

CHANCELLOR STATE SCHOOL

Chris Cook

**Innovation — using technology as an
integral tool for learning**



Chris Cook

CHRIS COOK IS A PREP TEACHER AT CHANCELLOR STATE COLLEGE WHO PARTICIPATED IN THE IBM KIDSMART PROGRAM IN 2004. CHANCELLOR IS A RELATIVELY NEW SCHOOL ON THE SUNSHINE COAST IN QUEENSLAND, WHERE TEACHERS HAVE DEVELOPED A CULTURE OF EXPLORING INNOVATIVE PRACTICE AND ARE COMMITTED TO INVESTIGATING PROFESSIONAL DEVELOPMENT OPPORTUNITIES THAT WILL ENCOURAGE AND ENGAGE TECHNOLOGY TO IMPROVE LEARNING FOR THEIR STUDENTS.

> Investigation

When Chris was selected for the IBM KidSmart program, her personal skills and knowledge about using a computer were commendable, but she wanted to transfer her passion and knowledge to create a meaningful and purposeful approach to integrating ICTs within the learning process. Her goals as a practising early childhood teacher were to explore and reflect on aspects of her teaching practice in relation to current educational research, with a particular emphasis on making ICT's an integral component for developing and enhancing learning opportunities for young children, especially in the context of literacy and oral language.

> Beliefs and Practices

Chris' innovative approach to negotiated curriculum as well as her passion for ICT has transformed her class of prep students into a classroom, where students are happy to explore and utilise technology to problem solve, communicate, negotiate and reflect, as only true "digital natives" can.

In this classroom, it is an every day event to see a child move independently between traditional play based activities such as block or dress up corner to activities that until recently have been considered out of place in an early childhood setting, such as completing a checklist on the laptop, narrating, drawing and saving a story on the interactive white board, recording a reflection using a webcam or simply selecting a software package on the computer to reinforce basic numeracy and literacy skills.

These prep students are not only engaging in technology; they are taking charge of their learning as independent learners. Technology has become an integral tool to enhance concepts, ideas, skills and knowledge. Students in this classroom are encouraged to capture meaningful events and artifacts, that are stored and continually reflected on in each child's digital portfolio, which they shared with their families. Students demonstrated more risk taking attributes when using technology. Tools to copy, paste, enlarge, reduce also encouraged experimentation.

We have asked Chris to share and reflect on some of the ICT strategies she uses that provide an opportunity to engage children in a critical literacy approach.



Example 1: Narrated Photostory

After gaining an understanding through software programs such as Make a Book in Bailey's Book House, students developed an understanding that stories have components that provide meaning for the reader, such as settings, characters and plots. They also explored the concept of sequencing, using programs such as Make a Movie from Sammy's Science House, which was further enhanced and modelled through critical literacy discussion of texts and multi-media samples. Students were then introduced to the concept of music, rhythm and mood by exploring programs such as Blox-Flying Spheres from the Thinkin' Things Collection, where students could design kinetic art using colour, sound, and motion; they also had opportunities to choreograph moving spheres to interpret music. Experimentation with music sounds and moods was also explored using percussion instruments and keyboards

These activities provided some of the background required for the students to develop a photostory to demonstrate their understanding about Kindness, which was part of a unit that was implemented to coincide with the key messages that the Dalai Lama portrayed in a recent visit to the region. The task required students to draw on their prior knowledge and skills about critical literacy to develop a multimedia production to demonstrate their reflections and ideas about kindness and what it meant to them. The students were given the task of collecting and selecting final images and sounds that would present to the viewer their understanding of kindness. Students took their own images, ranging from holding hands, hugs and students helping each other in various contexts. These images were produced in a variety of ways using a digital camera, drawn images and pictures through the use of the interactive white board software. Students also reflected on the type of text they wanted to produce, debating between narratives or informational text genres. They considered what colours, text sizes, text styles, graphics, background music and vocabulary could best be used to share the information in a powerful way.

Throughout this exploration and similar programs, the children often worked in pairs or small groups, each contributing ideas and sharing skills and knowledge. They compared their productions with those of a similar type in other texts and reflected on what they produced, making decisions about how it could be changed or improved.

