

# Interactive Whiteboards: A Universal Learning Tool

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**Imagine the Possibilities!!!!!!!!!!!!!!**

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# Utilize Professional Learning Model

- Four critical components have been studied that factor into a successful professional development plan ( Dr. J. David Cooper)
- The components are:
  1. Theory
  2. Demonstration
  3. Practice and Feedback
  4. Coaching and Follow-up

# Interactive Whiteboards



# Interactive Whiteboards

- Students stay positively engaged.
- Supports different learning styles.
- Easier access for students with poor fine motor skills and/or hearing and vision impairments.
- Positively impacts behavior and learning goal achievement.
- Boosts students' self-esteem, confidence, and willingness to take risks.
- Allows for differentiated instruction.

## How can an interactive whiteboard be used in a learning environment?

- Manipulating text and images
- Viewing websites as a group
- Using software without being tied to a computer
- Creating digital lesson activities with templates, images and multimedia
- Showcasing student work
- Encouraging student-led learning
- Fostering peer to peer interactions
- Assessing student growth

# How do interactive boards help special needs?

- Learning/Intellectual Disabilities
- Behavior Disorders
- Visually Impaired
- Hearing Impaired
- Physically Impaired

# Learning/Intellectual Disabilities

- Virtual Manipulatives
- Text to Speech
- Highlighting Tools
- Desktop Annotation
- Graphic Organizer Template
- Text Manipulation
- Visual Imagery
- Self Checking Capabilities

# Behavior/ADD

- Multiple Ways to Interact with Lesson
  - Activboard via the Activslate or Activote
- Allows for Positive Peer Interaction
- Allows Movement
- Multisensory Approach to Learning

# Visually Impaired

- Change Background Colors
- Record Lessons for Playback
- Enlarge Text and Graphics
- Activprimary (Highly Graphical Interface)

# Hearing Impaired

- Display/Print Teacher Notes and Instructions
- Incorporates Multimedia and Graphics
- Greater Volume Adjustment

# Physical Impaired

- Touch Capabilities
- Add-on Tools for Accessibility
  - *Activwand- For shorter or wheelchair bound students.*
  - *Activslate- Students with restricted movement can participate from their seats.*
  - *Activpanel- Using a special pen on the panel screen, students can interact with the lesson on the classroom board.*

# Supporting Research

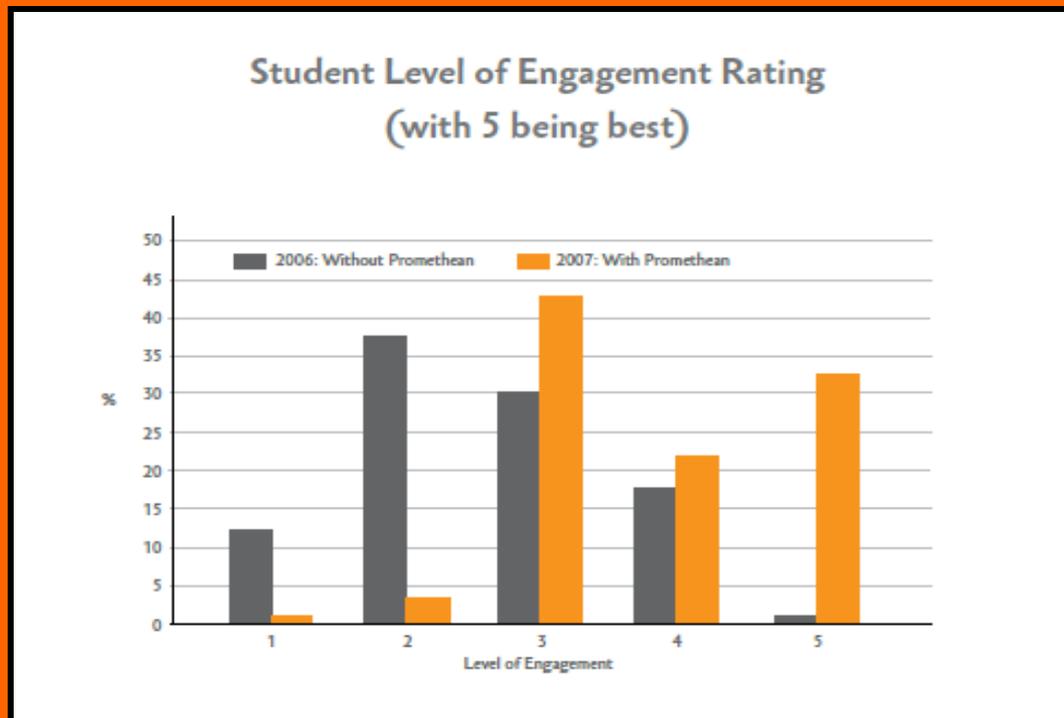
## **Toronto Public Schools Evaluation Study**

