to use existing skills and knowledge as well as attain new competencies. 17

Teacher expectations do influence students' learning. The effects of teacher expectations are stronger among stigmatized groups, such as African American students and students from low income families. Students that are frequently the targets of lower expectations are typically

most affected academically. 18 For instance, student perceptions of teachers' expectations are especially important to the academic engagement and efficacy of African American students. Tyler found that the emotional, behavioral, and cognitive engagement and efficacy of African American students were all predicted by their perceptions of teacher expectations. 19 However, it has also been found that teacher expectations for strong academic performance and educational attainment for ethnic minorities or low-income students are generally lower than those for their economically advantaged, European American counterparts.²⁰ Teacher expectations run short where they are needed most. Low teacher expectation of students was identified as one of the five main factors related to the underachievement of African American and Latino students.²¹

There are different ways that teacher expectations influence student achievement. First, teachers are likely to put forth greater effort when they perceive that they are teaching high ability students. 22 Secondly, according to Ferguson, ²³ teacher perceptions and expectations are expressed (unconsciously) through the type of goals teachers set for students, the skills and resources used during instruction, as well as the types of reinforcement that teachers use in the classroom. Warren found that teachers' low expectations and lack of efficacy often resulted in lowered teaching standards, less teacher effort, and the use of watered-down curriculum for low achieving students, especially in poor urban schools. 24 That ultimately impacts students' achievement, academic engagement, and motivation. Through Cotton's review, a multitude of ways in which lowered teacher expectations manifest in the classroom were identified.²⁵ Students who are the target of teachers' low expectations are given fewer opportunities to learn new materials than high expectation students. The wait-time to answer a question is less than what is allotted for high expectation students. Low expectation students

are given the answers to questions or the teacher calls on some other students rather than giving them clues or repeating or rephrasing questions, as is done with high expectation students. Students with low teacher expectation receive inappropriate feedback (e.g., more frequent and severe criticism for failure; insincere praise) or reinforcement that is not a result of desired performance. They also tend to receive less friendly and responsive classroom interactions (e.g., less smiling, affirmative head nodding, leaning forward, and eye contact). They are provided briefer and less informative feedback, less stimulating and more lower-cognitive level questions, as well as less frequent use of effective and time-consuming instructional practices.

Additionally, students often recognize teacher bias and conform to teacher expectations. Children, from their years in school, are highly sensitive to differential teacher expectations and behavior. This type of sensitivity cuts across grades, gender, and ability levels. Research has suggested that students perceive low achieving students as typically receiving more vigilance directed towards them, fewer chances, more negative feedback and direction, more negative affect, and more frequent work- and ruleoriented treatment. In contrast, students typically perceive high achievers as being the recipients of higher expectations and academic demands, more emotional supports and special privileges, and increased opportunities to make choices.²⁶ This phenomenon can be particularly troublesome when teachers stereotype whole groups of students based on personal characteristics such as race or gender.²⁷ Teacher expectations are often connected to what is termed self-fulfilling prophecy. A self-fulfilling prophecy occurs when a false descriptions of a phenomenon induces a new behavior that leads to the originally false description coming true.²⁸ Hauser-cram et al. posited that children in stigmatized groups are more likely to have negative or low teacher expectations which

likely lead to self-fulfilling prophecies of low academic performance.²⁹

Sample performance indicators for the professional knowledge of teachers

- 8.1 Maximizes instructional time.
- 8.2 Conveys the message that mistakes should be embraced as a valuable part of learning.
- 8.3 Encourages productivity by providing students with appropriately challenging and relevant material and assignments.
- 8.4 Provides transitions that minimize loss of instructional time.
- 8.5 Communicates high, but reasonable, expectations for student learning.
- 8.6 Provides academic rigor, encourages critical and creative thinking, and pushes students to achieve goals.
- 8.7 Encourages students to explore new ideas and take academic risks.

Sample student evidence that the teacher has met the criteria for proficiency

- Transition smoothly and without disruption among small and large groups and independent learning.
- Use classroom space and resources efficiently to support their own learning and that of peers.
- Manage time and resources.
- Engage in learning activities for the entire class period.
- Work both independently and cooperatively in purposeful learning activities.
- Keep records of their own progress, behavior, and accomplishments.
- Analyze work against benchmarks and articulate why it meets, exceeds, or does not meet GPS/CCGPS.
- Monitor their behavior with teacher guidance, adjusting behavior when appropriate to support learning.
- Report that they feel successful and respected as learners.

Sample conference prompts

- How do you handle situations where students finish instructional tasks at varying rates?
- How do you plan for substitute teachers?
- What strategies do you use to get the class period started without time wasted?
- How have you sought guidance from colleagues or offered to help other teachers maximize instructional time?
- How do you provide feedback to students?
- How do you help students take responsibility for their own learning and behavior?
- How do you convince students to believe in themselves?

	Assessment Checklist Standard 8: Academically Challenging Environment				
Quality		Exemplary	Proficient	Needs Development	Ineffective
Academic Rigor	Focus classroom time on teaching and learning. Maximize instructional time.				
	Limit disruption and interruptions. Maintain momentum within and across lessons. Carefully link learning objectives and activities. Design challenging but achievable tasks that are relevant to students'				
	lives and experiences, or to current events. Develop objectives, questions, and activities that reflect higher- and lower- cognitive skills as appropriate for the content and the students. Ensure the interactions in classroom have a task orientation.				
Student Motivation and Engagement	Link learning to students' real-life experiences. Organize content for effective presentation. Check student understanding and retain student attention by asking questions. Consider student attention span and learning styles when designing lessons. Be supportive and persistent in keeping students on tasks and encourage them to actively integrate new information with prior				
	learning. Let students have some degree of control over the content or methods of learning to encourage their ownership and autonomy of learning.				
High Expectations	Set clearly articulated high expectations for strong academic performance for all students, including the students who are ethnic minorities or from low-income families. Orient the classroom experience toward improvement and growth. Stress student responsibility and accountability. Monitor student learning closely, and make certain that alternative teaching methods are in place.				



Fact Sheet #11 - Performance Standard 9: Professionalism

PROFESSIONALISM

The teacher exhibits a commitment to professional ethics and the school's mission and participates in professional growth opportunities to support student learning, and contributes to the profession.

Teacher professionalism encompasses key characteristics – professional competence, performance, and conduct – that reflect teachers' goals and purposes, capabilities, values and beliefs, and directly impact the effectiveness of teaching. As a profession, teachers value and practice the principles, standards, ethics, and legal responsibilities of teaching. And, as with any profession, they must be committed to and skilled in the areas of expertise that define teaching. Professionalism should reflect three essential elements of any true profession:

Three Essential Elements of Professionalism

Elements	Descriptions ³
Professional standards and ethics of the profession	 Adhere to legal and ethical guidelines. Adhere to standards defined for the profession. Demonstrate professional demeanor and positive interaction with others. Respect the diversity of ethnicity, race, gender, and special needs.
Continuous self- professional development	 Act as reflective practitioner. Acquire and refine professional knowledge and skill. Engage in ongoing professional renewal. Act, as appropriate, as risk taker, stepping out of comfort zone. Embrace practices of a life-long learner.
Contributions to the profession	 Serve as role model for other educators. Serve on school, district, regional, and state educational committees, work groups, etc. Participate in professional associations. Contribute to the development of the profession (e.g., through presentations, writing).

Teaching seems to differ from many other professions and occupations in the aspect that the kind of person a teacher is, and the way he or she behaves, seem to have considerable implications for the professional practice.⁴ For educators, students, and for the general public, good teaching is inconceivable as apart from the teacher's personal qualities. Teachers' daily practice is grounded in the beliefs, values, and attitudes they hold toward the profession, the students, the school, and themselves.⁵ Carr posited that many of the skills featured in competence models of professional training – such as the abilities to match general curricular prescriptions to individual needs, to maintain student engagement and administer classroom management – depend on the teachers' ethical or personal qualities of empathy, care, respect, fairness, motivation, perseverance, and strong belief that they can succeed in making a difference in students' learning.6

Caring: Caring about students and respecting them as individuals are prevalent in the literature descriptions of effective teachers. Caring is central to student learning – the glue that binds teachers and students together and makes life in classrooms meaningful. Caring fosters a type of teacher-student connection that encourages possibilities for learning that may not otherwise occur. 9 Good teachers are often described as warm, friendly, and caring; conversely, ineffective teachers often are said to create a tense classroom and are described as cold, abusive, and uncaring. 10 When students perceive that their teachers care about them, they respond by "optimizing their commitment to learning and putting forth greater efforts to reach their potential."¹¹ In classroom learning, when students are supported by a caring teacher, they are more likely to ask questions, to take chances,

and to share their inner thoughts in creative writing and through other forms of expression. 12

Teacher dispositions and beliefs are two other variables related to student achievement. They are important qualities that build up a teacher's professional demeanor. Carter used multiple data collection instruments, such as surveys, interviews, observations, and personal records, to develop a better understanding about the characteristics and dispositions of 99 effective teachers. When these teachers were asked to list three characteristics of exceptional teachers, the most mentioned themes are as follows:

- Flexible, adaptable, will search for what works.
- Excellent management skills, organized, discipline issues, etc.
- Caring, compassionate.
- Love working with children, love children.
- Believe all children can learn at high levels, high expectations.

These exemplary teachers were then asked to report two strengths they possessed themselves. The most frequently mentioned strengths included being hard-working and dedicated, possessing excellent communication skills, being enthusiastic and energetic, and being caring and kind. Exemplary teachers regard the ethic of care and respect as a vital foundation for students' best learning and a prerequisite for effective teaching. They reach out to know their students by using multiple sources of knowledge (e.g., solicited critique, dialogues and questions, knowing students informally, knowing from colleagues, and knowing students' cultures). ¹⁴Several studies sought the input of students themselves in identifying characteristics of highly effective teachers. 15 These studies revealed that students described effective teachers as caring, dedicated, motivating, encouraging, nurturing, supportive, and respectful.

Caring¹⁶, self-efficacy¹⁷, and enthusiasm¹⁸ are just a few examples of teacher characteristics that have been demonstrated to influence both cognitive and affective learning. Classroom observations often reveal that effective teachers demonstrate more respect and caring for students than do less effective teachers. 19 Effective teachers use care and respect to build relationships with their students that are conducive to academic learning. Teachers' expressions of care not only enhance students' social skills and self-worth but also encourage their academic development. ²⁰When students perceive that their teachers care about them, they exert higher level of motivation, social responsibility, and affective learning²¹ and they respond by "optimizing their commitment to learning and putting forth greater efforts to reach their potential."²²

Enthusiasm and motivation: Enthusiasm and motivation are two essential attitudes that impact teacher effectiveness and, ultimately, student achievement. Enthusiasm "reflects the degree of enjoyment, excitement and pleasure that teachers typically experience in their professional activities." Teachers who are more enthusiastic about teaching exhibit higher quality instructional behavior, such as monitoring student learning, providing students with more cognitive autonomy support, offering more social support to students, and using higher levels of cognitive challenge. Teacher motivation also is expressed in a range of teacher behaviors that are perceived to be conducive to student learning, such as enthusiasm in content area taught, interest about students' personal and developmental needs, participation in contentrelated activities outside of class time, and displaying value and emotion for students.²⁴

Motivation and enthusiasm are contagious in classrooms. Teachers who display enthusiasm and energy in the classroom often increase student interest and motivation to learn.²⁵ Among various teacher variables, enthusiasm is

the most powerful unique predictor of students' intrinsic motivation and vitality. The students who received instruction from an enthusiastic teacher reported greater intrinsic motivation regarding the learning material and experienced higher levels of vitality. ²⁶ They also exhibited higher rates of on-task behavior. ²⁷

Efficacy: In addition, researchers found positive associations between student achievement and three types of teacher efficacy-related beliefs: academic emphasis, faculty trust in students and parents, and teachers' collective efficacy beliefs about the school system. 28 Teachers of high selfefficacy set themselves higher goals and stick to them. They invest more effort and persist longer than those low in self-efficacy. A growing body of empirical evidence supports that teachers' self-perceived abilities to accomplish desired outcomes are related to the effort they invest in teaching, the goals they set, and their persistence when setbacks occur. 29 The reviews of research on teacher self-efficacy have summarized that teachers' self-efficacy is associated with their teaching practices in classrooms and student outcomes such as students' own self-efficacy beliefs and student engagement, motivation, and achievement.³⁰ Compared to teachers with lower self-efficacy beliefs, teachers with stronger perceptions of self-capability tend to use more challenging teaching techniques, try innovative strategies, and employ classroom instruction that are more organized and better planned, student centered, humanistic.

Professionalism and Professional Growth:

Another key attribute of professionalism is a commitment to continuous improvement and perpetual learning. Interestingly, effective teachers monitor and strengthen the connection between their own development and students' development. Evidence indicates that teachers who receive substantial professional development can help students achieve more. For example, based on the findings of one metanalysis, teachers who receive substantial

professional development (in this instance, 49 hours) can boost their students' achievement about 21 percentile points, and this effect size is fairly consistent across content areas.³²

Effective teachers invest in their own education. They take responsibility for their own learning, actively engage in self-directed learning based on a set of established goals and in community with like professionals, they tend to become more self-directed and take responsibility for their own learning.³³Hammerness et al. developed a framework of teacher learning. This framework envisions that teachers need to conduct professional learning in the following five domains: a vision for their practice; a set of understandings about teaching, learning, and children; dispositions about how to use this knowledge; practices that allow them to act on their intentions and beliefs; and tools that support their efforts.³⁴

A Framework for Teachers' Professional Improvement³⁵

Improvement							
Domain	Description	More Detailed Descriptions					
Vision	Image of what is possible and desirable in teaching	A set of images of good practice that inspire and guide professional learning and practice.					
Understanding	Deep knowledge of content, pedagogy, students, and social contexts	 Possess a coherent and rich conceptual map of the discipline (knowledge); an understanding of how knowledge is developed and validated within different social contexts (methods); an understanding of why the subject is important (purposes); and finally, an understanding of how one can communicate knowledge of that subject to others (form). Understand students' thinking, experiences, development, and learning processes. 					

	G 1	m, , , , , , , , ,				
	Conceptual	Theoretical tools include				
	and practical	learning theories,				
	resources for	frameworks, and ideas about				
	use	teaching and learning, such				
500		as zone of proximal				
Tools		development, culturally				
T		relevant teaching.				
		 Practical tools include 				
		particular instructional				
		approaches and strategies,				
		and resources such as				
		textbooks, assessment tools.				
	Developing,	The knowledge and tools				
	practicing, and	mentioned above need to				
	enacting a	integrate into a set of practices.				
	beginning	These practices include a				
es	repertoire	variety of instructional				
Practices		activities to promote student				
rac		learning, such as designing				
<u>a</u>	and carrying out a lesson plan,					
	explaining concepts,					
		implementing problem-based				
		learning, planning debates,				
		providing feedback, etc.				
	Habits of	These dispositions include				
	thinking and	reflection upon practice, taking				
	action	an inquiry stance,				
32	regarding	determination and persistence				
<u>.</u> <u>.</u>	teaching and	in working with children				
sit	children	toward success, which may be				
Öd		characterized by the				
Dispositions		inclination to take				
Ω		responsibility for children's				
		learning and the will to				
		continue to seek new				
		approaches to teaching.				

Effective teachers continuously practice self-reflection, self-evaluation and self-critique as learning tools. They are curious about the art and science of teaching and about themselves as effective teachers. They often portray themselves as students of learning. They learn by continuously studying their classroom experiences in an effort to improve practice. They constantly improve lessons, think about how to reach particular children, and seek and try out new approaches in the classroom to better meet the needs of their learners. The fection constitutes a disciplined way of thinking that entails calling into question one's existing beliefs and routines in light of new evidence and

altering teaching behaviors accordingly.³⁷ By examining, or reexamining, the content and context of their own behaviors in the classroom they are able to refine or even alter what they do and how they do it. Some researchers define reflective teachers as introspective. They seek a greater understanding of teaching through scholarly study and professional reading. Effective teachers invite feedback; by eliciting information and criticism from others, they broaden their perspectives and gain insight to what may have been previously been missed. Through reflective practice, effective teachers monitor their teaching because they have a strong commitment to students learning and want to make a difference in the lives of students.³⁸

Professionalism and Contributing to the **Profession:** Effective teachers act individually and collectively to advance the teaching profession, and act as shapers, promoters, and well-informed critics of educational policies, instructional innovations, and internal changes that impact on student learning. ³⁹Effective teachers are willing to share their ideas and assist other teachers with difficulties. They volunteer to lead work teams and to be mentors to new teachers. Effective teachers are informal leaders on the cutting edge of reform who are not afraid to take risks to improve education for all students. 40 Their opinions usually contribute to effecting positive changes at school or district level. A teacher can contribute to the teaching profession by engaging in various types of study, inquiry, and even experimentations to develop personal best practices. Individually, teachers are powerful resources to enrich the professional knowledge base about academic standards, curriculum, pedagogy, and assessment by reflecting and sharing personal knowledge of "what works" and "what does not work." Collectively, teachers can network with professional associations and collaborate with social/business agencies to advance overall school improvement.

Research also has found that an effective teacher:

- Links professional growth goals to professional development opportunities.⁴¹
- Is empowered to make changes to enhance learning experiences, resulting in better student retention, attendance, and academic success.
- Selects professional development offerings that relate to the content area or population of students taught, resulting in higher levels of student academic success.⁴³
- Is cognizant of the legal issues associated with educational records, and respects and maintains confidentiality.

Sample performance indicators for the professional knowledge of teachers

- 9.1 Carries out duties in accordance with federal and state laws, Code of Ethics, and established state and local school board policies, regulations, and practices.
- 9.2 Maintains professional demeanor and behavior (e.g., appearance, punctuality and attendance).
- 9.3 Respects and maintains confidentiality.
- 9.4 Evaluates and identifies areas of personal strengths and weaknesses related to professional skills and their impact on student learning and sets goals for improvement.
- 9.5 Participates in ongoing professional growth activities based on identified areas for improvement (e.g., mentoring, peer coaching, course work, conferences) and incorporates learning into classroom activities.
- 9.6 Demonstrates flexibility in adapting to school change.
- 9.7 Engages in activities outside the classroom intended for school and student enhancement.

Sample student evidence that the teacher has met the criteria for proficiency

 Provide thoughtful feedback to teacher about new ideas and strategies tried by the teacher.

- Report that the teacher regularly adapts instruction to improve learning.
- Report that the teacher allows them to actively participate in lessons.
- Improve learning and achievement related to the teacher's learning.
- Report that the teacher and others at the school work together to support student learning.
- Offer their input toward school improvement through the teacher.

Sample conference prompts:

- What impact, if any, have professional interactions with colleagues such as collaboration, coaching, mentoring, or participating in professional learning community activities had on your professional development this year?
- How do you incorporate your professional reading and reflection into your professional practice?
- What has been your most meaningful professional learning experience this year?
- How has participation in professional learning impacted student achievement?
- How have you been involved in the school improvement process this year?
- In what ways has your practice been influenced by the school improvement process, if at all?
- How has student achievement been impacted by implementing the school improvement plan?

Teacher Self-A	Assessment Checklist				
Performance	Standard 9: Professionalism				
Quality		Exemplary	Proficient	Needs Development	Ineffective
Enthusiasm	Show joy for the content material.				
	Take pleasure in teaching.				
	Demonstrate interest about students' personal and developmental needs.				
Professional Standards and	Adhere to legal and ethical guidelines, standards for the profession, and local school board policies.				
Ethics of the Profession	Demonstrate professional demeanor and positive interaction with others.				
Professional Development	Involve in acts of searching and inquiring to find a solution that will solve problems encountered. Demonstrate involvement in learning activities inside and outside school.				
	Assess and audit the gaps in professional practice.				
	Incorporate learning from professional development activities into classroom practice.				
Contribution to the learning	Find, implement, and share new instructional strategies.				
community	Network, share practices through dialogue, modeling, and demonstration within and across schools.				
	Share practices through mentoring, coaching, team teaching and shadowing.				
	Support school change and initiatives.				
Reflective Practice	Know areas of personal strengths and weaknesses.				
Fractice	Compare instructional practice to the best practices supported by extant research.				
	Engage in structured reflection and inquire into own practice.				
	Be analytical and evaluative about professional knowledge.				
	Set high expectations for personal classroom performance.				
	Demonstrate high efficacy.				



Fact Sheet #12 - Performance Standard 10: Communication

COMMUNICATION

The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.

The ability to communicate and collaborate is one of the essential requisites for teacher effectiveness. In fact, at the very core of effective teaching is effective communication. Extant research provides evidence that students taught by teachers with a high level of clarity learn more than those taught by teachers with lower clarity. Teachers with high clarity are perceived to be more capable of conveying ideas effectively and communicating with students in a compelling manner. Closely connected to this notion is the concept of "instructional communication competence" which has been studied widely in educational research. Instructional communication competence was defined by Cornett-DeVito and Worley as:

The teacher-instructor's motivation, knowledge, and skill to select, enact and evaluate effective and appropriate, verbal and nonverbal, interpersonal and instructional messages filtered by student-learners' perceptions, resulting in cognitive, affective and behavioral student-learner development and reciprocal feedback.³

One research team identified, interviewed, and observed 11 award-winning teachers to develop a better understanding of their instructional communication practices. ⁴ Their findings included the following themes related to communication practices in the classroom:

• Understand the ebb and flow of the classroom
The teachers used instructional objectives to
plan classroom activities effectively, but they
were not constrained by predefined plans.
They adapted to the flow of the class and
allowed for spontaneity. Additionally, they
used effective communication to orient
students to learning and help them integrate

- new information with previously learned information.
- Use a wide repertoire of communication skills
 The teachers used a variety of communication behaviors, such as immediacy, humor, and clarity to sustain a positive and interactive environment.
- Create relationships with students The teachers communicated with students about shared experiences to establish interpersonal rapport, and they communicated in an approachable manner through proxemics, kinetics, knowing first names, etc. They also encouraged an open, warm, and communicative environment that invited students' comments, questions, and responses.

The communication skills of a teacher also play an important role in the collaboration with colleagues and other personnel in schools, and in the partnerships with parents and other community members. After all, teaching is communicating and, to a large extent, advocating for learners. Educating a child cannot be one person's work. Certainly, teachers must be responsible and accountable for what is under their control – the academic and nonacademic interactions with their students. Beyond this traditional responsibility, however, good teachers know they must reach beyond the walls of the classroom to solicit collaboration and support from school colleagues on behalf of their students. Furthermore, they understand the need to reach beyond the schoolhouse door to communicate and gain cooperation with families and others in a larger community.⁵

Effective collaboration empowers teachers to reconceptualize themselves as change agents and advocates for their students. Some defining characteristics associated with the important roles of collaborator and advocate are:

- Being an advocate of better strategies for meeting students' learning needs, by being an active learner who seeks, applies, and communicates professional knowledge of curriculum, instruction, assessment, and student development.
- Being an advocate of teaching as a profession by appreciating and practicing principles, ethics, and legal responsibilities.
- Being an advocate for the well-being of the whole educational organization by initiating, valuing, and maintaining collaboration and partnerships with various stakeholders.⁶

Effective teachers not only communicate competently with their students, but also they communicate actively with their professional peers to share best practice, seek advice and suggestions, and conduct collaborative inquires. Change is the constant theme in today's education, and teachers are increasingly challenged to keep abreast of innovations and new developments. They need to communicate with colleagues or others who possess needed information.⁷

Teachers who have a democratic vision about their profession act collaboratively and cooperatively with colleagues and other educational stakeholders. They no longer confine their responsibility to the particular classroom in which they teach; rather, they are committed to making a contribution to the students taught by other teachers, in the school, the district, and the community by and large. 8 Michael Fullan corroborated this vision by proposing that teacher preparation programs should enable each teacher to initiate, value, and practice collaboration and partnerships with students, colleagues, parents, community, government, and social and business agencies. Additionally, teachers of democratic professionalism serve as advocates for the well-being of the educational cause. They act individually and collectively to effect social justice and equity in teaching and learning. They are engaged in purposeful and

critical reflection and dialogues with others on issues that have immediate impact on day-to-day classroom teaching, as well as larger issues and contexts that have indirect influence on social equity in education. ¹⁰

Research findings show that teachers who effectively collaborate often:

- Possess strong communication skills. 11
- Offer clear explanations and directions. 12
- Recognize the levels of involvement ranging from networking to collaboration. ¹³
- Use multiple forms of communication between school and home. 14
- Use informal contacts at school events, the grocery store, and at other community places to keep the lines of communication open. 15

In addition, involvement of families and community can help students become more focused on academic learning. A growing body of research suggested that creating more connections and greater cooperation among the school, family, and community contexts could improve student behavior and discipline, enhance students' academic success, and reinforce stronger self-regulatory skills and work orientation. 16 Epstein asserted that students are influenced by three spheres of influence: family, school, and community contexts in which the students develop. 17 The extent to which these three contexts overlap is contingent upon the nature and degree of communication and collaboration among school educators, parents, and community members. A meaningful and purposeful overlap is conducive to better student learning. School teachers play an important role in ameliorating such overlap. Research indicates that among various factors (such as resources, parents' sense of efficacy, etc.) parents' perceptions of teacher invitation have the most significant influence on their decision to be more involved with their children's education.¹⁸ Teachers can increase family and community

involvement through the following collaborative activities: 19

- Helping families establish home environments to support children as students.
- Designing effective forms of school-to-home and home-to-school communication.
- Recruiting and organizing families to help the school and support students.
- Providing families with information and ideas to support students with homework.
- Including parents in decision-making and developing parent leaders.
- Identifying and integrating resources and services from the community to strengthen schools, students, and families.

LePage also suggested some effective ways to improve teacher-parent communication.²⁰ They include home visits, frequent positive calls home (not centering on students' academic problems, misbehavior, or negative attitudes), on-line connections for homework and information sharing, parent-teacher-student conferences, exhibitions of student work, and parent participation in school activities.

Sample performance indicators for the professional knowledge of teachers

- 10.1 Uses verbal and non-verbal communication techniques to foster positive interactions and promote learning in the classroom and school environment.
- 10.2 Engages in ongoing communication and shares instructional goals, expectations, and student progress with families in a timely and constructive manner.
- 10.3 Collaborates and networks with colleagues and community to reach educational decisions that enhance and promote student learning.
- 10.4 Uses precise language, correct vocabulary and grammar, and appropriate forms of oral and written communication.

- 10.5 Explains directions, concepts, and lesson content to students in a logical, sequential, and age-appropriate manner.
- 10.6 Adheres to school and district policies regarding communication of student information.
- 10.7 Creates a climate of accessibility for parents and students by demonstrating a collaborative and approachable style.
- 10.8 Listens and responds with cultural awareness, empathy, and understanding to the voice and opinions of stakeholders (parents, community, students, and colleagues).
- 10.9 Uses modes of communication that are appropriate for a given situation.

Sample student evidence that the teacher has met the criteria for proficiency

- Observe that both school and home share common expectations for their progress and well-being.
- Give examples of how the teacher involves their families in classroom activities on a regular basis.
- Report that the teacher initiates contacts with their families regularly for both positive and feedback and concerns.
- Are comfortable having the family members visit the classroom.

Sample conference prompts:

- How did you involve family members and community partners in your classroom?
- What do you find is the most effective way to contact family members of your students? Why do you think this is the most effective method?

	Assessment Checklist Standard 10: Communication				
Quality					
		Exemplary	Proficient	Needs Development	Ineffective
Communication	Explain content with a high level of clarity in classroom.				
Skills	Explain rules, expectations, and concepts in a logical, sequential, and age-appropriate manner.				
	Use a wide repertoire of communication behaviors (such as immediacy, humor) to sustain a positive and interactive learning environment.				
	Encourage an open, warm, communicative climate in classroom that invites students' comments, questions, and responses.				
	Exhibit active listening.				
Parental Involvement	Display interest and concern about the students' lives outside school.				
invoivement	Keep a log of parent communication.				
	Provide a description of record-keeping system and how it is used to inform parents, students, and administrators.				
	Create a climate of accessibility for parents and students.				
	Share instructional goals, expectations, and student progress with families in a timely and constructive manner.				
	Use a variety of strategies to encourage parent-teacher communication and connections, such as home visits, frequent positive calls home, parent-teacher-student conferences, exhibitions of student work, and parent participation in school activities.				
	Outreach parents who have social, economic, racial, and/or language barriers to get involved in their children's education.				
Collaboration	Participate in collegial activities.				
	Reduce isolation and develop a more consistent curriculum through collaboration with peers from the same grade level and subject level.				
	Share knowledge and engage in collaborative problem-solving.				
	Interact with and solicit feedback from colleagues, parents, and students.				
	Collaborate and network with colleagues to reach educational decisions.				
	Collaborate with the community to identify and integrate resources and services that can support student learning.				



Fact Sheet #13: Multiple Data Sources

DOCUMENTING TEACHER PERFORMANCE WITH MULTIPLE DATA SOURCES

Use of Multiple Data Sources

Documentation is the process of recording sufficient information about the teacher's performance to support ongoing evaluation and to justify any personnel decisions based on the evaluation. The basic question is: How will the teacher demonstrate performance of the identified standards?³⁵⁴ The complexity of professional roles in today's schools requires a performance evaluation system that reflects that complexity of the job. Given the complexity of teachers' work, attempting to document the work with one method or data source simply is not sensible or feasible. Peterson et al. concisely provided the rationale for using multiple data sources in teacher evaluation when they stated, "no single data source works for all persons...because good teaching comes in a variety of forms and styles."355 Multiple data sources enable the supervisor to obtain a more accurate picture of performance and assist the teacher in increasing student success.

Using multiple data sources in the teacher evaluation process offers numerous advantages over single source data collection processes³⁵⁶. Some of the advantages are:

- A more complete portrait of a teacher's performance.
- Data collection in more naturally occurring situations. Integration of primary and secondary data sources in the evaluation.
- Greater objectivity and reliability in documenting performance.
- Documentation of performance that is more closely related to actual work.
- A more legally defensible basis for evaluation decisions.
- More teacher support and involvement in teacher evaluation when they feel that it is pertinent to their own performance and fair in its use of information in their individual case.

What Data Sources Will Be Included in the *Teacher Assessment on Performance Standards* (TAPS)?

Required:

The following types of data sources are required components in TAPS for documenting teacher quality. The rich data about teacher performance provided by these sources will identify areas of individual strengths and weaknesses and inform appropriate professional activities.

- Formal Observations: The evaluator conducts a structured, planned observation either announced or unannounced typically of a teacher who is presenting a lesson to or interacting with students.
- Informal Observations: Informal observations, such as the walkthroughs/frequent brief observations, are intended to provide more frequent information on a wider variety of contributions made by the teacher. Evaluators are encouraged to conduct informal observations by observing instruction and work in non-classroom settings.
- Documentation: This includes artifacts that provide documentation for the teacher performance standards. Documentation should emphasize naturally occurring artifacts from teachers' work (i.e., lesson plans, instructional units, student assessment).
- Surveys of Instructional Practice: Student survey results will inform the rating of standards 3, 4, 7, and 8 at the Formative and Summative Level and will impact the TEM score.

The following information sources may also be useful in documenting teacher performance. These suggested data sources for teacher

evaluation can be used for both tenured and nontenured teachers.

- Self-Assessment: Self-assessment is a process that teachers reflect on their practice in order to understand, critique, and improve it.
- Other data sources (e.g., conferences, examination of student work, learning team meetings, conversations with students and parents, etc.) that are perceived as appropriate by the local school districts.

How will Multiple Data Sources be used in the Evaluation?

Some teacher standards are better documented through classroom observation (e.g., Instructional Strategies or Positive Learning Environment) whereas other standards may require additional documentation. For example, Standard 2 – Instructional Planning - may necessitate review of the teacher's lesson plans and Standard 5 - Assessment Strategies - may necessitate review of the teacher's classroom assessments. Such evidence often is collected by the teacher and presented in documentation as a complement to the supervisor-conducted observations.

These data sources are not stand-alone, but are complementary to each other and should be integrated in the process of evaluation to provide a richer portrait of teacher performance. The flaws of one data source are often the strengths of another, and by combining multiple sources, evaluators can make more solid judgments regarding teacher performance and make decisions that are supported by multiple types of data. For instance, when comparing observations, documentation can contain a variety of materials that reflect many of the tasks of teaching (either within or without the classroom) and provide evidence related to standards of performance that are easily observable.

Good evaluation and supervision uses a combination of data sources to gauge teachers' performance on the standards. ³⁵⁷ In contrast with traditional teacher evaluation systems which

depend on checklists and obligatory yearly classroom observations, the *TAPS* intends to use different data sources to engage teachers in ongoing assessments that continually provide feedback and the opportunity to examine knowledge, practices, and effectiveness so that they may continue to grow as professionals.



Fact Sheet #14—Observation

OBSERVATION AS A DATA SOURCE FOR TEACHER EVALUATION

Introduction

Observations are intended to provide information on a wide variety of contributions made by teachers in the classroom or to the school community as a whole. Observations can be conducted in a variety of settings and take on a variety of forms, including quick, drop-by classroom visits, to more formal, pre-planned observational reviews, using validated instruments for documenting observations. Furthermore, observations may be announced or unannounced. Evaluators are encouraged to conduct observations by observing instruction and non-instructional routines at various times throughout the evaluation cycle.

Formal Observation: During a formal observation, the evaluator conducts a structured or semi-structured, planned observation – either announced or unannounced – typically of a teacher who is presenting a lesson to, or interacting with, students. Evaluators can use formal observations as one source of information to determine whether a teacher is meeting expectations for performance standards. Typically, the evaluator provides feedback about the observation during a review conference with the teacher. Formal classroom observations should last a specified period of time – for example, 30 or 45 minutes, or the duration of a full lesson. For maximum value, the building level administrator should ensure that formal observations occur throughout the year.

Informal Observation: Informal Observation/Walkthroughs: Informal observations including walkthroughs are intended to provide more frequent information on a wide variety of contributions made by teachers in the classroom or to the school community as a whole. Evaluators are required

to conduct informal observations by observing instruction and non-instructional routines at a minimum of four classroom visits per year per teacher throughout the evaluations cycle. Walkthroughs shall be 10-15 minutes in length each. The electronic platform will assist evaluators in capturing walkthrough documentation. Walkthroughs will be used as a documentation data source for formative assessments and to serve as evidence which supports and enhances the TKES standards ratings in formative or summative assessments. Additionally, walkthroughs should be used as a means to connect with School Improvement Plans and/or specific TKES standards (i.e., Differentiation, Assessment Uses) or behavioral indicators. These informal observations typically are less structured than formal observations. An important factor for evaluators to remember when collecting informal observation data is to focus on specific, factual descriptions of performance and to obtain a representative sampling of performance observations through regular, repeated visits to classrooms.[i]

Advantages of Observation

Observations, including formal and informal observations, are intended to provide direct, naturalistic information on the work of a teacher, student behaviors, and the dynamic interactions between teacher and learners. In addition to classroom observations, observations can be conducted in a variety of job-relevant settings (for example, a conference with a parent, a committee meeting, or a presentation to the school staff).

Concerns about Observation

Observations are an important source of teacher performance information, but should <u>never</u> be used as a sole source for documenting evaluation

performance. Direct observation has major limitations, such as:

- The artificial nature of scheduled observations (when a special lesson is prepared for a special classroom visit).
- The limited focus of teacher duties and responsibilities that may be observed in a given time period.
- The infrequency of the observations.
- Only a portion of the full repertoire of teacher duties and responsibilities can be observed (e.g., selected teacher responsibilities may not be performed during the classroom visit).
- Teachers lack of confidence in the competency of some evaluators.
- Evaluators inflated rating and limited feedback in some situations..

Given the complexity of the job responsibilities of teachers, it is unlikely that an evaluator will have the opportunity to observe and provide feedback on all of the performance standards in a given visit. If the purpose of a teacher evaluation system is to provide a comprehensive picture of performance in order to guide professional growth, then classroom observations should be only one piece of the data collection puzzle.

How is Observation Aligned with Teacher Standards?

Observation may obtain a sample of a teacher's performance, in or out of the classroom, on elements of all the ten identified standards.



Fact Sheet #15–Documentation

DOCUMENTATION AS A DATA SOURCE FOR TEACHER EVALUATION

Introduction

Documentation of a teacher's performance can serve as valuable and insightful evidence for detailing the work that teachers actually do. Evaluators may request documentation when a standard is not observed during an announced or unannounced observation. Documentation should emphasize naturally-occurring artifacts from teachers' work (i.e., lesson plans, instructional units, student assessments).

Documentation of teacher practice and process is an important part of a comprehensive approach for documenting teacher performance. Generally, a teacher's evaluation documentation is considered to be "a structured collection of selected artifacts that demonstrate a teacher's competence and growth". Documentation serves as a system for collecting data and recording work quality during each evaluation cycle. Specifically, the documentation houses pertinent data that confirms the teacher meets the established performance standards. Written analysis and reflection about artifacts often are included in the documentation to provide insight into the rationale for the events and process documented in each entry. Documentation is designed to serve as a complement to other data sources in order to provide a fuller, fairer, more comprehensive view of teacher performance.

Advantages of Documentation

- The artifacts included in documentation provide evaluators with information they likely would not observe during the course of a typical classroom visit.
- Documentation provides the teacher with an opportunity for self-reflection, demonstration of quality work, and a basis for two-way communication with an evaluator. Tucker, Stronge, and Gareis discussed the beneficial nature of documentation by pointing out it is:

"Appealing for many reasons, including their authentic nature, recognition of the complex nature of teaching, encouragement of self-reflection, and facilitation of collaborative interaction with colleagues and supervisors... [It embodies] professionalism because it encourages the reflection and self-monitoring that are hallmarks of the true professional."²

Concerns of Documentation

- When goals and standards are not determined, the result can be unfocused and haphazard. The materials included could be idiosyncratic and biased.
- Documentation process can be timeconsuming for the teacher and the evaluator. Documentation allows teachers to represent the complexities and individuality of their teaching. This is problematic, however, for the same reason

How Is Documentation Aligned with the Teacher Standards?