To further enhance their reflections and to make the students think about their own actions, students were asked to illustrate, using a smiley or not so smiley face, the level of kindness they displayed during that session, which was displayed on the interactive white board. The class had an opportunity to comment on each other's entries, past and present, and to make suggestions about how to improve the level of kindness in the room.





Example 2: Digital Microscope

A digital microscope was attached to the computer allowing objects to be viewed on the computer screen. The focus of our exploration was critical literacy. We wanted children to look at the ways they could change and enhance a picture as well as add text to achieve a desired outcome. We also wanted them to realise that what you see in magazines, advertisements or books need not be a reality. As the software for the digital blue microscope has elements consistent with other software programs such as Paint and Kid Pix, it was assumed that children would use this prior knowledge to quickly adapt an understanding of the new software.

A range of objects were selected for children to view under the microscope. After taking a snapshot the children were asked to:

1. Enhance the picture using colour, pattern fill, plain fill or special effects.
2. Change the original picture by using the rotation and scale tools
3. Cut the image using the scissor tool and paste into a new image
4. Add text to match their image

We analysed the effects achieved and decided in what context the slides could be used. This initiation process uncovered for children the potential of technology in the text we see around us every day.



Example 3 – Webcam for capturing evidence

Students were familiar with the voice recorder function in the IBM KidSmart computer, where students could send each other voice mail from the KidDesk Program. When the webcam was introduced to the class it was a natural progression from recording their voices to capturing a visual representation of themselves.

Chris uses a webcam for student teacher interviews and reading running records. Children always enjoy watching and listening to themselves and they can be encouraged to critically analyse their speech and approach to talking tasks. Now students within Chris' class continually use the webcam as a tool for capturing evidence, in particular, oral language. The webcam can be used for students to record play episodes as an alternative to written recording. In this way the webcam can become a "digital diary" recording children's interests and ideas as they progress through play progress. The unique ability for students to see themselves as they talk allows this to be an excellent tool for thinking about their thinking. Students can choose to talk an idea through, or reflect on an incident that happened. Students have also used this as a means for recording reading records, where the child can choose to "read" a book and save it into their personal digital portfolio where the teacher and the child can view at a later date for comments and programs for future learning.





> Observations

The Riverdeep programs from the IBM KidSmart program along with other selected software have provided the children with opportunities to explore literacy in various contexts. As it became available, I integrated other media such as digital camera and video with computer technology and utilized web searches and email as a means for deepening children's understandings of their world. It was evident from observing children on computers that social interaction and verbalization were very much a part of their computer experiences and that peer mentoring, trial and error and experimentation were also familiar strategies that the students readily adopted and were all effective ways for promoting risk taking and problem solving.

What I did find interesting however was that regardless of children's prior personal computer experience or interest level, all children readily adopted the computer as a resource, selecting it as a tool for play and learning along with other more traditional resource choices available in a Prep classroom. This acceptance extended into other areas of dramatic play where computers were often included in play constructions such as making signs for homes, police stations or hospitals. Computers were an accepted part of the student's socio-cultural context even if they were unsure of exactly what or how the computer could be used in that context. This observation supports Vygotsky's (1978) theory that learning precedes development. Children experimented with materials and resources before a real understanding of their function or purpose was reached.

> Reflections

In my own practice I feel that I have in the past utilized computers primarily as a means for skill building particularly in the area of communication. Much of the structured software available provided practice in pre-literacy and pre-numeracy skills focusing on number, decoding, matching and sorting, but once students have mastered the basic concepts, using unstructured software programs and tools such as photostory, webcams and interactive white boards allows the students individually or collaboratively an opportunity to create products or evidence of their thinking.

> Future

By reflecting on my own pedagogy and practice I was able to reaffirm my beliefs about how children learn and how they can best be supported in that process. I strongly believe that very young children are capable of initiating their own learning and that they learn through active engagement and immersion. I as a co-player and co-producer need to assist their engagement in that learning by providing resources that will support new understandings and knowledge. The use of ICTs in our classroom has provided children with another way to communicate and be interactive as a learner. I have been challenged and believe I will be continually challenged by the potential that ICTs offer in my future learning and the future learning of the students as we travel the learning journey together.

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