

Using Smart Ideas: Leadership Roles and Impact on Student Learning and Teacher Practice

By Darlene Nagy

Introduction:

One of the main concerns I have as a junior teacher is how to help students who struggle in writing succeed. In my experiences I find that students have difficulty generating ideas and simply writing them down. Students with learning disabilities have an even more difficult time when writing. How do I help these students and lessen the frustration they feel when asked to write at school?

I signed up for a technology course to learn how to implement organizational writing software into the classroom. The tool that was most effective was Smart Ideas: a valuable mind mapping tool. The tool worked in my classroom. Students successfully organized their ideas and were able to write a paragraph. Without further hesitation, I began to focus on professional development within my school.

The Focus:

The question was clear. ***How can I take a leadership role in my school using Smart Ideas, assisted oriented software, in a way that will impact upon student learning and teacher practice in the writing strand of the curriculum?*** The rationale behind the investigation is that I am interested in improving the writing ability of junior students in my school. I am a junior teacher and I have several students in my class and in a Student Support Class (SSC) setting that are on Individual Education Plans. My goal was to try to do some professional learning and development around technology tools that already exist and are under-utilized in classrooms. From my experience, I have noticed that many teachers do not implement software like Smart Ideas into every day writing activities. My hopes are to encourage the students to use these tools on a regular basis. I have surveyed teachers and came to the conclusion that this is a need in our school. The focus of my investigation was to introduce the tech tool Smart Ideas to the new junior Special Education Resource Teacher (SERT) at my school. She is well versed in Special Education initiatives but has confessed that she lacks some technology skills. My focus was to introduce her to some Assistive Technology programs such as WordQ and Kurzweil, but demonstrate the effectiveness of Smart Ideas so that she could use it with her students for their writing activities.

The main objective of the investigation answered 2 questions:

1. Will the teacher learn how to use the tool and use it effectively?
2. Will students be successful in using the tool?

My first step in this project was to survey the junior teachers in the school and find out what their comfort levels were in using technology. The focus of the project was to slowly introduce some tech tools to the teachers in the hope that we could provide the students with some assistive technology tools that they could incorporate into their learning. My aim was to target the grades 4, 5, and junior SERT and provide them with some professional development in this area.

Ms. D was a perfect candidate for the research. She is the junior SERT and she is new to the school. She does not have any past knowledge of the current students which means she will be looking at growth and development with a 'fresh' perspective. She stated that she lacks technology skills especially with SEA computers and software. By focusing only on one teacher, I believe that I can concentrate on her professional learning and initiate a small change initiative in her teaching. She is also very willing to participate and is looking forward to learning a new tech tool.

We would work specifically with the junior SSC students. There are only eight students in a small classroom. We would like to find out whether they enjoyed using the tool. We would ask questions at the end of the assignments about whether the tools were easy to use. Other questions such as: Was there growth within the students' writing? Were the tools useful for the students?

We had to choose which tool to use with the students. We decided together to use Smart Ideas because we were both in the midst of planning assignments that would 'fit' with the use of these programs. Also, several students seem highly engaged when working with the computers. We have several boys who are on SEA laptops and they use them all of the time. This swayed our decision to use this tool to help guide the students' writing.

Smart Ideas- What is it?

I chose to look at Smart Ideas as a program that I feel has great value in a classroom and is accessible to all York Region students. It benefits students with learning disabilities such as students with difficulties with receptive language (reading, writing) and language processing skills (thinking and conceptualizing) and expressive language difficulties. It also helps develop organizational skills. It is an essential assistive technology tool for every student to learn how to organize their writing. Essentially it is a program that is part of Smart Board Technologies. It is a concept-mapping software. It helps students brainstorm ideas in a colourful, creative way. Accessibility is great because it is licensed by the Ontario Ministry of Education. Although I have been exposed to this program, I was surprised at how many teachers that I have talked to that had *no idea* that it existed and that it is available to all our students! The other

reason I chose this program is that I feel that even though some of teachers have seen the program, I want teachers to ask ourselves if we use the software to its **full potential**.