Documentation contains a broader, more comprehensive collection of naturally-occurring materials than other data sources. A variety of evidence may go into documentation, such as: student work; unit/lesson plans; student assessments; evidence of professional development activities; professional publications; recording of teaching; samples of instructional materials; diagrams of classroom arrangement; summary of analysis on longitudinal student test scores; evidence of help given to colleagues; information from others, such as observation of teaching by qualified others; and significant correspondence and memos.³ Therefore, it is capable of providing teachers with an opportunity to demonstrate professional competence with regard to meeting standards identified in the evaluation system.



Fact Sheet #16: Self-Assessment

DOCUMENTING TEACHER PERFORMANCE WITH SELF-ASSESSMENT

Introduction

Self-assessment is a process by which teachers judge the effectiveness and adequacy of their performance, effects, knowledge, and beliefs for the purpose of self-improvement. When teachers think about what worked, what did not work, and what type of changes they might make to be more successful, the likelihood of knowing how to improve and actually making the improvements increases dramatically. ²

Kremer-Hayon identified five major areas that are typically the foci of teacher self-assessment: classroom goals and objectives, learners, subject matter concerns, classroom achievement and progress, and teaching strategies. Effective teacher self-assessment has two distinguishing characteristics:

- A clear expectation for systematic data gathering and interpretation.
- A strategy to validate self-assessment using credible external evaluative sources (e.g., student academic progress).

Aiarasian and Gullickson offered several strategies to enhance teachers' self-assessment: ⁵

Self-reflection tools: These involve check lists, questionnaires, and rating scales which are completed by the teacher to evaluate performance in terms of beliefs, practice, and outcomes.

Media recording and analysis: Audio and video recordings provide a useful method for the teachers and their peers to review and analyze a teacher's performance.

Student feedback: Surveys, journals, and questionnaires can provide a teacher with the students' perspective.

Documentation: Teachers have an opportunity for demonstrate their performance as they collect and analyze the various artifacts for documentation.

Student performance data: Teachers can assess their instructional effectiveness by using test results, projects, essays, and so forth.

External peer observation: Colleagues, peers, and administrators can provide useful feedback on particular aspects of another teacher's behavior.

Journaling: Teachers can identify and reflect on classroom activities, needs, and successes by keeping track of classroom activities or events. Collegial dialogue/experience sharing/joint problem solving: By collaborating on strategies, procedures, and perceptions, teachers are exposed to the practices of colleagues, which can serve as a catalyst for them to examine their own practices.

Advantages of Self-Assessment

Self-assessment is a critical component of the evaluation process and is strongly encouraged based on the following advantages:

- Give teachers more "voice" and control about their professional growth.
- Make teachers more responsible for demonstrating their own competence.
- Provide opportunities for teachers to enhance reflection, understanding, and improvement of practices, and make teachers more likely to question their taken-for-granted expectations, norms, beliefs, and practices.⁶

Concerns of Self-Assessment

There are many personal and situational factors that can present barriers to the conduct of valid, meaningful self-assessment, such as:⁷

 A variety of formal self-assessment strategies (such as peer observation) are not adopted because the lack of time to implement, analyze, and interpret the information provided.

- Motivation and willingness to participate and persevere in self-assessment depends on personal (e.g., ability of reflection, sense of self-efficacy) and organizational (e.g., collegial and administrative support, trust and openness) factors.
- The standards and criteria used for selfassessment by individual teachers tend to be tacit, idiosyncratic, and changeable. Teachers tend to use spontaneous and intuitive judgments rather than more formal standards.

How is Self-Assessment Aligned with the TAPS Teacher Standards?

Self-assessment can be used by teachers to judge the adequacy of their beliefs, knowledge, skills, and effectiveness in all the ten identified standards. It can lead to a self-initiated formative evaluation where teachers develop awareness, reflect on, and improve their performance on each standard.



Fact Sheet #17: Surveys of Instructional Practice

DOCUMENTING TEACHER PERFORMANCE WITH STUDENT SURVEYS

Introduction

The purpose of student surveys is to collect information that will help the teacher set goals for continuous improvement and to provide feedback for professional growth and development. Called Surveys of Instructional Practice, the student surveys within the Georgia Teacher Keys Effectiveness System provide student perception data as an additional source of documentation of teacher performance for four of the ten performance standards within the TAPS component of the system. These four standards reflect the direct experience of students in classrooms: Instructional Strategies, Differentiated Instruction, Positive Learning Environment, and Academically Challenging Learning Environment. Student survey data will be used by administrators as an additional source of documentation of teacher performance for completing the formative and summative assessment.

Student surveys provide information that may not be accurately obtained in classroom observations. Aleamoni recommended student feedback as a main source of information about (1) accomplishment of major educational goals, such as increased motivation; (2) rapport between students and the teacher; (3) elements of a classroom, such as the textbook, the homework, and instruction; and (4) communication between the students and the teacher.¹

Three different surveys designed to match the developmental level of students (one each for Grades 3-5, Grades 6-8, and Grades 9-12) will be administered according to a detailed Survey Administration Protocol published annually by the Georgia Department of Education. Survey data will be collected through a process that matches students with their teacher(s) of record. All surveys will be completed anonymously to promote honest feedback. Purposeful question construction will prompt students to electronically

select only one response per survey statement with no additional commentary.

Teachers who teach self-contained classes (e.g., elementary teachers, special education teachers) will have all the students in their class surveyed. For departmentalized teachers (e.g., middle and high school teachers, elementary PE and music teachers) the site administrator will select the appropriate classes.

All appropriate accommodations will be made for students with disabilities and English Language Learners, based on Individual Education Plans (IEPs) or language instruction education plans (extended time, read aloud, dual language dictionaries, etc.). Severe/Profound special education students, if sampled for participation in the surveys, may or may not participate, with needed accommodations, as determined to be appropriate by the IEP committee. Surveys will be read to Visually Impaired students. Auditory devices may also be utilized. The use of a toggle switch within the electronic platform will allow the survey to be read through headphones for students requiring the accommodation.

District and site administrators will identify a time frame each school year or each semester in which to administer the surveys. Teachers of record will not be involved in administering the survey to their own students; rather, a certified specialist (e.g., media specialist, instructional technology specialist) will administer the survey in a common media center or computer lab, if at all possible. All surveys will be administered using a vendor-hosted electronic platform. The surveys will be accessed through a web-based portal.

Survey results will be analyzed by the Georgia Department of Education and reported to the principal, the district, and teacher.

Advantages of Student Surveys

Student surveys provide information about students' perceptions of how she or he is performing. There is ample evidence to support the use of student surveys in teacher evaluation.

- Students are the primary consumers of the teacher's services. They have direct knowledge about classroom practices on a regular basis. Students have the breath, depth, and length of experience with the teacher. They are in the key position to provide information about teacher effectiveness.²
- Students' perceptions are beneficial for teacher improvement. Teachers look to their students rather than to outside sources for indications of their teaching performance.³
- Student observations of teachers are unobtrusive and occur in the most naturalistic settings.⁴
- Students have the ability to provide perspectives
 that principals cannot offer. They also have the
 ability to rate teachers reliably. Researchers
 compared students' ratings of meritorious and
 non-meritorious teachers with ratings from
 expert practitioners. They concluded that the
 students were able to discriminate between the
 two groups as well as the qualified evaluators.
- Researchers also compared the validity of ratings by students, principals, and the teachers, themselves. They found students' ratings were the best predictor of student achievement, thus demonstrating that students provide valid feedback on teacher performance.⁵

Concerns about Student Surveys

While incorporating student data into teacher evaluation, several issues need to be taken into consideration:

- Student surveys should be restricted to descriptions of life in the classroom.
- Student surveys should be based on discrete and visible behaviors as a way to increase reliability.
- Student survey data for several years may be needed to establish patterns of performance.⁶

- The Survey Administration Protocol must be carefully followed.
- The Georgia Code of Ethics for Educators requires all teachers to follow all GaDOE required testing protocols and procedures to ensure the integrity of the survey data is not compromised.

How Are Surveys of Instructional Practice Aligned with the TAPS Teacher Standards?

Students will answer questions that address teacher performance for standards to which they can respond from personal experience in the classroom. Called **Surveys of Instructional Practice**, the student surveys within the Georgia Teacher Effectiveness System provide student perception data as an additional source of documentation of teacher performance for four of the ten performance standards within the TAPS component of the system. These four standards reflect the direct experience of students in classrooms: 3. Instructional Strategies, 4. Differentiated Instruction, 7. Positive Learning Environment, and 8. Academically Challenging Learning Environment.



Fact Sheet #18: Objective Setting for Student Growth

HOW TO USE STUDENT LEARNING OBJECTIVES IN MEASURING TEACHER EFFECTIVENESS

Introduction

One approach to linking student growth to teacher performance involves building the capacity for teachers and their supervisors to interpret and use student achievement data to set target objectives for student improvement. Setting objectives — not just any objective, but objectives set squarely on student performance — is a powerful way to enhance professional performance and, in turn, positively impact student achievement.

Characteristics of student learning objectives (SLOs)

- Focuses on student learning by specifying learning outcomes
- Is specific, measureable, attainable, and time bound.
- Focuses attention on instructional or program improvement
- Involves the following processes:
 - Examines trend data and current performance;
 - Develops outcomes/targets for improvement;
 - Establishes progress rates for meeting objectives; and
 - Measures academic progress on a regular basis.¹
- Places the individual student at the center of assessment by monitoring individual student progress over time.²

Research

Researchers found that objective setting is particularly effective under the following conditions:

• The objectives are proximal rather than distal (objectives are oriented to the here-and-now rather than to some ultimate objective for the

distant future, although it is important to be conscious of the connection between here-andnow tasks and the accomplishment of ultimate objectives).

- The objectives are specific (but not too specific) rather than global.
- The objectives are challenging (difficult but reachable rather than too easy or too hard).
- Interventions are used that impact directly on the experience of learners.
- There are high teacher expectations of students.
- Formative assessment is emphasized.³

Advantages of Objective Setting

Using student objective setting as a data source for teacher evaluation has many advantages, such as:

- Makes explicit the connection between teaching and student learning.
- Increases effectiveness of instruction through continuous modification of practices based on student data.
- Serves as an important data source for evaluating teachers who teach grades and subject areas that are not tested on SLOs.
- Helps teachers identify students in needs of additional or different forms of instruction.
- Raises student achievement.⁴

Concerns of Objective Setting

Despite the potential benefits of student objective setting, there are possible negative consequences for students and teachers, and these are summarized in the table below:⁵

Possible Negative	Possible Negative
Consequences for	Consequences for
Students	Teachers
Objective setting could	Individual objective
pose a threat to	setting may not be
underachievers. If they	practical or cost
are given low target	effective for teachers
objectives, the students	teaching certain
may underperform to	grades or subject
their teachers' low	areas.
expectations.	
Objectives imply a	The outcomes of
narrowing of the many	student learning are
and varied purposes of	influenced by many
education. This could	external factors that
result in a narrowing of	cannot not controlled
important student	by the evaluatees.
learning opportunities.	
	Teachers are at risk of
	being blamed and
	being treated as
	scapegoats when their
	students do not meet
	objectives.



Fact Sheet #19 - Performance Rubrics in Evaluation

RATING TEACHERS WITH PERFORMANCE RUBRICS

What are performance rubrics?

It is important to consider the question of: <u>What is expected</u> of the teachers and <u>How will we know</u> if the teacher is fulfilling the performance standard. This fact sheet addresses the question of: <u>How well</u> is the teacher fulfilling the performance standard?

During formative and summative evaluation, rubrics are used to guide evaluators in assessing and documenting *how well* a standard is performed. A performance rubric is a summary rating scale that describes acceptable performance levels for each of the ten performance standards. The rating scale provides a description of levels on a continuum from *Exemplary* to *Ineffective*.

Performance appraisal rubrics are not behavioral objectives grounded in quantity (e.g., "four times out of five"). Rather, they are qualitative tools designed to:

- Delineate the type and quality of performance within each rating.
- Distinguish the qualitative differences across the progressive ratings.
- Base the final rating on the documented evidence.
- Restrict the scope of judgment that can be used in determining a given rating.

The *Teacher Keys Effectiveness System Handbook* provides examples of rubrics that are tailored to each of the ten performance standards. These examples use a four-level rubric depicting a continuum of teacher effectiveness on each standard. The levels are: *Exemplary, Proficient, Needs Development,* and *Ineffective.* The rubrics are applied in both summative, which comes at the end of the evaluation cycle, and in formative (ongoing, throughout-the-evaluation-cycle) settings.

Note: The rating of "Proficient" is the expected level of performance.

The ratings for each performance standard are based on multiple sources of information (i.e., observation and documentation) and are completed only after pertinent data from both sources are reviewed. The integration of data provides the evidence used to determine the performance ratings for both formative evaluation and summative evaluation of teachers.

Why Rate Teacher Performance Standards with Rubrics?

There are many advantages in using rubrics to rate teacher performance. Some of the advantages are:

- Rubrics make assessing teacher performance quick and efficient. They also help evaluators justify the ratings they assign to teachers.
- Rubrics are easy to use and self-explanatory.
 Rubrics make sense to both the evaluators and the evaluatees at a glance.
- Rubrics make the expectations for teacher performance very clear. They also make the evaluation process more fair and transparent.
- Rubrics ensure consistency (reliability) among evaluators while they assess how well a standard is performed.
- Rubrics enable evaluators to acknowledge
 effective performance (i.e., Exemplary and
 Proficient) and provide two levels of feedback
 for teachers not meeting expectations (i.e.,
 Needs Development and Ineffective). Therefore,
 rubrics provide teachers with more informative
 feedback about their strengths and areas in need
 of improvement, thus helping teachers to focus
 on ways to enhance their teaching practices.
- At their best, rubrics can be used for the purpose of supporting professional development as well as for evaluation and accountability. For instance, a well-developed rubric on Standard 2-Instructional Planning, not only tells teachers that good planning must be evident in their performance, but also informs them of what an effective performance looks like and guides them in how to do it. In addition, the gradation of quality also describes what less than proficient performance looks like, such as "the

teacher plans without adequately using state and local school district curricula and standards, or without using effective strategies, resources, or data to meet the needs of all students." A rubric that reflects and reveals problems in teacher performance can identify areas of weakness and be informative for professional development decisions.

How can performance rubrics work best?

Despite improved fairness and objectivity, rating a teacher's performance with rubrics is not a fine science. There still will be subjectivity in judgment. To illustrate, evaluators may feel differences in the definitions of performance levels are blurred (i.e., the levels of *Proficient* and *Needs Development*. If Evaluator A views a given aspect of a teacher's performance and rates it *Proficient* and Evaluator B views the same performance and rates it *Needs Development*, then there is less trustworthiness in the ratings. Rating scales should not perpetuate highly subjective reviews of a teachers' performance.

It is recommended that rubrics should be (1) applied systematically, (2) used with improved trustworthiness of evaluators' ratings through interrater agreement (reliability), and (3) based on the best possible performance evidence available. In using performance rubrics, the evaluators should also understand that determining the quality of performance is more than examining a set of facts. It requires consideration of the context of the work, results, and so forth. Thus, evaluation, ultimately, *is* about judgment – albeit judgment based squarely on performance.

A few guidelines that will further enhance the value and defensibility of ratings based on performance appraisal rubrics includes the following:

- 1. When comparing the documented evidence with the performance rubric, start with the *Proficient* rating and move up or down the scale only when the evidence justifies it.
- 2. When all of the collected evidence doesn't fit within a single rating rubric (which typically will be the case), select the rating where the

"totality of the evidence and most consistent practice" exists.

- 3. Provide teachers with the full set of performance appraisal rubrics so that they have full disclosure of the level of performance that is expected and a fair opportunity to meet those expectations.
- 4. Consistently train evaluators in the use of the performance appraisal rubrics, with special attention given to practicing the rubrics in simulated settings.

How will performance rubrics be used in the revised teacher evaluation system?

Evaluators make judgments about performance of the ten teacher standards based on all available evidence. After collecting information gathered through observation and documentation, the evaluator applies the four-level rating scale to evaluate a teacher's performance on all teacher expectations for the summative evaluation. Therefore, the summative evaluation represents where the "totality of the evidence and most consistent practice" exists, based on various data sources.

Summative ratings should apply for each of the ten performance standards. In determining the final summative rating, the electronic platform will:

• Apply numbers 0 (*Ineffective*) through 3 (*Exemplary*) to the Rating Scale

Exemplary = 3 Proficient = 2 $Needs \ Development = 1$ Ineffective = 0

- Calculate the overall TAPS point score through adding the contribution of each standard to the summative computation.
- Appropriately scale the final TAPS score to the final summative Teacher Effectiveness Measure score through using the scale determined by the Georgia Department of Education.



Fact Sheet #20 – Use Evaluation to Provide Feedback on Teacher Improvement

USING TEACHER EVALUATION TO IMPROVE TEACHER PERFORMANCE

Why teacher evaluation alone is not enough?

Teacher evaluation is not an end in itself, but a means to an end—teacher improvement. Teacher professional growth is one of the essential reasons that a teacher evaluation system is designed and implemented. David et al. suggest that:

School-based administrative and professional leadership play essential roles in determining the meaning and value of teacher evaluation in schools, and how teacher evaluation can extend beyond its ritualistic traditions to improve teaching and learning.¹

The leadership makes the difference between "perfunctory summative teacher evaluation and meaningful assessment of the teaching and learning process that has the potential to enhance the quality of teaching and student learning."²

How is teacher evaluation connected to teacher improvement?

If a teacher's performance does not meet the expectations established by the school, the teacher will be placed on a Professional Development Plan for improvement. This plan is designed to support a teacher in addressing areas of concern through targeted supervision and additional resources. It may be used by an evaluator at any point during the year for a teacher whose professional practice would benefit from additional support. An improvement plan can also be implemented based on a certain number Needs Development or *Ineffective* ratings on performance standards during a certain period of performance. This is a process that requires the evaluators to provide meaningful feedback on teacher performance. Feedback with the following characteristics is useful and will lead to more meaningful and successful professional development:³

- Feedback focused on teaching and learning rather than other areas.
- Feedback that is contextual rather than context free. (The context that should be considered includes the school's mission and improvement goals; the performance standards, curriculum and instructional goals; level of expertise; teaching styles and instructional goals; and the students' cultural background, prior learning, current needs.)
- Feedback that is generated through analysis of deep, rich evaluation data (i.e., the data collected from multiple observations and multiple documentation options) rather than efficiently gathered, simple data.
- Feedback that is generated based on longterm, continuous data gathering rather than "one-shot" evaluations.

Forms of professional development

Professional development takes many forms. Gordon summarized 12 professional development frameworks:⁴

Framework	Description
Training	A cycle of skill development,
	classroom application,
	assessment, reflection, peer
	support
Co-Teaching	Teachers plan lesson together,
	teach lesson together, collaborate
	in post-lesson analysis
Lesson Study	Group identifies gap between
	desired and actual practice, set
	goals, carries out series of study
	lessons
Clinical	Pre-conference, classroom
Supervision	observation, post-conference
Peer	Peers engage in coaching cycles
Coaching	to transfer training skills to
	classroom, learn about teaching,
	or foster reflective decision
	making

Study	Small groups of teachers explore
Groups	professional literature, provide
Groups	1 = -
	collegial support, or work
	collaboratively to improve
	curriculum and instruction
Action	Individual or group identifies
Research	focus area, gathers data, designs
	action plan, implements plan,
	evaluates results
Reflective	Includes journal writing, case
Writing	writing, autobiography
Teacher	Induction programs support
Induction and	beginning and new-to-the-district
Mentoring	teachers, often include mentoring
	by experienced teachers
Intensive	Special assistance for teachers
Assistance	not meeting performance
	expectations
Self-Directed	A teacher conducts a self-
Professional	analysis of professional needs,
Development	then plans, implements, and
_	assesses an individualized
	professional development
	program
Portfolio	Can be for projects, the school
Development	year, or career; includes artifacts
•	and reflections on beliefs,
	experiences, self-assessment,
	professional growth, and so on

Schools can use a combination of various frameworks within their overall professional development program. The results of teacher evaluation can provide important information to assist in the selection of frameworks to use.⁵ While working with teachers on performance improvement, the evaluators should link learning about instructional changes or innovations to teachers' past experiences.⁶ The improvement plan should also include realistic timelines, expectations for improved performance, and evidence of changes in performance.⁷ At the end of implementation, teacher evaluation can be used for the assessment and improvement of the professional development plan. Based on the evaluation of teaching, professional development frameworks can be added, modified, or deleted, and the relationship of multiple frameworks can be reshaped.⁸



Fact Sheet #21–Evaluation Conferences

HOW TO CONDUCT A SUCCESSFUL EVALUATION CONFERENCE

What an evaluation conference is and why it is important?

Throughout the teacher evaluation process, communication occurs between the evaluators and those being evaluated. However, the formal summative conference is the most significant and high-stakes communication event of the whole process. While the large majority of teacher and administrators in one study agree that "conferences between teachers and administrators are an important component of teacher evaluation," only 34 percent of teachers and 12 percent of principals agree that such conferences between are done well. Essentially the evaluation conference confirms what has been communicated throughout the evaluation period. With regular feedback letting the teacher know where he or she has excelled and where there are concerns, there should be no surprises in the summary evaluation conference.² As early as 1960s, MacGregor pointed out that an evaluation conference serves multiple purposes for teachers:³

- Administrative: to document performance for use in personnel decision making.
- Informative: to inform the employee about his or her work performance.
- Motivational: to motivate employees to higher levels of performance.

In addition, a good evaluation conference can also serve problem-solving, strategy-developing, and goal-setting functions.⁴

What makes an evaluation conference effective?

Helm and Maurice suggested that the success of an evaluation conference is contingent on the careful preparation, not only by the principal but also by the teacher. They summarized steps that a principal and a teacher should take to prepare for an evaluation conference:⁵

Helm and Maurice also summarized what literature says about the characteristics of effective evaluation conferences⁶:

- Two-way communication: Principals who are good listeners can obtain more useful information about teacher's performance and development needs, and greater teacher commitment.
- Balanced review of past performance and plans to improve future performance: An evaluation conference is more than summarizing past or present performance. It also includes setting performance goals and developing professional growth plans.
- Recognition of teacher strengths and successes: Emphasizing what the teacher has done well can enhance his or her motivation and morale for better performance.
- Identification and analysis of problems affecting the teacher's performance: Encourage the teacher to identify and analyze the reasons for unmet performance expectations. The principal also identifies performance problems overlooked by the teacher, and pursues joint problem-solving by being willing to give the support the teacher needs.
- Teacher initiation of goals for the next evaluation cycle. Teacher-initiated goal-setting can create a sense of ownership and increase the commitment to accomplish the goals. The principal should also be prepared to offer goals when the teacher is unwilling or unable to suggest some.

Ct L - th - Dui - i 1	C4 1 41 - T 1
Steps by the Principal	Steps by the Teacher
Set date, time, and place of	Collect, organize, and
evaluation conference after	analyze any
confirming with the	documentation generated
teacher his or her	during the evaluation
availability at that time.	period (sample
	assignment, tests, student
	work, pictures of display,
	etc.).
Ask the teacher to	Identify major strengths
organize, review, and	and successes of the year.
submit any performance	
documentation collected.	
Ask the teacher to be	Identify any unmet
prepared to discuss	expectations or goals and
successes, unmet	analyze possible reasons
challenges, factors	for failure to meet them.
interfering with his or her	Pay careful attention to
best performance, and what	factors both within and
the principal or school	outside the teacher's
system can do to help the	control.
teacher achieve his or her	
goals.	
Review any job	Identify areas for growth
description, previous	(improvement or new
evaluation, or	directions) and possible
documentation about the	goals or objectives for the
teacher's performance,	next year.
along with any	-
performance goals that	
were set for the evaluation	
period.	
Complete a tentative	Identify how the principal
evaluation and prepare	or school system can help
notes summarizing the	the teacher achieve
teacher's successes and	greater effectiveness.
concerns.	-
Plan a "script" for	
addressing concerns	
tactfully.	
Prepare questions to enable	
the teacher to provide	
meaningful analysis of his	
or her strengths and areas	
for improvement.	
101 Improvement.	



Fact Sheet #22: TKES & FOUNDATIONAL DOCUMENTS CROSSWALK

THE TEACHER KEYS EFFECTIVENESS SYSTEM FOUNDATIONAL DOCUMENTS CROSSWALK: CLASS KEYSSM, SCHOOL KEYSSM, STANDARDS-BASED CLASSROM RUBRIC, AND GEORGIA FRAMEWORK FOR TEACHING

The Teacher Keys Effectiveness System (TKES) Crosswalk lists standards in each of the five domains and identifies the connections among the foundational documents guiding the development of the Teacher Keys Effectiveness System. Teachers and administrators should consider the crosswalk as a reference tool when planning for the teacher evaluation system. The crosswalk demonstrates where the Teacher Keys Evaluation |System, CLASS KeysSM, School KeysSM, High Impact Practice Rubric for Standards-Based Classrooms (Implementation Resource) and the Georgia Framework for Teaching intersect. Professional learning, school improvement initiatives, and Professional Growth Plans of individual teachers can be guided by this crosswalk.

	Teacher Keys Effectiveness System (TKES)	CLASS Keys SM	School Keys SM	High Impact Rubric for Standards- Based Classrooms	Georgia Framework for Teaching
	1. Professional Knowledge	Curriculum &	Professional	Concepts	1.1, 1.2, 1.3, 1.4,
	The teacher demonstrates an	Planning	Learning	1, 8	1.5, 1.6, 2.3, 3.4,
	understanding of the curriculum, subject matter, pedagogical	1.1, 1.2, 1.3	1.5, 2.4, 2.6, 3.2		3.5, 4.7, 5.2, 6.1, 6.4, 6.5
	knowledge, and the needs of students by providing relevant learning experiences.	Professionalism 1.3, 3.1, 3.2	Curriculum 1.2, 2.1		0.4, 0.3
			School Culture 2.2, 2.3		
ng	2. Instructional Planning	Curriculum &	Instruction	Concepts	1.1, 1.3, 1.5, 1.6,
Planning	The teacher plans using state	Planning	1.1, 1.2, 2.5, 2.7	1, 3, 4, 6, 10	3.1, 3.2, 3.3 4.3,
القا	and local school district	2.1, 2.2, 2.3			5.1, 5.2, 5.7, 6.1,
4	curricula and standards, effective strategies, resources,	Standards-based	Assessment 1.2, 1.3, 1.4		6.4, 6.5
	and data to address the	Instruction	1.2, 1.3, 1.4		
	differentiated needs of all	1.1, 1.5	Professional		
	students.	,	Learning		
		Professionalism 1.2, 3.1, 3.2	1.5, 2.4, 2.6, 3.2		
			Planning &		
			Organization		
			4.1, 4.2		

	Teacher Keys Effectiveness System (TKES)	CLASS Keys SM	School Keys SM	High Impact Rubric for Standards- Based Classrooms	Georgia Framework for Teaching
Instructional Delivery	3. Instructional Strategies The teacher promotes student learning by using research-based instructional strategies relevant to the content to engage students in active learning and to facilitate the students' acquisition of key knowledge and skills.	Standards-based Instruction 1.1, 1.2, 1.3, 1.5, 2.2 Professionalism 3.1, 3.2	Instruction 2.1, 2.2, 2.3 Planning & Organization 2.2 Professional Learning 1.5, 2.4, 2.6, 3.2	Concepts 5, 6, 9	1.2, 2.2, 2.5, 3.4, 3.5, 4.2, 4.8, 5.2, 5.3, 5.4, 5.6, 6.1, 6.4, 6.5, 6.6, 6.7
Instructio	4. Differentiated Instruction The teacher challenges and supports each student's learning by providing appropriate content and developing skills which address individual learning differences.	Standards-based Instruction 1.3, 1.4, 2.1 Professionalism 1.3, 3.1, 3.2	Instruction 2.3, 2.5, 3.3 School Culture 2.2, 2.3 Professional Learning 1.5, 2.4, 2.6, 3.2	Concepts 4, 5	2.3, 2.5, 3.1,3.2, 3.4, 3.5, 4.7, 4.8, 5.3, 5.4, 5.5, 5.6, 6.1, 6.4, 6.5, 6.6, 6.7
or Learning	5. Assessment Strategies The teacher systematically chooses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.	Curriculum & Planning 2.3 Assessment of Learning 1.1, 1.2, 1.3 Professionalism 3.1, 3.2 Student Achievement 1.1, 1.2	Assessment 1.2, 1.3, 1.4, 2.1, 2.2, 2.3 Instruction 2.4 Professional Learning 1.5, 2.4, 2.6, 3.2	Concepts 5, 6, 8, 10	1.6 4.1, 4.2, 4.3, 4.4, 4.6, 4.7, 4.8, 5.2, 5.4, 5.7, 6.1, 6.4, 6.5, 6.6, 6.7
Assessment of and for	6. Assessment Uses The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.	Curriculum & Planning 2.3 Assessment of Learning 1.1, 1.2, 1.3, 2.1 Standards-based Instruction 2.3 Professionalism 3.1, 3.2	Assessment 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1 Instruction 2.4, 2.6 Professional Learning 1.5, 2.4, 2.6, 3.2	Concepts 5, 6, 8, 9, 10	1.3, 1.5, 1.6 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 5.2, 5.4, 5.7, 6.1, 6.4, 6.5, 6.6, 6.7

	Teacher Keys Effectiveness System (TKES)	CLASS Keys SM	School Keys SM	High Impact Rubric for Standards- Based Classrooms	Georgia Framework for Teaching
		Achievement 1.1, 1.2			
	7. Positive Learning Environment The teacher provides a well- managed, safe, and orderly environment that is conducive to learning and encourages respect for all.	Professionalism 1.1, 1.2, 1.3, 1.4, 2.1, 4.1	School Culture 2.1, 2.2, 2.3, 2.4 Instruction 3.3 Planning & Organization 2.1, 2.2, 4.1 Student, Family, Community 1.1, 1.4	Concept 10	2.3, 2.4, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.7, 4.4, 4.6, 6.1, 6.2, 6.4, 6.5, 6.6, 6.7
Learning Environment	8. Academically Challenging Environment The teacher creates a student- centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.	Professionalism 1.2, 1.3, 1.4, 2.1, 3.1, 3.2, 4.1	School Culture 2.2, 2.3, 2.4 Instruction 3.3 Student, Family Community 1.1, 1.4 Professional Learning 1.5, 2.4, 2.6, 3.2 Planning & Organization 2.1, 2.2	Concept 10	1.3, 1.5, 2.3, 2.4, 2.6, 3.1, 3.3, 3.4, 4.4, 4.6, 6.1, 6.2, 6.4, 6.5, 6.7
sm and Communicat	9. Professionalism The teacher exhibits a commitment to professional ethics and the school's mission and participates in professional growth opportunities to support student learning, and contributes	Professionalism 1.3, 1.4, 2.1, 3.1, 3.2, 4.1	School Culture 2.2, 2.3, 2.4 Instruction 3.3 Student, Family	Concept 10	1.3, 1.5, 2.3, 2.4, 2.6, 3.1, 3.3, 3.4, 4.4, 4.6, 6.1, 6.2, 6.4, 6.5, 6.7

	eacher Keys tiveness System (TKES)	CLASS Keys SM	School Keys SM	High Impact Rubric for Standards- Based Classrooms	Georgia Framework for Teaching
to the	e profession.		Community 1.1, 1.4 Professional Learning 1.5, 2.4, 2.6, 3.2 Planning & Organization 2.1, 2.2		
The to effect paren school stakel	Communication eacher communicates tively with students, its or guardians, district and ol personnel, and other holders in ways that nce student learning.	Standards-based Instruction 2.2, 2.3 Assessment of Learning 1.1, 1.2, 1.3, 2.1 Professionalism 1.1, 1.2, 1.3, 1.4, 2.1, 3.1, 3.2, 4.1 Student Achievement 1.1, 1.2	Instruction 1.3, 2.6, 3.3 Assessment 1.1, 1.4, 2.2, 2.1, 2.3, 3.1 School Culture 2.1, 2.2, 2.3, 2.4 Planning & Organization 2.1, 2.2, 4.1, 4.2 Student, Family, Community 1.1, 1.4	Concepts 2, 5, 6, 7, 8, 10	1.6, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.7, 4.1, 4.3, 4.4, 4.6, 4.7, 6.1, 6.5, 6.7
			Professional Learning 1.5, 2.4, 2.6, 3.2		



Fact Sheet #23: The Georgia Growth Model

STUDENT GROWTH PERCENTILES

The Challenge

Historically, Georgia's assessment system has only enabled educators and other stakeholders to ask questions such as, "What percentage of students met the state standard?" or, "Did more students meet the state standard this year compared to last year?" As a result of this challenge, Georgia has selected the Student Growth Percentile (SGP) model as its growth model for instructional improvement, accountability, and educator effectiveness. Implementing a growth model will allow Georgia to move beyond questions about status to ask critical growth-related questions such as:

- Did this student grow more or less than academically-similar students?
- Are students growing as much in math as in reading?
- Did students grow as much this year as last year?
- What level of growth is necessary for students to reach or exceed proficiency?
- Did students grow sufficiently toward meeting state standards?

The SGP model will provide a wealth of rich information on student, classroom, school, district, and state performance on Criterion-Referenced Competency Tests (CRCT) and End of Course Tests (EOCT) and, eventually, on the common assessments developed by the Partnership for Assessment of Readiness for College and Careers (PARCC). In addition to providing information to enhance our understanding of student achievement, SGPs will work in conjunction with other factors as part of the state's new evaluation system. SGPs are an accurate and fair way to capture the progress students make throughout the course of an academic year. This model provides Georgia with a comprehensive indicator system that can be used at multiple levels (class, school, system, and state).

What is Growth?

There are three typical ways of describing student achievement: status, improvement, and growth. Status measures compare student achievement to a target [such as the Annual Measurable Objectives (AMO) used to calculate Adequate Yearly Progress, (AYP)]. Improvement measures compare student achievement across time using different groups of students (e.g., 3rd grade math achievement in 2009 vs. 2010). Growth measures compare student achievement across time using the *same* students.

As with student achievement, there are different methods of measuring growth: categorical, gain score, value added, and normative (the last two are not mutually exclusive). Categorical growth compares the change in student performance categories across time (e.g., a student moves from "Did Not Meet" to "Meets"). Gain score growth compares the change in scale scores across time (e.g., the mean scale score in grade 6 in 2010 minus the mean scale score in grade 5 in 2009). This type of growth measure typically requires a vertical or developmental scale (a continuous scale spanning multiple grades in the same content area). which Georgia's current assessment program does not include. Value-added models are designed to estimate a teacher's effect on student achievement through the use of prior achievement data and other student characteristics. Actual growth is compared to statistical estimates of expected growth and the difference between the two is considered to be value added. Normative models compare current achievement to prior achievement using the historical growth attained by the student population. SGPs are a normative model.

Understanding SGPs

SGP describes a student's growth relative to other students with similar prior achievement (students who have a similar score history). The SGP not only shows how an individual student is

progressing from year to year, but it also shows how groups of students, schools, districts, and the state are progressing. SGPs do not require a vertical scale in order to describe student growth.

SGPs are a normative quantification of growth. They describe a student's growth relative to his or her academic peers – other students with the similar prior achievement. Each student obtains a growth percentile, which describes his or her "rank" on current achievement relative to other students with similar score histories. A growth percentile can range from 1 to 99. Lower percentiles indicate lower academic growth and higher percentiles indicate higher academic growth. Students also receive a growth projection, which describes the amount of growth needed to reach or exceed proficiency in subsequent years.

There are multiple ways of summarizing SGPs for groups of students (such as that for a classroom or a school district). Most commonly, a group's SGP is the median growth percentile for each student in the group. The median is obtained by rank ordering the percentiles for all students in the group and selecting the middle percentile (50% of the group would have a higher percentile and 50% a lower percentile). Additionally, the percentage of students demonstrating at or above a specified level of growth (for example, 60th percentile growth) can be reported. Finally, the growth percentile range can be divided into intervals (e.g., 1-25, 26-50, 51-75, 76-99) and the percentage of students demonstrating growth in each interval can be reported. Growth can be compared across grade levels and across subject areas, meaning summary measures also can be aggregated across grade levels and content areas.

An Example

Anna's reading growth percentile is 54. The median reading growth percentile for Anna's school is 65. This means that Anna grew at a rate greater than 54% of academically-similar students in reading. The typical student in Anna's school demonstrated 65th percentile growth in reading, meaning the typical student grew at a rate greater

than 65% of academically-similar peers (those students in her school who share a similar history of scores on the reading test). Anna grew at a lower rate in reading compared to the other students in her school on *average*.

Growth Over Time

The fact that SGPs are normative, meaning growth percentiles describe a student's growth relative to other students in the state, raises the question, "How do we compare results from year to year?" A baseline will be used as a reference point so that change in overall growth can be observed from year to year. Without using a baseline, the median SGP for the state would be 50 every year – half of students would be below 50 and half would be above 50. Establishing the baseline for comparison allows the state to observe change in overall educational effectiveness over time. The baseline will be an average of multiple years of data in order to allow for a more stable comparison.

Growth to Proficiency

A second question resulting from SGPs' normative nature is adequacy: "How do we know if a student's growth is enough to put that student on track to reach or exceed proficiency?" SGPs analyze historical student assessment data to model how students performed on earlier assessments, how they performed on later assessments, and what level of growth they demonstrated in between. This information is used to create growth projections for each student. The growth projection tells us, based on where students are now, how much they need to grow to reach or exceed proficiency in the future.

For example, 6th-grade student Anna's reading growth percentile is 54. She scored a 750 on the 6th-grade reading CRCT, which is in the "Does Not Meet" performance level. How much will Anna need to grow in reading next year in order to score at or above 800 ("Meets") on the 7th-grade CRCT? The SGP growth projection provides just that. Given Anna's current 6th-grade achievement, she will need to grow at the 65th percentile to score "Meets" or at the 85th percentile to score

"Exceeds" on the 7th-grade CRCT next year. What if we were interested in how much Anna has to grow for the next two years to score at or above 800 ("Meets") on the 8th-grade CRCT? The growth projection might tell us that Anna will need to grow at the 60th percentile for two years to score "Meets" or at the 75th percentile for two years to score "Exceeds" on the 8th-grade CRCT. The Georgia Growth Model will include multi-year projections, giving a long-term view of what is required for students to reach or exceed proficiency. Note that these numbers are for this example only and do not represent actual databased growth estimates.



