1-1-2007

Kinder kids: learning to read in the 21st Century

Margaret Turner
University of Wollongong, mlt81@uow.edu.au

Janice B. Turbill
University of Wollongong, jturbill@uow.edu.au

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Margaret Turner and Jan Turbill
University of Wollongong

Address: 41 Panorama Drive
Farmborough Heights NSW 2526
Phone: (02) 4271 4429 (H) (02) 9528 5444 (W) 0423 884 937 (m)
Fax: (02) 9528 3484 (W)
Email: margaret.turner@det.nsw.edu.au

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ABSTRACT

Children who enter kindergarten bring to the school environment, a wide range of abilities in reading. Prior literacy experiences in the home and the wider community have been shown to contribute towards these wide ranging abilities (Cairney & Munsie, 1992; Cairney & Ruge, 1997; Brown, 1998; Brooker, 2002; McNicol & Dalton, 2002; Manzo & Robelen, 2003).

Our society today, though, is changing rapidly. Our task, therefore, as educators is to prepare our children to function in a future civilization created by the biggest leap in technology since the Industrial Revolution two centuries ago. We have entered a time when advances in technology are having an important effect on literacy development (Snyder, 2001; Leu, 2002; Cloonan, 2005).

This study set out to explore the nature of kindergarten children's multi-literate practices in their homes. In paper-based materials, the study explored the frequency of storybook reading, the activities parents participated in during storybook reading, the reading activities that young children initiated, and other reading activities apart from storybook reading. In technology, the study explored the frequency of use of different techno-literacies (Snyder, 2001) and parents' views on the role of these techno-literacies in learning to read and write.

It was found that while there was a wide range of multi-literate practices in the homes of kindergarten children that comprised both paper-based and techno-literacies, parents held different views about the role that techno-literacies played in learning to read and write. These views seem to mirror those of early years teachers, namely that print and paper-based skills are more highly valued for young emergent readers and writers.

INTRODUCTION

Reading and writing – both of these words, but especially reading, invoke emotive responses from parents, educators and the wider community. Many discussions and media articles focus on how reading should be taught, and 'The Great Debate' (Adams, 1990) that has raged in the public domain since the 1960s is testament to the controversy that exists as to which method

is the 'best' for the teaching of reading. This debate is also constantly contested in the research literature with many different philosophies proposed as to how reading is best taught, and what skills emergent readers need to achieve in order to succeed in school.

The dominant role of the home environment in developing emergent literacy skills in pre-school children is firmly established (Rutter, Tizzard & Witmore, 1970; Thompson, 1985; Kruger & Mahon, 1990). Research has also identified emergent literacy skills that affect achievement in reading at school (Stuart, 1995; Whitehurst & Lonigan, 1998; Lonigan, Burgess & Anthony, 2000; Morris, Bloodgood & Perney, 2003; Pullen & Justice, 2003). A few studies have identified emergent literacy skills needed for success in writing at school (Senechal, LeFevre, Thomas & Daley, 1998).

However, in the electronically mediated world of today, being literate, many argue, also means understanding how different modalities combine in complex ways to create meaning. People have to learn to make sense of the iconic systems evident in computer displays – with all the combinations of signs, symbols, pictures, words and sounds. Literacy is no longer viewed as simply grammar, lexicon and semantics; literacy now comprises a wider range of semiotic systems that cut across reading, writing, viewing and speaking (Snyder, 2001b; Street, 2001; Cloonan, 2005).

Therefore, it is important that current studies explore children's multi-literate practices (Snyder, 2001) in the home; practices that include both paper-based literacy skills and techno-literacy skills that children bring with them to the school environment. Comber argued, as far back as 1999, that schools and teachers need to "make 'ready' for children, and to make ready for different children, in a very different world than that in which many of us grew up" (n.p.). This means understanding the differences in the linguistic, social, economic and cultural capital that different children bring to school, and what they do with what schools make available; what Moll et al. (1992) refer to as children's 'funds of knowledge'. Wepner et al. (2000) argue that it is the responsibility of schools today to prepare students for the future. Thus, if we are to 'make ready' for children, and prepare them for the future, it is vital that we have knowledge of the children's 'funds of knowledge' that they bring to school. This must include an understanding of the techno-literacy practices of young children (Beavis, 2002). Armed with these understandings, we can then support and enhance the development of multi-literate practices in the school setting (Reinking, 2000).

