

Smart Inclusion Adventures in the Classroom

By Peggy Roy, Tania Mason and Heather Snider

We had an idea we might be on to something good when one day, two eight-year-old boys came in from playing hard on the yard at recess. One boy looked up at the visual schedule posted in the room to see what was up next in the classroom and exclaimed, “All right! Language!”

that originated as a method to program for 12 students with severe communication challenges in a combination of regular and system classes within the district. This initiative examined the use of SMART Boards (www.smarttech.com) with what has historically been thought of as “special needs software,” set within a framework of Universal Design for Learning (UDL), Differentiated Instruction (DI), Aided Language Stimulation, and the Participation Model (PM) to support communication and participation for students with significant communication disabilities and inclusive educational programming. Since then, UCDSB teams have broadened their Universal Design for Learning Toolkits to include other mainstream educational technologies, including iPads, Nintendo DSi and SMART Tables. We continue to monitor implementation and effects of Smart Inclusion on not only our students but on our school staff – including teachers, educational assistants and principals – by using action research principles as more and more classrooms, schools and districts, look to support a program for students with significant disabilities and their typically developing peers.

This excitement and enthusiasm has been expressed by students and staff alike at Upper Canada District School Board in Ontario, Canada. In 2008-2009, an Upper Canada District School Board (UCDSB) team created Smart Inclusion, an idea



From left to right: Peggy Roy, Educational Assistant, Tania Mason, Learning Resource Coach, Heather Snider, Classroom Teacher from Glen Tay School, Perth, Ontario Canada

ABOUT THE AUTHORS

Glen Tay School is a Kindergarten to Grade 8 elementary school located just outside of Perth, Ontario, Canada, about an hour from Ottawa. It is a rural school of about 220 students. The school is one of two schools in the Board chosen to be a Smart Inclusion school.

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HEATHER SNIDER has 25 years of experience teaching Kindergarten, Grade 2 and Grade 3. She has her primary and reading specialist qualifications.

TANIA MASON is a teacher presently working as a classroom teacher and learning resource coach with the Upper Canada District School Board, working with teachers and students in Kindergarten to Grade 8. Tania has additional qualifications in Reading Recovery and Computers in the Classroom and is a specialist in Special Education. She is one of UCDSB's lead SMART Inclusion teachers at Glen Tay School.

This is our third year of adventuring with Smart Inclusion in the classroom at Glen Tay School. Each year we have tried to build new skills as educators and refine our use of the technology available and our teaching practices in order to meet the needs of all learners in the classroom. This year, we have tried to step out of the way of our students by turning the technology over to them more often, giving them the opportunity to collaborate and create. We have challenged ourselves to create projects that will offer students opportunities to learn and produce work that has real purpose and an authentic audience. We also wanted to continue to look for innovative ways to use technology in the classroom to both engage students and find ways to accommodate their needs. As a means of bringing higher level thinking into story retells, we decided to create an interactive story.

To start this process, the children took a familiar story and retold the main events. To do this, the students used the Story Stage application (http://education.scholastic.co.uk/story_stage) on the SMART Table (<http://smarttech.com>), where they were able to read, listen to or watch the story Goldilocks and the Three Bears. Because the application allowed the choice of three modes to make the story available, learners with different reading abilities were able to participate together at the same learning center. Students then worked collaboratively to retell the story using the application's 'create' option. Here they were able to easily drag in characters, objects and settings and then add animation and sound to retell the story. Using a familiar story helps the students concentrate on the retelling skills they are developing.

Looking ahead at the end product, we realized that the children would want to add sound to make it truly interactive. In order to do this, the students needed to learn to use Audacity (<http://audacity.sourceforge.net/>) to create MP3 sound files and then had to learn how to create links to these files in Notebook (www.smattech.com). To do this, we selected a team of "student experts" who met with the Learning Resource Coach to learn the necessary steps. Each day during Literacy time, the SMART Board (www.smarttech.com) became another station in the classroom. The teacher recorded a question relating to a story read during shared reading or read aloud where the students were asked to identify how one event in the story could have been changed. One of the "student experts" then helped the other students learn to record a response and link it to their photograph on a response page on the SMART Board in Notebook. Our student with severe apraxia was also able to successfully participate. He used his Super Talker



Students share ideas to create idea web in Kidspiration.

(ablenetinc.com) voice output device that was pre-programmed with vocabulary to record his message alongside his peers.

We chose to have the interactive story follow a Choose Your Own Adventure format. The students, therefore, needed an example so we located an iPad app called Decide Your Own Adventure. This app has a number of stories that allow the reader to make choices throughout the story to further the plot. We displayed the story on the SMART Board using our document camera during shared reading. Then later, the students had hands-on time with the iPad (www.apple.com) at a Literacy station.

