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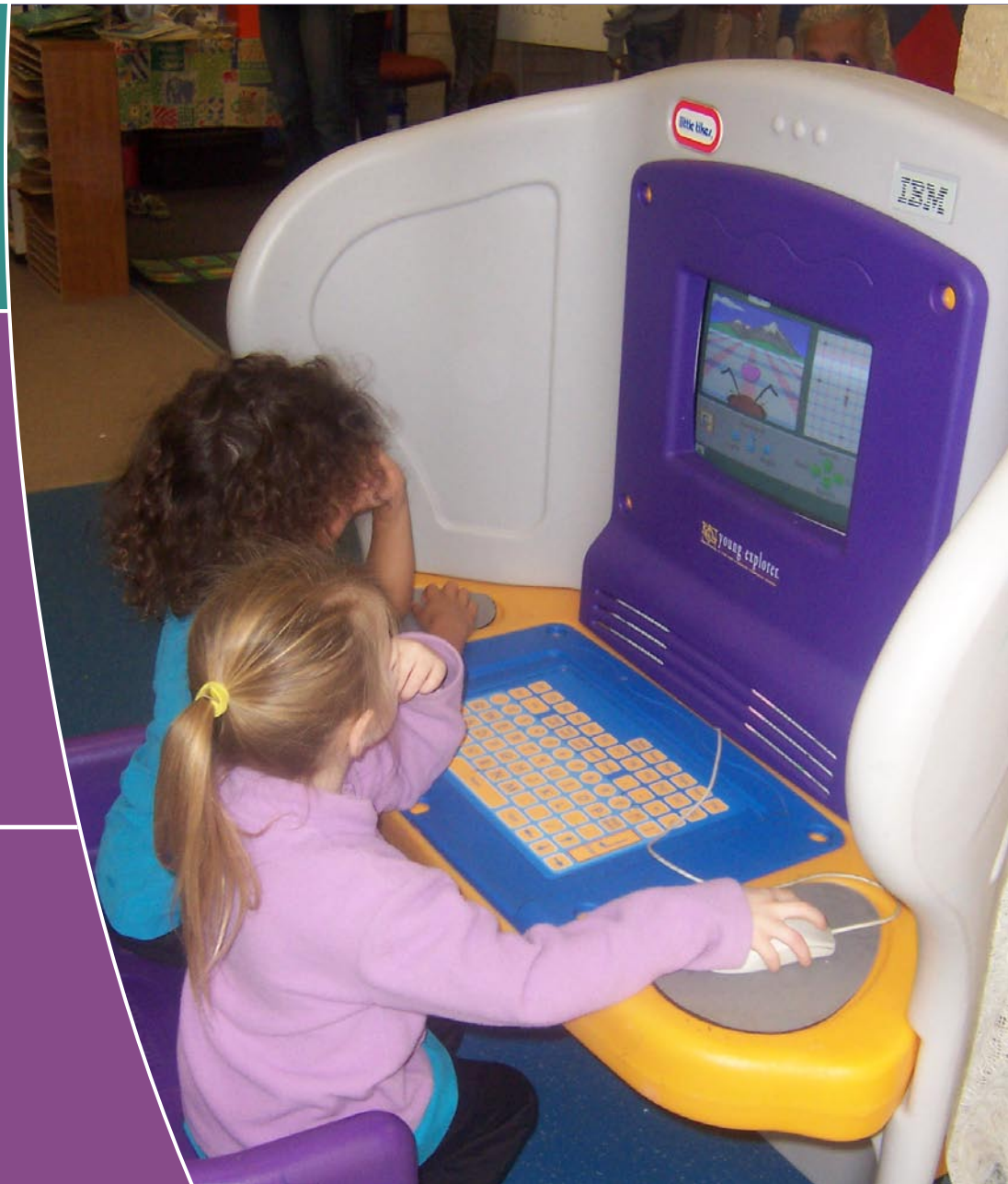
KIDSMART SNAPSHOTS

MOORDITJ NOONGAR COMMUNITY SCHOOL IN WESTERN AUSTRALIA

Moorditj — a Noongar word for "strong or excellent!"



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Moorditj Noongar Community College on the outskirts of suburban Perth in Western Australia opened in 2001, and has approximately 140 Indigenous students currently enrolled from K to 7. In 2000 Ashleigh Evans, a young early childhood educator at the school, participated in the KidSmart project and has since been on the journey of digital discovery, focusing on how technology can be integrated in her classroom as a way of 'hooking' her little Noongar students and their families into experimenting with computers and other technologies to improve social and academic outcomes.

> Challenges for Indigenous Teaching

For many indigenous students, especially in remote communities their first year of school is often their first exposure to spoken English, let alone reading and writing. For these children the transitional phase from their home culture into an educational setting is often difficult, as they need to adjust to so many different experiences, demands and expectations in relation to their cultural, language and social skills. The challenge for educators is to develop programs that are culturally sensitive, but also provide opportunities for students to reach academic levels that will allow them to pursue careers of their choice in later years.