I can only guess that most teachers have had students who can't think of anything to write when given a writing task. This program allows those students to write one word and then click and join their ideas together. Soon, the student ends up with a strand of linked connections that enable them to piece a story or research together. It is a graphic organizer on the computer. It is a good program since those kids who 'lump' facts together can now colour-code the information as well to eventually put their ideas into organized paragraphs. Smart Ideas is easy to use and, from my experience, the students enjoy it. The students don't often get bored with it since there are a variety of templates available for them to enjoy. This program is also interactive with the Smart Board.

Even though I have used this program in my class, I admit that I think that sometimes I don't use it to its full potential. Most students use it for organizing their ideas which is great but there is a next step to using the program. I have found in my experience that the students produce a wonderful graphic organizer and if that is the intention of the teacher then it has done the job for the student. However, this program can provide many layers to students' thinking. The initial idea is on the first map but then students can click on one topic and add more ideas to one topic. For example, if a student is researching the theme of bullying, then he/she can have subtopics about different forms of bullying and how to respond to bullying. Under each section, he/she can create another layer with all of the information about the specific information that would go into that paragraph. This is what I find interesting! Sometimes, teachers stop there and that is what the student hands in! The next step that benefits the student even more is the fact that Smart Ideas takes all of the information in the subtopic and puts it into a point form word document. From there, students then have the information needed to write the paragraph! They essentially have everything they need to develop an organized and well written piece of work.

Benefits of using Smart Ideas

- Geared more toward a junior/intermediate classroom for writing organization
- Graphic organizer
- Uses funky shapes, colours and connector designs so it is interesting to the user
- Uses multi-levels to help organize ideas but then all the ideas are nicely put into a point form word document to encourage paragraph writing.
- Useful to ALL students at ALL levels

- Available already on all computers throughout the board
- Interactive with the Smart Board
- Teachers can use it for planning lessons and units

Challenges of using Smart Ideas

- Students tend to like to 'play' with the different kind of connectors etc. so they may need to be redirected a few times when first being introduced to the program
- Students may try to 'fit' all the information on one layer of the web and need to be encouraged to use another 'layer' to add more information
- There might not be enough computers or laptops available
- Sometimes students may have a difficult time saving the program- needs to be exported to windows and then saved

Professional Development and Student Learning:

The PD took place over prep periods, recess and some lunches. I set up initial meetings and we decided that Smart Ideas would be the most beneficial tool for the students. Ms. D and I met several times to look at student data and how she could effectively use the program.

A workshop was given at the beginning to specifically show all the students in the junior classrooms on SEA laptops the assistive technology tools that were available to them and a few students that we thought would benefit from seeing the tools. We had a total of 17 students in a two-period workshop. A survey was given to the students asking them about WordQ, Kurzweil and Smart Ideas. The tools were then shown to them (Kurzweil and WordQ briefly) and then Smart Ideas was introduced again to Ms. D and the students. Ms. D and the students took this knowledge back to their classrooms and began working with Smart Ideas. Periodically, during preps, I came in to help or consult with Ms. D. about next steps.

Literature Review

On Action / Investigation Research

In light of my action investigation plan, I decided to quote Dr. Judith Newman about her thoughts on action research. *She stated that "the difficult thing about doing action research is that you have to override most of what you've learned about research as an activity. In a traditional research culture you begin by framing a question, setting up a situation which might provide some information, collecting data which bears on the*

question, then writing up results. **Action research isn't like that at all. The research activity begins in the middle of whatever it is you're doing — something happens that you didn't expect**" (Newman, 1998).