As a means of setting the stage for our own adventure story, the teacher shared the story Little Bear's Christmas by Norbert Landa, during read aloud. In the story, Bertie's friends tell him all about Christmas. Being a bear, he always misses that season because he is hibernating, so he sets an alarm clock to wake him in time for Christmas. It was at this point that we thought the story could go in different directions. The students were put in groups and each group was asked to pick a season that Bertie could wake up in. Their task was to re-write a portion of the story assuming the alarm clock goes off at a different time.

Using laptops in the classroom and Kidspiration (www.inspiration.com/Kidspiration), the teams set out to plan their adventures. Each team brainstormed a web of ideas to plan out the plot for their portion of the story. Once the story plan had been approved by the teacher, the students began typing the text for their stories. Some students used WordQ, (<http://www.goqsoftware.com>) word prediction software to help with spelling, others required a scribe. Even with these accommodations, this was a task beyond the capabilities of one of our students with special needs. However, this

student was not excluded from the activity. For this student, we created a bank of pictures in Notebook using the gallery. His task was to retell the beginning of the story by dragging in the pictures and objects he needed for each page to retell the story pictorially.

Once the plot was decided, the groups then set out to design the pictures for the book by creating backgrounds and locating objects and characters to use from the Notebook gallery or the Internet. One student asked about using animations in Notebook. In no time the idea spread like wildfire as the other groups caught on and began using them, too. They also used the skills they had learned earlier in the project to add sounds and conversation links to their pages. One student with severe speech delays was able to participate by adding some of his own recorded words and by choosing sound files from the Internet.

Once the story had been completed, the real excitement began! We contacted two other classes at two different schools in our school board and arranged to share our story with them. Using Adobe Connect (<http://www.adobe.com/products/adobeconnect.html>), we shared out our SMART Board screen onto the SMART Boards in the other classrooms. Students, who were able, read passages, while others showed off the interactive features they had created. Students from the other classes were invited to choose the seasons throughout the story. Hearing the other classes' responses in real time was an instant reward for all of the hard work done by all!

"How did these ideas get started?" asked the classroom teacher as we tried to sort through the beginnings of our journey through this project. It began with a trust placed in us that we were using the Universal Design for Learning Toolkit to do some good things for



Students collaborate at Smart Board using SMART Notebook to create pictures and interactive features for book pages.



Using Adobe Connect, class shared their story with a class at Oxford on Rideau PS. Student in the center is reading into the microphone.

kids in our classrooms. We were given a gift of release time that allowed us to spend a morning together planning how we could best put the technology to use and help meet the curriculum expectations we had chosen.

It started with a collaborative inquiry by a team made up of our principal, a classroom teacher, two learning resource coaches and a trainer from Advanced Presentations. Earlier in the year we had decided, as a team, to narrow the focus of our inquiries to improving reading. The classroom teacher was working next on the reading strategy Determining Important Ideas. As a team, we worked together to plan out how we could include technology to assist and engage students. The true power of this collaboration was the explosion of ideas that were generated by brainstorming and then building on them together.

Through the use of the Participation Model, we have worked to become more aware of how it is necessary to plan ahead for the inclusion of our special needs students. We need to discover the barriers that may exist in the activities we have created for our students and then work as a team to find ways to modify the activity or accommodate needs using any resources we have available that might meet the need so all students can experience success. It is a careful dance of knowing when to step in to help in order to teach, when to have peers assist to build inclusion and when to push for students to try on their own to build independence. It also takes a lot of work to investigate the right

technology and create the activities using various types of software that may help build skills and independence. Time also has to be spent on guiding the other children to interact supportively with one another.

"You've got to be kidding!" was one team member's response to the project when it was first proposed and the expectation was set that all students in the class would participate. Making this happen took a team. Our immediate team consisted of a classroom teacher, an educational assistant and a learning resource coach. We collaborated and made adjustments on a daily basis. We were supported by our colleagues within our building, as well as a system level team of speech and language pathologists, behaviorists, occupational therapists and our information technology team, who we met with less often, but were an integral part of our understanding of the children we work together to serve, and the resources they require.

The members of this team needed to be on the same page in their acceptance of inclusion. They needed to be ready to invest the time it took to learn the technology and different software best suited for each need in the room. It took a lot of extra time in the beginning, but as we became familiar with the technology, it became easier and faster until we got to the point where we started to think, "How can I make this work for my students?" It became a different way of thinking and planning that started to happen automatically.

We are trying to teach differently in the classroom to meet the needs of ALL learners. Although we have a wide range of students with special needs at our school, their needs were not discussed as the focus of the article because our focus is not to make their needs stand out, but rather enabling students with special needs to take their rightful place alongside same-aged peers as part of an inclusive classroom community, "welcoming everyone, all the time, everywhere" (Pat Mirenda).

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For further information about Smart Inclusion visit us at smartinclusion.wikispaces.com or contact Alexandra Dunn, SLP via e-mail at Alexandra.dunn@ucdsb.on.ca

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