Statement of the Problem

Legislators, educators and community stakeholders often proclaim that parents are a child's first and most important teacher. This is said as a rallying cry for parental involvement in children's education. Literacy is widely recognised as a lifelong process that begins in early infancy and continues throughout life, and family support has been identified as a critical factor in acquiring necessary literacy skills for successful school achievement. "The family's literacy values and practices will shape the course of the child's literacy development in terms of the opportunities, recognition, interaction and models available to them" (Hannon, 1995, p. 104).

In schools today, the government spends millions of dollars on intervention and support programs in reading and writing at the school level. For instance, one such program, 'Reading Recovery', a support program for Year One students at risk of failing in literacy, cost the NSW Government $25 million in 2002 (Sydney Morning Herald, December 4, 2003, p. 15). But this intervention and support often comes too late and as Heckman argues "even by school age it may be too late to intervene to influence a child's learning and motivation if bad learning habits are already entrenched" (cited in Rudd & Macklin, 2007, p. 4).

Heath (1983) found in her studies of three very different communities in the Piedmont Carolinas, that there was considerable cultural variation in the acquisition of oral language and the *manner* in which parents introduced children to literacy. The *culture of the home environment* directly affected the children's performances in literacy at school. Both Heath (1983), and Teale (1984) conclude that both cultural and social structural factors affect preschool children's orientation to literacy.

Children's literacy experiences in the home are much broader than paper-based literacy materials, and include techno-literacies (Gee, 2003). Downes (2002) suggests that "children as young as three can use computer technology to be creative and represent their ideas in symbols, words, sounds and images" (p. 194). Other research suggests that there are benefits in using technology as a tool in literacy instruction. Technology appears to motivate children and to increase the time they are willing to spend practising important academic skills. Daiute (1983), and Morrow, Barnhart, & Rooyakkers (2002) found that students exhibited a higher level of motivational engagement when using technological tools.

Technology has changed not only the world of adults, but also the world of young children. Learning and communication have been dramatically changed in the process. Now, for the first time in history, the written, oral and audiovisual modalities of communication are multimodal hypertext systems made accessible via the Internet and the World Wide Web (Snyder, 2001a). "Children now live in an ever-changing computerised world, where text, pictures, and voice combine to offer fascinating, new learning opportunities" (Casey, 2000, p. 43).

Despite the extensive research, in both paper-based and techno-literacies, "definitions of literacy, particularly as they are enacted in curriculum and assessment policies and in schools, for the most part remain largely print-based" (Beavis, 2002, p. 47). With most curriculum documents in NSW schools having been developed around 1997, teaching and learning programs are based upon the guidelines in these documents. The teaching of techno-literacy practices are included in the teaching syllabuses, however, guidelines for entry to school assessments make little mention of children's techno-literacy skills. Schools, therefore, rarely assess children's techno-literacy skills on entry to school and thus teachers of school entry classes are not looking for what techno-literacy skills a child may know, and can use. This suggests that parents of young children are not aware of the value of any techno-literacy skills that their children may have.

The purpose of the research discussed in this paper, therefore, was to explore the multi-literate practices in the home setting experienced by kindergarten children from three Sydney metropolitan schools.

RESEARCH DESIGN

The research design used qualitative methodology (Mertens, 1998). The larger study used both survey and case study methods. The purpose of the survey in the larger study was to provide baseline data for the second phase of the study in which six individual case study children; two from each school, were observed in their homes over a period of eight weeks. This paper, however, reports only the survey data and while comparisons are made, and discussed, statistical analysis was never the intention.

The survey was specifically designed to answer the research question:

> What are the multi-literate practices in the homes of kindergarten children at three Sydney metropolitan schools?

The Survey: Distribution and analysis

First contact was made with the kindergarten parents at parent information sessions held in the first few weeks of the school year. Principals at each of the three schools gave permission for a fifteen minute information session outlining the details of the research and, in particular, the survey that would be sent home with the kindergarten children. This personal contact was an important part of the success of the return rate of surveys. Information about the distribution of the survey was also sent home to all parents through each school's newsletter with a follow-up reminder two weeks later, reminding parents to return the survey.

The information sheets and surveys were distributed in sealed, addressed envelopes to all kindergarten children and were colour coded according to the school. Parents were asked to indicate their child's gender and birth date. Return stamped, self-addressed envelopes were included for the return of the completed surveys.

The children's ages ranged from 4 years, 6 months to 5 years, 11 months at the beginning of their first year at school.

The study included two parent, single parent and extended families, living in private or rented homes, units, townhouses and flats. All families lived within five kilometres of their respective schools.

The following table outlines the number of surveys sent home and the number returned from the respective schools.