Research has clearly shown that aboriginal learners are a group that often do not succeed in traditional literacy programs. Through the KidSmart project teachers are provided with support and equipment to reflect on and challenge their own practices and beliefs about technology, with the aim of developing new pedagogies (ways of teaching) that engage all students in the learning journey, especially students from disadvantaged communities.

Research also indicates that students need multiple opportunities to explore the diverse discourses within the curriculum before they can be mastered. For many indigenous students the struggle has been to keep them engaged within the traditional texts and programs long enough to make a meaningful impact on these young learners. The New London Group (1996) researched and analysed how technology could be used as a tool and, in more advanced cases, an environment to extend students' learning outcomes. Their research showed that, by integrating technology meaningfully into the curriculum, new pedagogies were generated that supported and extended on the teaching of traditional concepts; and for some students these new pedagogies provided "hooks" to maintain engagement for learning compared to conventional strategies of the past.

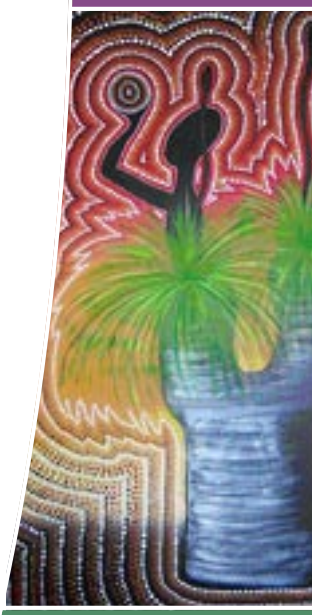
Pedagogies that make an impact on learning for indigenous students not only have to be connected and meaningful, but also need to address cultural sensitivity by legitimating cultures through the inclusion, recognition and transmission of cultural knowledge, beliefs and practices. Harris (1990), through his research on the success of computer courses for indigenous learners, identified that computer courses and integration need to be designed with indigenous culture and ways of doing, thinking and learning at its core to make a meaningful impact on these learners. One of the five main areas that Harris identified, where indigenous learning differed from the main stream, was the identification of learning by observation and imitation; more simply, students "watch and do," as opposed to receiving the verbal instructions and corrections that are embedded in mainstream curriculum. This learning style is supported through the KidSmart project in a number of ways:

- Classrooms are supplied with a computer work station that encourages social interaction in small groups, where students can choose to watch and learn from each other in both formal and non-formal peer tutoring. (Aboriginal culture does not have formal teachers.)
- The selection of software from the Riverdeep suite provides opportunities for indigenous learners to become familiar with new content in a safe and non-threatening environment by providing 2 levels of participation
    - Explore and discover mode (based on observations and imitations)
    - Question and answer mode (based on extending and refining their knowledge)
- Challenging teachers to tap into students' enthusiasm and motivation from the 2D experiences (computer programs), and integrating the key concepts into the curriculum through reinforcing 3D learning experiences (hands on activities). This multimodal exposure provides students with numerous opportunities to contextualise and extend knowledge to new situations that can be easily personalised to meet the students' interests and identities.

The following is an example case study that highlights computer integration as a successful learning tool for engaging indigenous aboriginal students within a preschool setting.

> KidSmart Project – Moorditj - The First Year

Most of the little Noongar students were very unsure of their school environment when they came in on the first day, especially the computer, all shiny, new and sparkling; but most of all everything was so unfamiliar! Ashleigh was well aware that, for some of these children, she could well be the first Wajella (white fella) person/ teacher that they had had contact with. The children are very, very shy and mostly reluctant to leave their mothers or big brothers or sisters to venture into the classroom. As a teacher, Ashleigh understood that the students and the community had to feel comfortable with her and her ways of educating the students. Cultural sensitivity was the key to success and, as a consequence, she was very easy with this initial hesitation; she just let 'things happen.' If the kids joined in, they joined in. If not, well, that was OK too.

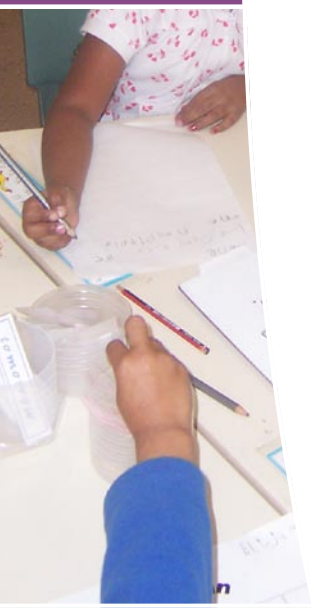


Ashleigh originally set up the KidSmart computer in the corner of her room for the first group of preschoolers who attended the Moorditj School on their first day. She set up Baileys Book House on the screen and just left it quietly playing, with no fuss and no fanfare! She gave the computer no more attention than the reading corner, blocks or puzzles or the doll corner. She was amazed at the attraction that the computer held for them and their families. They were all instantly drawn to it; so; rather than intervene, she just watched! What she saw convinced her that this new computer was going to be a powerful interactive learning tool for these children. As one sat down at the computer with his family, others would join them and slowly they began making social connections with each other at the computer. Sitting together, playing together, laughing together; so much so, that before she knew it the children at the computer had formed a social bond. They were soon joining up in small groups and racing off to explore, to do some cooking in the dolly's corner or to build with the blocks. New friendships were instantly formed from the initial computer interaction that gave the students the confidence to play cooperatively in various other contexts.