Themes: Collaboration & Personalization; Education Continuum; Student Achievement

The Toronto District School Board's Special Education Department conducted a study to evaluate the effect of Promethean's education solutions and services on students with special learning needs. The study included nearly 300 students in 15 schools ranging from Elementary, Middle and Secondary levels. The attitudinal data clearly showed that the utilization of Promethean's solutions had a significantly positive effect in every student learning indicator measured. The findings also illustrate a substantive decrease in the indicators measuring behavioral issues that impede student learning.

# Supporting Research

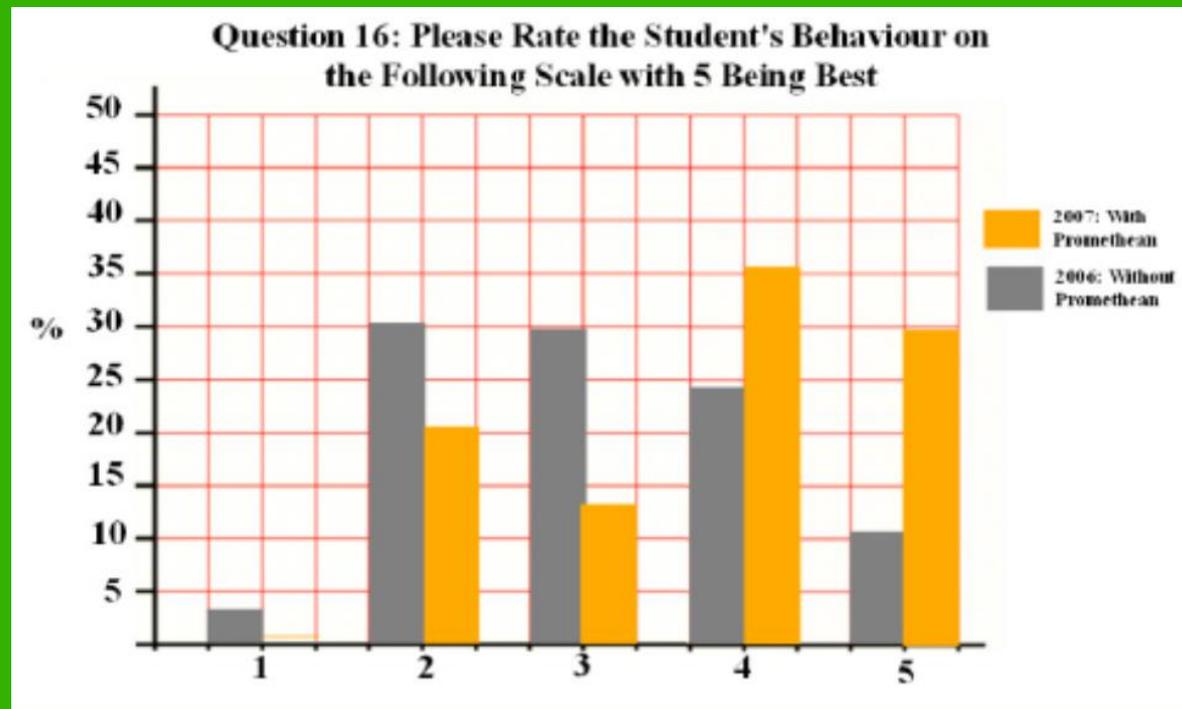
Levels of engagement with the board  
Level 1 category decreased to 0%  
Level 5 category increased 30.8%



# Student Behavior

## Positive Behavior Interaction

Level 4 increased by 10% and Level 5 – increased by 20%



# Supporting Research

A similar study titled “SMART Inclusion Pilot Project” was conducted in Canada in 2008.

- Teachers reported that they were doing “more teaching, less behavior management” *with the entire class*.
- There were significant decreases in referrals to the school office.
- Students whose behavior had significantly impacted classroom participation and learning in previous years had fewer serious behavioral incidents.

# Supporting Research

- Special needs students were reported to show the following gains when compared to the previous school year:
  - More engagement
  - Greater participation in classroom activities with peers
  - Ability to meet their Individual Education Program (IEP) goals sooner than expected
  - Demonstrated growth in their speech and language skills

# Planning and Implementation

- The AT Staff determined the most appropriate whiteboard to purchase. One of the most important components was the ability of the students being able to access the board through touch.
- After careful review, two research based software products were purchased. The two products were Boardmaker Studio and Intellitools Classroom Suite.
- Designed a six session class that was mandated for teachers receiving the whiteboard and selected software.
- Developed agendas which included demonstration, practice and feedback, and coaching and follow-up.