Fact Sheet #24: Evaluator Credentialing

EVALUATOR CREDENTIALING FOR IMPROVED TEACHER EVALUATION

What does evaluator credentialing mean?

Credentialing is the process of establishing the qualifications of licensed professionals, organizational members or organizations, and assessing their background and legitimacy. For the Teacher Keys Effectiveness System, credentialing is intended to verify evaluator proficiency. To ensure that evaluators meet proficiency in the implementation of an evaluation system, individuals receive systematic instruction and successfully demonstrate the ability to do the work required. Evaluator credentialing may require a formal assessment to show competency and may include oral and/or written performance tasks, evaluation reports, continuing education, or a host of other potential measurements. Evaluator credentialing is ultimately used to ensure that an evaluator has at least the minimum qualifications to perform the duties of administering the Teacher Keys Effectiveness System.

Training of Evaluators

In 2007, Brandt claimed that districts rarely require evaluators to be trained. Mathers agreed, "One of the greatest challenges facing the consistent application of teacher evaluation practices is the paucity of trained and knowledgeable evaluators. Lack of training leads to the misuse of the evaluation instruments, the misinterpretation of results, and, ultimately the lack of overall utility of the results for improving the performance of teachers." (Mathers, 2008)

Dr. James H. Stronge advocated for training in 2003 when he stated that "a clear understanding of the performance standards determines the actual quality of the evaluation process and influences how an administrator approaches data collection, documentation, data analysis, conferencing, goal setting, report writing, and remedication."

Evaluators must receive proper training because lack of training can threaten the reliability of the evaluation and the objectivity of the results. Without adequate training, evaluators may be unaware of the potential bias they are introducing during their observations. (Mujis, 2006) Laura Allen of Fordham University states that most pre-service training for school administrators...does not adequately address all the complex issues involved in doing teacher observations that result in improved teacher practice. Principals need to understand what good teaching looks like and how to analyze it if they are going to help teachers improve instruction. (Allan, 2007) Stronge lent strong support for evaluation training for administrators when he stated that it "ensures integrity in the process and garners teacher confidence in both the administrator and the procedures." (Stronge, 2003)

Many questions arise from evaluators and teachers as they come to a common understanding of effective practice.

Being a proficient evaluator requires knowledge, skills, collaboration, and deliberate practice.

Training and assessment of evaluators verify the minimum proficiency needed to conduct quality evaluations. Ongoing professional learning and collaborative discussions ensure that evaluators are continuing to provide reliable and valid evaluations. This is of primary importance in education as it is an ever-evolving field. It could be said that ensuring the proficiency of evaluators is vital to an increase in teacher effectiveness and student achievement.

What does the research say about credentialing evaluators?

In The Teacher Evaluator Training & Certification: Lessons Learned from the MET Project, McClellan states, "As the evaluation of teachers is used for increasingly high stakes personnel decisions, it becomes essential that the

Georgia Department of Education Teacher Keys Evaluation System Fact Sheets

judgments made by evaluators are accurate and defensible, both professionally and legally. With the recognition of the vital role that teachers play in promoting student learning, it has become essential for the evaluators to demonstrate that they can accurately assess (and diagnose for the purpose of supporting improvement) the quality of classroom instruction that they observe." (McClellan, 2012)

Odden writes that "the literature on performance evaluations in both education and the private sector has shown that many systems are not understood by the individual being evaluated, do not have reliable scores across multiple evaluators, and most important, do not meet criterion-validity standards – but often are still used for consequential decisions." (Odden, 2004)

Just as evaluation standards provide guidance for making decisions when conducting evaluations, evaluator competencies that specify the knowledge, skills and dispositions central to effectively accomplishing those standards have the potential to further increase the effectiveness of evaluation efforts. (Stevahn, 2005) Evaluator credentialing, therefore, is pivotal as it lays the foundation for reliability and validity of the teacher evaluation system.

How is evaluator credentialing determined?

Evaluator credentialing is a multi-step process. Competencies that establish the knowledge, skills, and abilities for effective evaluation have to be identified before training can begin and proficiency can be defined. In other words, what do we want our evaluators to know, understand, and be able to do with regard to teacher evaluations?

Training develops an in-depth understanding of the evaluation system and provides practice implementing it. Proficient evaluators develop a systematic approach to teacher evaluation using classroom observations and documentation review, provide specific feedback to teachers, and interpret assessment and survey data to inform/assess teacher effectiveness and student performance.

How will Georgia determine evaluator credentialing?

The Georgia Department of Education Division of Teacher and Leader Effectiveness recommends participation in Teacher Keys Effectiveness System Training and successful completion of the Evaluator Credentialing Assessment. Ongoing professional learning is necessary to maintain and deepen level of proficiency.

Evaluators who score below desired proficiency ratings on the Evaluator Credentialing Assessment will need additional opportunities to deepen their understanding of the evaluation system and hone their evaluator skills before implementing the evaluation process.

Allan, L. (2007). Training Administrators to Observe and Evaluate Teachers: Implementation of a Teacher Observation and Evaluation Program. New York: ETD Collection for Fordham Univeersity.

Brandt, C. M.-S. (2007). Examining District Guidance to Schools on Teacher Evaluation Policies in the Midwest Region. Washington, DC: U.S. Dept of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest.

Mathers, Carrie M. O. (2008). Effective Teacher Evaluation: Options for States and Districts. Washington, DC: National Comprehensive Center for Teacher Quality. McClellan, Catherine M. A. (2012). Teacher Evaluator Training & Certification: Lessons Learned from the Measures of Effective Teaching Project. San Francisco: Teachscape.

Stevahn, Laurie J. A. (2005). Establishing Essential Competencies for Program Evaluators. *American Journal of Evaluation*, 43-59.

Mujis, D. (2006). Measuring Teacher Effectiveness: some methodological reflections. *Educational Research and Evaluation*, 53-74.

Odden, A. (2004). Lessons Learned About Standards-Based Teacher Evaluation Systems. *Peabody Journal of Education*, 126-137.

Stronge, J. H. (2003). *Handbook on Teacher Evaluation:* Assessing and Improving Performance. Larchmont: Eye on Education

Georgia Department of Education



Dr. John D. Barge, State School Superintendent "Making Education Work for All Georgians"

TEACHER KEYS EFFECTIVENESS SYSTEM



Research Synthesis of Georgia Teacher Assessment on Performance Standards

James H. Stronge, Ph.D.
College of William and Mary
Williamsburg, Virginia
jhstro@wm.edu

with Xianxuan Xu, Ph.D. College of William and Mary

August 2, 2011

TABLE OF CONTENTS

SECTION 1: INTRODUCTION	1
SECTION 2: AN OVERVIEW OF EXTANT RESEARCH RELATED TO GEOF TEACHER ASSESSMENT ON PERFORMANCE STANDARDS	
Standard 1: Professional Knowledge	2
Standard 2: Instructional Planning	5
Standard 3: Instructional Strategies	10
Standard 4: Differentiated Instruction	15
Standard 5: Assessment Strategies	19
Standard 6: Assessment Uses	22
Standard 7: Positive Learning Environment	26
Standard 8: Academically Challenging Environment	35
Standard 9: Professionalism	
Standard 10: Communication	
REFERENCES	
ENDNOTES for TKES Handbook, Fact Sheets, and Research SynthesisCl	napter 5

The contents of this report were developed under a grant from the U. S. Department of Education. However, those contents do not necessarily represent the policy of the U. S. Department of Education, and you should not assume endorsement by the Federal Government.

FIGURES

Figure 1: Key Elements of Professional Knowledge	2
Figure 2: Key Elements of Effective Instructional Delivery	. 10
Figure 3: Impact of Teacher Instructional Strategies on Student Achievement	. 13
Figure 4: How to Differentiate	. 16
Figure 5: Key Features of an Effective Learning Environment	. 26
Figure 6: Attributes of Positive Learning Environment	. 28
Figure 7: Student Emotional Needs and Building an Affectively Healthy Learning Environment	
Figure 8: Three Essential Elements of Profession	. 40
Figure 9: A Framework for Teachers' Professional Improvement	. 43

SECTION 1



INTRODUCTION

Synthesis on Extant Research Related to Georgia Teacher Assessment on Performance Standards

In recent years, an increased alignment between teacher-effectiveness research and teacher evaluation has emerged. Such connection between research and practice facilitates the development of evaluation systems that are based on realistic, research-informed performance standards, therefore, making the measurement of teacher performance and feedback more accurate and useful.

Performance standards are used to collect and present data to document teacher effectiveness that is based on a comprehensive conception of the job responsibilities for teachers. Standards are intended to provide a balance between structure and flexibility. They also define common purposes and expectations, thereby guiding effective professional practices. The ultimate goal is to support the continuous growth and development of each teacher by monitoring, analyzing, and applying pertinent data compiled within a system of meaningful feedback. A fair and solid set of performance standards can provide sufficient detail and accuracy so that both teachers and evaluators (i.e., principal, supervisor) understand the full range of teacher performance and identify areas for professional improvement. This report provides an empirical review of relevant research against which the relative strength of the teacher competencies and related performance standards developed by the Georgia Department of Education can be considered.

SECTION 2



AN OVERVIEW OF EXTANT RESEARCH RELATED TO GEORGIA TEACHER ASSESSMENT ON PERFORMANCE STANDARDS

Standard 1: Professional Knowledge

The teacher demonstrates an understanding of the curriculum, subject content, pedagogical knowledge, and the needs of students by providing relevant learning experiences.

Classroom teaching is a complex activity that demands teachers possess substantial thinking skills and a solid knowledge-base. Knowledge of subject-matter is a prerequisite for effective classroom instruction. A teacher's understanding of subject facts, concepts, principles, methodology, and important generalizations determine his or her pedagogical thinking and decision-making. Furthermore, according to research, the professional knowledge that is essential to be an effective teacher extends well beyond knowledge of subject matter to encompass the factors identified in the following table. 394

Figure 1: Key elements of Professional Knowledge

Knowledge Area	Focus
Subject-matter knowledge	Content to teach
Pedagogical knowledge	How to teach
Curricular knowledge	What to teach
Learner knowledge	Whom to teach
Cultural/community	Sensitivity to settings where
knowledge	one teaches

Content-knowledge, the disciplinary understanding of the subject taught, exerts a significant influence on teachers' classroom behavior. Various studies suggest that teachers with stronger content-knowledge are more likely to use practices that can help students construct and internalize knowledge, such as:

- Asking higher-level questions.
- Encouraging students to explore alternative explanations.
- Involving students in more inquiry-based learning.
- Allowing more student-directed activities.
- Engaging students in the lessons. 395

Many researchers have explored the impact of teachers' content-knowledge on student achievement. They have measured teachers' content-knowledge through tallying coursework taken by the teachers and administering questionnaires or classroom observations. The literature has been consistent in the findings about the positive association between teacher content-knowledge and students' learning at all grade levels, particularly in mathematics. 396

Research has found that when a teacher's subject content-knowledge is insecure – for instance, when a teacher is teaching unfamiliar areas of curriculum – their ability to give appropriate and effective explanations in the classroom is limited, rendering them ineffective. Teachers who lack subject content-knowledge usually lack confidence in the classroom, which in turn, has significant impact on their planning and teaching. For instance, they are more likely to adopt closed and constrained pedagogy – developing the pedagogy to a more discursive style, keeping a tighter rein on what is taught, avoiding asking open-ended questions and conducting discussion sessions, and being more authoritative in what they plan and execute in the classroom.

Effective teaching requires teachers to have not only sufficient knowledge in their own fields, but also an interdisciplinary understanding that ranges across multiple branches of human knowledge. The real-world does not completely organize itself according to the disciplines or the traditional school subjects. Many phenomena cannot be adequately understood solely from one disciplinary perspective. Making connections across subject areas is an effective way to engage students in challenging, integrated, and exploratory learning around personal and social concerns that appeal to them. In addition, the integration of disciplines can prompt students to learn to think critically, and develop a common core of knowledge necessary for success. Effective teachers use a wide variety of sources and make meaningful connections to sustain students' inquiry across disciplines.

Effective teaching resides not simply in the knowledge a teacher has accrued, but also in how this knowledge is translated into student learning in classrooms. For instance, teachers who are highly proficient in mathematics or writing will help others learn mathematics or writing only if they are able to use their own knowledge to enact learning activities that are appropriate to students. Therefore, a teacher's subject-matter knowledge and pedagogical knowledge are complementary and interdependent. These two knowledge categories can be synthesized by what Shulman called "pedagogical content knowledge," which he defined as "the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are

organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction." 401

The professional knowledge of effective teachers reaches beyond merely the knowledge of subject-matter (content knowledge) and instructional strategies (pedagogical knowledge); indeed, professional knowledge also encompasses an understanding of students and environmental contexts. Effective teachers often use the knowledge of their students, for instance, knowledge of students' learning ability, prior achievement, cultural background, and personal interests, to decide what to teach and how to teach. Based on this expansive knowledge, teachers can anticipate the conceptions, misconceptions, and possible difficulties their students are likely to encounter while learning particular content.

Research has found that an effective teacher:

- Possesses a great deal of knowledge about the content- and curriculum- areas taught, and knows how the material fits into the educational landscape. 403
- Is certified in his or her field, resulting in higher levels of student achievement on standardized tests. 404
- Determines and teaches the essential knowledge and skills through effective instruction. 405
- Cares about students as individuals and makes them feel valued. 406
- Adapts teaching to address student learning styles.⁴⁰⁷
- Acknowledges his or her perspective and is open to hearing their students' worldviews. 408
- Is culturally competent. 409
- Seeks to know about the cultures and communities from which students come. 410

Standard 2: Instructional Planning

The teacher plans using the state's and local school-district's curricula, effective strategies, resources, and data to address the differentiated needs of all students.

In general terms, planning means the "act or process of making or carrying out plans." Instructional planning is a process of the teacher using appropriate curricula, instructional strategies, resources and data during the planning process to address the diverse needs of students. A teacher's teaching begins before he or she steps into the classroom and starts talking. Prior to each lesson, unit, semester, or school year, while teachers are planning the content of instruction, selecting teaching materials, designing the learning activities and grouping methods, and deciding on the pacing and allocation of instructional time, they actually are determining what learning opportunities their students are going to have. Teachers could use state or district curriculum standards, school district curriculum goals and objectives, and learning outcomes developed by professional organizations to plot the scope and sequence of subject topics. Teachers also could apply their knowledge of research-based practices to plan what strategies and techniques will be adopted to deliver instruction. Nevertheless, the most informative source for any instructional planning resides in the teachers' classrooms – the students.

Effective teachers also evaluate the quality of available resources when designing a unit or lesson. They use criteria such as appropriateness for grade level, alignment to national, state, or local standards, accuracy of information, the time allowed for the lesson or unit, and the learning benefits that come from using the resource. Effective teachers maximize the instructional benefits of resources while minimizing time allocated to less relevant or unnecessary material.

Research indicates the following key questions that teachers need to consider for effective instructional planning:

- 4) What should be taught?
- 5) How should it be taught?
- 6) How should instruction and student learning be assessed?

What should be taught? Effective student-learning requires a progressive and coherent set of learning objectives. Effective teachers excel in delineating the intended outcomes of each lesson and describing the behaviors or actions that students should be able to perform after participating in the learning activities. In deciding what should be taught, expert teachers often use prescribed textbooks, but they hardly ever follow traditional plans. In fact, they frequently have a blueprint in their minds that has been formed and re-formed over time. Perhaps because of their expertise gained over time through a constant process of planning/reflection/refining, these expert teachers are more prone to rely far less on written, formalized lessons than on their well-formed and fluid mental planning model. Expert teachers conceive a lesson along two dimensions simultaneously:

- 3) The teacher's own actions, thoughts, and habits.
- 4) The students' thinking and understanding of the content.

Thus, effective teachers not only plan what to teach, but more importantly, they plan for whom they are going to teach. They exert effort to reach beyond their comfort zone of disciplinary thinking and actions to incorporate their students' learning preferences.

How Should It Be Taught? Once the learning objectives are developed, evidence suggests that expert teachers are more competent in translating their instructional plans into actions than non-expert teachers. Additionally, effective teachers follow the pre-defined plan while remaining open to changes and continuously adjusting their instruction based on student needs. Further, expert teachers anticipate the difficulties students might encounter while learning the content of the lesson. They consider students' thinking in order to assess the success of the lesson plan and then modify their instruction promptly. Having a lesson plan cannot ensure that the actual lesson will be implemented as prescribed. The classroom environment ebbs and flows. Consequently, teachers need to be opportunistic and tap into their pedagogical and content resources in a fluid and flexible manner in order to proceed smoothly.

How Should Instruction and Student-Learning Be Assessed? When the learning objectives are set up, in addition to aligning activities to them, teachers also need to link the assessment plan to the learning objectives. Alignment of curriculum, learning activities, and assessment is integral to any quality instructional design. This type of alignment is referred to as "opportunity to learn." Before the actual instruction starts, teachers need to decide upon valid and reliable assessment techniques that are available to elicit student-learning data, and judge the success of the instructional plan. Additionally, teachers should communicate to their students about what they are expected to achieve, and inform them about how they will be assessed after participating in the learning activities.

Teachers must consider a variety of factors when planning instruction, including how to pace the actual delivery in the classroom. The feasibility of a particular lesson largely depends on student ability and variation, content-goals and mandated objectives, time and material resources, and so forth. Many of these factors present teachers with constraints that are beyond their immediate control. For example, there is a prescribed, fixed amount of time each day in which formal instruction may occur. Typically, hours of the day are chunked into units that are dedicated to the study of a certain subject or discipline as determined by a legislative body, school board, or school administrator. Within those chunks of time, however, teachers traditionally have enjoyed a great deal of flexibility and autonomy. That is, what they did with class time was largely up to them. Over the past decade that flexibility has begun to wane – a by-product of high-stakes testing. Teachers report a narrowing of the curriculum that focuses on tested items and breadth of content while sacrificing depth. 416

Many school districts require teachers to follow strict pacing guides, which prescribe how much time to spend on certain lessons or concepts. Pacing guides are intended to be instruments that teachers use to measure the amount of instructional time devoted to certain topics in light of the total content that must be taught. Properly used, pacing guides are tools to steer daily instructional decisions within the context of the entire curriculum. Used improperly, however, pacing guides unduly restrict the proper ebb and flow of the classroom and restrict the instructional pace, regardless of student ability. On this topic, one writer stated:

Pacing guides are not an inherently bad idea. Their effects depend on their design and how district and school leaders use them. The best pacing guides emphasize curriculum guidance instead of prescriptive pacing; these guides focus on central ideas and provide links to exemplary curriculum material, lessons, and instructional strategies. 417

Thus, pacing is an important component of instructional planning. It allows teachers to see the curriculum in its entirety and avoid the trap of overemphasizing one area of content at the expense of others. Because instructional time with students is fixed, teachers must value class time.

In the process of classroom instruction, a teacher needs to make decisions regarding how to pace learning activities and how to allocate instructional time on a regular basis. Anderson, Evertson, and Brophy concluded that "at some point during the lesson, the teacher must make a fundamental decision about whether the group as a whole can or cannot meet the objectives of a lesson." When should a teacher decide to move on to the next goals? Should the teacher wait until every single student in the class masters the new content or skill? Should the teacher steer the class to new directions as long as half of the class attained the learning goal?

Ideally, students are sensitive to the difficulty of the content and objectives to be learned and will allocate their study time accordingly – they will devote more time to more difficult learning. However, Perrin, Banks and Dargue found that students' control of pace is not perfect and they do not always increase study sufficiently for more difficult learning objectives. An optimum learning approach is to create adaptive learning strategies that diagnose student-learning needs on specific learning areas, develop learning activities that conform to the evolving skill level of the student, and adjust time/pace on a content-area according to student performance. This purposeful way of scheduling and rescheduling the learning progress, with flexible incorporation of additional practice and review, can significantly increase the study time allocated to challenging content-areas and increase student-learning outcomes.

One important misconception that many teachers hold about learning is to perceive it as a mechanical process of information being transferred from textbooks to students who acquire it through listening, reading, and memorization. However, in reality, the way learners interact with new information is influenced by their experiences and prior knowledge and beliefs, and they often fail to remember, understand, and apply new information that has no connection to them and no context for acquiring meaning. Materials and equipment serve as a supportive rather than a central role in the curriculum and instruction. That is, the school district's core curricula and the teachers' instructional strategies should not be dictated by textbooks. On one hand, materials aligned with curriculum and instruction is indispensable for each student's academic success. Effective teaching is much more than the acting out of scripts written by the publishers of textbooks and tests. Students are frequently conditioned in their approach to learning by experience in teacher-centered, textbook-driven classrooms. Hill stated:

Traditional textbooks are fact- rather than process-oriented. They stress "what" instead of "how" and "why"...when teachers allow textbooks to dominate instruction they are unlikely to meet today's educational demands for critical thinking, problem-solving, skill-building, and inquiry about the real world. 424

In addition, some topics are too specific to be included in textbooks and some are too new to be included in textbooks. To enrich students' learning, teachers need to be well-informed and resourceful investigators, and expect their students to cultivate the same qualities. ⁴²⁵ Furthermore, to prepare students for the world outside the school, teachers need to "develop ways for them to learn from information as they will encounter in real-life situations — information that is not predigested, carefully selected, or logically organized." ⁴²⁶

Planning is preparation for action. Without prior thought and planning, ongoing review, adjustment as the plan unfolds in practice, and reflection on what worked, what didn't, and how to improve, teachers seldom improve practice. Indeed, planning is an essential tool for effective teaching. Teaching is a complex activity that involves careful preparation and planning, both for short-term learning purposes and for long-term learning purposes. Misulis commented that "regardless of the teaching model and methods used, effective instruction begins with careful, thorough, and organized planning on the part of the teacher."

Comparatively, novice teachers have more difficulty responding to individual student needs in their planning. They tend to develop a "one-size fits all" approach to planning, whereas more experienced teachers build in differentiation and contingencies at different points during the lesson. ⁴²⁸ To further assist with meeting individual needs, effective teachers typically plan a blend of whole-group, small-group, and individualized instruction.

As an illustration, Haynie examined the planning practices of ten effective and ten less-effective teachers, whose effectiveness was identified by their students' achievement gains. He found that most top teachers collaborated with one or more teachers while planning lessons; however, the less effective teachers reported they always planned lessons alone. The top teachers also were not restricted by pacing guides, and reached beyond prepared resources to plan their own activities, while the less-effective teachers used resources already prepared. In addition, the top teachers used student assessment data in the planning of instruction. Based on data drawn from frequent assessments, they made data-driven decisions about what goals and objectives to address.

Allington and Johnston also found that the instruction of effective teachers was multi-sourced. 430 Exemplary teachers were inclined to stretch the reading and writing beyond the textbooks. Although effective teachers did often dip into prescribed textbooks, they hardly ever followed traditional plans for these materials. For instance, while planning for a lesson in social science, the effective teachers usually used historical fiction, biography, information on the Internet and in magazines, and other non-traditional content sources.

Borko and Livingston investigated the pedagogical expertise in instructional planning by comparing novice teachers and experienced teachers. They found that novices showed more time-consuming, less efficient planning. While implementing the planned lessons, their attempts to be responsive to students were likely to lead them away from scripted lesson plans. The novice teachers were less successful in translating their instructional plans into actions than expert teachers. The expert teachers were better able to predict where in a course the students were likely to have problems and to predict misconceptions the students would have and areas of learning these misconceptions were likely to affect.

Various research studies have found that effective teachers tend to have the following behaviors while making planning decisions:

- Construct a blueprint of how to address the curriculum during the instructional time.
- Collaborate with one or more teachers while planning, rather than plan lessons alone. 433
- Facilitate planning units in advance to make intra- and interdisciplinary connections. 434
- Use student assessment data to plan what goals and objectives to address.⁴³⁵
- Plan for the context of the lesson to help students relate, organize, and make knowledge become a part of students' long-term memory. 436
- Sequence material to promote student's cognitive and developmental growth.
- Use knowledge of available resources to determine what resources they need to acquire
 or develop. 438
- Plan instruction in a multi-sourced manner.⁴³⁹
- Take into account the abilities of their students and the students' strengths and weaknesses, as well as their interest level. 440

Standard 3: Instructional Strategies

The teacher promotes student-learning by using research-based instructional strategies relevant to the content area to engage students in active learning and to promote key skills.

Instruction is a process in which teachers apply a repertoire of instructional strategies to communicate and interact with students around academic content, and to support student engagement. An array of studies reveals that teachers who have similar professional qualifications (e.g., degree, certification, years of experience) instruct differently in their classroom and vary significantly in their ability to help students grow academically. However, the primary difference between effective and ineffective teachers does not lie in the amount of knowledge they have about disciplinary content, the type of certificate they hold, the highest degree they earned, or the years they have been in the teaching profession. Rather, the difference lies more fundamentally in the manner in which they deliver their knowledge and skills while interacting with the students in their classrooms. Numerous studies reveal that schools and teachers with the same resources yield strikingly different results in terms of student-learning. Thus, it seems clear that these differences depend on how the resources are used by those who work in instruction. Selected research-supported key elements of effective instructional delivery include:

Figure 2: Key Elements of Effective Instructional Delivery

Key Elements	Descriptions
Differentiation	The teacher uses multiple instructional materials, activities,
	strategies, and assessment techniques to meet students' needs
	and maximize the learning of all students. ⁴⁴⁸
Variety	The teacher implements a variety of classroom techniques and
	strategies that enhance student motivation and decrease
	discipline problems. ⁴⁴⁹
Cognitive challenge	The teacher provides in-depth explanations of academic content
	and covers higher-order concepts and skills thoroughly. 450
Student	The teacher is supportive and persistent in keeping students on
engagement	task and encouraging them to actively integrate new information
	with prior learning. ⁴⁵¹
Recognizing	The teacher recognizes the schema or pattern in student-learning,
patterns of student	makes inferences about the situation (such as identifying the
learning and	difficulties the students are having), and promptly adjusts the
adjusting	materials, learning activities, and assessment techniques to
	maximize student learning. ⁴⁵²
Questioning	The teacher uses multiples levels (particularly higher cognitive
	levels) of questioning to stimulate student thinking and monitor
	student-learning. 453
Relevance	The learning process and the outcomes of learning have
	authentic bearing on students' lives. 454

Note: This list is not intended to be a comprehensive set of research-based instructional strategies, but rather an indicative set of those strategies for which there exists solid evidence of success.

Students arrive at school with a variety of backgrounds, interests, and abilities. This means that a one-size-fits-all approach to instruction is ineffective, probably counterproductive, and perhaps even unethical. If the goal of instruction is to provide an opportunity for all students to learn, then the instructional practices that teachers choose to employ in the classroom matter — and matter greatly. In an analysis of educational productivity in the United States and other countries, teachers' classroom instruction was identified as one of the most significant variables having a great effect on student affective, behavioral, and cognitive outcomes. For instance, the instructional practice of reinforcement has a magnitude of 1.17 standard deviations on educational outcomes. The effect of cues, engagement, and corrective feedback is approximately one standard deviation each. Personalized and adaptive instruction, tutoring, and diagnostic-prescriptive methods also have strong effects on student-learning, with effect sizes* of .57 (i.e., 22 percentile gain), .45 (i.e., 17 percentile gain), .40 (i.e., 16 percentile gain), and .33 (i.e., 13 percentile gain), respectively.

An essential aspect of effective instruction that helps build and sustain student engagement is relevance of the instruction. Making instruction relevant to real-world problems is among the most powerful instructional practices a teacher can use to increase student-learning. This kind of instruction allows students to explore, inquire, and meaningfully construct knowledge of real problems that are relevant to their lives. Moreover, students are motivated and engaged when their learning is authentic, especially when the real-world tasks performed have personalized results. Research indicates that students have higher achievement when the focus of instruction is on meaningful conceptualization, especially when it emphasizes their own knowledge of the world. The students have higher achievement when the focus of instruction is on meaningful conceptualization, especially when it emphasizes their own knowledge of the world.

Questioning can be another highly effective instructional tool when used properly. In particular, the types of questions asked, wait-time, and types of responses play a role in the propitious use of questioning. There are substantial differences in the adept use of questioning between effective teachers and ineffective teachers. On the negative side, in a study of mathematics classrooms, Craig and Cairo found that teachers asked more than 99% of the questions. They also found that teachers tended to provide little wait-time, asked recall-and-use questions, and designated a particular student to answer a question. On the positive side, one case study found that teachers deemed effective asked approximately seven times higher cognitive-level questions than those considered ineffective.

Effective teachers ask questions that are sensitive to students' differential levels of learning abilities, and those that are more closely aligned with learning outcomes and learning activities. Effective teachers try to accommodate their teaching to students of different levels. They take

^{*} Effect size is a measure of the magnitude of a treatment effect. Effect size helps us determine if the treatment effect is practically significant. The effect size can be interpreted as the average percentile standing of the students who received the treatment, relative to the average of untreated students. For instance, the strategy of mastery-learning has an effect size of 0.58 on student achievement. An effect size of .58 would translate into a percentile gain of approximately 20 points.

students' individual needs into account while differentiating the learning objectives, learning activities, and assessments, so that ALL students can engage with meaningful learning. Effective teachers have also been found to be more self-reflective and critical about their own classroom instruction. They are more adept in planning, evaluating, and modifying their instructional process, and more skillful in deploying strategies flexibly to attain their instructional goals. 464

The complexities of teaching involve the focus on not only the breadth of content and skills that students should possess, but also on the depth of the content and skills. Effective teachers focus on meaningful connections rather than isolated facts and ideas. A study of student performance on the NAEP found that when teachers emphasized facts over reasoning, students performed more poorly than those of teachers who emphasized reasoning. Effective teachers emphasize meaning. They encourage students to respond to questions and activities that require them to discover and assimilate their own understanding, rather than to simply memorize material. These teachers also present and engage students in content at various levels of complexity, using a broad range of objectives and activities and employing activities and questions that address higher and lower levels of cognitive complexity.

Based on a synthesis of over 500,000 studies of student achievement, Hattie suggested that teachers account for 30% of student achievement variance, with the rest attributable to school, family, and student variables. It is estimated that only about 3% of the contribution teachers make to student-learning is associated with teacher experience, educational level, certification status, and other readily observable characteristics. The remaining 97% of teachers' effects on student achievement is associated with intangible aspects of teacher quality that defy easy measurement, such as classroom practices. Thus, teachers' practices inside classrooms have not only statistical significance, but also practical significance in terms of student-learning. Numerous studies and literature reviews have begun to focus upon identifying the classroom practices of effective teachers. Figure 3 summarizes the findings of two literature reviews conducted by Hattie on a range of variables relating to student achievement. The elements highlighted below are descriptors of classroom-level instructional practices and their corresponding effect sizes.

Figure 3: Impact of Teacher Instructional Strategies on Student Achievement⁴⁷³

Variables	Effect Size	Source of Influence
Providing formative evaluation	.90	Teacher
Acceleration	.88	School
Teacher clarity	.75	Teacher
Feedback	.73	Teacher
Teacher-student relationships	.72	Teacher
Metacognitive strategies	.69	Teacher
Students' prior achievement	.67	Student
Not labeling students	.61	Teacher
Problem-solving instruction	.61	Teacher
Direct instruction	.59	Teacher
Mastery-learning	.58	Teacher
Concept-mapping	.57	Teacher
Socioeconomic status	.57	Home
Class environment	.56	Teacher
Challenge level of learning goals	.56	Teacher
Peer tutoring	.55	Teacher
Parental involvement	.51	Home
Expectations	.43	Teacher
Matching students' learning styles	.41	Teacher
Cooperative learning	.41	Teacher
Advance organizers	.41	Teacher
Higher cognitive questioning	.46	Teacher
Peer effects	.38	Student
Time on task	.38	Teacher
Computer-assisted instruction	.37	Teacher
Frequent testing/ Effects of testing	.34	Teacher
Homework	.29	Teacher
School aims and policies	.24	School
Affective attributes of students	.24	Student
Finances	.23	School
Individualization	.23	Teacher
Teaching test-taking and coaching	.22	Teacher
Physical attributes of students	.21	Student
Personality	.19	Student
Family structure	.17	Home
Ability grouping	.18	School
Reducing class size from 25 to 13	.13	School
Teacher subject-matter knowledge	.09	Teacher
Student control over learning	.04	Teacher
Retention	16	School
Television	18	Home

Techniques that have been found to substantially increase student achievement include direct instruction, simulated instruction, and integrated instruction. Integrating technology has also been associated with better academic achievement. In addition, instruction that includes hands-on activities and cooperative groups has been associated with increased academic performance. Furthermore, questioning as an instructional strategy has also been found to be effective among students. A study of student reading growth revealed that the more teachers focused on higher-level questions, the better students performed in reading. Teachers also provided wait time for students to reflect on their answers. Throughout instruction, effective teachers model and provide scaffolding to support student achievement. While extant empirical studies focus on specific techniques and their impact on student achievement, the common thread among the studies is the focus on using a variety of instructional strategies.

Selected instructional practices exhibited by effective teachers are noted in the following list. The effective teacher:

- Stays involved with the lesson at all stages so that adjustments can be made based on feedback from the students. 481
- Uses a variety of instructional strategies, as no one strategy is universally superior with all students. 482
- Uses research-based strategies to enhance the time students spend with teachers by making instruction student-centered.⁴⁸³
- Involves students in appropriate and challenging learning activities, such as cooperative learning, to enhance higher-order thinking skills. 484
- Knows that instructional strategies that use students' prior knowledge in an inquirybased, hands-on format facilitate student learning.⁴⁸⁵
- Uses remediation, skills-based instruction, and differentiated instruction to meet individual student's learning needs.
- Uses multiple levels of questioning aligned with students' cognitive abilities.⁴⁸⁷

There is no single classroom practice that is necessarily effective with all subject-matter and all grade levels. Effective teachers recognize that no single instructional strategy can be used in all situations. Rather, they develop and call on a broad repertoire of approaches that have proven successful for them with students of varying abilities, backgrounds, and interests. Effective instruction involves a dynamic interplay among content to be learned, pedagogical methods applied, characteristics of individual learners, and the context in which the learning is to occur. Ultimately, subject-matter knowledge, pedagogical skills, and an inspiration for instructional innovation and development can liberate individual teachers to explore the diversification and richness of daily practice.

Standard 4: Differentiated Instruction

The teacher challenges students by providing appropriate content and developing skills which address individual learning differences.

Effective teachers differentiate instruction and individualize for the range of student needs, abilities, and preferences in the classroom. Instead of using uniform strategies for all students, effective teachers design instruction that motivates each student, and they communicate content in such a way that students are able to comprehend based on their individual prior learning and ability. Because students learn in a variety of ways and at a variety of rates, teachers should deliver their lessons with appropriate variety. As Weiss explained, differentiation to maximize the learning of individual students is the cornerstone of effective teaching. He pointed out that "we do our kids a disservice by choosing one pedagogy and using it all the time." ⁴⁹¹ Carolan and Guinn stated that: "Diversity is a gold mine. It offers all members of a diverse group multiple ideas, perspectives, and solutions to problems. Teachers can nurture this diversity early on by maximizing the potential of each student in their classroom."492 Effective teachers tend to recognize individual and group differences among their students and accommodate those differences in their instruction. They adapt instruction to meet student needs, which requires careful assessment and planning for all students in the classroom, as well as the ability to select from a range of strategies to find the optimal match to the context. 494 Differentiation requires teachers to reflect on students as individuals. They also need to be clear about what students should know, understand, and be able to do as the result of a segment of learning, and they also need to have a repertoire of instructional approaches to manage and facilitate flexible studentcentered instruction.⁴⁹⁵

Studies on student achievement and on perceptions of teacher effectiveness have emphasized the importance of appropriate differentiation in instruction, including the following findings:

- Students are most engaged and achieve most successfully when instruction is appropriately suited to their achievement levels and needs. 496
- Instructional differentiation requires careful monitoring and assessment of student progress, as well as proper management of activities and behavior in the classroom.
 Placing students into groups based on ability without tailoring instruction to the different groups is insufficient to support academic success.
- Effective teachers know and understand their students as individuals in terms of their abilities, achievement, learning styles, and needs, and give greater emphasis to individualization in their teaching.⁴⁹⁸

A meta-analysis of the extant research suggests that instruction based on learning styles is positively related to student attitudes and achievement. Dunn et al. conducted a meta-analysis of 36 experimental studies to examine the effects of teaching students through their learning-style preferences. They found that instructional interventions designed to meet the learning needs of the students showed a statistically significant difference in achievement over students

not being accommodated, with an effect size of .353. That means students whose learning styles are accommodated would achieve 75% of a standard deviation higher than their counterparts whose learning styles are not accommodated. Dunn et al. also extended this finding to at-risk students, reporting that mean achievement increased nearly one standard deviation (i.e., approximately 84th percentile versus 50th percentile) when teachers accommodated for learning styles. Implementing a variety of classroom techniques and strategies also enhances student motivation and decreases discipline problems. Furthermore, differentiated instruction enables teachers to adjust their curriculum, materials, learning activities, and assessment techniques to ensure that all students in a mixed-ability classroom can have different avenues to process new knowledge and develop skills, while having equal access to high-quality learning. 503

Studies have found that a learning unit that has been enhanced or modified based on student learning abilities can improve students' learning outcomes compared with a regular textbook unit. Furthermore, students from all socioeconomic backgrounds and of different prior achievement levels make significant gains during the implementation of a differentiated unit. They also present higher motivation for learning. These studies indicate that teachers can differentiate the regular teaching materials, through the use of flexible grouping practices based on pre-assessment of student-learning, and the increase of the breath (i.e., interest, choices, and learning-style variation) and depth (lessons for different ability levels), to create more meaningful learning for students. Beck also noted that accommodating student differences can be beneficial in many ways. First, it motivates teachers to broaden their instructional versatility and creativity. Second, students are more likely to respond favorably to the subject-content that is presented in a way that is compatible their learning preferences. Third, students' positive attitudes can lead to higher commitment to learning and decrease behavioral problems. Research and best practice indicate that teachers can differentiate at least three classroom elements as shown in Figure 4, according to students' readiness and preference.