Their parents were thrilled at the ease with which they moved into this new environment. Ashleigh had not anticipated that the computer would provide such a strong social connection for them. Unlike other computers, the KidSmart work station was colourful and inviting; it did not give the impression of seriousness or that you had to be an expert to be working on the computer. The bright blue, double bench seat encouraged two or three little bottoms to squeeze in to share the exploration of this new equipment. The energetic buzz around the computer, as well as the overall look, provided an aesthetic and emotional invitation for all. Very quickly other members of the children's families were drawn into exploring the computer and its software. Some days there would be mums sitting down at the computer for hours helping whoever came to join them. This became part of the way the centre ran. It is almost impossible to imagine an ordinary computer engaging indigenous communities in this way. Parents felt welcome and their kids were engaged with technology. The teacher and the administration of the school used this interest in technology to set up a simple six-week computer course for interested adults in the school library. There was considerable interest, and some of the parents continued on to a computing course at the local TAFE, and gained employment in this area.

Ashleigh also saw and heard many, many conversations between the Noongar children and their families in "Aboriginal English," where an older family member would identify a word or an object on the computer and give the corresponding translation to the children. This observation lead to the realisation of the enormous challenge the aboriginal students faced when they moved into an educational world. To be successful, these young children needed to learn to "code switch" into standard Australian English throughout their school lives.

The learning from the KidSmart project has stayed with Ashleigh these many years later, and she credits the opportunity for developing and reflecting on her computer integration skills as one of the powerful lessons she has learned as a teacher of indigenous students.



> Integrating play and technology

Technologies, as learning tools, are successful in part because of their ability to foster interest and motivation through the use of electronic media. For indigenous students these tools can provide a "hook" that is culturally sensitive, fun and engaging. For example, many literacy software programs encourage children to write, edit, collaborate and share their stories or activities in a play or fun context. Their instant self correcting capacity and ways of scaffolding learning encourages students to explore and "have a go," as "penalties" or "errors" are viewed as challenges to overcome, rather than deficiencies in knowledge or failure to comprehend. Drill and practice routines provide positive reinforcement by establishing short term goals that are regularly rewarded or, in the case of errors, provide explanations free of negative comment or judgement, which is crucial in gaining the acceptance of community members.

Software Integration

Media-rich resources facilitate learning by giving students multiple exposures to practice concepts, a strategy shown to impact on student achievement for all students (Marzano, Pickering, and Pollock, 2001). Teachers, who have successfully integrated technology within the curriculum, look for opportunities to implement certain software programs or tools (2D) experience and encourage students to explore and extend the same concept using tangible, hands on resources or through a real play based experience. For example, programs like Edmo and Houdini from Bailey's Book House focus on developing a vocabulary around positional concepts such as "on", "over" and "behind." Young Aboriginal children are like all children and enjoy exploring new words, but often need to be engaged in a way that allows them to overcome their shyness and 'have a go.' There are a number of ways teachers can choose to extend this experience into 3D activity, including giving the students a game that involves them taking on the role of one of the characters, where Houdini is given positional instructions to follow, e.g. "Go behind the blocks," "Go next to the chair," "Go under the chair." This activity also allows opportunity to explore different ways of saying or communicating the same thing in English, Aboriginal English, through body language and in pictorial format.

Another example involves the teaching of traditional literacy, where instruction (i.e. the story format) can be enhanced through closed software such as Make a Story from the Bailey's Book House suite of programs, where students are scaffolded through the process. Students, who are reluctant readers and writers may still shy away from closed software, as they are still based on text and symbolic language. Many teachers within the KidSmart project (see Gracemere snapshot) have engaged these reluctant learners by utilising open ended software that allows participants to create digital stories that are not dependent on traditional text, but focus more on multiliteracies (music, sound/voice, movement and visual components). Programs such as "Claymation," "Photostory" and "Movie Maker" are child friendly and are easy to follow, as they are not dependent on text, but rather icon recognition for sequencing. Students are "hooked" in the story writing genre as they have to "write/script," "edit" and "read" their stories, which could include drawings, photos, movies, songs, voice recording and texts. Students love sharing their final product and often are willing to share the "reading" of their digital story to friends and family.