Throughout the beginning process of this research plan, I kept looking for final results or the 'finished' products from the students. According to DeLong, Black, Wideman (2005), data is necessary to include a collection of baseline evidence. They stated that one needed to *"collect "baseline data" on student knowledge. Compare it with data collected later to determine the impact of new teaching strategies or learning resources."* (Hannay, Wideman, Seller, 2006, p.41). This is a very valid point since I needed to know where the students were in their writing abilities before I introduced a new program to support their writing. This way I could gauge if their writing changed with the introduction of assistive technology. However, after reading more of Newman's article, it was clear that there was more to an action investigation research than I expected. Newman goes on to say: *"I suspect most of you are used to reading for the 'facts' a given article or chapter offers, or for 'tips,' but I'm attempting to help you read more interpretively/reflectively. That means using the professional writing as a MIRROR to see your own learning/teaching more clearly. The point of such reading is to use someone else's experiences / arguments as a jumping off point for an examination of your own."* (Newman, 1998). As I read this article, it occurred to me that I was doing exactly what she anticipated. I was reading for facts and so after reading this article, my action research went a little differently than I had planned. I began reading other articles more reflectively and looking at action research more critically. Halfway through the process of my investigation, I realized that I should be looking at the engagement of the students. Are they happy? Are they on task? Is the program that I am introducing having a positive effect on their writing? The answers were 'yes' on all counts. As teachers, we want our students to be happy and engaged. By introducing a technology tool, such as Smart Ideas, the focus was to support students, who for the most part, don't enjoy writing. Writing is a difficult task for them and, by making it fun and less tedious, they are more willing to begin the writing task. A tool is only as good as the way it is implemented and used. Giving a student one piece of paper with an organizational tool on it may help the student visualize his/her thoughts so they appear organized and may only help him/her succeed on a short term basis. However, if the tool is taught and is used on a daily basis, then chances are the tool will help them become successful. According to research on the technological tools, "a higher percentage of learners succeed with the tech tools than was experienced in a non-techie environment and 21st century skills are enhanced by features of the tech tools. Learners make progress in learning how to learn."(Loertscher, 2009, p. 49).

Does a tool like Smart Ideas provide engagement for students?

The article “Does Technology Really Make a Difference?” by David Loertscher (2009) states that “Engagement and motivation increase beyond the spike in interest that happens with “new technology. [In addition,]... the best technologies are those that promote higher level thinking, imagination, creativity and engagement.”(p.49,) However, if a tool like Smart Ideas is used for entertainment value only, then there would be no value to using the tool in the first place. In addition, according to research offered at the 2005 Boys Literacy symposium through the Ontario Ministry of Education, “Boys prefer opportunities for action- they like to do things like sports, video games, music, and art, - not talk! They will pursue their interests and express their passion for one or two areas and want to experience short term success and a feeling of competence and worthy challenges. They want to have fun and they like to explore and express themselves through technology.”(Peterson, 2005). Also, well renowned author Dr. Leonard Sax in his book titled, Why Gender Matters says that learning styles and teaching styles need to mesh to maximize performance and there are hardwired differences between boys and girls (retinal, auditory, developmental differences). In order for boys to succeed they need to have ‘chunking’ and scaffolding of assignments and they need the opportunity to communicate before they write. Most importantly, they should use graphic organizers, and there should be less focus on length of writing but focus on the quality.

All students need to be engaged in their writing or else it becomes boring and tedious. In the book, Professional Learning to Reshape Teaching, there is a quote that says: “Routine is one of the greatest barriers to professional learning.” (Hannay, Widemann, Seller, 2006, p. 40) If this quote is true for teachers, then why isn’t it the same for students? If we consistently make them do the same writing every day, isn’t it safe to say that students would have the same barriers? A program like Smart Ideas offers the excitement of writing while helping others organize their work. In the *Education for All* document, teachers are encouraged to give the students differentiated instruction at all times according to the student’s needs. Assistive technology provides students access to information, computer-assisted instruction, practice, training, organizational strategies, computer skills and study strategies. (Education for All, p.128). This is a fabulous resource to many students. My action research was rewarding in that I saw happy, engaged students who were working their way toward more effective writing strategies. Smart Ideas did help them but I have to remember that “Assistive technology does not replace the teaching and learning processes. It is a tool that is used to support teaching and learning” (Education for All, p.130)

Professional Development and Student Learning:

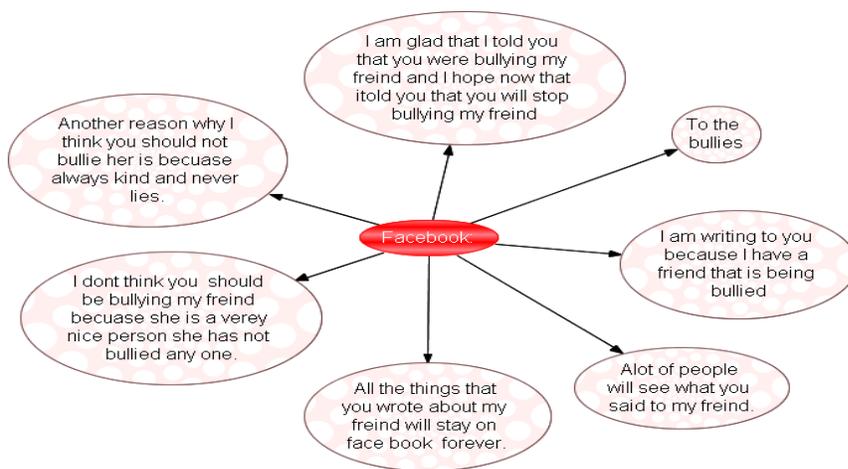
The PD took place over prep periods, recess and some lunches. I set up initial meetings and we decided that Smart Ideas would be the most beneficial tool for the students. We met several times to look at student data and how she could effectively use the program. A workshop was given at the beginning to specifically show all the students in

the junior classrooms on SEA laptops the assistive technology tools that were available to them and a few students that we thought would benefit from seeing the tools. We had a total of 16 students in a two-period workshop. A survey was given to the students asking them about WordQ, Kurzweil and Smart Ideas. The tools were then shown to them (Kurzweil and WordQ briefly) and then Smart Ideas was introduced again to Ms. D and the students.

A survey was given to students before the workshop for Assistive Technology. The evaluation of the session was given to them after the session was done. This survey gave myself and Ms. D. diagnostic data on how often students used the programs on their computers. Out of 16 students in grades 4-6, 8 students had SEA laptops with programs already loaded on the computer. Out of those 8 students, 3 students never used Word Q and the rest sometimes used it. It was exciting to know that 7 students used Smart Ideas sometimes and 1 student used it all of the time. They all knew the purpose of the software. The other 8 students required SEA laptops and were still waiting for them. The session was useful to the students; 13 students found it engaging while the other 4 students learned a “little” or “knew everything already.” One of the main learning points for the students and the teacher is that the students emphasized that they needed time to play on the program in order to learn it effectively. Throughout the session, problems arose as well. The technology didn’t work at the beginning and then students kept going on games. Smaller groups, concentrating on one tool only at a time, and ensure there is a lot of time for students to work on the program would be beneficial if the workshop was done again.

Student Learning

Student A: Formative Data: Second Attempt at Smart Ideas



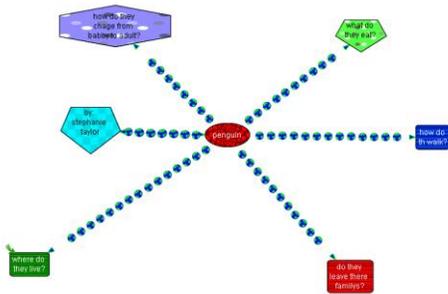
Main

- Face book:
 - I am glad that I told you that you were bullying my friend and I hope now that I told you that you will stop bullying my friend
 - I don't think you should be bullying my friend because she is a very nice person she has not bullied any one.
 - Another reason why I think you should not bully her is because always kind and never lies.
 - I am writing to you because I have a friend that is being bullied
 - To the bullies
 - A lot of people will see what you said to my friend.
 - All the things that you wrote about my friend will stay on face book forever.

Student A- Final Writing Sample (formative)- Smart Ideas

I am writing to you because I have a friend that is being bullied. Lots of people will see what you wrote to my friend on face book. Everything that you said to my friend will stay on face book forever. I don't think that you should be bullying my friend because she is a very nice person and she has not bullied any one. Another reason why should not bully her is because no one should be bullied and she never lies!!! I am glad that I told you that you were bullying my friend.

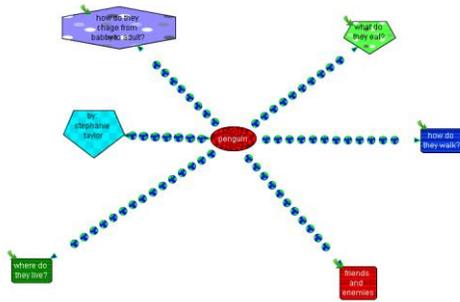
Student B's second attempt (Introduction of layers) Formative Data



Main

- penguin
 - how do they change from baby to adult?
 - what do they eat?
 - where do they live?
 - do they leave there familys?• how do th walk?