Figure 4: How to Differentiate 506

Content	What do we want our	Differentiation can take the form of varying the
	students to know?	modalities in which students gain access to
	How do we present the	important learning, for example by (a) listening,
	curriculum so that all	reading, and doing; (b) presenting content in
	children can learn the	incremental steps, like rungs on a ladder,
	content?	resulting in a continuum of skill-building tasks;
		and (c) offering learners a choice in the
		complexity of content with which they will
		begin a learning task that matches their current
		level of understanding and from which every
		learner can experience academic success.
Process	What do we want our	Differentiation takes the form of grouping
	students to be able to do?	flexibly, for example, by (a) varying from whole
	How can we integrate basic	class, to collaborative groups, to small groups, to
	and higher-level thinking	individuals; and (b) providing incentives to learn
	skills into the curriculum?	based on a student's individual interests and
		current level of understanding.

Product	What do we want our	Differentiation can also take the form of varying
	students to create?	assessment methods, such as (a) providing
	How can we teach them to	students a menu of choices that may include oral
	become more self-directed	responses, interviews, demonstrations and
	learners?	reenactments, portfolios, and formal tests; (b)
		keeping each learner challenged at his or her
		level of understanding with content at or slightly
		above his or her current level of functioning; and
		(c) allowing students to have some choice in the
		means in which they can express what they
		know — for example, writing a story, drawing a
		picture, or telling about a real-life experience
		that involves what is being taught.

As general education classrooms are increasingly inclusive, differentiation is becoming more essential to enable all students to achieve their optimal levels of learning. Despite the importance of differentiation, teachers are still not implementing it on a regular basis. Many teachers are resistant to differentiation because:

- They do not receive administrative support.
- They fear that straying from the mandated curriculum may result in lower standardized test scores.
- They have classroom management or student behavioral problems.
- They are resistant to long-term changes in teaching style.
- They do not have time to plan for differentiation.
- They fear that students' parents may not agree with the practice. 507

Carolan and Guinn pointed out that many educators mistakenly think that differentiation means teaching everything in at least three different ways. A differentiated classroom does look different from a one-size-fits-all classroom, but often the differences between students are less dramatic. For instance, differentiation can be in the form of developing a metaphor matched to a student's cognitive ability and personal interests, or pushing the thinking of an advanced student during a whole-class discussion. Through observations and interviews with five outstanding teachers, they found that their strategies that addressed student individual needs had four common characteristics:

- Offering personalized scaffolding, often inventing supports on the spot as a student faltered. In order to deliver tailored explanations, these teachers had a rich mental database of examples, metaphors, and enrichment ideas to draw on.
- Using flexible means or multiple paths to reach defined ends.
- Mining subject-area expertise. These teachers not only knew the landscape of their subject-matter, they also showed multiple ways to navigate it and translate it into their instruction in a manner that led to student-learning.
- Creating a caring classroom in which student differences in ability, culture, language, or interests were seen as assets, rather than hurdles.

Standard 5: Assessment Strategies

The teacher systematically uses a variety of diagnostic, formative, and summative assessment strategies and instruments that are valid and appropriate for the content and student population.

A teacher's skill in assessment must be more than merely testing students or measuring achievement. Teacher assessment skill "must center not on how [they] assess student achievement but on how [they] use assessment in pursuit of student success." Researchers usually draw a distinction between assessment of learning and assessment for learning. Gronlund described assessment of learning as "a broad category that includes all of the various methods for determining the extent to which students are achieving the intended learning outcomes of instruction." Assessment of student-learning can emerge in various formats, such as teacher observation, oral questioning, journal entries, portfolio entries, exit cards, skill inventories, homework assignments, project products, student opinions, interest surveys, criterion-referenced tests, or norm-based tests. In comparison, assessment for learning involves the teacher gathering, analyzing, and using data, including state and district assessment data, to measure learner progress, guide instruction, and provide timely feedback. Educators distinguish three different types of assessment based on the purpose and principles that drive assessment:

- Diagnostic assessment the purpose of diagnostic assessment is to ascertain, prior to instruction, each student's strengths, weaknesses, knowledge, and skills and to permit the teachers to remediate, accelerate, or differentiate the instruction to meet each student's readiness for new learning.
- Formative assessment the purpose of formative assessment is the assessment that is integral to the instructional process to help teachers adjust and modify their teaching practices so as to reflect the progress and needs of the students.
- Summative assessment summative assessment can occur at the end of a semester or a school-year to determine the student attainment of the standards of certain subject areas.

The practice of assessing student-learning is essential for effective instruction and learning. High-quality assessment provides teachers with the information regarding the extent to which students have attained the intended learning outcomes, and it informs teachers' instructional decision-making (what to teach and how to teach) as well. The goals of assessment are to provide teachers with evidences of student-learning and to facilitate teachers in making informed decisions on revising instruction and advancing student-learning.

Assessment can facilitate instruction and learning in many ways, including:

- Providing diagnostic information regarding students' mental readiness for learning new content.
- Providing formative and summative information needed to monitor student progress and adjust instruction.
- Keeping students motivated.

- Holding students accountable for their own learning.
- Providing opportunities to re-expose students to content.
- Helping students to retain and transfer what they have learned. 512

Research has indicated that teachers who introduce assessment into their classroom practice can affect substantial achievement gains. In their 1998 research review, Black and Wiliam examined a multitude of empirical studies to determine whether improvement in classroom assessments can lead to improvement in learning.⁵¹³ They found that formative assessment has substantial positive effects on student achievement, with effect size ranging from 0.3 to 0.7 standard deviations. Particularly, they found that formative assessment is more effective for low achievers than for other students, thus, reducing an achievement gap while raising achievement overall at the same time.⁵¹⁴ Wenglinsky found that teachers' use of frequent assessment and constructive feedback had a positive effect on student mathematics and science achievement at all grade levels.⁵¹⁵ Stronge et al. also noted that effective teachers and ineffective teachers differed in their student assessment practices.⁵¹⁶ In particular, effective teachers were found to provide more differentiated assignments for students than those deemed ineffective.

Research has found that an effective teacher:

- Gives regular feedback and reinforcement. 517
- Offers timely and specific feedback. 518
- Gives homework and offers feedback on the homework. 519
- Uses open-ended performance assignments. 520
- Analyzes student assessments to determine the degree to which the intended learning outcomes align with the test items and student understanding of objectives. ⁵²¹
- Interprets information from teacher-made tests and standardized assessments to guide instruction and gauge student progress by examining questions missed to determine if the student has trouble with the content or the test structure. 522

Assessments are more likely to have a positive influence on student-learning when they exhibit the following characteristics:

- Aligned with the framework of learning targets and instruction.
- Of sufficient validity and reliability to produce an accurate representation of studentlearning.
- Accompanied with frequent informative feedback, rather than infrequent judgmental feedback.
- Involve students deeply in classroom review and monitoring.
- Processes and results are timely and effectively communicated.
- Documented through proper record-keeping of learning results. 523

As noted earlier, there are multiple methods for assessing student-learning. Guskey found that teachers and administrators believed student portfolios were the most important type of assessment tool used to measure student-learning, while division, state, and national assessments ranked the lowest. Interestingly, homework ranked in the middle of Guskey's analysis of assessment types. Regardless of the type of assessment used, the more important issue is the practical value of the assessment in use. Tomlinson suggested that teachers must find a proper fit between students and the method being used to assess their learning. Assessment, she posited, is a form of communication. Teachers must allow students to communicate their learning in a manner best suited to their needs.

Given the prevalence of standardized assessments at the state, regional, and national levels in the United States, and in numerous countries around the globe, a brief summary on this particular type of assessment seems in order. Extant literature has documented both positive and negative impacts of standardized assessments on teachers' instruction and assessment at the classroom level. The positive evidence indicates that standardized tests motivate teachers to:

- Align their instruction to standards.
- Maximize instructional time.
- Work harder to cover more material in a given amount of instructional time.
- Adopt a better curriculum or more effective pedagogical methods. 526

However, other research reveals that high-stakes assessments force teachers to:

- Narrow the curriculum.
- Focus on memorization, drills, and worksheets.
- Allocate less time to higher-order skills.
- Restrict their teaching to formulated approaches of instruction. 527

Standardized assessment is not primarily concerned with what is going on in the daily classroom. Consequently, teachers should maintain a balance between state-/national-level assessments and classroom-level assessments to optimize student-learning.

Standard 6: Assessment Uses

The teacher systematically gathers, analyzes, and uses relevant data to measure student progress, to inform instructional content and delivery methods, and to provide timely and constructive feedback to both students and parents.

Effective teachers not only assess student-learning, but also they use the results of student assessment systematically and intelligently. That is a commonly adopted strategy by effective teachers and an integral attribute of their instruction. Using assessment means assessment of student-learning is not just the end, but also the means to reach an end, by continuously monitoring success and, step-by-step, moving to desired learning outcomes. Assessment is a waste of time and effort if its results are shelved and collect dust. The essence of assessment is how it can lead to improvements in teaching and learning. Assessment use can be defined as the practice that helps teachers use student performance data to continuously evaluate the effectiveness of their teaching and make more informed instructional decisions. The purposes of assessment use include: 530

- Gathering important information about student understanding to make prompt instructional modification evidence of students' knowledge and understanding.
- Providing timely and informative feedback to students the nature of feedback given to students.
- Enabling students to set and attain meaningful goals shifts in the way that students learn.

A review of research by Natriello⁵³¹ and Crooks⁵³² and more recently by Black and Wiliam⁵³³ has demonstrated that substantial student-learning gains are possible when teachers introduce assessment results into their classroom practice. Assessment data can be used for tasks such as setting annual, intermediate, and ongoing goals. Assessment results also can be used to visually depict goals and visions, motivate students, and celebrate achievements and progress. ⁵³⁴ Effective teachers provide instruction and support that leads to quality learning opportunities on a day-to-day basis. Additionally, an experimental study reached the following conclusions for teachers who monitored their students' progress on a regular basis:

- They effected greater student achievement than those who used conventional monitoring methods.
- They had more improvement in their instructional structure.
- Their pedagogical decisions reflected greater realism and responsiveness to student progress.
- Their students were more knowledgeable of their own learning and more conscious of learning goals and progress. 535

The practice of assessing and documenting student growth is essential for effective instruction and learning. It determines the effectiveness of a period of teaching (e.g., a lesson, a unit, a

semester, or a school year) in terms of student-learning and provides a basis for continuing instruction. Collecting evidence of students' learning progress provides teachers with day-to-day data on students' mental preparedness for certain learning targets and facilitates teachers in making data-based decisions for instruction modification. The data can come from small-group discussion with the teacher and a few students, whole-class discussion, journal entries, portfolio entries, exit cards, skill inventories, pretests, homework assignments, student opinion, or interest surveys. In addition, reviewing student work (e.g., student writing samples and project-based work) is also an important way of assessing student performance on curricular goals and identifying desired changes in instructional practices.

Student progress-monitoring is a technique that can provide teachers with data on students' performance to evaluate the effectiveness of their instruction and make adjustments in their pedagogical behavior. Progress-monitoring also can help teachers set meaningful student achievement goals to tap into greater student-learning potential. Teachers who use progress-monitoring also are better informed of the strengths and weaknesses in student-learning and can better decide on what instructional modifications are necessary. Empirical research has found that when progress-monitoring is combined with goal-raising, student-learning profiles, and appropriate instructional modifications, it can help teachers build stronger instructional programs that are more varied and more responsive to students' learning needs, and effect better academic performance for students. Stecker, Fuchs, and Fuchs noted that teachers affected significant growth in student-learning with progress-monitoring only when they modified instruction based on progress-monitoring data; however, frequent progress-monitoring alone did not boost student achievement.

Effective teachers are often described as flexible and opportunistic. They use various techniques (such as questioning, classroom observation) to diagnose student-learning and then adjust instruction promptly to close the gap between where the students are now and where the students should be. Effective teachers are aware that when students begin to indicate unengaged behaviors, that can be the result of poorly planned activities, inadequate scaffolding and modeling, or insufficient attention to developing norms and participation routines in the classroom. To address student off-task behaviors, they not only use behavior-control, but more importantly, modify their instruction to make it more engaging. Effective teachers ask appropriate questions at appropriate times to solicit information regarding how well students have mastered the basic facts, skills, or ideas in a lesson. The technique of questioning not only provides students an opportunity to think critically and become more informed about their learning, it also provides important input for teachers to make instructional modifications.

An instructional technique that is complimentary to questioning is feedback. Questions and answers from teachers to students, and back again, represent much of the academic interaction that takes place in schools. This process supports student engagement in learning and enhances teacher's ability to monitor the learning process. Feedback to students that focuses on developing skills, understanding, and mastery, and treat mistakes as opportunities to learn is particularly effective. Effective feedback targets students' specific misconceptions or errors that occur in a content-area or a skill-set, and that provide informative guidance on what they need to do to maximize their performance. Effective teachers avoid simple "yes" or "no" answers. Rather, they provide informative explanations of what students are doing correctly,

what they are not doing correctly, and how to fix it.⁵⁴² Students as well as teachers have strong beliefs about the importance of feedback. Students report that informative feedback makes them aware of their mistakes, highlights ways to make corrections, and informs them of teacher expectations. Teachers report that providing feedback can be arduous and painstaking, but also they feel that it is an important part of instruction.⁵⁴³

Based on a large-scale research review, Hattie found that, compared to their ineffective colleagues, effective teachers were adept at monitoring student problems and assessing their level of understanding and progress, and they provided much more relevant, useful feedback. The research also shows that effective teachers are more adept at developing and testing hypotheses about learning difficulties or instructional strategies. Wenglinsky found that teachers' use of frequent assessment and constructive feedback had a positive effect on student mathematics and science achievement at all grade-levels. Some other characteristics of teachers' effective use of student assessment data include:

- Aligning intended learning outcomes, instruction, and assessment to effectively keep track of students' progress.⁵⁴⁶
- Using high-quality homework and classroom quizzes to review student performance on key knowledge and skills, and providing meaningful and timely feedback. 547
- Targeting areas of strength and weakness to provide appropriate remediation.

When teachers monitor students' ongoing learning and use student-assessment data to inform their own teaching, they:

- Effect greater student achievement.
- Have more improvement in their instruction and make their pedagogical decisions more responsive to student-learning.
- Exhibit greater concerns about learning and a higher academic emphasis in their classroom practices.
- Are better at supervising the adequacy of student-learning, identifying students in need of additional or different forms of instruction, and modifying practices to maximize student-learning.⁵⁴⁹

Fuchs and Fuchs found that teacher use of ongoing student-assessment data can be beneficial to student-learning in many ways, such as:

- To identify students in need of additional or different forms of instruction.
- To enhance instructional decision-making by assessing the adequacy of student progress.
- To determine when instructional modifications are necessary.
- To prompt teachers to build stronger instructional programs that are more varied and responsive to student needs. 550

Standard 7: Positive Learning Environment

The teacher provides a well-managed, safe, and orderly environment that is conducive to learning.

Students need an engaging, stimulating, and enriching learning environment to grow and thrive. In order to achieve this type of rich environment, effective teachers establish and communicate guidelines for expected behavior, monitor student behavior, keep students on task, and infuse humor, care, and respect into the classroom interactions, so as to develop a climate that is conducive to student-learning. As a result, research has indicated that a positive learning environment can shape student outcomes in cognitive, motivational, emotional, and behavioral domains.⁵⁵¹

Among other attributes, a caring, supportive, safe, challenging, and academically robust setting helps define what it means to have a positive learning environment that is conducive to student success. However it is defined, virtually all teachers and administrators, and even students themselves, recognize how valuable a positive classroom climate is to learning. The most prevalent criteria used to define learning environments are probably the physical arrangement of the classroom, discipline and routines, organization of learning activities, and the engagement of students with tasks, among others. The key features highlighted next can elucidate what research indicates about an effective learning environment. ⁵⁵³

Figure 5: Key Features of an Effective Learning Environment

Defining Characteristics	Focus	
Physical arrangement of the classroom	The teacher develops functional floor plans, with teacher and student work areas and furniture/materials placement for optimal benefit. ⁵⁵⁴	
Discipline and routines	The teacher establishes classroom rules and procedures early on in the school-year. 555	
Organization of learning activities Classroom activities have an academic focus. The te orchestrates smooth transitions and maintains mome throughout teaching and learning. 556		
Engagement of students	The teacher uses effective questioning, smooth transitions, and challenging but interesting activities to increase student engagement in learning and student accountability. 557	
Maximizing instructional time	The teacher protects instruction from disruption and makes the most out of every instructional moment. ⁵⁵⁸	
Communication of high expectations	The teacher assumes responsibility for student-learning, sets high (but reasonable) expectations for all students, and supports students in achieving them. 559	
Care and respect	The teacher establishes rapport and trustworthiness with students by being fair, caring, respectful, and enthusiastic. 560	

Research has found that an effective teacher:

- Is adept at organizing and maintaining an effective classroom environment. 561
- Has a sense of "with-it-ness," which can be translated as being aware of when routines need to be altered or an intervention may be needed to prevent behavior problems. 562
- Fosters relationships that exhibits belief in the students, and where respect and learning are central so students feel safe taking risks that are associated with learning. 563
- Is culturally competent and attuned to students' interests both in and out of school. 564
- Establishes good discipline, effective routines, smooth transitions, and ownership of the environment as components of establishing a supportive and collaborative climate. 565

A review of research connecting learning environment and student achievement emphasizes a number of key dimensions, including classroom management and structure, positive classroom climate, and classroom talk:

Classroom management and structure: Teachers who emphasize structure in the classroom are more effective than those who do not. In general, structure means an aggregate of elements of an entity in their relationships to each other. For our purposes in education specifically, structure involves physically orienting the classroom for instruction, preparing and organizing materials, and framing lessons in a coherent and logical manner. Effective teachers implement good classroom management to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning. Two key features of effective classroom management are:

- 3. Good management is preventive rather than reactive.
- 4. Teachers create well-managed classrooms by identifying and teaching desirable behaviors to students.

Effective teachers were found to maintain their management system by "monitoring and providing prompt feedback, pacing class activities to keep them moving, and by consistently applying classroom procedures and consequence." The extant research is fairly clear that good classroom management has a positive influence on students' motivational development.

Positive classroom climate: Effective teachers build a classroom climate where error (i.e., risk taking) is welcomed, where student questioning is high, where engagement is the norm, and where students can gain reputations as effective learners. Teachers who make the effort to engage in positive interactions with students make a difference in the academic and social development of their students. ⁵⁷¹

Classroom talk: The interaction between teacher and students, and among students, is another significant indicator of learning environment. Authority is more distributed than centralized through the communication that happens in a positive classroom environment. Additionally, the talk between teacher and student is personalized and personal. Exemplary teachers have been found to use authentic conversation to learn about students and encourage students to engage their peers' ideas.⁵⁷²

Figure 6: Attributes of Positive Learning Environment

Positive	Descriptions	
Attributes		
Classroom	identifying and communicating desirable behavior	
management and	 consistently applying rules and procedures 	
structure	 monitoring student behavior 	
	 taking preventive rather than reactive management actions 	
	 pacing class activities and transitioning between tasks 	
	smoothly	
	 maximizing instructional time 	
	keeping students on task	
	 making learning meaningful⁵⁷³ 	
Positive classroom	cooperation among teachers and students	
climate	 common interest and values 	
	 pursuit of common goals 	
	a clear academic focus	
	 well-organized and well-planned lessons 	
	 explicit leaning objectives 	
	 appropriate level of task difficulty for students 	
	• appropriate instructional pace ⁵⁷⁴	
Classroom talk	respectful, supportive, and productive	
	 modeled by teachers 	
	 practiced to students 	

A safe school always starts with individual safe classrooms. Cornell and Mayer stated that "academic success for students begins with a trusting and mutually respectful relationship between student and teacher, extends to classroom order, and culminates in a safe and supportive school climate that is profoundly and inextricably linked to learning outcomes." The classroom environment refers to the conditions, circumstances and influences surrounding and affecting the development and performance of learners. The classroom climate is the shared perceptions of learners about the classroom environment. The classroom climate can range from a warm, welcoming and nurturing atmosphere to one characterized by coldness and indifference. ⁵⁷⁶

Anderson suggested that classes have a distinctive personality or "climate" which influences the learning efficiency of their members. The properties that make up a classroom environment include interpersonal relationships among students, relationships between students and their teachers, relationships between students and both the subject being studied and the method of learning, and the students' perception of the structure of the class.⁵⁷⁷

As early as 1973, Moos, the first researcher who popularized the concept of classroom climate, developed a measurement scale that measures the climate within a classroom on three broad categories: ⁵⁷⁸

• *Relationships* – the degree of which individuals in the environment help and support each other and express themselves openly and freely.

- Personal development the degree to which personal self-enhancement can occur.
- *Maintenance and change in the system* the degree to which the environment is orderly, clear in its expectations, maintains control, and is able to change.

Similarly, the scale developed by Sinclair and Fraser measures classroom environment from five aspects:⁵⁷⁹

- *Cooperation* the extent to which students cooperate with each other during class and activities.
- *Teacher Support* the extent to which the teacher helps, encourages, and is interested in the students.
- *Task Orientation* the extent to which it is important to the class to stay on task and complete classwork.
- *Involvement* the extent to which students participate actively in their class activities and discussions.
- Equity the extent to which the teacher treats all students equally, including the distribution of praise and questioning, and the inclusion in discussion.

Research has demonstrated that students in cooperative learning environments typically perform better than those in competitive or individualistic situations in terms of their reasoning, the generation of new ideas and solutions, and how well they transfer what they learn from one situation to another, as well as on traditional test measures. The trust between the teacher and students, and among students themselves, is a key element to effective classroom environment. Tschannen-Moran explained the importance of trust in this way: "Without trust, students' energy is diverted toward self-protection and away from learning." **

A synthesis of research studies indicates that learning outcomes and gains are positively associated with learning environment characteristics like cohesiveness, satisfaction, task difficulty, formality, goal direction, democracy, and the material environment, but negatively associated with characteristics like friction, cliqueness, apathy, and disorganization. Students' perceptions of their learning environment impact their self-concept as a learner. Byer found a positive relationship between students' perceptions of classroom social climate, students' perceptions of classroom affiliation, and academic self-concept. Byer also found a positive relationship between students' perceptions of classroom involvement and academic self-concept. Research also found that students' perceptions of the classroom social environment (teacher support, promotion of mutual respect, promotion of task-related interaction, student support) were related to their engagement in the classroom (self-regulation and task-related interaction).

The following table offers an overview of five basic emotional needs of students that need to be addressed to create a classroom environment for optimal learning and growth: 586

Figure 7: Student Emotional Needs and Building an Affectively Healthy Learning Environment

Domains of Student Emotional Needs	Characteristics of an Affectively Healthy Learning Environment	What Teachers Can Do?
Psychological safety	Learners know what is expected, feel safe and protected, are able to trust others, and are able to anticipate or predict the sequence of events from experience.	 Establish clearly defined classroom procedures, policies and practices. Act responsibly and keep students' secrets and confidences. Maintain neat, clean and orderly physical conditions within the classroom.
A positive self-image	Learners have a strong sense of personal worth and feel capable of being loved and entitled to happiness.	 Give positive feedback that can help students to become aware of their strengths and areas for growth. Build rapport with students. Honor each child's uniqueness. Demonstrate acceptance and caring.
Feelings of belonging	Learners feel that they are equal to others and they are accepted and valued as a member of something larger. The whole class is characterized by bonding, class cohesiveness and a sense of group pride.	 Create an accepting, warm classroom culture. Reduce feelings of isolation or competition by involving students in classroom activities. Provide students with opportunities to be of service to others.

Figure 7 (cont.)

Domains of Student Emotional Needs	Characteristics of an Affectively Healthy Learning Environment	What Teachers Can Do?
Purposeful behavior	Learners bring meaning to their efforts and sustain an intrinsic joy of learning and the achievement of solving their own problems.	 Be a model to take responsibility for and initiative in the learning process. Set challenging but achievable expectations. Convey clear expectations. Express confidence and faith in their students' abilities. Strengthen values such as responsibility, effort, honesty, perseverance, determination, and commitment.
A sense of personal competence	Learners are attaining optimal learning and performance, both cognitively and affectively.	 Provide options of learning materials and tasks based on students' ability. Be the support and the cheerleader for the students. Recognize the efforts exerted and the growth achieved by individual students. Provide constructive, informative feedback to help students become better. Celebrate success.

The interaction between teacher and students is a significant indicator of learning environment. Teachers and students spend much of their day interacting academically. However, social interactions and those that give the teacher opportunities to demonstrate caring, fairness, and respect have been shown to be an important element of teacher effectiveness. A teacher's ability to relate to students and to make positive, caring connections with them plays a significant role in cultivating a positive learning environment and promoting student achievement.⁵⁸⁷

Teachers who make the effort to engage in positive interactions with students make a difference in the academic and social development of their students. A constructive interaction with students is a motivator for students to act in accordance with the expectation of their teacher. Studies confirm that low student achievement can result from stressful student-adult relationships, while positive relationships can lead to higher levels of student participation and engagement. ⁵⁸⁸

Teacher interactions with students have been found to have effects at all grade levels. Hamre and Pianta found that first grade teachers who engaged in positive interactions with at-risk

students reduced the probability of those students experiencing failure in the early grades. ⁵⁸⁹ Barney found that middle school students developed a more positive attitude toward course content when their teachers took the time to interact with them. ⁵⁹⁰ Pressley, Raphael, Gallagher, and DiBella found that secondary teachers who got to know their students personally were able to work with them to develop and achieve goals. ⁵⁹¹

Cornelius-White synthesized 119 studies that examined the impact of learner-centered, teacher-student relationships on student outcomes. Specifically, the author focused on the teacher-students relationships that are characterized by empathy, warmth, genuineness, non-directiveness, higher-order thinking, encouraging learning/challenge, adapting to individual and social differences, and composites of these. Overall, the meta-analysis found that these student-centered teacher variables have positive association with student cognitive (e.g., academic achievement in math, science, social science, and verbal achievement), affective (e.g., positive motivation, self-esteem/mental health, social connections), and behavioral (e.g., student participation/initiation, outcomes, attendance/absences, disruptive behavior) outcomes. The mean correlations (r = .31) are above the average compared with other educational interventions.

Allington and Johnston observed and interviewed 30 fourth-grade literacy teachers from 24 schools in five states, who were identified as exemplary through a snowball nomination process. These teachers' classroom talk was found to have the following characteristics:

- The classroom talk could be described as respectful, supportive, and productive, and was not only modeled by the teacher in interactions with students, but also deliberately taught, and expected.
- The talk between teacher and student was personalized and personal. Exemplary teachers used authentic conversation to learn about students. They encouraged students to engage each other's ideas. The authority was more distributed than centralized.
- "No" or "Yes" were rarely uttered by the teachers except in response to gross social transgression.

Effective teachers were found to maintain their management system by "monitoring and providing prompt feedback, pacing class activities to keep them moving, and by consistently applying classroom procedures and consequence." Wang, Haertel, and Walberg analyzed a knowledge-base comprising 11,000 statistical findings connecting a variety of variables and student achievement in order to answer the question: What helps students learn? They found effective classroom management was the one of the most influential variables in student-learning. They concluded, "Effective classroom management increases student engagement, decreases disruptive behaviors, and makes good use of instructional time." Their definition of effective classroom management included effective questioning/recitation strategies, learner accountability, smooth transitions, and teacher "with-it-ness."

Taylor et al. also found the most accomplished teachers were experts at classroom management. In general, they had well-established classroom routines and procedures for handling behavior problems, smooth transitions between activities, and a rapid rate of instruction, thus allowing for high instructional density. They managed, on average, to engage virtually all (96%) of their students in the work of the classroom. ⁵⁹⁶

Classroom management includes actions taken by teachers to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning. Two key features of effective classroom management are:

- 3. Good management is preventive rather than reactive.
- 4. Teachers help create well-managed classrooms by identifying and teaching desirable behaviors to students.

Elements of effective classroom management include establishing routines and procedures to limit disruption and time taken away from teaching and learning, maintaining momentum and variety in instructional practices, and monitoring and responding to student activity. These elements contribute to students' active engagement in the learning process. Research on the classroom management skills of effective teachers has consistently found that they establish routines for all daily tasks and needs. Effective classroom managers orchestrate smooth transitions and continuity of momentum throughout the day to increase the amount of time spent on academic tasks. An exploratory study of effective versus ineffective teachers found that teachers whose students make greater achievement gains use more routines for everyday tasks than teachers whose students made less than expected achievement gains.

Most effective teachers admit that rules, procedures, and routines take precedence over academic lessons during the first week of school, noting that organization takes a considerable investment of time but has tremendous payback benefits. Another research team noted that teachers who spend more time establishing instructional routines at the beginning of the school-year did not need to exert as much effort on similar tasks later in the year. The investment in initial organizational strategies yielded significant gains in reading scores throughout the year. In comparison, achievement gains were lower among students whose teachers did not demonstrate similar organization skills.

A study conducted by one research team found that students' perception of rule clarity and teacher monitoring are positively related to their development of academic interest in secondary school mathematics classes. Another empirical study revealed that the top quartile teachers (i.e., the most effective teachers as identified by the high academic achievement of the students they taught) were more organized with efficient routines and procedures for daily tasks, and they communicated higher behavioral expectations to students than ineffective teachers. The top teachers also were found to have less disruptive student behaviors (on average, once every two hours) than did the less effective teachers (on average, a disruption every 12 minutes). 604

Disruptive behavior takes away precious classroom learning time. Teachers who can implement effective classroom management can decrease disruptive classroom behaviors and increase student engagement in academic tasks. Disruptive behaviors are particularly problematic for classrooms in that they can interfere with learning, compete with instruction, create an unsafe learning environment, and make it less likely that students will achieve academic objectives. Teachers often report disruptive behavior as a major classroom concern. Based on a poll of the America Federation of Teachers, 17% of responding teachers said they lost four or more hours of teaching time per week due to disruptive student behavior.

Goldstein stated that teachers may inadvertently contribute to student misbehavior if they do not know how to effectively use praise, attention, reward, privileges, differential attention, time-out, and punishment. Some common mistakes made by teachers are using behavior management techniques inconsistently, having unrealistic expectations, inadvertently reinforcing undesirable behavior, and modeling negative behavior. For example, when attempting to manage problem behavior, teachers may pay attention to a child when the child is noncompliant and withdraw the attention when the child is compliant. Teachers may also over-rely on punishment, most frequently reprimands, rather than positive reinforcement.

Standard 8: Academically Challenging Environment

The teacher creates a student-centered, academic environment in which teaching and learning occur at high levels and students are self-directed learners.

The nature of classroom climate is a function of numerous variables, for instance, the implicit rules of the group structure, the style of leadership of the dominant members of the group, norms, cultural traditions, expectancies, affective history, and demographic composition of the group members. Based on research findings, Evans, Harvey, Buckley, and Yan also concluded that classroom climates described as positive have been found to be related to important educational outcomes such as enhanced academic achievement, constructive learning processes, and reduced emotional problems. Nevertheless, classroom climates can also be negative and toxic and related to undesirable outcomes, such as increased bullying and aggression, and social and emotional maladjustment. 609

Learning can be viewed as a cognitive development process in which individuals actively construct systems of meaning and understanding of reality through their interactions and experiences with their environments. In this cognitive developmental process, a quality learning environment is crucial to students' learning, and it is the teacher's responsibility to create conditions of active engagement in the classroom. It is not surprising to see that every decision that effective teachers make and every action they take in their classrooms, either instructional or managerial, serve the ultimate purpose of student academic learning and growth.

Various studies have found that students' perceptions of the classroom environment explain a substantial amount of variance in student achievement, after controlling for their background characteristics, across grade levels, and across subject areas. Classroom learning environment is associated with students' academic behaviors and academic achievement. Students are more engaged with their learning when they receive high expectations, believe that being in school will enable them to do something positive in their lives, have the ability to learn new things, create new challenges, and prepare them for college. A study by Barth et al. found that negative classroom environments are associated with a lack of academic focus and lower student outcomes. Various teacher characteristics that are identified as contributing to positive climate relate to teaching methods – both instructional strategies and discipline management skills – for instance, clear and well-structured procedural rules, together with opportunities for active participation and engagement. To illustrate:

- Effective teachers implement effective classroom management to establish order, engage students, and elicit student cooperation, with an ultimate purpose to establish and maintain an environment conducive to instruction and learning. 615
- Classroom activities have an academic focus. The teacher protects instruction from disruption and makes the most out of every instructional moment. Additionally, the teacher orchestrates smooth transitions and maintains momentum throughout teaching and learning.⁶¹⁶
- The teacher assumes responsibility for student-learning, sets high (but reasonable) expectations for all students, and supports students in achieving them. The teacher uses

effective questioning and challenging, but interesting, activities to increase student engagement in learning and student accountability. 617

The following set of attributes of high-quality learning environments, drawn from the sociocultural constructivist perspective, are helpful in describing prominent attributes of an academically robust learning environment:

- Active engagement: learners are directly involved in actions that support cognition and intentional learning.
- Authenticity and relevance: learners attribute value to the learning task and see the relationship between the knowledge to be gained and their personal life.
- *Collaboration and community*: noncompetitive social interaction of learners with others about the nature of the content and its meaning to themselves and others allowing for the co-construction of knowledge.
- *Learner autonomy*: the learner has some degree of control over or self-selection of the content or methods of learning.
- *Cognitive complexity*: Learning tasks are sufficiently representative of reality, with a myriad of web-like interacting forces that must be organized and made sense of.
- *Generativity*: learner engagement in disciplined inquiry that involves using existing knowledge to discover or formulate new ideas, concepts, or information.
- *Multiple perspectives*: experiences allow learners to see the same information in different ways, from different points of view, or use it for different purposes.
- *Pluralism*: learners develop a flexible view of reality, rather than a fixation on one single view of reality as correct.
- Reflectivity and metacognitive awareness: learners think about their own learning processes, are involved in identifying strategies to increase their learning, and self-monitor progress.
- *Self-regulation and ownership*: learners are given agency and asked to assume personal responsibility for their own learning.
- *Transformation*: learners are expected to comprehend meaning and to use insights gained to reorganize, synthesize, or transform information into new forms or for some new purposes.
- *Productivity*: learners are expected to do something with knowledge required, or use it in some way that is beneficial to themselves or others.⁶¹⁸

Building on the above attributes, practical instructional and managerial strategies that can help establish and maintain an academically robust learning environment include the following:

- Establishing a clear academic focus.
- Developing well-organized and well-planned lessons.
- Making explicit learning objectives.

- Maximizing instructional time.
- Pacing class activities and transitioning between tasks smoothly.
- Keeping students on tasks.
- Making learning meaningful.
- Identifying and communicating desirable behavior.
- Consistently applying rules and procedures.
- Monitoring student behavior.
- Taking preventive rather than reactive management actions.
- Building cooperation among teachers and students.
- Focusing on common interests and values.
- Pursuing common goals.
- Determining the appropriate level of task difficulty for students.
- Providing an appropriate instructional pace.⁶¹⁹

An academically challenging learning environment is often reflected to the degree of teachers' expectations for student performance. When children come to school with lower levels of language and cognitive development, or more behavioral and attention problems, teachers frequently expect less from them, rather than providing them with a rich, challenging curriculum and supports for learning. The cycle of low expectations and low performance perpetuates when students who are considered less able are required to read less and asked to recall only simple facts and events, while high-performing students are challenged to engage in advanced cognitive learning. Holding high performance expectations has an important impact on teachers' instructional practices. By having reasonable expectations for students' growth, teachers can plan carefully linked experiences and provide the foundation for students to meet high expectations. The beliefs that teachers have about their students and their ability to learn can positively or negatively impact their actual learning. The reality is that "students typically don't exceed their own expectation, particularly with regard to academic work. But students will go beyond what they think they can do under certain conditions, one of which is that their teachers expect, challenge, and support them to do so." 620

The expectations a teacher holds for students, whether consciously or subconsciously, are demonstrated through his or her interactions with the students during instruction. Student academic performance is influenced by a teacher's expectations and goals for student achievement. In a study of 452 sixth graders, findings revealed that teachers' high expectations served as a significant predictor of student performance both socially and academically. Rubie-Davies found that just by one single school-year, the students' self-perceptions of their own abilities in academic areas altered substantially in line with teachers' expectations. To make students experience challenges and success, the teacher provides opportunities to use existing skills and knowledge as well as attain new competencies.

Teacher expectations do influence students' learning. The effects of teacher expectations are stronger among stigmatized groups, such as African-American students and students from low-income families. Students that are frequently the targets of lower expectations are typically most affected academically. For instance, student perceptions of teachers' expectations are especially important to the academic engagement and efficacy of African-American students. Tyler found that the emotional, behavioral, and cognitive engagement and efficacy of African-American students were all predicted by their perceptions of teacher expectations. However, it has also been found that teacher expectations for strong academic performance and educational attainment for ethnic minorities or low-income students are generally lower than those for their economically advantaged, European American counterparts. Teacher expectations run short where they are needed most. Low teacher expectation of students was identified as one of the five main factors related to the underachievement of African-American and Latino students.

