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KIDSMART SNAPSHOTS



TARA SHIRE STATE COLLEGE

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RHONDA ELLIS IS A PREP TEACHER WHO PARTICIPATED IN THE 2003 IBM KIDSMART PROGRAM AT TARA, A SMALL RURAL TOWN SITUATED IN SOUTH WEST QUEENSLAND. THE LOCAL AREA IS WELL KNOWN AS A CATTLE AND SHEEP GROWING DISTRICT AND, LIKE MANY RURAL TOWNS, HAS BEEN WORKING TO OVERCOME THE CHALLENGES OF HIGH UNEMPLOYMENT AND RELATED SOCIAL PROBLEMS.

> My beliefs and values before the IBM KidSmart program:

Prior to 2003 I had a set belief about how computers needed to be introduced and used within an early childhood setting. Computers were not used until second semester and then as a separate mode of learning. I considered it important for the children to know how to use a computer, but I did not recognise or value its potential as a tool for literacy. I considered oral language, gross and fine motor skills and the myriad of traditional skills I taught via the foundation learning areas, to have precedence. Computer skills were a separate activity, and not considered as a facilitator for other learning.

The catalyst for change was in 2002; our school had identified literacy as a focus for improvement for all students. Data indicated that our literacy standards had dropped according to the Year 2 Net results and other benchmarking tests. Obviously our strategies had to change to improve the scores. Considering our school population was made up of a high proportion of very low socio-economic families, with a large number of families being transient through our town, the task of improving literacy in preschool seemed daunting.

> Investigation

This research responded to an identified need within our school to introduce technology much earlier into our early childhood teaching and learning program.

Our research investigation was an opportunity for me to reflect on my practice, as well as an opportunity to explore and implement strategies that could improve literacy across the early years. With this in mind, my research question became:

Which strategies of technological integration will support and develop multiliteracy skills?

My philosophy of teaching, especially language, has always been generated from Cambourne's conditions for learning. I set out to integrate the computer into our program following those conditions of:

- immersion
- teacher demonstrations
- active engagement
- positive and explicit expectations
- students having responsibility for their own learning
- frequent use

and ensuring that I responded to children's learning by observing their behaviour.





From the start of 2003, we used the a range of strategies for technological integration.

One strategy was for the computers to become another station of learning in the classroom. We set up a magnetic board, and the children would place their names on the grid if they wished to have a turn that day. At the end of the inside play, I would place a sticker on their chart if they were to have a turn. I would encourage less frequent users to have a turn next time. Initially we used a timer, but the children soon learned to pace themselves, and it also became important for students to follow an idea through, rather than cut them off within an arbitrary timeframe. Some children did try to have maximum time on the computer but, the reality is, this is no different from any other learning area, and needs the teacher to monitor it regularly.

Another approach involved me demonstrating how to use each program and the children would then know they could access this. The greatest challenge I faced, was trying to keep up with the children. They were working at a faster pace than I was! On reflection, I realised that teacher demonstrations did not have to occur for each new software package introduced; just some general recognition and use of icons and programs; and that peer tutoring was just as effective.

We also planned and integrated activities that allowed the children to participate in hands-on activities, that made a direct connection with the computer game and the learning focus for the lesson. This was an essential component of the 2D and 3D philosophy, and this multi-modal exposure to key concepts enhanced students understanding of the computer software. Students started to move away from just clicking on a screen to actually reflecting and talking about their choices, as they were linked to the authentic learning that was occurring in the classroom.

Since I was new to the idea of 2D and 3D integration, I was busy making resources or connecting learning experiences we already had to software concepts. Before I realised it, the computer was actually becoming part of my planning routine! Having a negotiated curriculum, one of the things I tried to encourage was students making their own connections between a software activity and a play based connection. I did this by positively rewarding anyone, who used content from the computer programs in the playground, home corner, block constructions or in their other work activities.

By way of an example, when Cleo was playing with the Workshop software, she then painted the hot air balloon she had constructed in Workshop, and then wanted to construct it out of material. Converting the experience from a 2D screen object to a 3D construction brought about a deeper understanding of what worked and what didn't, and provided an opportunity for the students to talk to their peers about what they had done. The children knew this sort of practice was really valued, as it showed me that they were problem solving, using innovation and creativity and communicating clearly.





> Observations

The children loved the technology of the computer and embraced it with enthusiasm. They saw it as most enjoyable mode of learning, and comments such as, “This ones so much fun,” were frequent.

When the children started reading the text on the computer I was really impressed. The graphophonic link had arrived! This was a great turning point in the success of our research. One boy was working with his mother on the computer and read the word “under”. “He actually read that you know!” she exclaimed. She was so proud of him; he was so proud of himself; and I knew the program was actually working!

The children loved listening to themselves reading at the listening post. We would write a simple text together, about a shared previous experience, and then record all of us reading on the computer using a sound recorder. The children would then listen to themselves reading, and follow along with the text. Some of the children are actually print tracking now because of this activity.