# How does utilizing an interactive board support UDL? What does it look like in our classrooms?

- Multiple Means of Representation- Gives students the opportunity to acquire information in a variety of ways. Students experience concepts through text, graphic and sound instruction.
- Multiple Means of Action and Expression: Give students the opportunity to demonstrate their knowledge in various ways.
- Multiple means of engagement: Provide children with challenges and motivation to learn. Information is presented at the student's learning pace keeping the interest level high.

# Demonstration

- In the first four classes, the participants were taught to use the Promethean boards, Active Inspire, Boardmaker Studio and Classroom Suite.
- Classes were held in our computer lab, so that the teachers had hands-on instruction.
- Teachers also were given time to go to the share sites that each software product has and register and search the sites for materials that were already created.

# ActivInspire

- A free download available to whiteboard users
- Transforms traditional, lecture-based classrooms into learning environments infused with imaginative, interactive experiences
- Designed to foster collaboration and active learning
- Promethean Planet provides free access to a site where teacher share activities they have created. There are over 90,000 resources available.

<http://www.prometheanplanet.com>

# ActivInspire

**ActivInspire**



TheActivClassroom

# Money Found on Promethean Planet

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# Fraction Flip Chart- ActivInspire

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# Boardmaker Studio and Intellitools Classroom Suite

Both products support different learning styles by including:

- 1. Text
- 2. Graphics
- 3. Animation
- 4. Onscreen Manipulation
- 5. Speech Output
- 6. Recorded Sound

Both Boardmaker Studio and Classroom Suite have free access to sites where teachers can share activities they have created.

<https://www.boardmakerachieve.com/>

<http://aex.intellitools.com/home.php?ref=%2Fmain.php>

# Boardmaker Studio



# Graphing with Boardmaker

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# Dice Addition with Boardmaker

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# Intellitools Classroom Suite

The screenshot shows the Administrator interface for the Intellitools Classroom Suite. The interface is divided into several sections:

- Administrator**: Located in the top left corner.
- CLASSROOM SUITE by INTELLITOLS**: The main title and logo, featuring a stylized 'i' icon composed of four colored squares (purple, blue, orange, and red).
- Curriculum Activities**: A section on the left with a silhouette of a person holding books. It includes buttons for:
  - Templates
  - Creativity Tools
  - Published Activities
  - My Work
- Classroom Management**: A section on the right with a silhouette of a person sitting at a desk with a laptop. It includes buttons for:
  - Assignments
  - View Reports
  - Portfolios
  - Teacher Options
- Activity Exchange**: A section at the bottom left with a circular icon containing the letters 'iti'.
- Learn About Classroom Suite**: A section at the bottom right with a circular icon containing a question mark.
- Navigation**: At the bottom left, there are buttons for 'Quit' and 'Sign Out'. At the bottom right, there is a small square icon with a question mark.

# Phonics with Classroom Suite

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# Practice and Feedback

- After each class, the teachers were given an assignment to create a new activity and video the lesson that they did using this activity with the interactive white board.
- The group of teachers in the class watched the videos and provided both positive feedback and suggestions to improve instruction.

# Coaching and Follow-up

Two additional sessions were added to the workshop to give participants time to work collaboratively to create activities to support the adapted curriculum utilized in their classroom. These sessions were during the school day. The teachers felt that these sessions were of great benefit. They had the opportunity to share activities and provide feedback as to the best ways to integrate the whiteboard and software in their lessons. They also felt that having technology support available while creating activities increased their confidence in implementing the technology in their classrooms.

# Other Resources for Interactive Activities

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# Review

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# Free (or Inexpensive) Resources

- Tarheel Reader- [www.tarheelreader.org](http://www.tarheelreader.org)
- Hiyah- [www.Hiyah.net](http://www.Hiyah.net)
- Priory Woods-  
[www.priorywoods.middlesbrough.sch.uk](http://www.priorywoods.middlesbrough.sch.uk)
- Goodwill- [www.gcflearnfree.org](http://www.gcflearnfree.org)
- Sheppard Software- [www.sheppardsoftware.com](http://www.sheppardsoftware.com)
- Tumblebooks- [www.tumblebooks.com](http://www.tumblebooks.com)
- Lakeshore Interactive Whiteboard Software
- Choose It Literacy Series
- Reading A-Z
- Read It Once Again

# The “Experts” Say.....

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