There are different ways that teacher expectations influence student achievement. First, teachers are likely to put forth greater effort when they perceive that they are teaching high-ability students. 629 Secondly, according to Ferguson, 630 teacher perceptions and expectations are expressed (unconsciously) through the type of goals teachers set for students, the skills and resources used during instruction, as well as the types of reinforcement that teachers use in the classroom. Warren found that teachers' low expectations and lack of efficacy often resulted in lowered teaching standards, less teacher effort, and the use of watered-down curriculum for lowachieving students, especially in poor, urban schools. 631 That ultimately impacts students' achievement, academic engagement, and motivation. Through Cotton's review, a multitude of ways in which lowered teacher expectations manifest in the classroom were identified. 632 Students who are the target of teachers' low expectations are given fewer opportunities to learn new materials than high-expectation students. The wait-time to answer a question is less than what is allotted for high-expectation students. Low-expectation students are given the answers to questions or the teacher calls on some other students rather than giving them clues or repeating or rephrasing questions, as is done with high-expectation students. Students with low teacher expectation receive inappropriate feedback (e.g., more frequent and severe criticism for failure, insincere praise), or reinforcement that is not a result of desired performance. They also tend to receive less friendly and responsive classroom interactions (e.g., less smiling, affirmative headnodding, leaning forward, and eye contact). They are provided briefer and less informative feedback, less stimulating and more lower-cognitive level questions, as well as less frequent use of effective and time-consuming instructional practices.

Additionally, students often recognize teacher bias and conform to teacher expectations. Children, from their years in school, are highly sensitive to differential teacher expectations and behavior. This type of sensitivity cuts across grades, gender, and ability levels. Research has suggested that students perceive low-achieving students as typically receiving more vigilance directed towards them, fewer chances, more negative feedback and direction, more negative affect, and more frequent work- and rule-oriented treatment. In contrast, students typically perceive high-achievers as being the recipients of higher expectations and academic demands, more emotional supports and special privileges, and increased opportunities to make choices. This phenomenon can be particularly troublesome when teachers stereotype whole groups of students based on personal characteristics such as race or gender. Teacher expectations are often connected to what is termed "self-fulfilling prophecy." A self-fulfilling prophecy occurs

when a false description of a phenomenon induces a new behavior that leads to the originally false description coming true. Hauser-Cram et al. posited that children in stigmatized groups are more likely to have negative or low teacher expectations which likely lead to self-fulfilling prophecies of low academic performance. ⁶³⁶

Standard 9: Professionalism

The teacher maintains a commitment to professional ethics and the school's mission, participates in professional growth opportunities, and contributes to the profession.

Teacher professionalism encompasses key characteristics – professional competence, performance, and conduct – that reflect teachers' goals and purposes, capabilities, values and beliefs, and directly impacts the effectiveness of teaching. As a profession, teachers value and practice the principles, standards, ethics, and legal responsibilities of teaching. And, as with any profession, they must be committed to and skilled in the areas of expertise that define teaching. Professionalism should reflect three essential elements of any true profession:

Figure 8: Three Essential Elements of Profession

Elements	Descriptions ⁶³⁹	
Professional	Adhere to legal and ethical guidelines.	
standards and ethics	 Adhere to standards defined for the profession. 	
of the profession	Demonstrate professional demeanor and positive interaction	
	with others.	
	 Respect the diversity of ethnicity, race, gender, and special 	
	needs.	
Continuous self	Act as reflective practitioner.	
professional	 Acquire and refine professional knowledge and skill. 	
development	 Engage in ongoing professional renewal. 	
	 Act, as appropriate, as risk-taker, stepping out of comfort 	
	zone.	
	• Embrace practices of a lifelong learner.	
Contributions to the	Serve as role model for other educators.	
profession	Serve on school, district, regional, and state educational	
	committees, work groups, etc.	
	 Participate in professional associations. 	
	• Contribute to the development of the profession (e.g.,	
	through presentations, writing).	

Teaching seems to differ from many other professions and occupations in the aspect that the kind of person a teacher is, and the way he or she behaves, seems to have considerable implications for the professional practice. For educators, students, and for the general public, good teaching is inconceivable apart from the teacher's personal qualities. Teachers' daily practice is grounded in the beliefs, values, and attitudes they hold toward the profession, the students, the school, and themselves. Carr posited that many of the skills featured in competence models of professional training – such as the abilities to match general curricular prescriptions to individual needs, to maintain student engagement and administer classroom management – depend on the teachers' ethical or personal qualities of empathy, care, respect, fairness, motivation, perseverance, and a strong belief that they can succeed in making a difference in students' learning. Learning.

Caring: Caring about students and respecting them as individuals is prevalent in the literature descriptions of effective teachers. Caring is central to student-learning – the glue that binds teachers and students together, and makes life in classrooms meaningful. Caring fosters a type of teacher-student connection that encourages possibilities for learning that may not otherwise occur. Good teachers are often described as warm, friendly, and caring. Conversely, ineffective teachers often are said to create a tense classroom and are described as cold, abusive, and uncaring. When students perceive that their teachers care about them, they respond by "optimizing their commitment to learning and putting forth greater efforts to reach their potential." In classroom learning, when students are supported by a caring teacher, they are more likely to ask questions, to take chances, and to share their inner thoughts in creative writing and through other forms of expression.

Teacher dispositions and beliefs are two other variables related to student achievement. They are important qualities that build up a teacher's professional demeanor. Carter used multiple data-collection instruments, such as surveys, interviews, observations, and personal records, to develop a better understanding about the characteristics and dispositions of 99 effective teachers. When these teachers were asked to list three characteristics of exceptional teachers, the most mentioned themes are as follows:

- Flexible, adaptable, will search for what works.
- Excellent management skills, organized, discipline issues, etc.
- Caring, compassionate.
- Love working with children, love children.
- Believe all children can learn at high levels, high expectations.

These exemplary teachers were then asked to report two strengths they possessed themselves. The most frequently mentioned strengths included being hard-working and dedicated, possessing excellent communication skills, being enthusiastic and energetic, and being caring and kind. Exemplary teachers regard the ethic of care and respect as a vital foundation for students' best learning and a prerequisite for effective teaching. They reach out to know their students by using multiple sources of knowledge (e.g., solicited critique, dialogues and questions, knowing students informally, knowing from colleagues, and knowing students' cultures). Several studies sought the input of students themselves in identifying characteristics of highly effective teachers. These studies revealed that students described effective teachers as caring, dedicated, motivating, encouraging, nurturing, supportive, and respectful.

Caring, ⁶⁵² self-efficacy, ⁶⁵³ and enthusiasm ⁶⁵⁴ are just a few examples of teacher characteristics that have been demonstrated to influence both cognitive and affective learning. Classroom observations often reveal that effective teachers demonstrate more respect and caring for students than do less effective teachers. ⁶⁵⁵ Effective teachers use care and respect to build relationships with their students that are conducive to learning. Teachers' expressions of care not only enhance students' social skills and self-worth but also encourage their academic development. ⁶⁵⁶ When students perceive that their teachers care about them, they exert higher level of motivation, social responsibility, and affective learning, ⁶⁵⁷ and they respond by "optimizing their commitment to learning and putting forth greater efforts to reach their potential." ⁶⁵⁸

Enthusiasm and motivation: Enthusiasm and motivation are two essential attitudes that impact teacher effectiveness and, ultimately, student achievement. Enthusiasm "reflects the degree of enjoyment, excitement, and pleasure that teachers typically experience in their professional activities." Teachers who are more enthusiastic about teaching exhibit higher quality instructional behavior, such as monitoring student-learning, providing students with more cognitive autonomy support, offering more social support to students, and using higher levels of cognitive challenge. Teacher motivation also is expressed in a range of teacher behaviors that are perceived to be conducive to student-learning, such as enthusiasm in content-area taught, interest about students' personal and developmental needs, participation in content-related activities outside of class time, and displaying value and emotion for students. 660

Motivation and enthusiasm are contagious in classrooms. Teachers who display enthusiasm and energy in the classroom often increase student interest and motivation to learn. ⁶⁶¹ Among many teacher variables, enthusiasm is the most powerful, unique predictor of students' intrinsic motivation and vitality. The students who received instruction from an enthusiastic teacher reported greater intrinsic motivation regarding the learning material and experienced higher levels of vitality. ⁶⁶² They also exhibited higher rates of on-task behavior. ⁶⁶³

Efficacy: In addition, researchers found positive associations between student achievement and three types of teacher efficacy-related beliefs: academic emphasis, faculty trust in students and parents, and teachers' collective efficacy beliefs about the school system. Teachers of high self-efficacy set for themselves higher goals and stick to them. They invest more effort and persist longer than those low in self-efficacy. A growing body of empirical evidence supports that teachers' self-perceived abilities to accomplish desired outcomes are related to the effort they invest in teaching, the goals they set, and their persistence when setbacks occur. The reviews of research on teacher self-efficacy have summarized that teachers' self-efficacy is associated with their teaching practices in classrooms and student outcomes such as students' own self-efficacy beliefs and student engagement, motivation, and achievement. Compared to teachers with lower self-efficacy beliefs, teachers with stronger perceptions of self-capability tend to use more challenging teaching techniques, try innovative strategies, and employ classroom instruction that are more organized and better planned, student centered, and humanistic.

Professionalism and Professional Growth: Another key attribute of professionalism is a commitment to continuous improvement and perpetual learning. Interestingly, effective teachers monitor and strengthen the connection between their own development and students' development. Evidence indicates that teachers who receive substantial professional development can help students achieve more. For example, based on the findings of one meta-analysis, teachers who receive substantial professional development (in this instance, 49 hours) can boost their students' achievement about 21 percentile points, and this effect-size is fairly consistent across content-areas. 668

Effective teachers invest in their own education. They take responsibility for their own learning, actively engage in self-directed learning based on a set of established goals and in community with like professionals, they tend to become more self-directed and take responsibility for their

own learning. 669 Hammerness et al. developed a framework of teacher-learning. This framework envisions that teachers need to conduct professional learning in the following five domains: a *vision* for their practice; a set of *understandings* about teaching, learning, and children; *dispositions* about how to use this knowledge; *practices* that allow them to act on their intentions and beliefs; and *tools* that support their efforts. 670

Figure 9: A Framework for Teachers' Professional Improvement⁶⁷¹

Domain	Description	More Detailed Descriptions
Vision	Image of what is possible and desirable in teaching	A set of images of good practice that inspire and guide professional learning and practice.
Understanding	Deep knowledge of content, pedagogy, students, and social contexts	 Possess a coherent and rich conceptual map of the discipline (knowledge); an understanding of how knowledge is developed and validated within different social contexts (methods); an understanding of why the subject is important (purposes); and finally, an understanding of how one can communicate knowledge of that subject to others (form). Understanding students' thinking, experiences, development, and learning process.
Tools	Conceptual and practical resources for use	 Theoretical tools include learning theories, frameworks, and ideas about teaching and learning, such as zone of proximal development, culturally relevant teaching. Practical tools include particular instructional approaches and strategies, and resources such as textbooks, assessment tools.

Figure 9 (cont.)

Domain	Description	More Detailed Descriptions
Practices	Developing, practicing,	The knowledge and tools mentioned above
	and enacting a beginning	need to integrate into a set of practices.
	repertoire	These practices include a variety of
		instructional activities to promote student-
		learning, such as designing and carrying
		out a lesson plan, explaining concepts,
		implementing problem-based learning,
		planning debates, providing feedback, etc.
Dispositions	Habits of thinking and	These dispositions include reflection upon
	action regarding teaching	practice, taking an inquiry stance,
	and children	determination and persistence in working
		with children toward success, which may
		be characterized by the inclination to take
		responsibility for children's learning and
		the will to continue to seek new
		approaches to teaching.

Effective teachers continuously practice self-reflection, self-evaluation and self-critique as learning tools. They are curious about the art and science of teaching and about themselves as effective teachers. They often portray themselves as students of learning. They learn by continuously studying their classroom experiences in an effort to improve practice. They constantly improve lessons, think about how to reach particular children, and seek and try out new approaches in the classroom to better meet the needs of their learners.⁶⁷² Reflection constitutes a disciplined way of thinking that entails calling into question one's existing beliefs and routines in light of new evidence and altering teaching behaviors accordingly.⁶⁷³ By examining or re-examining the content and context of their own behaviors in the classroom, they are able to refine or even alter what they do and how they do it. Some researchers define reflective teachers as introspective. They seek a greater understanding of teaching through scholarly study and professional reading. Effective teachers invite feedback; by eliciting information and criticism from others, they broaden their perspectives and gain insight to what may have been previously been missed. Through reflective practice, effective teachers monitor their teaching because they have a strong commitment to student-learning and want to make a difference in the lives of students.⁶⁷⁴

Professionalism and Contributing to the Profession: Effective teachers act individually and collectively to advance the teaching profession, and act as shapers, promoters, and well-informed critics of educational policies, instructional innovations, and internal changes that impact on student-learning. Effective teachers are willing to share their ideas and assist other teachers with difficulties. They volunteer to lead work teams and to be mentors to new teachers. Effective teachers are informal leaders on the cutting edge of reform and are not afraid to take risks to improve education for all students. Their opinions usually contribute to effecting positive changes at a school- or district-level. A teacher can contribute to the teaching profession by engaging in various types of study, inquiry, and even experimentations to develop personal best practices. Individually, teachers are powerful resources to enrich the professional knowledge

base about academic standards, curriculum, pedagogy, and assessment by reflecting and sharing personal knowledge of "what works" and "what does not work." Collectively, teachers can network with professional associations and collaborate with social/business agencies to advance overall school improvement.

Research also has found that an effective teacher:

- Links professional growth goals to professional development opportunities.⁶⁷⁷
- Is empowered to make changes to enhance learning experiences, resulting in better student retention, attendance, and academic success. ⁶⁷⁸
- Selects professional development offerings that relate to the content area or population of students taught, resulting in higher levels of student academic success.⁶⁷⁹
- Is cognizant of the legal issues associated with educational records, and respects and maintains confidentiality. ⁶⁸⁰

Standard 10: Communication

The teacher communicates effectively with students, parents or guardians, district and school personnel, and other stakeholders in ways that enhance student learning.

The ability to communicate and collaborate is one of the essential requisites for teacher effectiveness. In fact, at the very core of effective teaching is effective communication. Extant research provides evidence that students taught by teachers with a high level of clarity learn more than those taught by teachers with lower clarity. Teachers with high clarity are perceived to be more capable of conveying ideas effectively and communicating with students in a compelling manner. Closely connected to this notion is the concept of "instructional communication competence," which has been studied widely in educational research. Instructional communication competence was defined by Cornett-DeVito and Worley as:

The teacher-instructor's motivation, knowledge, and skill to select, enact and evaluate effective and appropriate, verbal and nonverbal, interpersonal and instructional messages filtered by student-learners' perceptions, resulting in cognitive, affective and behavioral student-learner development and reciprocal feedback.⁶⁸³

One research team identified, interviewed, and observed 11 award-winning teachers to develop a better understanding of their instructional communication practices.⁶⁸⁴ Their findings included the following themes related to communication practices in the classroom:

- *Understand the ebb and flow of the classroom* The teachers used instructional objectives to plan classroom activities effectively, but they were not constrained by predefined plans. They adapted to the flow of the class and allowed for spontaneity. Additionally, they used effective communication to orient students to learning and help them integrate new information with previously learned information.
- *Use a wide repertoire of communication skills* The teachers used a variety of communication behaviors, such as immediacy, humor, and clarity to sustain a positive and interactive environment.
- Create relationships with students The teachers communicated with students about shared experiences to establish interpersonal rapport, and they communicated in an approachable manner through proxemics, kinetics, knowing first names, etc. They also encouraged an open, warm, and communicative environment that invited students' comments, questions, and responses.

The communication skills of a teacher also play an important role in the collaboration with colleagues and other personnel in schools, and in the partnerships with parents and other community members. After all, teaching is communicating and, to a large extent, advocating for learners. Educating a child cannot be one person's work. Certainly, teachers must be responsible and accountable for what is under their control – the academic and nonacademic interactions with their students. Beyond this traditional responsibility, however, good teachers know they must reach beyond the walls of the classroom to solicit collaboration and support from school colleagues on behalf of their students. Furthermore, they understand the need to

reach beyond the schoolhouse door to communicate and gain cooperation with families and others in a larger community. ⁶⁸⁵

Effective collaboration empowers teachers to re-conceptualize themselves as change-agents and advocates for their students. Some defining characteristics associated with the important roles of collaborator and advocate are:

- Be an advocate of better strategies for meeting students' learning needs by being an active learner who seeks, applies, and communicates professional knowledge of curriculum, instruction, assessment, and student development.
- Be an advocate of teaching as a profession by appreciating and practicing principles, ethics, and legal responsibilities.
- Be an advocate for the well-being of the whole educational organization by initiating, valuing, and maintaining collaboration and partnerships with various stakeholders.

Effective teachers not only communicate competently with their students, but also they communicate actively with their professional peers to share best practice, seek advice and suggestions, and conduct collaborative inquires. Change is the constant theme in today's education, and teachers are increasingly challenged to keep abreast of innovations and new developments. They need to communicate with colleagues or others who possess needed information.⁶⁸⁷

Teachers who have a democratic vision about their profession act collaboratively and cooperatively with colleagues and other educational stakeholders. They no longer confine their responsibility to the particular classroom in which they teach; rather, they are committed to making a contribution to the students taught by other teachers, in the school, the district, and the community at large. Michael Fullan corroborated this vision by proposing that teacher-preparation programs should enable each teacher to initiate, value, and practice collaboration and partnerships with students, colleagues, parents, community, government, and social and business agencies. Additionally, teachers of democratic professionalism serve as advocates for the well-being of the educational cause. They act individually and collectively to effect social justice and equity in teaching and learning. They are engaged in purposeful and critical reflection and dialogues with others on issues that have immediate impact on day-to-day classroom teaching, as well as larger issues and contexts that have indirect influence on social equity in education. Secondary of the education.

Research findings show that teachers who effectively collaborate:

- Possesses strong communication skills. 691
- Offer clear explanations and directions. ⁶⁹²
- Recognize the levels of involvement ranging from networking to collaboration. ⁶⁹³
- Use multiple forms of communication between school and home. 694
- Use informal contacts at school events, the grocery store, and at other community places to keep the lines of communication open. ⁶⁹⁵

In addition, involvement of families and community can help students become more focused on academic learning. A growing body of research suggested that creating more connections and greater cooperation among the school, family, and community contexts could improve student behavior and discipline, enhance students' academic success, and reinforce stronger self-regulatory skills and work orientation. Epstein asserted that students are influenced by three spheres of influence: family, school, and the community context in which the student develops. The extent to which these three contexts overlap is contingent upon the nature and degree of communication and collaboration among school educators, parents, and community members. A meaningful and purposeful overlap is conducive to better student-learning. School teachers play an important role in ameliorating such overlap. Research indicates that among various factors (such as resources, parents' sense of efficacy, etc.) parents' perceptions of teacher invitation have the most significant influence on their decision to be more involved with their children's education. Teachers can increase family and community involvement through the following collaborative activities: 699

- Helping families establish home environments to support children as students.
- Designing effective forms of school-to-home and home-to-school communication.
- Recruiting and organizing families to help the school and support students.
- Providing families with information and ideas to support students with homework.
- Including parents in decision-making and developing parent-leaders.
- Identifying and integrating resources and services from the community to strengthen schools, students, and families.

LePage also suggested some effective ways to improve teacher-parent communication. They include home visits, frequent positive calls home (not centering on students' academic problems, misbehavior, or negative attitudes), on-line connections for homework and information sharing, parent-teacher-student conferences, exhibitions of student work, and parent participation in school activities.

REFERENCES

- Allington, R. L. (2002). What I've learned about effective reading instruction. *Phi Delta Kappan*, 83, 740-747.
- Allington, R. L., & Johnston, P. H. (2000). What do we know about effective fourth-grade teachers and their classrooms? Albany, NY: The National Research Center on English Leaning & Achievement, State University of New York.
- Anderson, G. J. (1970). Effects of classroom social climate on individual learning. *American Educational Research Journal*, 7, 135-152.
- Anderson, L. M., Evertson, C. M., & Brophy, J. E. (1979). An experimental study of effective teaching in first-grade reading groups. *The Elementary School Journal*, 79, 193-222.
- Anderson, K. J., & Minke, K. M. (2007). Parent involvement in education: Toward an understanding of parents' decision making. *Journal of Educational Research*, 100(5), 311-323.
- Au, W. (2007). High-stakes testing and curricular control: A qualitative metasynthesis. *Educational Researcher*, *36*, 258-267.
- Babad, E., Bernieri, F., & Rsosenthal, R. (1991). Students as judges of teachers' verbal and nonverbal behavior. *American Educational Research Journal*, 28,211-234.
- Barney, D. (2005). Elementary physical education student teachers' interactions with students. *Physical Educator*, 62(3), 130-135.
- Barth, J. M., Dunlap, S. T., Dane, H., Lochman, J. E., & Wells, K. C. (2004). Classroom environment influences on aggression, peer relations, and academic focus. *Journal of School Psychology*, 42(2), 115-134.
- Bembry, K. L., Jordan, H. R., Gomez, E., Anderson, M. C., & Mendro, R. L. (1998, April). *Policy implications of long-term teacher effects on student achievement.* Paper presented at the 1998 Annual Meeting of the American Educational Research Association, San Diego, CA.
- Berliner, D. C. (1986). In pursuit of the expert pedagogue. Educational Researcher, 15(7), 5-13.
- Berliner, D. C. (2004). Describing the behavior and documenting the accomplishments of expert teacher. *Bulletin of Science, Technology and Society, 24,* 200-212.
- Bettencourt, E. M., Gillett, M. H., Gall, M. D., & Hull, R. E (1983). Effects of teacher enthusiasm training on student on-task behavior and achievement. *American Educational Research Journal*, 20(3), 435-450.
- Black, P. J. & Wiliam, D. (1998) Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7–73.

- Borko, H., & Elliott, R. (1999). Hands-on pedagogy versus hands-off accountability. *Phi Delta Kappan*, 80(5), 394-400.
- Borko, H., & Livingston, C. (1989). Cognition and improvisation: Differences in mathematics instruction by expert and novice teachers. *American Educational Research Journal*, 26(4), 473-498.
- Borman, G., Strongfield, S., & Rachuba, L. (2000). Advancing minority high achievement: National trends and promising programs and practices. The College Examination Entrance Board.
- Bradford, D. (1999). Exemplary urban middle school teachers' use of 5 standards of effective teaching. *Teaching and Change*, 7(1), 53-78.
- Brighton, C. M., Hertberg, H. L, Moon, T. R., Tomlinson, C. A., & Callahan, C. M. (2005). *The feasibility of high-end learning in a diverse middle school*. Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- Buttram, J. L., & Waters, J. T. (1997). Improving America's schools through standards-based education. *Bulletin*, 81 (590), 1-5.
- Byer, J. L. (1999). The effects of students' perceptions of social climate in middle school social studies classes on academic self-concept. Unpublished doctoral dissertation, University of Southern Mississippi.
- Byer, J. L. (2002). The consistency correlation between students' perceptions of classroom involvement and academic self-concept in secondary social studies classes. *Journal of Social Studies Research*, 26(1), 3-11.
- Cameron, C.E., Connor, C.M., Morrison, F.J., Jewkes, A.M. (2008). Effects of classroom organization on letter-word reading in first grade. *Journal of School Psychology*, 46, 173-192.
- Camphire, G. (2001). Are our teachers good enough? *SEDLetter*, *13*(2). Retrieved November 12, 2001, from http://www.sedl.org/pubs/sedletter/v13n2/1.htm
- Carlson, E., Lee, H, & Schroll, K. (2004). Identifying attributes of high quality special education teachers. *Teacher Education and Special Education*, 27, 350-359.
- Carolan, J., & Guinn, A. (2007). Differentiation: Lessons from master teachers. *Educational Leadership*, 64(5), 44-47.
- Carr, D. (2009). Professionalism and ethics in teaching. New York: Routledge.
- Carter, P. J. (2003). A review of highly effective teachers in Hamilton County: Analysis of current trends and implications for improvement. Chattanooga, TN: Public Education Foundation. Retrieved November 7, 2008, from http://pef. ddngroupb.com/.
- Case, R. (1991). The anatomy of curricular integration. *Canadian Journal of Education*, 16(2), 215-224.

- Catt, S., Miller, D., & Schallenkamp, K. (2007). Your are the key: Communicate for learning effectiveness. *Education*, 127(3), 369-377.
- Cawelti, G. (Ed.). (2004). *Handbook of research on improving student achievement* (3rd ed.). Arlington, VA: Educational Research Service.
- Cauley, K. M., & McMillan, J. H. (2009) Formative assessment techniques to support student motivation and achievement. *Clearing House*, 83(1), 1-6.
- Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *AACE Journal*, *16* (2), 137-159.
- Chappius, S., & Stiggins, R. J. (2002). Classroom assessment for learning. *Educational Leadership*, 60(1), 40-43.
- Chaskin, R. J., & Rauner, D. M. (1995). Youth and caring: An introduction. *Phi Delta Kappan*, 76(9), 667-674.
- Childs, A., & McNicholl, J. (2007). Investigating the relationship between subject content knowledge and pedagogical practice through the analysis of classroom discourse. *International Journal of Science Education*, 29(13), 1629-1653.
- Cochran, K., DeRuiter, L., & King, R. (1993). Pedagogical content knowledge: An integrative model for teacher preparation. *Journal of Teacher Education*, *4*, 18-29.
- Coetzee, M., & Jansen, C. (2007). *Emotional intelligence in classroom: The secret of happy teachers*. Cape Town, South Africa: Juta & Co.
- Cohen, E. G. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research*, 64(1), 1-35.
- Cohen, D. K., Raudenbush, S. W., & Ball, D. L. (2003). Resources, instruction, and research. *Educational Evaluation and Policy Analysis*, 25(2), 119-142.
- Collinson, V., Killeavy, M., & Stephenson, H. J. (1999). Exemplary teachers: Practicing an ethic of care in England, Ireland, and the United States. *Journal for a Just and Caring Education*, 5 (4), 349-366.
- Corbett, D. & Wilson, B. (2004). What urban students say about good teaching. *Educational Leadership*, 60(1), 18-22.
- Corbett, D., Wilson, B., & Williams, B. (2002). Effort and excellence in urban classrooms: Expecting and getting success with all students. New York: Teacher College Press.
- Cornelius-White, J. (2007). Leaner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research*, 77(1), 113-143.
- Cornell, D. G., & Mayer, M. J. (2010). Why do school order and safety matter? *Educational Research*, 39(1), 7-15.

- Cornett-DeVito, M., & Worley, D. W. (2005). A front row seat: A phenomenological investigation of students with learning disabilities. *Communication Education*, *54*, 312-333.
- Cotton, K. (2000). *The schooling practices that matter most*. Portland, OR: Northwest Regional Educational Laboratory; and Alexandria, VA: Association for Supervision and Curriculum Development.
- Cotton, K. (2001). *Expectations and student outcomes*. Northwest Regional Educational Laboratory, School Improvement Research Series. Retrieved November 1, 2009, fromhttp://www.nwrel.org/scpd/sirs/4/cu7.html.
- Covino, E. A., & Iwanicki, E. (1996). Experienced teachers: Their constructs on effective teaching. *Journal of Personnel Evaluation in Education*, 11, 325-363.
- Craig, J. & Cairo, L. (2005, December). Assessing the relationship between questioning and understanding to improve learning and thinking (QUILT) and student achievement in mathematics: A pilot study. Charleston, WV: Appalachia Educational Laboratory, Inc.
- Crooks, T. J. (1988). The impact of classroom evaluation practices on students. *Review of Educational Research*, 58(4), 438-481.
- Cruickshank, D. R., & Haefele, D. (2001). Good teachers, plural. *Educational Leadership*, 58(5), 26-30.
- Czerniak, C. M., Weber, W. B., Sandmann, A., & Ahern, J. (1999). A literature review of science and mathematics integration. *Science and Mathematics Integration*, 99(8), 421-430.
- Danielson, C. (2001). New trends in teacher evaluation. *Educational Leadership*, 5(5), 12-15.
- Danielson, C. (2002). *Enhancing student achievement: A framework for school improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis Archives*, 8(1). Retrieved January 22, 2004 from http://olam.ed.asu.edu/epaa/v8n1/.
- David, J. L. (2008). Pacing guides. *Educational Leadership*, 66(2), 87-88.
- Day, S.L. (2002). Real kids, real risks: Effective instruction of students at risk of failure. *NASSP Bulletin*, 86, Retrieved May 1, 2005 from http://www.principals.org/news/bultn/realkids0902.html.
- Dolezal, S. E., Welsh, L. M., Pressley, M., & Vincent, M. M. (2003). How third-grade teachers motivate student academic achievement. *The Elementary School Journal*, 103, 239-267.
- Dunn, R., Griggs, S., Olson, J., Beasley, M., & Gorman, B. (1995). A meta-analytic validation of the Dunn and Dunn model of learning-style preference. *Journal of Educational Research*, 88(6), 353-362.

- Dunn, R., Honigsfeld, A., Doolan, L. S., Bostrom, L., Russo, K., Schiering, M. S., et al. (2009). Impact of learning style instructional strategies on students' achievement and attitudes: Perceptions of educators in diverse institutions. *Clearing House*, 82(3), 135-140.
- Educational Review Office. (1998). *The capable teacher*. Retrieved January 19, 2002, from http://www.ero.govt.nz/Publications/eers1998/98no2hl.html
- Educational Testing Service. (n.d.). ETS Poll: Americans willing to pay for teacher quality, still demand standards and accountability.
- Education USA Special Report. (n. d.). *Good Teachers: What to Look For.* A Publication of The National School Public Relations Association.
- Eisner, E. W. (1999). The uses and limits of performance assessment. *Phi Delta Kappan*, 80(9), 658-660.
- Emmer, E. T., Evertson, C. M., & Worsham, M. E. (2003). *Classroom management for secondary teachers*. Boston: Allyn and Bacon.
- Emmer, E. T., & Stough, L. M. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist*, 36(2), 103-112.
- Engel, D. E. (1994). School leavers in American society: Interviews with school dropouts/stopouts. In R. C. Morris (Ed.). *Using what we know about at-risk Youth*, pp. 3-22. Lancaster, PA: Technomic Publishing.
- Epstein, J. L. (1995). School/family/community partnerships: Caring for the children we share. *Phi Delta Kappan*, 76, 701-712.
- Epstein, J. L. (2001). School, family, and community partnerships: Preparing educators and improving schools. Boulder, CO: Westview.
- Epstein, J. L., & Sheldon, S. B. (2002). Present and accounted for: Improving student attendance though family and community involvement. *The Journal of Educational Research*, 95(5), 308-318.
- Evans, I. M., Harvey, S. T., Buckley, L., & Yan, E. (2009). Differentiating classroom climate concepts: Academic, management, and emotional environments. *New Zealand Journal of Social Sciences Online*, *4*, 131-146. Retrieved January 13, 2010, from http://royalsociety.org.nz/Site/publish/Journals/kotuitui/2009/011.aspx.
- Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A metaanalysis. *Educational Psychology Review*, 13(1), 1-22.
- Ferguson, R. F. (1998). Teachers' perceptions and expectations and the Black-White test score gap. In C. Jencks and M. Phillips (Eds.), *The Black-White test score gap*. Washington, DC: The Brookings Institution Press.

- Ferguson, R. F. (2002). What doesn't meet the eye: Understanding and addressing racial disparities in high-achieving suburban schools. Cambridge, MA: Harvard University Press.
- Fuchs, L. S., Deno, S. L., & Mirkin, P. K. (1984). The effects of frequent curriculum-based measurement and evaluation on pedagogy, student achievement, and student awareness of learning. *American Educational Research Journal*, 21(2), 449-460.
- Fraser, B. (1989). Twenty years of classroom climate work: Progress and prospects. *Journal of Curriculum Studies*, 21(4), 307-327.
- Fraser, B. J., & Fisher, D. L. (1982). Predicting students' outcomes from their perceptions of classroom psycho-social environment. *American Educational Research Journal*, 19, 498–518.
- Fuchs, L. S., & Fuchs, D. (2003). What is scientifically-based research on progress monitoring? Washington, DC: National Center on Student Progress Monitoring.
- Fuchs, L. S., Fuchs, D., & Phillips, N. (1994). The relation between teachers' beliefs about the importance of good work habits, teacher planning, and student achievement. *The Elementary School Journal*, 94(3), 331-345.
- Fullan, M. G. (1993). Why teachers must become change agents. *Educational Leadership*, 50(6), 12-17.
- Goh, S. C., Young, D. J., & Fraser, B. J. (1995). Psychosocial climate and student outcomes in elementary mathematics classrooms: A multilevel analysis. *The Journal of Experimental Education*, 64(1), 29-40.
- Goldhaber, D. (2002). The mystery of good teaching. *Education Next*, 2(1), 50-55. Retrieved December 7, 2008, from http://www.hoover.org/publications/ednext/3368021.html.
- Goldstein, S. (1995). *Understanding and managing children's classroom behavior*. New York: John Wiley & Sons, Inc.
- Good, T. L., & Brophy, J. E. (2002). Looking in classrooms (9th ed.). Boston: Allyn & Bacon.
- Gottfredson, D.C., Marciniak, E.M., Birdseye, A. T., & Gottfredson, G. D. (1995). Increasing teacher expectations for student achievement. *Journal of Educational Research*, 88(3), 155-163.
- Gronlund, N. E. (2006). Assessment of student achievement (8th ed.). Boston: Pearson. p. 3.
- Guo, S., Tsai, C., Chang, F. M., & Huang, H. (2007). The study of questioning skills on teaching improvement. *The International Journal of Learning*, *14*(8), 141-145.
- Guskey, T. R. (2002). Does it make a difference? Evaluating professional development. *Educational Leadership*, 59(6), 45-51.

- Haberman, M. (1995). STAR teachers of children in poverty. West Lafayette, IN: Kappa Delta Pi.
- Haertel, G. D., & Walberg, H. J., & Haertel, E. H. (1981). Socio-psychological environments and learning: A quantitative synthesis. *British Educational Research Journal*, 7(1), 27-36.
- Hamilton, L., & Stecher, B. (2004). Responding effectively to test-based accountability. *Phi Delta Kappan*, 85(8), 578-583.
- Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., McDonald, M., et al. (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Ed.), *Preparing teachers for a changing world: What teachers should learn and be able to do*, pp. 358-389.San Francisco: Jossey-Bass.
- Hamre, B. K. & Pianta, R. C. (2005). Can instruction and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development*, 76(5), 949-967.
- Hanushek, E., Kain, J. F., & Rivkins, S. G. (2004). Why public schools lose teachers. Journal of Human Resources, 39(2), 326-354.
- Harap, H. (1955). The use of free and inexpensive learning materials in the classroom. *The School Review*, 63(7), 378-383.
- Harris, D. N., & Sass, T. R. (2007). *Teacher training, teacher quality and student achievement*. Washington, DC: National Center for Analysis of Longitudinal Data in Education Research. Retrieved April 4, 2009, from www.caldercenter.org/PDF /1001059 Teacher Training.pdf
- Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* Retrieved December 12, 2008, from http://www.leadspace.govt.nz/leadership/pdf/john_hattie.pdf.
- Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to student achievement. New York: Routledge.
- Hauser-Cram, P., Sirin, S. R., & Stipek, D. (2003). When teachers' and parents' values differ: Teachers' ratings of academic competence in children from low-income families. *Journal of Educational Psychology*, 95, 813-820.
- Haynie, G. (2006, April). Effective Biology teaching: A value-added instructional improvement analysis model. Retrieved February 7, 2009, from http://www.wcpss.net/evaluation-research/reports/2006/0528biology.pdf.
- Hill, H. C., Rowan, B., & Ball, D. L. (2005). Effects of teachers' mathematical knowledge for teaching on student achievement. *American Educational Research Journal*, 42, 371-406.
- Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analysis assessment of the strategies that promote achievement. *Developmental Psychology*, 45(3), 740-763.

- Hong, S., & Ho, H. (2005). Direct and indirect longitudinal effects of parental involvement on student achievement: Second-order latent growth modeling across ethnic groups. *Journal of Educational Psychology*, 97(1), 32-42.
- ISTE research reports: Overview: Research on IT [informational technology] in education. (n.d.). Retrieved on September 22, 2002, from http://www.iste.org/research/reports/tlcu/overview.html.
- Jay, J. K. (2002). Points on a continuum: An expert/novice study of pedagogical reason. *The Professional Educator*, 24(2), 63-74.
- Jensen, M., Johnson, D. W., & Johnson, R. T. (2002). Impact of positive interdependence during electronic quizzes on discourse and achievement. *Journal of Educational Research*, 95(3), 161-166.
- Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, 40(3), 237-269.
- Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education*, 42(1), 82-110.
- Johnson, B. L. (1997). An organizational analysis of multiple perspectives of effective teaching: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 69-87.
- Jones, B. D., & Egley, R. J. (2004). Voice from the frontlines: Teachers' perceptions of high-stakes testing. *Educational Policy Analysis Archives*, 12(39). Retrieved November 17, 2007, from http://epaa.asu.edu/epaa/va12n39.
- Jones, G., Jones, B. D., Hardin, B., Chapman, L., Yardrough, T, & Davis, M. (1999). The impact of high-stakes testing on teachers and students in North Carolina. *Phi Delta Kappan*, 81(3), 199-203.
- Kerr, K. A, Marsh, J. A., Ikemoto, G. S., Darilek, H., & Barney, H. (2006). Strategies to promote data use for instructional improvement: Actions, outcomes, and lessons from three urban districts. *American Journal of Education*, 112, 496-520.
- Kuh, G. (2003). What we're learning about student engagement from NSSE. *Change*, 35(2), 24-32.
- Kulik, J. A., & Kulik, C. L. C. (1992). Meta-analysis findings on grouping programs. *Gifted Child Quarterly*, *36*, 73-77.
- Kunter, M., Tsai Y., Klusmann, U., Brunner, M., Krauss, S., & Baumert, J. (2008). Students' and mathematics teachers' perceptions of teacher enthusiasm and instruction. *Learning and Instruction*, 18, 468-482.
- Langer, J. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, *38* (4), 837-880.