The photos from the digital camera were also a huge hit. After we had “Made a Friend,” we started to look at our own characteristics, and this lead on to our personal details. The children drew pictures of themselves, and we printed our stories on the computer. Those children who could remember more details had longer stories. We then used the digital photos from our pet parade to illustrate these.

They had been presented in the classroom, and have been a source of delight for the children, the parents and other staff members.

We also drew pictures of our friends, and I wrote the captions of their choice at the bottom. Two girls went to the computer to copy spelling and added captions of their own. They copied the text from the computer, and one invented spelling for a colour name that wasn't there. I was really impressed, and saw this as a major success of the research. I even took digital photos of the event to convey the value of their work! These and other digital story books the students created became valuable literacy tools, as students would often pull them out and “read” the stories to each other.

The children learned a lot of positional concepts from “Edmo and Houdini.” I have always taught these concepts, but it didn't take much effort this year using the concept of 2D and 3D integration. One of the activities involved the children making their own doghouse and, with the help of a toy dog, they developed all sorts of tricks in ‘home corner,’ again using the positional language as instructions for play. One child would be Edmo and give a command, and the other child would make the dog perform the trick. Then someone else would go over to the computer and make it ‘re-happen’ on the screen. Some students even developed their own signs that they would use as non-verbal clues as to what they wanted Houdini to do.

I read the children the big book, “Where is Max?” which reaffirmed the same positional concepts. The children wanted to dramatise the story like it was on the computer. We drew large pictures of the characters and put them into various positions. The children followed the text, and they wanted the words to come up like they did on the computer; so we made flashcards and the children read the words. We took digital photos of them with Max, the puppet, and recreated the whole book. Max, the sheep, has become their favourite book character; and Houdini, their favourite computer character.

For Father's Day we made pictures of “Dad's” face and then I typed the children's dictated stories. They loved the process of printing their own words. This was a great tool to show the link between the spoken and written text. There has been lots of writing occurring as a result of the children's interactions with the computer. Some of the children were writing everything they knew, and some of them went into the computer to copy words and the alphabet. They really valued the computer as a source of knowledge.

Colleagues have responded very positively to our computer engagement . A year one teacher, who does lunch duty in the preschool, asked if she could get the names of the software we were using, because it was obvious they were excellent programs. The computer wasn't even turned on at the time. She was looking at displays around the room; high praise indeed for people who only “play” all day.

> Number of years on:

The computer is now part of my daily planning. I use it as another educational tool. Depending on what we are talking or learning about, I will encourage the children to use particular programs on the computer. I have also learned that what we do on the computer will depend on the children who are using it. Sometimes I will be looking for children to talk to each other; at other times it may be about socially appropriate behaviours; and sometimes it may be about learning about numbers and shapes.

> Future Directions

Tara Shire State College P-12 Campus recently won an Achievement Award in the National Literacy and Numeracy Week Awards for our successes in literacy. Part of the paper presented outlined how the prep students were integrating technology as a vital tool for developing literacy. At the end of the program our literacy coordinator was very interested in our research, has now adapted the key principals from IBM KidSmart, and has trained other teachers in the upper years on the concept of ICT integration using 2D and 3D experiences.

On reflection, I think the children have had enormous enjoyment from learning in this way, as the computer provides a stimulating tool for them to explore and develop ideas in a non-threatening environment, that has aided in improving their literacy skills.

This year I started computer integration on day one, week one. Next year I will do the same. Of course we will go off on different tangents, according to the interests of the children, but we will definitely be integrating technology more and more. This computer has really forced me to reflect on the best practices, and it has shown me that how a computer is used changes it from a baby sitting activity to an integral planning and teaching tool to enhance student learning.

I suppose you could say the biggest mind shift for me was the realisation that I wasn't replacing any traditional tools – pencil, blocks, sandpit, etc. - but supporting them. I now use the computers and other ICT tools regularly in my classroom, based around 3 planned learning experiences:

1. Research - researching images on the internet e.g. when we were exploring sea creatures, we accessed the internet for multimedia stimuli to support and challenge our learning. One of the resources we discovered was a videoclip of an octopus eating a shark. (THE MOST EXCITING THING THAT HAS HAPPENED THIS YEAR!)
2. Immersion or practice of skills - The computers are not used in isolation, but within a whole learning program that reinforces knowledge, skills and understanding. The use of concrete materials is as important for children's learning as ever, but is reinforced through skills and games on the computer e.g. word and number recognition
3. Publishing - Most real-life experiences are recorded in big book form for the children to read and refer to all year.

I feel that the computer and other ICT tools will continue to be an important part of my prep program. We are now also fortunate to have an interactive whiteboard, program and tablet for prep use. They provide tools to introduce social skills, problem solving, literacy and numeracy to the students in a positive and non-threatening manner. I now actively promote the concept that ICT is a part of real-life learning, not separate strand or focus.

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