Student B's 3rd attempt- Layering



Main

- by: S.T.
- penguin
 - [how do they change from baby to adult?](#)
 - [what do they eat?](#)
 - [where do they live?](#)
 - [friends and enemies](#)
 - [how do they walk?](#)

- lives below the equator

- is south pole

- new zealand

- some penguins come from asore on antarctica

- south america

australia

- africa

Analysis of Data

Student Learning:

Background of Students:

Student A is identified as mildly intellectually delayed. Support is needed in writing and getting ideas on paper. Student A is diligent and will persevere to finish tasks.

Student B is identified as having a learning disability. Support is also needed in writing and organizational skills. Student B, although eager to learn, often gets frustrated quickly but in the end will always complete tasks.

Both students need extra time for writing assignments and both students just received SEA laptops in the last two months. They are still going for training sessions on them. Both students are fairly independent workers who work very hard at completing their writing tasks. They are both compliant and willing to accept new strategies and extra instruction in order to succeed.

Both Students A and B tried to use Smart Ideas to support their writing. Student A appeared more comfortable using the technology and had success with pulling all the data together off of the mind map and writing a paragraph.

Student B was very excited about using Smart Ideas for writing. Student B eagerly used the connectors and coloured shapes at the beginning but was eager to finish after three sessions of working on a mind map. Student B tried to input the information rather than 'play' with the graphics but was still effective in accomplishing the goal that was set. This is the beginning of the final written piece.

When working with students who have difficulty writing, and are on IEP's, it is crucial to give them the extra time needed to do written pieces of work. This work is more important because it was done with care. Although a summative response was not finished at this time, the learning for these students was invaluable in that they learned how to organize their thoughts. Both students were happier and engaged in the task and felt successful because they accomplished written work.

Teacher Learning:

Overall, the PD that was offered was beneficial to the teacher. Ms. D felt that she had learned a lot through the process. She had no knowledge of Smart Ideas before it was introduced to her and she now feels that she can use the program in the classroom comfortably and be successful with it.

Results:

The original questions asked at the beginning of the inquiry were these:

1. Will the teacher learn how to use the tool and use it effectively?
2. Will students be successful in using the tool?

Overall, the action research/investigation was successful in that both the students and the teacher showed some growth in using Smart Ideas effectively. As a result of this action research/investigation, it was determined that overall there was some growth in the ability to organize information for the students. Student A's first piece of writing had no order to the ideas. In the second piece of writing, student A, with guidance, showed the ability to take the information and logically order it in a paragraph through a step by step process using Smart Ideas. Student B was given the opportunity to use the program and enjoyed the experience. Student B was able to sort out the information about penguins in various categories. Student B progressed very well in that Smart Ideas provided the necessary visual outline for him/her to follow. It was also noted that the students were happier, more engaged in the process and showed more perseverance to continue with the writing activities. Ms. D. is now more comfortable with the Smart Ideas program and has expressed interest in learning more about the full potential of this program and wants to continue using it in her classroom.

Final Reflections

The greatest impact on my teaching practice from doing the inquiry came from the article, Action Research: Exploring the Tensions of Teaching by Judith M. Newman, Ph.D. After reading her article, I came to a slow realization that as teachers we are driven by data all the time. After all, data drive instruction. There is always a push to get data from teacher learning cycles, and data for EQAO and data for DRA, etc.

Newman's article resonated with me in that she said to really look at the small critical incidents that happen while data are being collected; those incidents that shape teaching and look for the unexpected incidents that occur. Also, as a teacher, we can change what we do. We need to look at what we do and change it if need be. Action research is not so much about collecting data but making changes for the future, confronting ourselves with important questions and challenging our beliefs.

Out of this investigation, I have learned that patience is an asset when using technology tools with Special education students. One has to explain directions clearly, 'chunk' tasks and not expect students to understand concepts right away. Learning takes time and written output takes even longer! It is not the final outcome that is most important; it's the important journey that the students need to take to improve their writing skills.

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