- Latz, A. O., Neumeister, K. L. S., Adams, C. M., & Pierce, R. L. (2009) Peer coaching to improve classroom differentiation: Perspectives from Project CLUE. *Roeper Review*, 31, 27-39.
- Leinhardt, G. (1993). On teaching. In R. Glaser (Ed.), *Advances in instructional psychology*, Vol. 4, pp.1-54. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Leigh, A. (2010). Estimating teacher effectiveness from twp-year changes in students' test scores. *Economics of Education Review*, 29, 480-488.
- LePage, P., Darling-Hammond, L., Akar, H., Guitierrez, C., Jenkins-Gunn, E., & Rosebrock, K. (2005). Classroom management. In L. Darling-Hammond and J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 327-357). San Francisco, CA: Jossey-Bass.
- Lewis, A. (2001). Add it up: Using research to improve education for low-income and minority students. Washington, D.C.: Poverty & Race Research Action Council. Retrieved November 18, 2004 from http://www.prrac.org/pubs_aiu.pdf
- Little, J. W. (1993). Teachers' professional development in a climate of educational reform. *Educational Evaluation and Policy Analysis*, 15(2), 129-151.
- Livingston, C., & Borko, H. (1989). Expert-novice differences in teaching: A cognitive analysis and implications for teacher education. *Journal of Teacher Education*, 40(4), 36-42.
- Long, J. F., & Hoy, A. W. (2006). Interested instructors: A composite portrait of individual differences and effectiveness. *Teaching and Teacher Education*, 22(3), 303-314.
- Ludtke, O., Robitzsch, A., Trautwein, U., & Kunter, M. (2009). Assessing the impact of learning environments: How to use student ratings of classroom or school characteristics in multilevel modeling. *Contemporary Educational Psychology*, 34,120-131.
- Luiselli, J. K., Putnam, R. F., & Sunderland, M. (2002). Longitudinal evaluation of behavior support intervention in a public middle school. *Journal of Positive Behavior Interventions*, 4, 182-188.
- Lumpkin, A. (2007). Caring teachers: The key to student learning. *Kappa Delta Pi Record*, 43(4), 158-160.
- Marzano, R. J., Marzano, R. J., & Pickering, D. J. (2003). *Classroom management that works:* Research-based strategies for every teacher. Alexandria, VA: Association for Supervision and Curriculum Development.
- Marzano, R.J., Norford, J.S., Paynter, D.E., Pickering, D.J., & Gaddy, B.B. (2001). *A handbook for classroom instruction that works*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). Classroom instruction that works: Research-based strategies for increasing student achievement. Alexandria, VA: Association for Supervision and Curriculum Development.

- McDonald, F. J., & Elias, P. (1976). Executive summary report: Beginning teacher evaluation study, Phase II (PR-76-18). Princeton, NJ: Educational Testing Service.
- McKnown, C. & Weinstein, R.S. (2008). Teacher expectations, classroom context, and the achievement gap. *Journal of School Psychology*, 46, 235-261.
- McEwan, E. K. (2002). 10 traits of highly effective teachers: How to hire, coach, and mentor successful teachers. Thousand Oaks, CA: Corwin Press.
- Merriam-Webster, Inc. (2006). Webster's new explorer encyclopedic dictionary. Springfield, MA: Author.
- McAllister, G., & Irvine, J. J. (2000). Cross cultural competency and multicultural teacher education. *Review of Educational Research*, 70(1), 3-24.
- McEwan, E. K. (2002). 10 traits of highly effective teachers: How to hire, coach, and mentor successful teachers. Thousand Oaks, CA: Corwin Press.
- McRobbie, C. J., & Fraser, B. J. (1993). Associations between student outcomes and psychosocial science environment. *The Journal of Educational Research*, 87(2), 78-85.
- Miller-Cribbs, C. S., Davis, L., & Johnson, S. (2002). An exploratory analysis of factors that foster school engagement and completion among African-American students. *Children & Schools*, 24(3), 159-174.
- Misulis, K. (1997). Content analysis: A useful tool for instructional planning. *Contemporary Education*, 69(1), 45-47.
- Moats, L. C., & Foorman, B. R. (2003). Measuring teachers' content knowledge of language and reading. *Annuals of Dyslexia*, *53*, 23-45.
- Moos, R. H. (1973). Conceptualizations of human environments. *American Psychologist*, 28, 652–665.
- Munoz, M. A., & Chang, F. C. (2007). The elusive relationship between teacher characteristics and student academic growth: A longitudinal multilevel model for change. *Journal of Personnel Evaluation in Education*, 20, 147-164.
- National Association of Secondary School Principals (NASSP). (1997). Students say: What makes a good teacher? *Schools in the Middle*, 6 (5), 15-17.
- Natriello, G. (1987). The impact of evaluation processes on students. *Educational Psychologist*, 22(2), 155-175.
- Noblit, G. W., Rogers, D. L., & McCadden, B. M. (1995). In the meantime: The possibilities of caring. *Phi Delta Kappan*, 76(9), 680-685.
- Noddings, N. (1992). The challenge to care in schools. New York: Teachers College Press.

- Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). How large are teacher effects? *Educational Evaluation and Policy Analysis*, 26(3), 237-257.
- Panasuk, R., Stone, W., & Todd, J. (2002). Lesson planning strategy for effective mathematics teaching. *Education*, 22 (2), 714, 808-827.
- Palardy, G. J., & Rumberger, R. W. (2008). Teacher effectiveness in first grade: The importance of background qualifications, attitudes, and instructional practices for student learning. *Educational Evaluation and Policy Analysis*, 30(2), 111-140.
- Parker, D. (1994). Every student succeeds: A conceptual framework for students at risk of school failure. Sacramento, CA: California Department of Education.
- Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology*, 99(1), 83-98.
- Peart, N. A., & Campbell, F. A. (1999). At-risk students' perceptions of teacher effectiveness. *Journal for a Just and Caring Education*, 5(3), 269-284.
- Perrin, B., Banks, F., & Dargue, B. (2004). *Student vs. software pacing of instruction: An empirical comparison of effectiveness.* Paper presented at the Interservice/Industry Training, Simulation, and Education Conference, Orlando, FL, 2004.
- Peters, S., & Reid, D. K. (2009). Resistance and discursive practice: Promoting advocacy in teacher undergraduate and graduate programmes. *Teaching and Teacher Education*, 25(4), 551-558.
- Pogrow, S. (2005). HOTS revisited: A thinking development approach to reducing the learning gap after grade 3. *Phi Delta Kappan*, 87(1), 64.
- Popham, W. J. (2008). Transformative assessment. Alexandria, VA: Association of Supervision and Curriculum Development.
- Pressley, M., Rapael, L. Gallagher, J.D., & DiBella, J. (2004). Providence-St. Mel School: How a school that works for African Americans works. *Journal of Educational Psychology*, 96(2), 216-235.
- Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417-458.
- Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *The American Economic Review*, 94(2), 247-252.
- Rockwell, R. E., Andre, L. C., & Hawley, M. K. (1996). *Parents and teachers as partners: Issues and challenges.* Fort Worth: Harcourt Brace College.
- Rowan, B., Chiang, F., & Miller, R. J. (1997). Using research on employees' performance to study the effects of teachers on students' achievement. *Sociology of Education*, 70, 256-284.

- Rowan, B., Correnti, R., & Miller, R. J. (2002). What large-scale, survey research tells us about teacher effects on student achievement: Insights from the *Prospects* study of elementary schools. *Teachers College Record*, 104(8), 1525-1567.
- Rubie-Davies, C. M. (2006). Teacher expectations and student self-perceptions: Exploring relationships. *Psychology in the School*, 43(5), 537-552.
- Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, 38(2), 437-460.
- Sabers, D. S., Cushing, K. S., & Berliner, D.C. (1991). Differences among teachers in a task characterized by simultaneity, multidimensionality, and immediacy. *American Educational Research Journal*, 28(1), 63-88.
- Sachs, J. (2001). Teacher professional identity: competing discourse, competing outcomes. *Journal of Education Policy*, 16(2), 149-161.
- Safer, N., & Fleischman, S. (2005). How student progress monitoring improves instruction. *Educational Leadership*, 62(5), 81-83.
- Schacter, J., & Thum, Y. M. (2004). Paying for high- and low-quality teaching. *Economics of Education Review*, 23, 411-430.
- Schalock, H. D., Schalock, M. D., Cowart, B., & Myton, D. (1993). Extending teacher assessment beyond knowledge and skills: An emerging focus on teacher accomplishments. *Journal of Personnel Evaluation in Education*, 7, 105-133.
- Schoen, L. T. (2008). Constructing high quality learning environments for twenty-first century learners: A sociocultural constructivist perspective. In D. M. McInerney and D. Liem (Eds), *Teaching and learning: International best practice* (pp. 25-50). Charlotte, NC: Information Age Publishing, Inc.
- School Board News. (1997). Teacher quality is key to student achievement (electronic version). *American School Board Journal*. Retrieved November 21, 2000, from http://www.asbj.com/achievement/ci/ci3.html
- Schroeder, C. M., Scott, T. P., Tolson, H., Huang, T., & Lee, Y. (2007). A Meta-analysis of national research: Effects of teaching strategies on student achievement in science in the United States. *Journal of Research in Science Teaching*, 44, 1436-1460.
- Schulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, *57*(1), 1-22.
- Sharma, M. B., & Elbow, G. S. (2000). *Use Internet primary source to teach critical thinking skills in geography*. Westport, CT: Greenwood Press.
- Sheldon, S. B., & Spstein, J. L. (2002). Improving student behavior and school discipline with family and community involvement. Education and Urban Society, 35(1), 4-26.

- Shellard, E. & Protheroe, N. (2000). Effective teaching: How do we know it when we see it? *The Informed Educator Series*. Arlington, VA: Educational Research Service.
- Shepard, L. A., & Dougherty, K. C. (1991). *Effects of high-stakes testing on instruction*. Paper presented at the annual meeting of the American Educational Research Association and National Council on Measurement in Education, Chicago.
- Sinclair, B. B., & Fraser, B. J. (2002). Changing classroom environments in urban middle schools. *Learning Environment Research*, 5, 301-328.
- Singham, M. (2001). The achievement gap. Phi Delta Kappan, 84, 586.
- Slavin, R. E. (1990). *Cooperative learning: Theory, research, and practice*. Englewood Cliffs, NJ: Prentice-Hall.
- Snipes, J., Doolittle, F., Herlihy, C. (2002). Foundations for success: Case studies of how urban school systems improve student achievement. New York: MDRC.
- Spalding, E. & Wilson, A. (2002). Demystifying reflection: A study of pedagogical strategies that encourage reflective journal writing. *Teachers College Record*, *104*, 1393-1421. Retrieved March 7, 2009 from the Single Journals database.
- Stecher, B. M., & Mitchell, K. J. (1995). *Portfolio Driven Reform: Vermont Teachers' Understanding of Mathematical Problem Solving. CSE Technical Report 400.* Los Angeles: National Center for Research on Evaluation, Standards, and Student Testing.
- Stecker, P. M., Fuchs, L. S., & Fuchs, D. (2005). Using curriculum-based measurement to improve student achievement: Review of research. *Psychology in the Schools*, 42(8), 795-819.
- Stiggins, R. J. (1999). Assessment, student confidence, and school success. *Phi Delta Kappan*, 81(3), 191-199, p. 191.
- Stiggins, R. (2002). Assessment crisis: The absence of assessment for learning. *Phi Delta Kappan*, 83(10), 758-765.
- Stiggins, R., & DuFour, R. (2009). Maximizing the power of formative assessments. *Phi Delta Kappan*, 90(9), 640-644.
- Strauss, R. P., & Sawyer, E. A. (1986). Some new evidence on teacher and student competencies. *Economics of Education Review*, 5, 41-48.
- Stripling, B. K. (Ed.). (1999). *Learning and libraries in an information age: Principles and practice*. Englewood, CO: Libraries Unlimited, Inc.
- Stronge, J. H. (2007). Qualities of effective teachers (2nd Ed.). Alexandria, VA: ASCD.
- Stronge, J. H., Tuckers, P. D., & Ward, T. J. (2003). *Teacher effectiveness and student learning:* What do good teachers do? Paper presented at the American Educational Research Assocation Annual Meeting, Chicago, IL.

- Stronge, J. H., Ward, T. J., Tucker, P. D., & Grant, L.W. (2011, in press). What makes good teachers good? A cross-case analysis of the connection between teacher effectiveness and student achievement. *Journal of Teacher Education*.
- Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008). What is the relationship between teacher quality and student achievement? An exploratory study. *Journal of Personnel Evaluation in Education*, 20(3-4), 165-184.
- Sui-Chu, E. H., & Willms, J. D. (1996). Effects of parental involvement on eighth-grade achievement. *Sociology of Education*, 69, 126-141.
- Swap, S. A. (1993). *Developing home-school partnerships from concepts to practice*. New York: Teachers College Press.
- Taylor, B., Pearson, P. D., Clark, K. F., & Walpole, S. (1999). *Beating the odds in teaching All Children to Read*. Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.
- Taylor, B. M., Pearson, P. D., Clark, K., & Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low-income schools. *The Elementary School Journal*, 101(2), 121-142.
- Taylor, B. M., Pearson, P. D., Peterson, D. S., & Rodriquez, M. C. (2003). Reading growth in high-poverty classrooms: The influence of teacher practices that encourage cognitive engagement in literary learning. *The Elementary School Journal*, 104(1), 101-123.
- Thayer, Y. (2000). Virginia's Standards make all students stars. *Phi Delta Kappan*, 57(7), 70-72.
- The role of teacher professionalism in education. (n.d.). Retrieved June 1, 2009, from http://students.ed.uiuc.edu/vallicel/Teacher_Professionalism.html.
- Tobin, K. (1980). The effect of extended teacher wait-time on science achievement. *Journal of Research in Science Teaching*, 17, 469-475.
- Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C.A. (2007). Learning to love assessment. *Educational Leadership*, 65(4), 8-13.
- Tschannen-Moran, M. (2000). The ties that bind: The importance of trust in schools. *Essentially Yours*, 4, 1-5.
- Tucker, P. D., & Stronge, J. H. (2005). *Linking teacher evaluation and student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tursman, C. (1981). *Good teacher: what to look for.* Arlington, VA: National School Public Relations Association.

- Tyler, C. (2006). The academic engagement of low-income, African-American, middle-school students as it relates to reported classroom practices. Unpublished doctoral dissertation, Howard University, Washington, DC.
- Valli, L. (1997). Listening to other voices: A description of teacher reflection in the United States. *Peabody Journal of Education*, 72(1), 67-88.
- Vogler, K. E. (2002). The impact of high-stakes, state-mandated student performance assessment on teachers' instructional practices. *Education*, *123*(1), 39-56.
- Walberg, H. J. (1984). Improving the productivity of America's schools. *Educational Leadership*, 41(8), 19-27.
- Walker, M. H. (1998). 3 basics for better student output. Education Digest, 63(9), 15-18.
- Walker, H. M., Ramsey, E., & Gresham, F. M. (2003/2004, winter). Heading off disruptive behavior: How early intervention can reduce defiant behavior—and win back teaching time. American Educator, pp. 6-15, 18-25, 45.
- Walls, R. T., Nardi, A. H., von Minden, A. M., & Hoffman, N. (2002). The characteristics of effective and ineffective teachers. *Teacher education quarterly*, 29(1), 39-48.
- Walsh, J. A., & Sattes, B. D. (2005). *Quality questioning: Research-based practice to engage every learner*. Thousand Oaks, CA: Corwin Press.
- Wang, X. (2000). A comparative study on effective instructional practices and ineffective instructional practices. *Theory and Practice of Education*, 20(9), 50-53.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). What helps students learn? *Educational Leadership*, 51(4), 74-79.
- Warren, S. R. (2002). Stories from the classrooms: How expectations and efficacy of diverse teachers affect the academic performance of children in poor urban schools. *Educational Horizons*, 80(3), 109-116.
- Weinsten, C., Curran, M., & Tomlinson-Clarke, S. (2003). Culturally responsive classroom management: Awareness into action. *Theory Into Practice*, 42(4), 269-276.
- Weiss, I. R., & Miller, B. (2006, October). *Deepening teacher content knowledge for teaching: A review of the evidence*. Retrieved May 10, 2009, from http://hub.mspnet.org/media/data/WeissMiller.pdf?media_000000002247.pdf.
- Wenglisky, H. (2000). How teaching matters: Bringing the classroom back into discussion of teacher quality. Princeton, NJ: Millikan Family Foundation and Educational Testing Service.
- Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives*, 10(12). Retrieved November 20, 2008, from http://epaa.asu.edu/epaa/v10n12/.

- Wenglinsky, H. (2004). Closing the racial achievement gap: The role of reforming instructional practices. *Education Policy Analysis Archives*, 12(64). Retrieved August 1, 2006 from http://epaa.asu.edu/epaa/v12n64/.
- Wenglinsky, H. (2004). The link between instructional practice and the racial gap in middle schools. *Research in Middle Level Education Online*, 28(1), 1-13.
- Wentzel, K. R. (2002). Are effective teachers like good parents? Teaching styles and student adjustment in early adolescence. *Child Development*, 73(1), 287-301.
- Worley, D., Tistworth, S., Worley, D. W., & Cornett-DeVito, M. (2007). Instructional communication competence: Lessons learned from award-winning teachers. *Communication Studies*, 58(2), 207-222.
- Yoon, K. S., Duncan, T., Lee, S. W., Scarloss, B., & Shapley, K. L. (2007, December). Reviewing the evidence on how teacher professional development affects student achievement. Washington, DC: Regional Educational Laboratory Southwest.
- Zacharias, N. T. (2007). Teacher and student attitudes toward teacher feedback. *RELC Journal:* A Journal of Language Teaching and Research, 38(1), 38-52.
- Zahorik, J., Halbach, A., Ehrle, K., & Molnar, A. (2003). Teaching practices for smaller classes. Educational Leadership, 61(1), 75-77.

Endnotes

for

TKES Handbook, Fact Sheets, and Research Synthesis

Endnotes

- ⁹ Darling-Hammond, L. (2001). The challenge of staffing our schools. *Educational Leadership*, *5*(8), 12-17; Educational Review Office. (1998). *The capable teacher*. Retrieved from http://www.ero.govt.nz/Publications/eers1998/98no2hl.html
- Johnson, B. L. (1997). An organizational analysis of multiple perspectives of effective teaching: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 69-87.
- ¹¹ Shellard. E., & Protheroe, N. (2000). Effective teaching: How do we know it when we see it? *The Informed Educator Series*. Arlington, VA: Educational Research Service.

Georgia Department of Education (n.d.) Great Teachers and Leaders. Retrieved from http://public.doe.k12.ga.us/DMGeTAPSument.aspx/RT3%20GREAT%20TEACHERS%20AND%20 LEADERS.pdf

² McEwan, 2002.

³ Marzano, R. J., Pickering, D., & McTighe, J. (1993). Assessing student outcomes: Performance assessment using the dimensions of learning model. Alexandria, VA: ASCD.

⁴ Marzano et al., 1993.

⁵ Panasuk, R., Stone, W., & Todd, J. (2002). Lesson planning strategy for effective mathematics teaching. *Education*, *2*(2), 714, 808-827.

⁶ McEwan, E. K. (2002).

Buttram, J. L., & Waters, J. T. (1997). Improving America's schools through standards-based education. *Bulletin*, 81(590), 1-5.

⁸ Education USA Special Report. (n. d.). *Good teachers: What to look for*. Rockville, MD: National School Public Relations Association; Panasuk, Stone, & Todd (2002).

¹² Covino & Iwanicki, 1996.

¹³ National Association of Secondary School Principals (NASSP). (1997). Students say: What makes a good teacher? *Schools in the Middle*, *6*(5), 15-17; Peart & Campbell, 1999;

¹⁴ Covino & Iwanicki, 1996; Emmer, E. T., Evertson, C. M., & Anderson, L. M. (1980). Effective classroom management at the beginning of the year. *The Elementary School Journal*, 80(5), 219-231.

¹⁵ Shellard, E., & Protheroe, N. (2000).

¹⁶ Cawelti, G. (1999). *Handbook of research on improving student achievement* (2nd ed.). Arlington, VA: Educational Research Service; Cotton, K. (2000). *The schooling practices that matter most*. Portland, OR: Northwest Regional Educational Laboratory and Alexandria, VA: ASCD; Covino & Iwanicki, 1996; Good, T. L., & Brophy, J. E. (1997). *Looking in classrooms* (7th ed.). New York: Addison-Wesley; Tobin, K. (1980). The effect of extended teacher wait-time on science achievement. *Journal of Research in Science Teaching*, 17, 469-475; Wang, M., Haertel, G. D., & Walberg, H. (1993). What helps students learn? *Educational Leadership*, 51(4), 74-79.

¹⁷ Marzano, R. J., Norford, J. S., Paynter, D. E., Pickering, D. J., & Gaddy, B. B. (2001). *A handbook for classroom instruction that works*. Alexandria, VA: ASCD.

¹⁸ Cotton, K. (2000).

¹⁹ Stronge, J. H. (2007). *Qualities of effective teachers* (2nd Ed). Alexandria, VA: ASCD.

²⁰ Eisner, E. W. (1999). The uses and limits of performance assessment. *Phi Delta Kappan*, 80(9), 658-660.

²¹ Gronlund, N. E. (2002). Assessment of student achievement (7th ed.). Boston: Allyn & Bacon.

²² Stronge, J. H. (2007).

²³ Peart, N. A., & Campbell, F. A. (1999). At-risk students' perceptions of teacher effectiveness. *Journal* for a Just and Caring Education, 5(3), 269-284.

²⁴ McAllister, G., & Irvine, J. J. (2000).

²⁵ Cruickshank, D. R., & Haefele, D. (2001). Good teachers, plural. *Educational Leadership*, 58(5), 26-30.

²⁶ Weinsten, C., Curran, M., & Tomlinson-Clarke, S. (2003). Culturally responsive classroom management: Awareness into action. *Theory Into Practice*, 42(4), 269-276.

²⁷ Covino, E. A., & Iwanicki, E. (1996).

²⁸ Emmer, E. T., & Stough, L. M. (2001).

²⁹ Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008).

³⁰ Rockwell, R. E., Andre, L. C., & Hawley, M. K. (1996). *Parents and teachers as partners: Issues and challenges*. Fort Worth, TX: Harcourt Brace College.

³¹ Danielson, C. (2001); Guskey, T. R. (2002).

³² Collinson, V., Killeavy, M., & Stephenson, H. J. (1999).

³³ Rockwell, R. E., Andre, L. C., & Hawley, M. K. (1996). *Parents and teachers as partners: Issues and challenges*. Fort Worth, TX: Harcourt Brace College.

³⁴ Swap, S. A. (1993). *Developing home-school partnerships from concepts to practice*. New York: Teachers College Press.

³⁵ McAllister, G., & Irvine, J. J. (2000). Cross cultural competency and multicultural teacher education. *Review of Educational Research*, 70(1), 3-24.

³⁶ Cruickshank, D. R., & Haefele, D. (2001).

³⁷ Weinsten, C., Curran, M., & Tomlinson-Clarke, S. (2003).

- Georgia Department of Education (n.d.) Great Teachers and Leaders. Retrieved from http://public.doe.k12.ga.us/DMGeTAPSument.aspx/RT3%20GREAT%20TEACHERS%20AND%20 LEADERS.pdf
- ¹Stronge, J. H. (2006). Teacher evaluation and school improvement. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nded.) (pp. 1-23). Thousand Oaks, CA: Corwin.
- ² Danielson, C. (2001). New trends in teacher evaluation. *Educational Leadership*, 12-15. p. 13
- ³Stronge, J. H., & Tucker, P. D. (2003). Handbook on teacher evaluation: Assessing and improving performance. Larchmont, NY: Eye on Education. p. 3
- ⁴Shinkfield, A. J. (1994). Principal and peer evaluation of teachers for professional development. Journal of Personnel Evaluation in Education, 8, 251-266.
- ⁵Wheeler, P. H., &Scriven, M. (2006).Building the foundation. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nded.) (pp. 27-53). Thousand Oaks, CA: Corwin.
- ⁶Joint Committee on Standards for Educational Evaluation. (2009). *The personnel evaluation standards: How to assess systems of evaluating educators* (2nd ed.). Thousand Oaks, CA: Corwin. pp. 6-7
- ⁷Danielson, C., & McGreal, T. L. (2000). *Teacher evaluation: To enhance professional practice*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ⁸Stronge, J. H. (2006). p. 19
- ¹Cochran, K., DeRuiter, L., & King, R. (1993). Pedagogical content knowledge: An integrative model for teacher preparation. *Journal of Teacher Education*, 4, 18-29.; Hill, H. C., Rowan, B., & Ball, D. L. (2005). Effects of teachers' mathematical knowledge for teaching on student achievement. *American Educational Research Journal*, 42, 371-406.; Rowan, B., Chiang, F., & Miller, R. J. (1997). Using research on employees' performance to study the effects of teachers on students' achievement. *Sociology of Education*, 70, 256-284.; Schulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22.
- ²Weiss, I. R., & Miller, B. (2006, October). *Deepening teacher content knowledge for teaching: A review of the evidence*. Retrieved May 10, 2009, from
- http://hub.mspnet.org/media/data/WeissMiller.pdf?media_000000002247.pdf.; Wenglisky, H. (2000). *How teaching matters: Bringing the classroom back into discussion of teacher quality*. Princeton, NJ: Millikan Family Foundation and Educational Testing Service.
- ³ Harris, D. N., & Sass, T. R. (2007). *Teacher training, teacher quality and student achievement*. Washington, DC: National Center for Analysis of Longitudinal Data in Education Research. Retrieved April 4, 2009, from www.caldercenter.org/PDF /1001059_Teacher_Training.pdf.; Hill, H. C., Rowan, B., & Ball, D. L. (2005); Rowan, B., Chiang, F., & Miller, R. J. (1997); Moats, L. C., & Foorman, B. R. (2003). Measuring teachers' content knowledge of language and reading. *Annuals of Dyslexia*, *53*, 23-45.
- ⁴Childs, A., & McNicholl, J. (2007). Investigating the relationship between subject content knowledge and pedagogical practice through the analysis of classroom discourse. *International Journal of Science Education*, 29(13), 1629-1653.
- ⁵Case, R. (1991). The anatomy of curricular integration. Canadian Journal of Education, 16(2), 215-224.
- ⁶Czerniak, C. M., Weber, W. B., Sandmann, A., & Ahern, J. (1999). A literature review of science and mathematics integration. *Science and Mathematics Integration*, *99*(8), 421-430.
- ⁷Hill, H. C., Rowan, B., & Ball, D. L. (2005).
- ⁸Schulman, L. S. (1987).
- ⁹Cochran, K., DeRuiter, L., & King, R. (1993).
- ¹⁰Educational Review Office. (1998). *The capable teacher*. Retrieved January 19, 2002, from http://www.ero.govt.nz/Publications/eers1998/98no2hl.html.
- ¹¹Educational Testing Service.(n.d.). ETS Poll: Americans willing to pay for teacher quality, still demand standards and accountability.
- ¹²Langer, J. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, 38 (4), 837-880.
- ¹³Peart, N. A., & Campbell, F. A. (1999). At-risk students' perceptions of teacher effectiveness. *Journal for a Just and Caring Education*, *5*(3), 269-284.
- ¹⁴Covino, E. A., &Iwanicki, E. (1996). Experienced teachers: Their constructs on effective teaching. *Journal of Personnel Evaluation in Education*, 11, 325-363.

- ¹⁵McAllister, G., & Irvine, J. J. (2000). Cross cultural competency and multicultural teacher education. *Review of Educational Research*, 70(1), 3-24.
- ¹⁶Cruickshank, D. R., & Haefele, D. (2001). Good teachers, plural. *Educational Leadership*, 58(5), 26-30.
- ¹⁷Weinsten, C., Curran, M., & Tomlinson-Clarke, S. (2003). Culturally responsive classroom management: Awareness into action. *Theory Into Practice*, 42(4), 269-276.
- ¹Merriam-Webster, Inc. (2006). Webster's new explorer encyclopedic dictionary. Springfield, MA: Author. p. 1387.
- ²Buttram, J. L., & Waters, J. T. (1997). Improving America's schools through standards-based education. *Bulletin*, 81 (590), 1-5.
- ³Borko, H., & Livingston, C. (1989). Cognition and improvisation: Differences in mathematics instruction by expert and novice teachers. *American Educational Research Journal*, 26(4), 473-498.
- ⁴Leinhardt, G. (1993). On teaching. In R. Glaser (Ed.), *Advances in instructional psychology*, Vol. 4, pp.1-54. Hillsdale, NJ: Lawrence Erlbaum Associates.
- ⁵Berliner, D. C. (2004). Describing the behavior and documenting the accomplishments of expert teacher. *Bulletin of Science, Technology and Society*, 24, 200-212.
- ⁶Au, W. (2007). High-stakes testing and curricular control: A qualitative metasynthesis. *Educational Researcher*, *36*, 258-267.
- ⁷David, J. L. (2008). Pacing guides. *Educational Leadership*, 66(2), 87-88. p. 88
- ⁸Anderson, L. M., Evertson, C. M., & Brophy, J. E. (1979). An experimental study of effective teaching in first-grade reading groups. *The Elementary School Journal*, 79, 193-222.
- ⁹Perrin, B., Banks, F., & Dargue, B. (2004). *Student vs. software pacing of instruction: An empirical comparison of effectiveness*. Paper presented at the Interservice/Industry Training, Simulation, and Education Conference, Orlando, FL, 2004.
- ¹⁰Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., McDonald, M., et al. (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Ed.), *Preparing teachers for a changing world: What teachers should learn and be able to do*, pp. 358-389.San Francisco: Jossey-Bass.
- ¹¹Hammerness, K., et al. (2005)
- ¹²Parker, D. (1994). Every student succeeds: A conceptual framework for students at risk of school failure. Sacramento, CA: California Department of Education.
- ¹³Parker, D. (1994).
- ¹⁴Hill. (1994), pp. 38-39, cited in Sharma, M. B., & Elbow, G. S. (2000). *Use Internet primary source to teach critical thinking skills in geography*. Westport, CT: Greenwood Press.
- ¹⁵Harap, H. (1955). The use of free and inexpensive learning materials in the classroom. *The School Review*, 63(7), 378-383.
- ¹⁶Stripling, B. K. (Ed.). (1999). *Learning and libraries in an information age: Principles and practice*. Englewood, CO: Libraries Unlimited, Inc. p. 6
- ¹⁷Misulis, K. (1997). Content analysis: A useful tool for instructional planning. *Contemporary Education*, 69(1), 45-47. p. 45
- ¹⁸Good, T. L., & Brophy, J. E. (2002). Looking in classrooms (9th ed.). Boston: Allyn & Bacon.; Jay, J. K. (2002). Points on a continuum: An expert/novice study of pedagogical reason. The Professional Educator, 24(2), 63-74.; Livingston, C., & Borko, H. (1989). Expert-novice differences in teaching: A cognitive analysis and implications for teacher education. Journal of Teacher Education, 40(4), 36-42.; Sabers, D. S., Cushing, K. S., & Berliner, D.C. (1991).Differences among teachers in a task characterized by simultaneity, multidimensionality, and immediacy. American Educational Research Journal, 28(1), 63-88.
- ¹⁹Haynie, G. (2006, April). *Effective Biology teaching: A value-addedinstructionalimprovementanalysismodel*. Retrieved February 7, 2009, from http://www.wcpss.net/evaluation-research/reports/2006/0528biology.pdf.
- ²⁰Allington, R. L., & Johnston, P. H. (2000). What do we know about effective fourth-grade teachers and their classrooms? Albany, NY: The National Research Center on English Leaning & Achievement, State University of New York.
- ²¹Borko, H., & Livingston, C. (1989).
- ²²McEwan, E. K. (2002). 10 traits of highly effective teachers: How to hire, coach, and mentor successful teachers. Thousand Oaks, CA: Corwin Press.
- ²³Haynie, G. (2006, April).
- ²⁴ McEwan, E. K. (2002).
- ²⁵Haynie, G. (2006).

- ²⁶Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ²⁷Panasuk, R., Stone, W., & Todd, J. (2002). Lesson planning strategy for effective mathematics teaching. *Education*, 22 (2), 714, 808-827.
- ²⁸Buttram, J. L., & Waters, J. T. (1997). Improving America's schools through standards-based education. *Bulletin*, 81 (590), 1-5.
- ²⁹Allington, R. L., & Johnston, P. H. (2000).
- ³⁰Fuchs, L. S., Fuchs, D., & Phillips, N. (1994). The relation between teachers' beliefs about the importance of good work habits, teacher planning, and student achievement. *The Elementary School Journal*, *94*(3), 331-345.
- ¹Leigh, A. (2010). Estimating teacher effectiveness from twp-year changes in students' test scores. *Economics of Education Review*, 29, 480-488.; Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). How large are teacher effects? *Educational Evaluation and Policy Analysis*, 26(3), 237-257.; Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417-458.; Rowan, B., Correnti, R., & Miller, R. J. (2002). What large-scale, survey research tells us about teacher effects on student achievement: Insights from the *Prospects* study of elementary schools. *Teachers College Record*, 104(8), 1525-1567.; Stronge, J. H., Ward, T. J., Tucker, P. D., & Grant, L.W. (2011, in press). What makes good teachers good? A cross-case analysis of the connection between teacher effectiveness and student achievement. *Journal of Teacher Education*. Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008). What is the relationship between teacher quality and student achievement? An exploratory study. *Journal of Personnel Evaluation in Education*, 20(3-4), 165-184.
- ²Harris, D. N., & Sass, T. R. (2007). *Teacher training, teacher quality and student achievement*. Washington, DC: National Center for Analysis of Longitudinal Data in Education Research. Retrieved April 4, 2009, from www.caldercenter.org/PDF /1001059_Teacher_Training.pdf.
- ³ Rowan, B., Correnti, R., & Miller, R. J. (2002).;Palardy, G. J., &Rumberger, R. W. (2008). Teacher effectiveness in first grade: The importance of background qualifications, attitudes, and instructional practices for student learning. *Educational Evaluation and Policy Analysis*, 30(2), 111-140.
- ⁴Hanushek, E., Kain, J. F., &Rivkins, S. G. (2004). Why public schools lose teachers. Journal of Human Resources, 39(2), 326-354.; Rivkin, S. G., Hanushek, E. A., &Kain, J. F. (2005).
- ⁵Munoz, M. A., & Chang, F. C. (2007). The elusive relationship between teacher characteristics and student academic growth: A longitudinal multilevel model for change. *Journal of Personnel Evaluation in Education*, 20, 147-164.; Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *The American Economic Review*, 94(2), 247-252.
- ⁶Bembry, K. L., Jordan, H. R., Gomez, E., Anderson, M. C., &Mendro, R. L. (1998, April). *Policy implications of long-term teacher effects on student achievement*. Paper presented at the 1998 Annual Meeting of the American Educational Research Association, San Diego, CA.; Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* Retrieved December 12, 2008, from http://www.leadspace.govt.nz/leadership/pdf/john_hattie.pdf.;Stronge, J. H., Ward, T. J., Tucker, P. D., &Hindman, J. L. (2008).
- ⁷Cohen, D. K., Raudenbush, S. W., & Ball, D. L. (2003). Resources, instruction, and research. *Educational Evaluation and Policy Analysis*, 25(2), 119-142.
- ⁸Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* Retrieved December 12, 2008, from http://www.leadspace.govt.nz/leadership/pdf/john_hattie.pdf.
- ⁹Goldhaber, D. (2002). The mystery of good teaching. *Education Next*, 2(1), 50-55. Retrieved December 7, 2008, from http://www.hoover.org/publications/ednext/3368021.html.
- ¹⁰ See, for example, Allington, R. L. (2002). What I've learned about effective reading instruction. *Phi Delta Kappan*, 83, 740-747.; Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis Archives*, 8(1). Retrieved January 22, 2004 from http://olam.ed.asu.edu/epaa/v8n1/.; Rowan, B. Coreenti, R., & Miller, R. J. (2002); Schacter, J., &Thum, Y. M. (2004). Paying for high- and low-quality teaching. *Economics of Education Review*, 23, 411-430.; Stronge, J. H. (2007); Stronge, J. H., et L. (2008).
- 11 Hattie, J. (2003).; Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to student achievement. New York: Routledge.
- ¹²Schroeder, C. M., Scott, T. P., Tolson, H., Huang, T., & Lee, Y. (2007); Wenglinsky, H. (2004).
- ¹³Stronge, J. H. (2007). *Qualities of effective teachers* (2nd Ed.). Alexandria, VA: ASCD.

¹⁴Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.

¹⁵Dolezal, S.E., Welsh, L.M., Pressley, M., & Vincent, M.M. (2003). How third-grade teachers motivate student academic achievement. *The Elementary SchoolJournal*, *103*, 239-267.

¹⁶Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives*, *10*(12).Retrieved November 20, 2008, from http://epaa.asu.edu/epaa/v10n12/.

¹⁷Cotton, K. (2000). *The schooling practices that matter most*. Portland, OR: Northwest Regional Educational Laboratory; and Alexandria, VA: Association for Supervision and Curriculum Development.

¹⁸Berliner, D. C. (1986).In pursuit of the expert pedagogue. *Educational Researcher*, *15*(7), 5-13.; Berliner, D. C. (2004). Describing the behavior and documenting the accomplishments of expert teacher. *Bulletin of Science*, *Technology and Society*, *24*, 200-212.

¹⁹Cawelti, G. (Ed.). (2004). *Handbook of research on improving student achievement* (3rd ed.). Arlington, VA: Educational Research Service.; Walsh, J. A., &Sattes, B. D. (2005). *Quality questioning: Research-based practice to engage every learner*. Thousand Oaks, CA: Corwin Press.

²⁰Schroeder, C. M., Scott, T. P., Tolson, H., Huang, T., & Lee, Y. (2007). A Meta-analysis of national research: Effects of teaching strategies on student achievement in science in the United States. *Journal of Research in Science Teaching*, 44, 1436-1460.; Wenglinsky, H. (2004). The link between instructional practice and the racial gap in middle schools. Research in Middle Level Education Online, 28(1), 1-13.

gap in middle schools. Research in Middle Level Education Online, 28(1), 1-13.

²¹Carlson, E., Lee, H, & Schroll, K. (2004). Identifying attributes of high quality special education teachers. *Teacher Education and Special Education*, 27, 350-359.

²²Walberg, H. J. (1984). Improving the productivity of America's schools. *Educational Leadership*, 41(8), 19-27.

²³ Walberg, 1984

²⁴Guo, S., Tsai, C., Chang, F. M., & Huang, H. (2007). The study of questioning skills on teaching improvement. *The International Journal of Learning*, *14*(8), 141-145.

²⁵Walsh, J. A., &Sattes, B. D. (2005).

²⁶Craig, J. & Cairo, L. (2005, December). Assessing the relationship between questioning and understanding to improve learning and thinking (QUILT) and student achievement in mathematics: A pilot study. Charleston, WV: Appalachia Educational Laboratory, Inc.

²⁷Stronge et al. (2008).

²⁸Wang, X. (2000). A comparative study on effective instructional practices and ineffective instructional practices. *Theory and Practice of Education*, 20(9), 50-53.

²⁹Stronge, J. H. (2007).

³⁰Bradford, D. (1999). Exemplary urban middle school teachers' use of 5 standards of effective teaching. *Teaching and Change*, 7(1), 53-78.; Lewis, A. (2001). *Add it up: Using research to improve education for low-income and minority students*. Washington, D.C.: Poverty & Race Research Action Council. Retrieved November 18, 2004 from http://www.prrac.org/pubs_aiu.pdf.

³¹Wenglinsky, H. (2004). Closing the racial achievement gap: The role of reforming instructional practices. *Education Policy Analysis Archives*, *12*(64). Retrieved August 1, 2006 from http://epaa.asu.edu/epaa/v12n64/.

³²Marzano, R. J., Marzano, R. J., & Pickering, D. J. (2003). *Classroom management that works: Research-based strategies for every teacher*. Alexandria, VA: Association for Supervision and Curriculum Development.

³³Langer, J. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, *38* (4), 837-880.

³⁴Day, S.L. (2002). Real kids, real risks: Effective instruction of students at risk of failure. *NASSP Bulletin*, 86, Retrieved May 1, 2005 from http://www.principals.org/news/bultn_realkids0902.html.

³⁵Taylor, B., Pearson, P. D., Clark, K. F., & Walpole, S. (1999). *Beating the odds in teaching All Children to Read*. Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.

³⁶Pogrow, S. (2005). HOTS revisited: A thinking development approach to reducing the learning gap after grade 3. *Phi Delta Kappan*, 87(1), 64.

³⁷Taylor, B. M., et al. (2003).

³⁸Singham, M. (2001). The achievement gap. *Phi Delta Kappan*, 84, 586.

³⁹Pressley, M., Rapael, L. Gallagher, J.D., &DiBella, J. (2004). Providence-St. Mel School: How a school that works for African Americans works. *Journal of Educational Psychology*, 96(2), 216-235.; Taylor, B.M., et al. (2003).

- ⁴⁰Tursman, C. (1981). *Good teacher: what to look for*. Arlington, VA: National School Public Relations Association.
- ⁴¹Darling-Hammond, L. (2000); Educational Review Office. (1998). *The capable teacher*. Retrieved January 19, 2002, from http://www.ero.govt.nz/Publications/eers1998/98no2hl.html.
- ⁴²Johnson, B. L. (1997). An organizational analysis of multiple perspectives of effective teaching: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 69-87.
- ⁴³Shellard, E. &Protheroe, N. (2000). Effective teaching: How do we know it when we see it? *The Informed Educator Series*. Arlington, VA: Educational Research Service.
- ⁴⁴Covino, E. A., &Iwanicki, E. (1996).Experienced teachers: Their constructs on effective teaching. *Journal of Personnel Evaluation in Education*, 11, 325-363.
- ⁴⁵Shellard, E., &Protheroe, N. (2000).
- ⁴⁶Cawelti, G. (1999); Cotton, K. (2000); Covino E. A., &Iwanicki, E. (1996); Good, T. L., &Brophy, J. E. (2002). *Looking in classrooms* (9th ed.). Boston: Allyn& Bacon.; Tobin, K. (1980). The effect of extended teacher wait-time on science achievement. *Journal of Research in Science Teaching*, 17, 469-475.
- ⁴⁷McDonald, F. J., & Elias, P. (1976). Executive summary report: Beginning teacher evaluation study, Phase II (PR-76-18). Princeton, NJ: Educational Testing Service.
- ⁴⁸Stronge, J. H. (2007).
- ⁴⁹Schalock, H. D., Schalock, M. D., Cowart, B., &Myton, D. (1993).Extending teacher assessment beyond knowledge and skills: An emerging focus on teacher accomplishments. *Journal of Personnel Evaluation in Education*, 7, 105-133.
- ⁵⁰Adapted from Hattie, J. (2003); (2009).
- ¹ Weiss cited in Hoff, D. J. (2003, September 3). Large-scale study finds poor math, science instruction. *Education Week*, 23 (1), p. 8.
- Carolan, J., & Guinn, A. (2007). Differentiation: Lessons from master teachers. *Educational Leadership*, 64(5), 44-47. p. 44.
- ³ Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- ⁴Cawelti, G. (Ed.). (2004). *Handbook of research on improving student achievement* (3rd ed.). Arlington, VA: Educational Research Service.; Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ⁵Brighton, C. M., Hertberg, H. L, Moon, T. R., Tomlinson, C. A., & Callahan, C. M. (2005). *The feasibility of high-end learning in a diverse middle school*. Storrs, CT: The National Research Center on the Gifted and Talented, University of Connecticut.
- ⁶Covino, E. A., &Iwanicki, E. (1996). Experienced teachers: Their constructs on effective teaching. *Journal of Personnel Evaluation in Education*, 11, 325-363.
- ⁷Kulik, J. A., &Kulik, C. L. C. (1992).Meta-analysis findings on grouping programs. *Gifted Child Quarterly*, 36, 73-77.
- ⁸Stronge, J. H. (2007). *Qualities of effective teachers* (2nd Ed.). Alexandria, VA: ASCD.
- ⁹Dunn, R., Griggs, S., Olson, J., Beasley, M., & Gorman, B. (1995). A meta-analytic validation of the Dunn and Dunn model of learning-style preference. *Journal of Educational Research*, 88(6), 353-362.
- ¹⁰Dunn, R., et al. (1995).
- ¹¹ Dunn, R., et al. (2009).
- ¹²Dolezal, S.E., Welsh, L.M., Pressley, M., & Vincent, M.M. (2003). How third-gradeteachers motivate student academic achievement. *The Elementary SchoolJournal*, *103*, 239-267.
- ¹³ Tomlinson, C. A. (2001).
- ¹⁴Tieso, C. L. (2004). The effects of grouping and curricular practices on intermediate students' math achievement. *Reoper Review*, 26(4), 236.; Tieso, C. L. (2005). The effects of grouping practices and curricular adjustments on achievement. *Journal of the Education of Gifted*, 29(1), 60-89.
- ¹⁵Beck, C. (2001).Matching teaching strategies to learning style preferences. *The Teacher Educator*, 37 (1), 1-15.
- ¹⁶Adapted from Borich, G. D. (2011). *Effective teaching methods: Research-based practice* (7thed.). Boston: Allyn&Bacon.; Beecher, M., & Sweeny, S. M. (2008). Closing the achievement gap with curriculum enrichment and differentiation: One school's story. *Journal of Advanced Academics*, 19, 502-530.

- ¹⁷Latz, A. O., Neumeister, K. L. S., Adams, C. M., & Pierce, R. L. (2009) Peer coaching to improve classroom differentiation: Perspectives from Project CLUE. *Roeper Review*, *31*, 27-39. p. 27.
- ¹⁸Carolan, J., & Guinn, A. (2007). Differentiation: Lessons from master teachers. *Educational Leadership*, 64(5), 44-47.
- ¹Stiggins, R. J. (1999). Assessment, student confidence, and school success. *Phi Delta Kappan*, 81(3), 191-199, p. 191.
- ²Gronlund, N. E. (2006). Assessment of student achievement (8thed.). Boston: Pearson. p. 3.
- ³ Tomlinson, C. A. (1999).
- ⁴Gronlund, N. E. (2006).
- ⁵Black, P. J. &Wiliam, D. (1998) Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7–73.
- ⁶Black, P. J., &Wiliam, D. (1998).
- ⁷Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives, 10*(12).Retrieved November 20, 2008, from http://epaa.asu.edu/epaa/v10n12/.
- ⁸Stronge, J. H., Ward, T. J., Tucker, P. D., &Hindman, J. L. (2008). What is the relationship between teacher quality and student achievement? An exploratory study. *Journal of Personnel Evaluation in Education*, 20(3-4), 165-184.
- ⁹ Cotton, K. (2000). *The schooling practices that matter most.* Portland, OR: Northwest Regional Educational Laboratory; and Alexandria, VA: Association for Supervision and Curriculum Development.
- ¹⁰Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ¹¹Stronge, J. H. (2007). *Qualities of effective teachers* (2nd Ed.). Alexandria, VA: ASCD.
- ¹² Eisner, E. W. (1999). The uses and limits of performance assessment. *Phi Delta Kappan*, 80(9), 658-660.
- ¹³Gronlund, N. E. (2006).
- ¹⁴Stronge, J. H. (2007).
- ¹⁵ Black, P. J., &Wiliam, D. (1998); Stiggins, R., &DuFour, R. (2009). Maximizing the power of formative assessments. *Phi Delta Kappan*, 90(9), 640-644.
- ¹⁶Guskey, T. R. (2002). Does it make a difference? Evaluating professional development. *Educational Leadership*, 59(6), 45-51.
- ¹⁷ Tomlinson, C.A. (2007). Learning to love assessment. *Educational Leadership*, 65(4), 8-13.
- ¹⁸Borko, H., & Elliott, R. (1999).Hands-on pedagogy versus hands-off accountability. *Phi Delta Kappan*, 80(5), 394-400.; Shepard, L. A., & Dougherty, K. C. (1991). *Effects of high-stakes testing on instruction*. Paper presented at the annual meeting of the American Educational Research Association and National Council on Measurement in Education, Chicago.; Thayer, Y. (2000). Virginia's Standards make all students stars. *Phi Delta Kappan*, 57(7), 70-72.; Vogler, K. E. (2002). The impact of high-stakes, state-mandated student performance assessment on teachers' instructional practices. *Education*, 123(1), 39-56.
- ¹⁹Hamilton, L., &Stecher, B. (2004).Responding effectively to test-based accountability. *Phi Delta Kappan*, 85(8), 578-583.; Jones, B. D., &Egley, R. J. (2004). Voice from the frontlines: Teachers' perceptions of high-stakes testing. *Educational Policy Analysis Archives*, 12(39). Retrieved November 17, 2007, from http://epaa.asu.edu/epaa/va12n39.; Jones, G., Jones, B. D., Hardin, B., Chapman, L., Yardrough, T, & Davis, M. (1999). The impact of high-stakes testing on teachers and students in North Carolina. *Phi Delta Kappan*, 81(3), 199-203.; Stecher, B. M., & Mitchell, K. J. (1995). *Portfolio Driven Reform: Vermont Teachers' Understanding of Mathematical Problem Solving. CSE Technical Report 400.* Los Angeles: National Center for Research on Evaluation, Standards, and Student Testing.
- ¹ Kerr, K. A, Marsh, J. A., Ikemoto, G. S., Darilek, H., & Barney, H. (2006). Strategies to promote data use for instructional improvement: Actions, outcomes, and lessons from three urban districts. *American Journal of Education*, 112, 496-520.
- ²Safer, N., & Fleischman, S. (2005). How student progress monitoring improves instruction. *Educational Leadership*, 62(5), 81-83.
- ³Cauley, K. M., & McMillan, J. H. (2009) Formative assessment techniques to support student motivation and achievement. *Clearing House*, 83(1), 1-6.; Popham, W. J. (2008). Transformative assessment. Alexandria, VA: Association of Supervision and Curriculum Development.
- ⁴Natriello, G. (1987). The impact of evaluation processes on students. *Educational Psychologist*, 22(2), 155-175.

- ⁵Crooks, T. J. (1988). The impact of classroom evaluation practices on students. *Review of Educational Research*, 58(4), 438-481.
- ⁶Black, P. J. & Wiliam, D. (1998) Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, *5*(1), 7–73.
- ⁷ Kerr, K. A, et al. (2006).
- ⁸Fuchs, L. S., Deno, S. L., & Mirkin, P. K. (1984). The effects of frequent curriculum-based measurement and evaluation on pedagogy, student achievement, and student awareness of learning. *American Educational Research Journal*, 21(2), 449-460.
- ⁹ Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ¹⁰Fuchs, L. S., & Fuchs, D. (2003). What is scientifically-based research on progress monitoring? Washington, DC: National Center on Student Progress Monitoring.
- ¹¹Stecker, P. M., Fuchs, L. S., & Fuchs, D. (2005). Using curriculum-based measurement to improve student achievement: Review of research. *Psychology in the Schools*, 42(8), 795-819.
- ¹²LePage, P., Darling-Hammond, L., Akar, H., Guitierrez, C., Jenkins-Gunn, E., & Rosebrock, K. (2005).Classroom management. In L. Darling-Hammond and J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 327-357). San Francisco, CA: Jossey-Bass.
- ¹³Stronge, J. H. (2007). *Qualities of effective teachers* (2nd Ed.). Alexandria, VA: ASCD.
- ¹⁴Cauley, K. M., & McMillan, J. H. (2009).
- ¹⁵Chappius, S., & Stiggins, R. J. (2002). Classroom assessment for learning. *Educational Leadership*, 60(1), 40-43.
- ¹⁶ Zacharias, N. T. (2007). Teacher and student attitudes toward teacher feedback. *RELC Journal: A Journal of Language Teaching and Research*, *38*(1), 38-52.
- ¹⁷ Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* Retrieved December 12, 2008, from http://www.leadspace.govt.nz/leadership/pdf/john_hattie.pdf.
- ¹⁸Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives, 10*(12).Retrieved November 20, 2008, from http://epaa.asu.edu/epaa/v10n12/.
- ¹⁹ Walker, M. H. (1998). 3 basics for better student output. *Education Digest*, 63(9), 15-18.
- ²⁰ Danielson, C. (2002). *Enhancing student achievement: A framework for school improvement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ²¹Tomlinson, C. A. (1999); Chappius, S., & Stiggins, R. J. (2002).
- ²²Fuchs, L. S. & Fuchs, D. (2003).
- ²³Fuchs, L. S. & Fuchs, D. (2003).
- ¹ Fraser, B. J., & Fisher, D. L. (1982). Predicting students' outcomes from their perceptions of classroom psychosocial environment. *American Educational Research Journal*, *19*, 498–518.; Ludtke, O., Robitzsch, A., Trautwein, U., & Kunter, M. (2009). Assessing the impact of learning environments: How to use student ratings of classroom or school characteristics in multilevel modeling. *Contemporary Educational Psychology*, *34*,120-131.
- ² Hamre, B. K. & Pianta, R. C. (2005). Can instruction and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development*, 76(5), 949-967.; Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to student achievement*. New York: Routledge.; Pressley, M., Rapael, L. Gallagher, J.D., & DiBella, J. (2004). Providence-St. Mel School: How a school that works for African Americans works. *Journal of Educational Psychology*, 96(2), 216-235..
- ³ Cameron, C.E., Connor, C.M., Morrison, F.J., Jewkes, A.M. (2008). Effects of classroom organization on letterword reading in first grade. *Journal of School Psychology*, 46, 173-192.; Zahorik, J., Halbach, A., Ehrle, K., & Molnar, A. (2003). Teaching practices for smaller classes. *Educational Leadership*, 61(1), 75-77.
- ⁴ Stronge, J. H. (2007). Qualities of effective teachers (2nd Ed.). Alexandria, VA: ASCD.
- ⁵ Emmer, E. T., Evertson, C. M., & Worsham, M. E. (2003). *Classroom management for secondary teachers*. Boston: Allyn and Bacon.
- ⁶ Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). Classroom instruction that works: Research-based strategies for increasing student achievement. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). What helps students learn? *Educational Leadership*, 51(4), 74-79.

- ⁸ Good, T. L., & Brophy, J. E. (2002). *Looking in classrooms* (9th ed.). Boston: Allyn & Bacon.; Cruickshank, D. R., & Haefele, D. (2001). Good teachers, plural. *Educational Leadership*, 58(5), 26-30.
- ⁹ Corbett, D., Wilson, B., & Williams, B. (2002). *Effort and excellence in urban classrooms: Expecting and getting success with all students*. New York: Teacher College Press; Johnson, B. L. (1997). An organizational analysis of multiple perspectives of effective teaching: Implications for teacher evaluation. *Journal of Personnel Evaluation in Education*, 11, 69-87.
- ¹⁰ Carter, P. J. (2003). A review of highly effective teachers in Hamilton County: Analysis of current trends and implications for improvement. Chattanooga, TN: Public Education Foundation. Retrieved November 7, 2008, from http://pef. ddngroupb.com/.; Walls, R. T., Nardi, A. H., von Minden, A. M., & Hoffman, N. (2002). The characteristics of effective and ineffective teachers. *Teacher education quarterly*, 29(1), 39-48.
- ¹¹ Education USA Special Report. (n. d.). *Good Teachers: What to Look For.* A Publication of The National School Public Relations Association.
- ¹² Johnson, B. L. (1997).
- ¹³ Haberman, M. (1995). STAR teachers of children in poverty. West Lafayette, IN: Kappa Delta Pi.
- ¹⁴ Cruickshank, D. R., & Haefele, D. (2001).
- ¹⁵ Shellard, E. & Protheroe, N. (2000). Effective teaching: How do we know it when we see it? *The Informed Educator Series*. Arlington, VA: Educational Research Service.
- ¹⁶ Cameron, C. E., Connor, C. M., Morrison, F. J., Jewkes, A. M. (2008); Stronge, J. H. (2007); Zahorik, J., Halbach, A., Ehrle, K., & Molnar, A. (2003).
- ¹⁷ Merriam-Webster, Inc. (2006). Webster's new explorer encyclopedic dictionary. Springfield, MA: Author.. p. 1828.
- ¹⁸ Emmer, E. T., & Stough, L. M. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist*, *36*(2), 103-112.
- ¹⁹ Emmer, E. T., & Stough, L. M. (2001). p. 105.
- ²⁰ Hattie, J. (2003).
- ²¹ Barney, D. (2005). Elementary physical education student teachers' interactions with students. *Physical Educator*, 62(3), 130-135.; Hamre & Pianta. (2005); Pressley, Raphael, Gallagher, & DiBella. (2004)
- ²² Allington, R. L., & Johnston, P. H. (2000). What do we know about effective fourth-grade teachers and their classrooms? Albany, NY: The National Research Center on English Leaning & Achievement, State University of New York.
- ²³ Cornell, D. G., & Mayer, M. J. (2010). Why do school order and safety matter? *Educational Research*, 39(1), 7-15, p. 11
- ²⁴ Coetzee, M., & Jansen, C. (2007). *Emotional intelligence in classroom: The secret of happy teachers*. Cape Town, South Africa: Juta & Co.
- ²⁵ Emmer, E. T., & Stough, L. M. (2001).
- ²⁶ Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). p. 76.
- ²⁷ Anderson, G. J. (1970). Effects of classroom social climate on individual learning. *American Educational Research Journal*, 7, 135-152. p. 135
- ²⁸ Moos, R. H. (1973). Conceptualizations of human environments. *American Psychologist*, 28, 652–665.
- ²⁹ Sinclair, B. B., & Fraser, B. J. (2002). Changing classroom environments in urban middle schools. *Learning Environment Research*, *5*, 301-328.
- ³⁰ Cohen, E. G. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research*, 64(1), 1-35.; Jensen, M., Johnson, D. W., & Johnson, R. T. (2002). Impact of positive interdependence during electronic quizzes on discourse and achievement. *Journal of Educational Research*, 95(3), 161-166.; LePage, P., Darling-Hammond, L., Akar, H., Guitierrez, C., Jenkins-Gunn, E., & Rosebrock, K. (2005). Classroom management. In L. Darling-Hammond and J. Bransford (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 327-357). San Francisco, CA: Jossey-Bass.; Slavin, R. E. (1990). *Cooperative learning: Theory, research, and practice*. Englewood Cliffs, NJ: Prentice-Hall.
- ³¹ Tschannen-Moran, M. (2000). The ties that bind: The importance of trust in schools. *Essentially Yours*, 4, 1-5. p. 4
- ³² Haertel, G. D., & Walberg, H. J., & Haertel, E. H. (1981).
- ³³ Byer, J. L. (1999). The effects of students' perceptions of social climate in middle school social studies classes on academic self-concept. Unpublished doctoral dissertation, University of Southern Mississippi.
- ³⁴ Byer, J. L. (2002). The consistency correlation between students' perceptions of classroom involvement and academic self-concept in secondary social studies classes. *Journal of Social Studies Research*, 26(1), 3-11.

- ³⁵ Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology*, 99(1), 83-98.; Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, 38(2), 437-460.
- ³⁶ Stronge, J. H. (2007).
- ³⁷ Hamre, B.K. & Pianta, R.C. (2005).
- ³⁸ Hamre, B. K., & Pianta, R. C. (2005).
- ³⁹ Barney, D. (2005).
- ⁴⁰ Pressley, M., Rapael, L. Gallagher, J. D., & DiBella, J. (2004).
- ⁴¹ Cornelius-White, J. (2007). Leaner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research*, 77(1), 113-143.
- ⁴² Adapted from Coetzee, M. & Jansen, C. (2007).
- ⁴³ Allington, R. L., & Johnston, P. H. (2000).
- 44 Emmer, E. T. & Stough, L. M. (2001). p. 105
- ⁴⁵ Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). p. 76
- ⁴⁶ Taylor, B. M., Pearson, P. D., Clark, K., & Walpole, S. (2000). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low-income schools. *The Elementary School Journal*, *101*(2), 121-142.
- ⁴⁷ Emmer, E. T., & Stough, L. M. (2001).
- ⁴⁸ Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003).
- ⁴⁹ Stronge, J. H. (2007).
- ⁵⁰ Stronge, J. H., Tuckers, P. D., & Ward, T. J. (2003). *Teacher effectiveness and student learning: What do good teachers do?* Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL.
- ⁵¹ Emmer, E. T., Evertson, C. M., & Worsham, M. E. (2003). *Classroom management for secondary teachers*. Boston: Allyn and Bacon.
- ⁵² Cameron, C. E., Connor, C. M., Morrison, F. J., Jewkes, A. M. (2008).
- ⁵³ Kunter, M., Tsai Y., Klusmann, U., Brunner, M., Krauss, S., & Baumert, J. (2008). Students' and mathematics teachers' perceptions of teacher enthusiasm and instruction. *Learning and Instruction*, 18, 468-482.
- Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008). What is the relationship between teacher quality and student achievement? An exploratory study. *Journal of Personnel Evaluation in Education*, 20(3-4), 165-184.
- ⁵⁵ Luiselli, J. K., Putnam, R. F., & Sunderland, M. (2002). Longitudinal evaluation of behavior support intervention in a public middle school. *Journal of Positive Behavior Interventions*, *4*, 182-188.
- ⁵⁶ Walker, H. M., Ramsey, E., & Gresham, F. M. (2003/2004, winter). Heading off disruptive behavior: How early intervention can reduce defiant behavior—and win back teaching time. American Educator, pp. 6-15, 18-25, 45.
- ⁵⁷ Goldstein, S. (1995). *Understanding and managing children's classroom behavior*. New York: John Wiley & Sons, Inc.
- ¹Evans, I. M., Harvey, S. T., Buckley, L., & Yan, E. (2009).Differentiating classroom climate concepts: Academic, management, and emotional environments. *New Zealand Journal of Social Sciences Online*, 4, 131-146. Retrieved January 13, 2010, from http://royalsociety.org.nz/Site/publish/Journals/kotuitui/2009/011.aspx.
- ²Evans, I. M., et al. (2009).
- ³Schoen, L. T. (2008). Constructing high quality learning environments for twenty-first century learners: A sociocultural constructivist perspective. In D. M. McInerney and D. Liem (Eds), *Teaching and learning: International best practice* (pp. 25-50). Charlotte, NC: Information Age Publishing, Inc.
- ⁴Fraser, B. (1989). Twenty years of classroom climate work: Progress and prospects. *Journal of Curriculum Studies*, 21(4), 307-327.; Fraser, B. J., & Fisher, D. L. (1982). Predicting students' outcomes from their perceptions of classroom psycho-social environment. *American Educational Research Journal*, 19, 498–518.; Goh, S. C., Young, D. J., & Fraser, B. J. (1995). Psychosocial climate and student outcomes in elementary mathematics classrooms: A multilevel analysis. *The Journal of Experimental Education*, 64(1), 29-40.; McRobbie, C. J., & Fraser, B. J. (1993). Associations between student outcomes and psychosocial science environment. *The Journal of Educational Research*, 87(2), 78-85.
- ⁵Miller-Cribbs, C. S., Davis, L., & Johnson, S. (2002). An exploratory analysis of factors that foster school engagement and completion among African-American students. *Children & Schools*, 24(3), 159-174.

- ⁶Barth, J. M., Dunlap, S. T., Dane, H., Lochman, J. E., & Wells, K. C. (2004). Classroom environment influences on aggression, peer relations, and academic focus. *Journal of School Psychology*, 42(2), 115-134.
- ⁷Evans, I. M., et al. (2009).
- ⁸Emmer, E. T., & Stough, L. M. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist*, *36*(2), 103-112.
- ⁹Cruickshank, D. R., & Haefele, D. (2001). Good teachers, plural. *Educational Leadership*, 58(5), 26-30.; Good, T. L., & Brophy, J. E. (2002). *Looking in classrooms* (9th ed.). Boston: Allyn & Bacon.; Marzano, R. J., & Pickering, D. J. (2003). *Classroom management that works: Research-based strategies for every teacher*. Alexandria, VA: Association for Supervision and Curriculum Development.
- ¹⁰Corbett, D., Wilson, B., & Williams, B. (2002). Effort and excellence in urban classrooms: Expecting and getting success with all students. New York: Teacher College Press.; Johnson, B. L. (1997). An organizational analysis of multiple perspectives of effective teaching: Implications for teacher evaluation. Journal of Personnel Evaluation in Education, 11, 69-87.; Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). What helps students learn? Educational Leadership, 51(4), 74-79.
- ¹¹ Schoen, L. T. (2008). pp. 38-39
- ¹²Emmer, E. T., & Stough, L. M. (2001); Wang, M. C., et al. (1994).
- ¹³Kuh, G. (2003). What we're learning about student engagement from NSSE. *Change*, 35(2), 24-32.
- ¹⁴ Good, T., & Brophy, J. E. (2002).
- ¹⁵Wentzel, K. R. (2002). Are effective teachers like good parents? Teaching styles and student adjustment in early adolescence. *Child Development*, 73(1), 287-301.
- ¹⁶Rubie-Davies, C. M. (2006). Teacher expectations and student self-perceptions: Exploring relationships. *Psychology in the School*, *43*(5), 537-552.
- ¹⁷Fuchs, L. S., Fuchs, D., & Phillips, N. (1994). The relation between teachers' beliefs about the importance of good work habits, teacher planning, and student achievement. *The Elementary School Journal*, 94(3), 331-345.
- ¹⁸Hauser-Cram, P., Sirin, S. R., & Stipek, D. (2003). When teachers' and parents' values differ: Teachers' ratings of academic competence in children from low-income families. *Journal of Educational Psychology*, 95, 813-820.
- ¹⁹Tyler, C. (2006). The academic engagement of low-income, African-American, middle-school students as it relates to reported classroom practices. Unpublished doctoral dissertation, Howard University, Washington, DC.
- ²⁰Borman, G., Strongfield, S., & Rachuba, L. (2000). *Advancing minority high achievement: National trends and promising programs and practices*. The College Examination Entrance Board.; Ferguson, R. F. (1998). Teachers' perceptions and expectations and the Black-White test score gap. In C. Jencks and M. Phillips (Eds.), *The Black-White test score gap*. Washington, DC: The Brookings Institution Press.
- ²¹Borman, G., et al. (2000).
- ²²McKnown, C. & Weinstein, R.S. (2008). Teacher expectations, classroom context, and the achievement gap. *Journal of School Psychology*, 46, 235-261.
- ²³Ferguson, R. F. (1998).
- ²⁴Warren, S. R. (2002). Stories from the classrooms: How expectations and efficacy of diverse teachers affect the academic performance of children in poor urban schools. *Educational Horizons*, 80(3), 109-116.
- ²⁵Cotton, K. (2001). *Expectations and student outcomes*. Northwest Regional Educational Laboratory, School Improvement Research Series. Retrieved November 1, 2009, fromhttp://www.nwrel.org/scpd/sirs/4/cu7.html.
- ²⁶Babad, E., Bernieri, F., & Rsosenthal, R. (1991).Students as judges of teachers' verbal and nonverbal behavior. *American Educational Research Journal*, 28,211-234.; Gottfredson, D.C., Marciniak, E.M., Birdseye, A. T., & Gottfredson, G. D. (1995). Increasing teacher expectations for student achievement. *Journal of Educational Research*, 88(3), 155-163..
- ²⁷McKnown, C., & Weinstein, R.S. (2008).
- ²⁸Cotton, K. (2001).
- ²⁹Hauser-Cram, P., et al. (2003).
- ¹The role of teacher professionalism in education. (n.d.). Retrieved June 1, 2009, from http://students.ed.uiuc.edu/vallicel/Teacher_Professionalism.html.
- ²Fullan, M. G. (1993). Why teachers must become change agents. *Educational Leadership*, 50(6), 12-17.
- ³Adapted from Fullan, M. G. (1993).
- ⁴Carr, D. (2009). *Professionalism and ethics in teaching*. New York: Routledge.
- ⁵Vartuli, S. (2005). Beliefs: The heart of teaching. *Young Children*, 60, 76-86.
- ⁶ Carr, D. (2009).

- ⁷Cassidy, W. & Bates, A. (2005). "Drop-outs" and "push-outs": Finding hope at a school that actualizes the ethic of care. *American Journal of Education*, 112, 66-101.; Chaskin, R. J., & Rauner, D. M. (1995). Youth and caring: An introduction. *Phi Delta Kappan*, 76(9), 667-674.; Noddings, N. (1992). *The challenge to care in schools*. New York: Teachers College Press.
- ⁸Noblit, G. W., Rogers, D. L., & McCadden, B. M. (1995). In the meantime: The possibilities of caring. *Phi Delta Kappan*, 76(9), 680-685.
- ⁹Peart, N. A., & Campbell, F. A. (1999).At-risk students' perceptions of teacher effectiveness. *Journal for a Just and Caring Education*, 5(3), 269-284.
- ¹⁰Walls, R. T., Nardi, A. H., von Minden, A. M., & Hoffman, N. (2002). The characteristics of effective and ineffective teachers. *Teacher education quarterly*, 29(1), 39-48.
- ¹¹Lumpkin, A. (2007). Caring teachers: The key to student learning. *Kappa Delta Pi Record*, 43(4), 158-160. ¹²Cassidy, W. & Bates, A. (2005).
- ¹³Carter, P. J. (2003). A review of highly effective teachers in Hamilton County: Analysis of current trends and implications for improvement. Chattanooga, TN: Public Education Foundation. Retrieved November 7, 2008, from http://pef. ddngroupb.com/.
- ¹⁴Collinson, V., Killeavy, M., & Stephenson, H. J. (1999). Exemplary teachers: Practicing an ethic of care in England, Ireland, and the United States. *Journal for a Just and Caring Education*, *5* (4), 349-366.
- ¹⁵Aronson, R. (2001). At-risk students defy the odds: Overcoming barriers to educational success. Lanham, MD: Scarecrow Press.; Corbett, D. & Wilson, B. (2004). What urban students say about good teaching. Educational Leadership, 60(1), 18-22.; Engel, D. E. (1994). School leavers in American society: Interviews with school dropouts/stopouts. In R. C. Morris (Ed.). Using what we know about at-riskYouth, pp. 3-22. Lancaster, PA: Technomic Publishing.; Ferguson, R. F. (2002). What doesn't meet the eye: Understanding and addressing racial disparities in high-achieving suburban schools. Cambridge, MA: Harvard University Press.
- ¹⁶Lumpkin, A. (2007); Walls, R. T. et al. (2002).
- ¹⁷Goddard, R. G., Hoy, W. K., & Hoy, A. W. (2004). Collective efficacy: Theoretical development, empirical evidence, and future directions. *Educational Researcher*, *33*(3), 3-13.; Hoy, W., Tarter, J., & Hoy. A. W. (2006). Academic optimism of schools: A force for student achievement. *American Educational Research Journal*, *43*(3), 425-446.
- ¹⁸Kunter, M., Tsai Y., Klusmann, U., Brunner, M., Krauss, S., & Baumert, J. (2008). Students' and mathematics teachers' perceptions of teacher enthusiasm and instruction. *Learning and Instruction*, *18*, 468-482.; Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology*, *99*(1), 83-98.
- ¹⁹Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008). What is the relationship between teacher quality and student achievement? An exploratory study. *Journal of Personnel Evaluation in Education*, 20(3-4), 165-184.
- ²⁰Noblit, G. W., et al. (1995).
- ²¹Comedena, M. E., Hunt, S. K., & Simonds, C. J. (2007). The effects of teacher clarity, non-verbal immediacy, and caring on student motivation, affective and cognitive learning. *Communication Research Reports*, 24(3), 241-248.; Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, 89(3), 411-419.
- ²² Lumpkin, A. (2007). p.160
- ²³Kunter, M., et al., 2008, p.470.
- ²⁴Long, J. F., & Hoy, A. W. (2006).
- ²⁵ Patrick, B. C., et al. (2000).
- ²⁶Kunter et al., (2008).
- ²⁷Bettencourt, E. M., Gillett, M. H., Gall, M. D., & Hull, R. E (1983). Effects of teacher enthusiasm training on student on-task behavior and achievement. *American Educational Research Journal*, 20(3), 435-450.; Mastin, V. (1963). Teacher enthusiasm. *Journal of Educational Research*, 56, 385-386.
- ²⁸ Hoy, W., et al. (2006).
- ²⁹ Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.; Schwarzer, R., &Hallum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout: Mediation analyses. *Applied Psychology: An International Review, 57*, 152-171.; Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relationship to self-efficacy and implementation of new teaching strategy. *The Elementary School Journal, 110*(2), 228-245.

³⁰Goddard, R. G. et al. (2004); Shahid, J., & Thompson, D. (2001); Tschannen-Moran, M., & McMaster, P. (2009).

- ³²Yoon, K. S., Duncan, T., Lee, S. W., Scarloss, B., & Shapley, K. L. (2007, December). *Reviewing the evidence on how teacher professional development affects student achievement.* Washington, DC: Regional Educational Laboratory Southwest.
- ³³Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *AACE Journal*, *16* (2), 137-159.
- ³⁴Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., McDonald, M., et al. (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Ed.), *Preparing teachers for a changing world: What teachers should learn and be able to do*, pp. 358-389.San Francisco: Jossey-Bass.p.385 Adapted from Hammerness., et al. (2005).

³⁶Stronge, J. H. (2007). *Qualities of effective teachers* (2nd Ed.). Alexandria, VA: ASCD.

- ³⁷Valli, L. (1997). Listening to other voices: A description of teacher reflection in the United States. Peabody Journal of Education, 72(1), 67-88.
- ³⁸Jay, J. K. (2002). Points on a continuum: An expert/novice study of pedagogical reason. *The Professional Educator*, 24(2), 63-74.; Spalding, E. & Wilson, A. (2002). Demystifying reflection: A study of pedagogical strategies that encourage reflective journal writing. *Teachers College Record*, 104, 1393-1421. Retrieved March 7, 2009 from the Single Journals database; Stronge, J. H. (2007).
- ³⁹Little, J. W. (1993). Teachers' professional development in a climate of educational reform. *Educational Evaluation and Policy Analysis*, *15*(2), 129-151.

⁴⁰Stronge, J. H. (2007).

- ⁴¹Danielson, C. (2001). New trends in teacher evaluation. *Educational Leadership*, 5(5), 12-15.; Guskey, T. R. (2002). Does it make a difference? Evaluating professional development. *Educational Leadership*, 59(6), 45-51.
- ⁴²ISTE research reports: Overview: Research on IT [informational technology] in education. (n.d.). Retrieved on September 22, 2002, from http://www.iste.org/research/reports/tlcu/overview.html.
- ⁴³Camphire, G. (2001). Are our teachers good enough? *SEDLetter*, *13*(2). Retrieved November 12, 2001, from http://www.sedl.org/pubs/sedletter/v13n2/1.htm.;School Board News. (1997). Teacher quality is key to student achievement (electronic version). *American School Board Journal*. Retrieved November 21, 2000, from http://www.asbj.com/achievement/ci/ci3.htm.
- ⁴⁴Collinson, V., Killeavy, M., & Stephenson, H. J. (1999). Exemplary teachers: Practicing an ethic of care in England, Ireland, and the United States. *Journal for a Just and Caring Education*, *5* (4), 349-366.

³¹Fullan, M. G. (1993). Why teachers must become change agents. *Educational Leadership*, 50(6), 12-17.

¹Fullan, M. G. (1993). Why teachers must become change agents. *Educational Leadership*, 50(6), 12-17.

²Rowan, B., Chiang, F., & Miller, R. J. (1997). Using research on employees' performance to study the effects of teachers on students' achievement. *Sociology of Education*, 70, 256-284.; Strauss, R. P., & Sawyer, E. A. (1986). Some new evidence on teacher and student competencies. *Economics of Education Review*, 5, 41-48.

³Cornett-DeVito, M., & Worley, D. W. (2005). A front row seat: A phenomenological investigation of students with learning disabilities. *Communication Education*, *54*, 312-333.

⁴Worley, D., Tistworth, S., Worley, D. W., & Cornett-DeVito, M. (2007). Instructional communication competence: Lessons learned from award-winning teachers. *Communication Studies*, 58(2), 207-222.

⁵Sachs, J. (2001). Teacher professional identity: competing discourse, competing outcomes. *Journal of Education Policy*. *16*(2), 149-161.

⁶Fullan, M. G. (1993).

⁷Catt, S., Miller, D., & Schallenkamp, K. (2007). Your are the key: Communicate for learning effectiveness. *Education*, 127(3), 369-377.

⁸ Sachs, J. (2001).

⁹Fullan, M. G. (1993).

¹⁰Peters, S., & Reid, D. K. (2009). Resistance and discursive practice: Promoting advocacy in teacher undergraduate and graduate programmes. *Teaching and Teacher Education*, 25(4), 551-558.

¹¹National Association of Secondary School Principals (NASSP). (1997). Students say: What makes a good teacher? *Schools in the Middle*, 6 (5), 15-17.; Peart, N. A., & Campbell, F. A. (1999). At-risk students' perceptions of teacher effectiveness. *Journal for a Just and Caring Education*, 5(3), 269-284.

¹²Covino, E. A., & Iwanicki, E. (1996). Experienced teachers: Their constructs on effective teaching. *Journal of Personnel Evaluation in Education*, 11, 325-363.; Emmer, E. T., Evertson, C. M., & Anderson, L. M.

(1980). Effective classroom management at the beginning of the year. The Elementary School Journal, 80(5), 219-231.

¹⁴Swap, S. A. (1993). *Developing home-school partnerships from concepts to practice*. New York: Teachers College Press.

¹⁵Collinson, V., Killeavy, M., & Stephenson, H. J. (1999). Exemplary teachers: Practicing an ethic of care in England, Ireland, and the United States. *Journal for a Just and Caring Education*, 5 (4), 349-366.

- ¹⁶Epstein, J. L., & Sheldon, S. B. (2002). Present and accounted for: Improving student attendance though family and community involvement. The Journal of Educational Research, 95(5), 308-318.; Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. Educational Psychology Review, 13(1), 1-22.; Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analysis assessment of the strategies that promote achievement. Developmental Psychology, 45(3), 740-763.; Hong, S., & Ho, H. (2005). Direct and indirect longitudinal effects of parental involvement on student achievement: Secondorder latent growth modeling across ethnic groups. Journal of Educational Psychology, 97(1), 32-42.; Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. Urban Education, 40(3), 237-269.; Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. Urban Education, 42(1), 82-110.; LePage, P., Darling-Hammond, L., Akar, H., Guitierrez, C., Jenkins-Gunn, E., &Rosebrock, K. (2005). Classroom management. In L. Darling-Hammond and J. Bransford (Eds.), Preparing teachers for a changing world: What teachers should learn and be able to do (pp. 327-357). San Francisco, CA: Jossey-Bass.; Sheldon, S. B., & Spstein, J. L. (2002). Improving student behavior and school discipline with family and community involvement. Education and Urban Society, 35(1), 4-26.; Sui-Chu, E. H., & Willms, J. D. (1996). Effects of parental involvement on eighth-grade achievement. Sociology of Education, 69, 126-141. ¹⁷Epstein, J. L. (1995). School/family/community partnerships: Caring for the children we share. *Phi Delta Kappan*, *76*, 701-712.
- ¹⁸Anderson, K. J., & Minke, K. M. (2007). Parent involvement in education: Toward an understanding of parents' decision making. *Journal of Educational Research*, 100(5), 311-323.

¹⁹Epstein, J. L. (1995); Epstein, J. L. (2001).

²⁰LePage, P., et al. (2005).

- ³⁵⁴ Stronge, J. H. (2006). Teacher evaluation and school improvement: Improving the educational landscape. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp.1-23). Thousand Oaks, CA: Corwin.
- ³⁵⁵ Peterson, K. D., Stevens, D., & Ponzio, A. (1998). Variable data sources in teacher evaluations. *Journal of Research and Development in Education*, *31*(3), 123-132. p. 124.
- ³⁵⁶ Dyers, K. M. (2001). The power of 360° degree feedback. *Educational Leadership*, 58(5), 35-39; Peterson, K. D. (2000). Teacher evaluation: A comprehensive guide to new directions and practices (7th ed.). Thousand Oaks, CA: Corwin; Peterson, K. D. (2006). Using multiple data sources in teacher evaluation systems. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp. 212-232). Thousand Oaks, CA: Corwin; Peterson, K. D., Stevens, D., & Ponzio, A. (1998). Variable data sources in teacher evaluations. *Journal of Research and Development in Education*, 31(3), 123-132; Stronge, J. H., & Tucker, P. D. (2003). *Handbook on teacher evaluation: Assessing and improving performance*. Larchmont, NY: Eye on Education.
- ³⁵⁷ Zepeda, S. J. (2006). Classroom-based assessment of teaching and learning. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp. 101-124). Thousand Oaks, CA: Corwin. ¹Stronge, J. H. (2010). *Evaluating what good teachers do: Eight research-based standards for assessing teacher excellence*. Larchmont, NY: Eye on Education.
- ^[i]Stronge, J. H., & Tucker, P. D. (2003). *Handbook on teacher evaluation: Assessing and improving performance*. Larchmont, NY: Eye on Education.

¹Tucker, P. D., Stronge, J. H., &Gareis, C. R. (2002). *Handbook on teacher portfolios for evaluation and professional development*. Larchmont, NY: Eye on Education. p. 3; Wolf, K. (2006). Portfolios in teacher evaluation. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nded.) (pp.168-185). Thousand Oaks, CA: Corwin.

²Tucker, P. D., Stronge, J. H., &Gareis, C. R. (2002).

¹³Rockwell, R. E., Andre, L. C., & Hawley, M. K. (1996). *Parents and teachers as partners: Issues and challenges*. Fort Worth: Harcourt Brace College.

³Airason, P. W. &Gullickson, A. (1997). *Teacher self-evaluation tool kit.* Thousand Oaks, CA: Corwin.

² Tucker, P. D., Stronge, J. H., & Gareis, C. R. (2002). *Handbook on teacher portfolios for evaluation and professional development*. Larchmont, NY: Eye on Education.

³ Kremer-Hayon, L. (1993). *Teacher self-evaluation: Teachers in their own mirror*. Morwell, MA: Kluwer Academic Publishers.

- ⁴ Gullickson, A., Airasian, P., & Assaff, E. (1994). Self-assessment "tool kit" designed to help teachers analyze practice. *CREATE*, *4*(3), pp, 1, 6.
- ⁵ Airasian, P. W. & Gullickson, A. (2006).
- ⁶ Airasian, P. W. & Gullickson, A. (2006).
- ⁷ Airasian, P. W. & Gullickson, A. (1997). *Teacher self-evaluation tool kit.* Thousand Oaks, CA: Corwin.
- ² Cited in Peterson, K. D., Wahlquist, C., & Bone, K. (2000). Student surveys for school teacher evaluation. *Journal of Personnel Evaluation in Education*, *14*(2), 135-153. (1992). ² Follman, J. Secondary school students' ratings of teacher effectiveness. *High School Journal*, *75*, 168-178; Stronge, J. H., & Ostrander, L. P. (2006). Client surveys in teacher education. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp.125-151). Thousand Oaks, CA: Corwin.
- ³ Follman, J. (1992).
- ⁴ Stronge, J. H. & Ostrander, L. P. (2006).
- ⁵ Driscoll, A., Peterson, K., Browning, M., & Stevens, D. (1990). Teacher evaluation in early childhood education: What information can young children provide? *Child Study Journal*, 20, 67-69; Ebmeier, H., Jenkins, R., & Crawdford, G. (1991). The predictive validity of student evaluations in the identification of meritorious teachers. *Journal of Personnel Evaluation in Education*, 4, 341-347; Wilkerson, D. J., Manatt, R. P., Rogers, M. A., & Maughan, R. (2000). Validation of student, principal, and self-ratings in 360 degree feedback for teacher evaluation. *Journal of Personnel Evaluation in Education*, 14(2), 179-192.
- ⁶ Stronge, J. H. (2006). Teacher evaluation and school improvement: Improving the educational landscape. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp.1-23). Thousand Oaks, CA: Corwin.

¹ Airason, P. W. & Gullickson, A. (2006). Teacher self-evaluation. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp. 187-211). Thousand Oaks, CA: Corwin.

² Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, I. H. & Carrier, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. Stronge, G. B. (2002). W. T. Tucker, P. D. (2

¹ Safer, N. & Fleischman, S. (2005). How student progress monitoring improves instruction. *Educational Leadership*, 62(5), 81-83.

² Langer, G.M. & Colton, A.B. (2005). Looking at student work. *Educational Leadership*, 62(5), 22-26.

³ Good, T. L., & Brophy, J. E. (2008). *Looking in classroom* (10th ed.). Boston: Allyn & Bacon; Martinez, P. (2001). *Great expectations: Setting targets for students*. London: Learning and Skills Development Agency.

⁴ Bloom, B. S. (1984). The 2 Sigma problem: The search for methods of group instruction as effective as one-to-one tutoring. *Educational Researcher*, 13(6), 4-16; Fuchs, L. S., & Fuchs, D. (2003). *What is scientifically-based research on progress monitoring?* Washington, DC: National Center on Student Progress Monitoring.

⁵ Stronge, J. H., & Grant, L. W. (2009). Student achievement goal setting: Using data to improve teaching and learning. Larchmont, NY: Eye on Education.

¹ Davis, D. R., Ellett, C. D., & Annunziata, J. (2002). Teacher evaluation, leadership and learning organizations. *Journal of Personnel Evaluation in Education*, *16*(4), 287-301. p. 288.

² Davis, D. R., et al. (2002). p. 288

³ Gordon, S. P. (2006). Teacher evaluation and professional development. In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nd ed.) (pp. 268-290). Thousand Oaks, CA: Corwin.

⁴ Gordon, S. P. (2002). *Professional development for school improvement: Empowering learning communities*. Boston: Allyn & Bacon; Gordon, S. P. (2006).

⁵ Gordon, S. P. (2006).

- ³⁹⁴ Cochran, K., DeRuiter, L., & King, R. (1993); Hill, H. C., Rowan, B., & Ball, D. L. (2005); Rowan, B., Chiang, F. S., & Miller, R. J. (1997); Shulman, L. S. (1987).
- ³⁹⁵ Weiss, I. R., & Miller, B. (2006, October); Wenglisky, H. (2000).
- ³⁹⁶ Harris, D. N., & Sass, T. R. (2007); Hill, H. C., Rowan, B., & Ball, D. L. (2005); Rowan, B., Chiang, F., & Miller, R. J. (1997); Moats, L. C., & Foorman, B. R. (2003).
- ³⁹⁷ Childs, A., & McNicholl, J. (2007).
- ³⁹⁸ Case, R. (1991).
- ³⁹⁹ Czerniak, C. M., Weber, W. B., Sandmann, A., & Ahern, J. (1999).
- ⁴⁰⁰ Hill, H. C., Rowan, B., & Ball, D. L. (2005).
- ⁴⁰¹ Schulman, L. S. (1987).
- ⁴⁰² Cochran, K., DeRuiter, L., & King, R. (1993).
- ⁴⁰³ Educational Review Office. (1998).
- ⁴⁰⁴ Educational Testing Service. (n.d.).
- ⁴⁰⁵ Langer, J. (2001).
- ⁴⁰⁶ Peart, N. A., & Campbell, F. A. (1999).
- ⁴⁰⁷ Covino, E. A., & Iwanicki, E. (1996).
- ⁴⁰⁸ McAllister, G., & Irvine, J. J. (2000).
- 409 Cruickshank, D. R., & Haefele, D. (2001).
- ⁴¹⁰ Weinsten, C., Curran, M., & Tomlinson-Clarke, S. (2003).
- ⁴¹¹ Merriam-Webster, Inc. (2006). p. 1387.
- ⁴¹² Buttram, J. L., & Waters, J. T. (1997).
- ⁴¹³ Borko, H., & Livingston, C. (1989).
- ⁴¹⁴ Leinhardt, G. (1993).
- ⁴¹⁵ Berliner, D. C. (2004).
- ⁴¹⁶ Au. W. (2007).

⁶ DiPaola, M. F., & Hoy, W. K. (2008). *Principals improving instruction: Supervision, evaluation, and professional development.* Boston: Pearson Education, Inc.

⁷ DiPaola, M. F. & Hoy, W. K. (2008).

⁸ Gordon, S. P. (2006).

¹MassPartners.(2000). *Unabridged study of systems for evaluating Massachusetts teachers*. Marlborough, MA: Massachusetts Partners for Public Schools.

²DiPaola, M. F., & Hoy, W. K. (2008). *Principals improving instruction: Supervision, evaluation, and professional development*. Boston: Pearson Education, Inc.

³Cited in Helm, V. M., & Maurice, H. S. (2006).Conducting a successful evaluation conference.In J. H. Stronge. (Ed.). *Evaluating teaching: A guide to current thinking and best practice* (2nded.) (pp. 235-252). Thousand Oaks, CA: Corwin.

⁴DiPaola, M. F. & Hoy, W. K. (2008).

⁵Adapted from Helm, V. M. & Maurice, H. S. (2006), pp. 240-241

⁶Helm, V. M. & Maurice, H. S. (2006). pp. 244-245

- ⁴¹⁷ David, J. L. (2008). p. 88
- ⁴¹⁸ Anderson, L. M., Evertson, C. M., & Brophy, J. E. (1979).
- ⁴¹⁹ Perrin, B., Banks, F., & Dargue, B. (2004).
- ⁴²⁰ Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., et al. (2005)
- ⁴²¹ Hammerness, K., et al. (2005)
- ⁴²² Parker, D. (1994).
- ⁴²³ Parker, D. (1994).
- ⁴²⁴ Hill. (1994), pp. 38-39, cited in Sharma, M. B. & Elbow, G. S. (2000).
- ⁴²⁵ Harap, H. (1955).
- ⁴²⁶ Stripling, B. K. (1999). p. 6
- ⁴²⁷ Misulis, K. (1997). p. 45
- ⁴²⁸ Jay, K. (2002); Good, T. L., & Brophy, J. E. (2002); Livingston, C., & Borko, H., (1989); Sabers, D. S., Cushing, K. S., & Berliner, D. C. (1991).
- ⁴²⁹ Haynie, G. (2006).
- ⁴³⁰ Allington, R. L., & Johnston, P. H. (2000).
- ⁴³¹ Borko, H., & Livingston, C. (1989).
- ⁴³² McEwan, E. K. (2002).
- ⁴³³ Haynie, G. (2006, April).
- 434 McEwan, E. K. (2002).
- ⁴³⁵ Haynie, G. (2006).
- ⁴³⁶ Marzano, R. J., Pickering, D. & McTighe, J. (1993).
- ⁴³⁷ Panasuk, R., Stone, W., & Todd, J. (2002).
- ⁴³⁸ Buttram, J. L., & Waters, J. T. (1997).
- ⁴³⁹ Allington, R. L., & Johnston, P. H. (2000).
- ⁴⁴⁰ Fuchs, L. S., Fuchs, D., & Phillips, N. (1994).
- ⁴⁴¹ Leigh, A. (2010); Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004); Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005).; Rowan, B., Correnti, R., & Miller, R. J. (2002); Stronge, J. H., Ward, T. J., Tucker, P. S., & Grant, L. W. (2011); Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008).
- ⁴⁴² Harris, D. N., & Sass, T. R. (2007).
- 443 Rowan, B., Correnti, R., & Miller, R. J. (2002).; Palardy, G. J., & Rumberger, R. W. (2008).
- ⁴⁴⁴ Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (1998, August).; Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005).
- 445 Munoz, M. A., & Chang, F. C. (2007).; Rockoff, J. E. (2004).
- ⁴⁴⁶ Bembry, K. L., Jordan, H. R., Gomez, E., Anderson, M. C., & Mendro, R. L. (1998, April).; Hattie, J. (2003).; Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008).
- 447 Cohen, D. K., Raudenbush, S. W., & Ball, D. L. (2003).
- ⁴⁴⁸ Tomlinson, C. A. (1999).

```
449 Dolezal, S. E., Welsh, L. M., Pressley, M., & Vincent, M. M. (2003).
```

⁴⁵⁰ Wenglinsky, H. (2002).

⁴⁵¹ Cotton, K. (2000).

⁴⁵² Berlliner, D. C. (1986); (2004).

⁴⁵³ Cawelti, G. (Ed.). (2004).; Walsh, J. A., & Sattes, B. D. (2005).

⁴⁵⁴ Schroeder, C. M., Scott, T. P., Tolson, H., Huang, T., & Lee, Y. (2007).; Wenglinsky, H. (2004).

⁴⁵⁵ Carlson, Lee, & Schroll, 2004

⁴⁵⁶ Walberg, 1984

⁴⁵⁷ Walberg, 1984

⁴⁵⁸ Schroeder, C. M., Scott, T. P., Tolson, H., Huang, T., & Lee, Y. (2007); Wenglinsky, H. (2004).

⁴⁵⁹ Stronge, J. H. (2007).

⁴⁶⁰ Guo, S., Tsai, C., Chang, F. M., & Huang, H. (2007).

⁴⁶¹ Walsh, J. A., & Sattes, B. D. (2005).

⁴⁶² Craig, J., & Cairo, L. (2005).

⁴⁶³ Stronge et al. (2008).

⁴⁶⁴ Wang, X. (2000).

⁴⁶⁵ Stronge, J. H. (2007).

⁴⁶⁶ Bradford, D. (1999); Lewis, A. (2001).

⁴⁶⁷ Wenglinsky, H. (2004).

⁴⁶⁸ Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003).

⁴⁶⁹ Hattie, J. (2003).

⁴⁷⁰ Goldhaber, D. (2002).

⁴⁷¹ See, for example, Allington, R. L. (2002); Darling-Hammond, L. (2000); Rowan, B. Coreenti, R., & Miller, R. J. (2002); Schacter, J., & Thum, Y. M. (2004); Stronge, J. H. (2007); Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008).

⁴⁷² Hattie, J. (2003). (2009).

⁴⁷³ Adapted from Hattie, J. (2003).(2009).

⁴⁷⁴ Langer, J. A. (2001).

⁴⁷⁵ Day, S. L. (2002).

⁴⁷⁶ Taylor, et al. (1999).

⁴⁷⁷ Pogrow, S. (2005).

⁴⁷⁸ Taylor, B. M., Pearson, P. D., Peterson, D. S., & Rodriquez, M. C. (2003).

⁴⁷⁹ Singham, M. (2001).

⁴⁸⁰ Pressley, et al. (2004); Taylor, et al. (2003).

⁴⁸¹ Tursman, C. (1981).

⁴⁸² Darling-Hammond, L. (2001); Educational Review Office. (1998).

- ⁴⁸³ Johnson, B. L. (1997).
- ⁴⁸⁴ Shellard, E. & Protheroe, N. (2000).
- ⁴⁸⁵ Covino, E. A., & Iwanicki, E. (1996).
- ⁴⁸⁶ Shellard, E., & Protheroe, N. (2000).
- ⁴⁸⁷ Cawelti, G. (1999); Cotton, K. (2000); Covino E. A., & Iwanicki, E. (1996); Good, T. L., &

Brophy, J. E. (2002); Tobin, K. (1980); Wang, M. C., Haertel, G. D., Walberg, H. J. (1993).

- ⁴⁸⁸ McDonald, F. J., & Elias, P. (1976).
- ⁴⁸⁹ Stronge, J. H. (2007).
- ⁴⁹⁰ Schalock, H. D., Schalock, M. D., Cowart, B., & Myton, D. (1993).
- ⁴⁹¹ Weiss cited in Hoff, D. J. (2003).
- ⁴⁹² Carolan, J., & Guinn, A. (2007). p. 44.
- ⁴⁹³ Tomlinson, C. A. (2003).
- ⁴⁹⁴ Cawelti, G. (Ed.). (2004).; Tomlinson, C. A. (1999).
- ⁴⁹⁵ Brighton, C. M., Hertberg, H. L, Moon, T. R., Tomlinson, C. A., & Callahan, C. M. (2005).
- ⁴⁹⁶ Covino, E. A., & Iwanick, E. (1996).
- ⁴⁹⁷ Kulik, J. A., & Kulik, C. L. C. (1992).
- ⁴⁹⁸ Stronge, J. H. (2007).
- ⁴⁹⁹ Dunn, R., Griggs, S., Olsen, J., Beasley, M. & Gorman, B. (1995).
- ⁵⁰⁰ Dunn, R., Griggs, S., Olsen, J., Beasley, M. & Gorman, B. (1995).
- ⁵⁰¹ Dunn et al. (2009).
- ⁵⁰² Dolezal, S. E., Welsh, L. M., Pressley, M., & Vincent, M. M. (2003).
- ⁵⁰³ Tomlinson, C. A. (2001).
- ⁵⁰⁴ Tieso, C. L. (2004); (2005).
- ⁵⁰⁵ Beck, C. (2001).
- ⁵⁰⁶ Adapted from Borich, G. D. (2011) and Beecher, M., & Sweeny, S. M. (2008).
- ⁵⁰⁷ Latz, A. O., Neumeister, K. L. S., Adams, C. M., & Pierce, R. L. (2009). p. 27.
- ⁵⁰⁸ Carolan, J., & Guinn, A. (2007).
- ⁵⁰⁹ Stiggins, R. J. (1999).
- ⁵¹⁰ Gronlund, N. E. (2006).
- ⁵¹¹ Tomlinson, C. A. (1999).
- ⁵¹² Gronlund, N. E. (2006).
- ⁵¹³ Black, P. J., & Wiliam, D. (1998).
- ⁵¹⁴ Black, P. J., & Wiliam, D. (1998).
- ⁵¹⁵ Wenglinsky, H. (2002).
- ⁵¹⁶ Stronge, J., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008).
- ⁵¹⁷ Cotton, k. (2000).

```
<sup>518</sup> Marzano, et al. (2001).
```

- ⁵²⁶ Borko, H., & Elliott, R. (1999); Shepard, L. A., & Dougherty, K. C. (1991); Thayer, Y. (2000); Vogler, K. E. (2002).
- ⁵²⁷ Hamilton, L., & Stecher, B. (2004); Jones, B. D., & Egley, R. J. (2004); Jones, G., Jones, B. D., Hardin, B., Chapman, L., Yardrough, T, & Davis, M. (1999); Stecher, B. M., & Mitchell, K. J. (1995).
- ⁵²⁸ Kerr, K. A, Marsh, J. A., Ikemoto, G. S., Darilek, H., & Barney, H. (2006).
- ⁵²⁹ Safer, N., & Fleischman, S. (2005).
- ⁵³⁰ Cauley, K. M., & McMillan, J. H. (2009); Popham, W. J. (2008).
- ⁵³¹ Natriello, G. (1987).
- ⁵³² Crooks, T. J. (1988).
- ⁵³³ Black, P. J. & Wiliam, D. (1998).
- ⁵³⁴ Kerr, K. A, Marsh, J. A., Ikemoto, G. S., Darilek, H., & Barney, H. (2006).
- ⁵³⁵ Fuchs, L. S., Deno, S. L., & Mirkin, P. K. (1984).
- ⁵³⁶ Tomlinson, C. A. (1999).
- ⁵³⁷ Fuchs, L. S. & Fuchs, D. (2003).
- ⁵³⁸ Stecker, P. M., Fuchs, L. S., & Fuchs, D. (2005).
- ⁵³⁹ LePage et al. (2005).
- ⁵⁴⁰ Stronge, J. H. (2007).
- ⁵⁴¹ Cauley, K. M., & McMillan, J. H. (2009).
- ⁵⁴² Chappius, S. & Stiggins, R. J. (2002).
- ⁵⁴³ Zacharias, N.T. (2007).
- ⁵⁴⁴ Hattie, J. (2003).
- ⁵⁴⁵ Wenglinsky, H. (2002).
- ⁵⁴⁶ Walker, M. H. (1998).
- ⁵⁴⁷ Danielson, C. (2002).
- ⁵⁴⁸ Tomlinson, C. A. (1999); Chappius, S., & Stiggins, R. J. (2002).
- ⁵⁴⁹ Fuchs, L. S. & Fuchs, D. (2003).
- ⁵⁵⁰ Fuchs, L. S. & Fuchs, D. (2003).
- ⁵⁵¹ Fraser, B. J., & Fisher, D. L. (1982); Ludtke, O., Robitzsch, A., Trautwein, U., & Kunter, M. (2009).

⁵¹⁹ Stronge, J. H. (2007).

⁵²⁰ Eisner, E. W. (1999).

⁵²¹ Gronlund, N. E. (2006).

⁵²² Stronge, J. H. (2007).

⁵²³ Black, P. J., & Wiliam, D. (1998); Stiggins, R., & DuFour, R. (2009).

⁵²⁴ Guskey, T. R. (2007).

⁵²⁵ Tomlinson, C. A. (2007).

- ⁵⁵² Hamre, B. K., & Pianta, R. C. (2005); Hattie, J. (2009); Pressley, M., Rapael, L., Gallagher, J. D., & DiBella, J. (2004).
- ⁵⁵³ Camron, C. E., Connor, C. M., Morrison, F. J., & Jewkes, A. M. (2008); Zahorik, J., Halbach, A., Ehrle, K., & Molnar, A. (2003).
- ⁵⁵⁴ Stronge, J. H. (2007).
- ⁵⁵⁵ Emmer, E. T., Evertson, C. M., & Worsham, M. E. (2003).
- ⁵⁵⁶ Marzano, R. J., Marzano, R. J., & Pickering, D. J. (2003).
- ⁵⁵⁷ Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994).
- ⁵⁵⁸ Good, T. L., & Brophy, J. E. (2002).; Cruickshank, D. R., & Haefele, D. (2001).
- ⁵⁵⁹ Corbett, D., Wilson, B., & Williams, B. (2002).; Johnson, B. L. (1997).
- ⁵⁶⁰ Carter, P. J. (2003).; Walls, R. T., Nardi, A. H., von Minden, A. M., & Hoffman, N. (2002).
- ⁵⁶¹ Education USA Special Report. (n.d.).
- ⁵⁶² Johnson, B. L. (1997).
- ⁵⁶³ Haberman, M. (1995).
- ⁵⁶⁴ Cruickshank, D. R., & Haefele, D. (2001).
- ⁵⁶⁵ Shellard, E., & Protheroe, N. (2000).
- ⁵⁶⁶ Cameron, C. E., Connor, C. M., Morrison, F. J., Jewkes, A. M. (2008); Stronge, J. H. (2007); Zahorik, J., Halbach, A., Ehrle, K., & Molnar, A. (2003).
- ⁵⁶⁷ Merriam-Webster, Inc. (2006). p. 1828.
- ⁵⁶⁸ Emmer, E. T., & Stough, L. M. (2001).
- ⁵⁶⁹ Emmer, E. T., & Stough, L. M. (2001). p. 105.
- ⁵⁷⁰ Hattie, J. (2003).
- ⁵⁷¹ Barney, D. (2005); Hamre & Pianta, (2005); Pressley, Raphael, Gallagher, & DiBella, (2004)
- ⁵⁷² Allington, R. L., & Johnston, P. H. (2000).
- ⁵⁷³ Emmer, E. T., & Stough, L. M. (2001).
- ⁵⁷⁴ Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). p. 76.
- ⁵⁷⁵ Cornell, D. G., & Mayer, M. J. (2010). p. 11
- ⁵⁷⁶ Coetzee, M., & Jansen, C. (2007).
- ⁵⁷⁷ Anderson, G. J. (1970). p. 135
- ⁵⁷⁸ Moos, R. H. (1973).
- ⁵⁷⁹ Sinclair, B. B., & Fraser, B. J. (2002).
- ⁵⁸⁰ Cohen, E. G. (1994); Jensen, M., Johnson, D. W., & Johnson, R. T. (2002); LePage, et al. (2005); Slavin, R. E. (1990).
- ⁵⁸¹ Tschannen-Moran, M. (2000). p. 4
- ⁵⁸² Haertel, G. D., & Walberg, H. J., & Haertel, E. H. (1981).
- ⁵⁸³ Byer, J. L. (1999).
- ⁵⁸⁴ Byer, J. L. (2002).

- ⁵⁸⁵ Patrick, H., Ryan, A. M., & Kaplan, A. (2007); Ryan, A. M., & Patrick, H. (2001).
- ⁵⁸⁶ Adapted from Coetzee, M. & Jansen, C. (2007).
- ⁵⁸⁷ Stronge, J. H. (2007).
- ⁵⁸⁸ Hamre, B.K. & Pianta, R.C. (2005).
- ⁵⁸⁹ Hamre, B. K., & Pianta, R. C. (2005).
- ⁵⁹⁰ Barney, D. (2005).
- ⁵⁹¹ Pressley, M., Rapael, L. Gallagher, J. D., & DiBella, J. (2004).
- ⁵⁹² Cornelius-White, J. (2007).
- ⁵⁹³ Allington, R. L., & Johnston, P. H. (2000).
- ⁵⁹⁴ Emmer, E. T. & Stough, L. M. (2001). p. 105
- ⁵⁹⁵ Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994). p. 76
- ⁵⁹⁶ Taylor, B., Pearson, P. D., Clark, K. F., & Walpole, S. (1999).
- ⁵⁹⁷ Emmer, E. T., & Stough, L. M. (2001).
- ⁵⁹⁸ Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003).
- ⁵⁹⁹ Stronge, J. H. (2007).
- 600 Stronge, J. H., Tuckers, P. D., & Ward, T. J. (2003).
- ⁶⁰¹ Emmer, E. T., Evertson, C. M., & Worsham, M. E. (2003).
- 602 Cameron, C. E., Connor, C. M., Morrison, F. J., Jewkes, A. M. (2008).
- 603 Kunter, M., Baumert, J., & Koller, O. (2007).
- ⁶⁰⁴ Stronge, J. H., Ward, T. J., Tucker, P. D., & Hindman, J. L. (2008).
- 605 Luiselli, J. K., Putnam, R. F., & Sunderland, M. (2002).
- 606 Walker, H. M., Ramsey, E., & Gresham, F. M. (2003/2004, winter).
- ⁶⁰⁷ Goldstein, S. (1995).
- ⁶⁰⁸ Evans, I. M., Harvey, S. T., Buckley, L., & Yan, E. (2009).
- ⁶⁰⁹ Evans, I. M., Harvey, S. T., Buckley, L., & Yan, E. (2009).
- 610 Schoen, L. T. (2008).
- ⁶¹¹ Fraser, B. (1989); Fraser, B. J. & Fisher, D. L. (1982); Goh, S. C., Young, D. J., & Fraser, B. J. (1995); McRobbie, C. J. & Fraser, B. J. (1993).
- 612 Miller-Cribbs, C. S., Davis, L., & Johnson, S. (2002).
- 613 Barth, J. M., Dunlap, S. T., Dane, H., Lochman, J. E., & Wells, K. C. (2004).
- 614 Evans, I. M., Harvey, S. T., Buckley, L., & Yan, E. (2009).
- 615 Emmer, E. T., & Stough, L. M. (2001).
- ⁶¹⁶ Cruickshank, D. R., & Haefele, D. (2001); Good, T. L., & Brophy, J. E. (1997); Marzano, R. J., Marzano, R. J., & Pickering, D. J. (2003).
- ⁶¹⁷ Corbett, D., Wilson, B., & Williams, B. (2002); Johnson, B. L. (1997); Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994).
- 618 Schoen, L. T. (2008). pp. 38-39

- ⁶¹⁹ Emmer, E. T., & Stough, L. M. (2001); Wang, M. C., Haertel, G. D., & Walberg, H. J. (1994).
- 620 Kuh, G. (2003).
- 621 Good, T., & Brophy, J. E. (2002).
- 622 Wentzel, K. R. (2002).
- 623 Rubie-Davies, C. M. (2006).
- ⁶²⁴ Fuchs, L. S., Fuchs, D., & Phillips, N. (1994).
- 625 Hauser-Cram, P., Sirin, S. R., & Stipek, D. (2003).
- 626 Tyler, C. (2006).
- 627 Borman, G., Strongfield, S., & Rachuba, L. (2000); Ferguson, R. F. (1998).
- 628 Borman, G., Strongfield, S., & Rachuba, L. (2000).
- 629 McKnown, C., & Weinstein, R.S. (2008).
- 630 Ferguson, R. F. (1998).
- 631 Warren, S. R. (2002).
- ⁶³² Cotton, K. (2001).
- ⁶³³ Babad, E., Bernieri, F., & Rsosenthal, R. (1991); Gottfredson, D.C., Marciniak, E.M., Birdseye, A. T., & Gottfredson, G. D. (1995).
- 634 McKnown, C., & Weinstein, R.S. (2008).
- 635 Cotton, K. (2001).
- 636 Hauser-Cram, P., Sirin, S. R., & Stipek, D. (2003).
- ⁶³⁷ The role of teacher professionalism in education. (n.d.).
- 638 Fullan, M. G. (1993).
- 639 Adapted from Fullan, M. G. (1993).
- 640 Carr. D. (2009).
- ⁶⁴¹ Vartuli, S. (2005).
- 642 Carr, D. (2009).
- ⁶⁴³ Cassidy W., & Bates, A. (2005); Chaskin, R. J., & Rauner, D. M. (1995); Nodding, 1992
- 644 Noblit, G. W., Rogers, D. L., & McCadden, B. M. (1995).
- 645 Peart, N. A., & Campbell, F. A. (1999).
- 646 Walls, R. T., Nardi, A. H., von Minden, A. M., & Hoffman, N. (2002).
- 647 Lumpkin, A. (2007).
- ⁶⁴⁸ Cassidy & Bates, (2005).
- ⁶⁴⁹ Carter, P. J. (2003).
- 650 Collison, Killeavy, & Stephenson, 1998.
- 651 Aronson, R. (2001); Corbett, D. & Wilson, B. (2004); Engel, D. E. (1994); Ferguson, R. F. (2002).
- 652 Lumpkin, A. (2007); Walls, R. T., Nardi, A. H., von Minden, A. M., & Hoffman, N. (2002).
- 653 Goddard, R. G., Hoy, W. K., & Hoy, A. W. (2004); Hoy, W., Tarter, J., & Hoy, A. W. (2006).

- 654 Kunter, M., et al., (2008); Patrick, B. C., Hisley, J., Kempler, T., & College, G. (2000).
- 655 Stronge, J. H., et al. (2008).
- 656 Noblit, G. W., Rogers, D. L., & McCadden, B. M. (1995).
- 657 Comedena, M.E., Hunt, S.K., & Simonds, C.J. (2007); Wentzel, K. R. (1997).
- 658 Lumpkin, A. (2007), p.160
- 659 Kunter, M., et al., 2008, p. 470).
- 660 Long, J. F., & Hoy, A. W. (2006).
- ⁶⁶¹ Patrick, B. C., et al. (2000).
- ⁶⁶² Kunter et al., (2008).
- 663 Bettencourt, Gillett, Gall, & Hull, (1983); Mastin, (1963).
- 664 Hoy, W., Tarter, J., & Hoy. A. W. (2006).
- 665 Bandura, A. (1997); Schwarzer, R., & Hallum, S. (2008); Tschannen-Moran, M., & McMaster, P. (2009).
- ⁶⁶⁶ Goddard, R. G., Hoy, W. K., & Hoy, A. W. (2004); Shahid, J., & Thompson, D. (2001); Tschannen-Moran, M., & McMaster, P. (2009).
- ⁶⁶⁷ Fullan, M. G. (1993).
- 668 Yoon, K. S., Duncan, T., Lee, S. W., Scarloss, B., & Shapley, K. L. (2007, December).
- ⁶⁶⁹ Cercone, K. (2008).
- ⁶⁷⁰ Hammerness, et al. (2005), p.385
- ⁶⁷¹ Adapted from Hammerness., et al. (2005).
- ⁶⁷² Stronge, J. H. (2007).
- ⁶⁷³ Valli, L. (1997).
- 674 Jay, J. K. (2003); Spalding, E. & Wilson, A. (2002); Stronge, J. H. (2007).
- ⁶⁷⁵ Little, J. W. (1993).
- 676 Stronge, J. H. (2007).
- ⁶⁷⁷ Danielson, C. (2001); Guskey, T. R. (2002).
- ⁶⁷⁸ ISTE research reports. (n.d.).
- ⁶⁷⁹ School Board News. (1997); Camphire, G. (2001).
- ⁶⁸⁰ Collinson, V., Killeavy, M., & Stephenson, H. J. (1999).
- ⁶⁸¹ Fullan, M. G. (1993).
- ⁶⁸² Rowan, B., Chiang, F. S., & Miller, R. J. (1997); Strauss, R. P., & Sawyer, E. A. (1986).
- ⁶⁸³ Cornett-DeVito, M., & Worley, D. W. (2005).
- ⁶⁸⁴ Worley, D., Tistworth, S., Worley, D. W., & Cornett-DeVito, M. (2007).
- ⁶⁸⁵ Sachs, J. (2001).
- ⁶⁸⁶ Fullan, M. G. (1993).
- ⁶⁸⁷ Catt, S., Miller, D., & Schallenkamp, K. (2007).
- ⁶⁸⁸ Sachs, J. (2001).

⁶⁸⁹ Fullan, M. G. (1993).

⁶⁹⁰ Peters, S., & Reid, D. K. (2009).

⁶⁹¹ National Association of Secondary School Principals (NASSP). (1997); Peart, N. A. & Campbell, F. A. (1999).

⁶⁹² Covino, E. A., & Iwanick, E. (1996); Emmer, E. T., Evertson, C. M., & Anderson, L. M. (1980).

⁶⁹³ Rockwell, R. E., Andre, L. C., & Hawley, M. K. (1996).

⁶⁹⁴ Swap, S. A. (1993).

⁶⁹⁵ Collinson, V., Killeavy, M., & Stephenson, H. J. (1999).

⁶⁹⁶ Epstein, J. L., & Sheldon, S. B. (2002); Fan, X., & Chen, M. (2001); Hill, N. E., & Tyson, D. F. (2009); Hong, S., & Ho, H. (2005); Jeynes, W. H. (2005); Jeynes, W. H. (2007); LePage, P., et al. (2005); Sheldon, S. B., & Epstein, J. L. (2002); Sui-Chu, E. H., & Willms, J. D. (1996).

⁶⁹⁷ Epstein, J. L. (1995).

⁶⁹⁸ Anderson, K. J., & Minke, K. M. (2007).

⁶⁹⁹ Epstein, J. L. (1995); Epstein, J. L. (2001).

⁷⁰⁰ LePage, P., et al. (2005).