Return rate of surveys distributed

School	School 1		School 2		School 3		Total
Gender	Boys	Girls	Boys	Girls	Boys	Girls	
Surveys distributed	31	29	21	19	11	12	123
Surveys returned	17	19	11	5	4	9	65
% returned	55%	66%	52%	26%	36%	75%	53%

Table No. 1: Return rate of surveys distributed

In total, 123 surveys were distributed with 65 surveys being returned, a return rate of 53%. All data from the surveys were entered into an EXCEL spreadsheet and scores and percentages of specific groups were calculated. In most instances, graphs were developed to indicate the results.

Locus of study

School No. 1 was situated in a quiet area away from main highways and consisted mainly of very large expensive private separate homes; many of which were set among bushland, with views of a bay. A couple of blocks of town houses and villas had been developed over recent years to accommodate couples with children no longer living at home. There was no rail access. Within this suburb, there were two corner stores, a very small shop near the bay, a yacht club, a park land and the local public primary school.

School No. 2 was situated in a busy, semi-industrial suburb with a major highway separating industries, shops, private homes and blocks of units. Strip development lined both sides of the highway. A shopping area was established in one of the main adjoining streets with sporting fields adjacent to the highway. There was a rail link to the inner city and both a public primary and high school. Private homes were mainly well established, small and modest. There were both well established blocks of units and new developments.

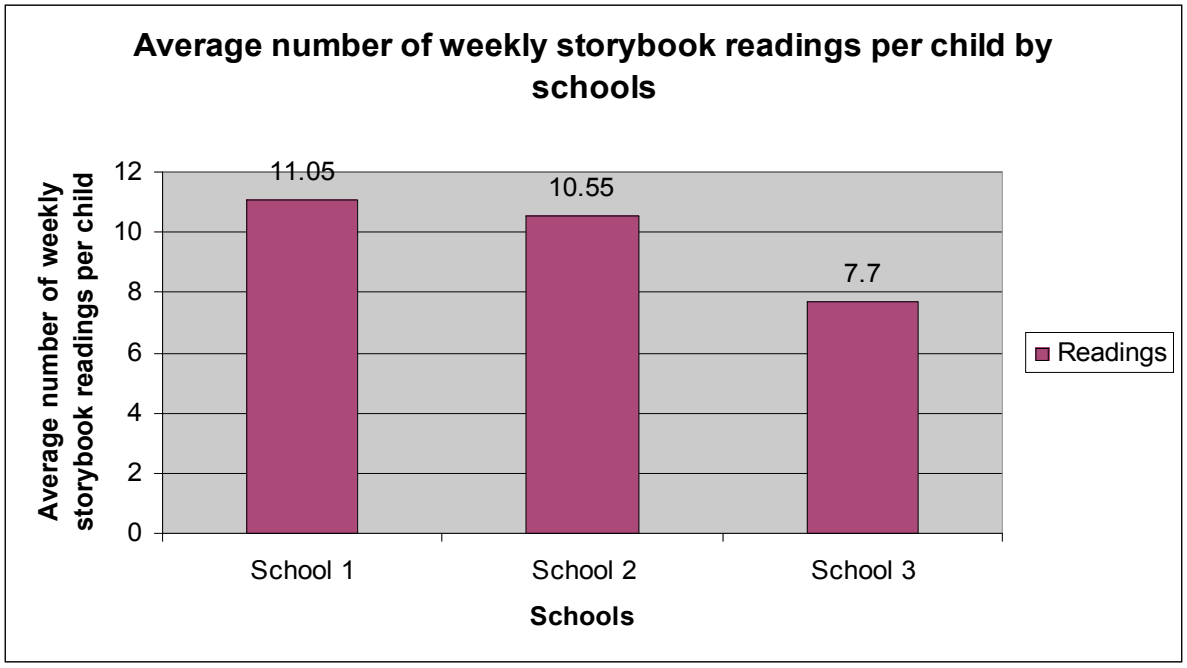
School No. 3 was situated in a busy suburb providing the major business facilities for the surrounding suburbs, a shopping area including many restaurants, an entertainment centre, a library, council buildings, major sporting complexes, a private school and two primary

schools; one of these primary schools catering for students with special needs. This suburb also provided a major rail link for commuters travelling to the inner city for work and, therefore, there were numerous well established blocks of units and flats and many new unit and town house developments. Family homes were small, modest and well established.

DISCUSSION OF FINDINGS

There were fourteen questions in the survey about paper-based and techno-literacy practices in the home with some of these questions having several parts. The following graphs are a summary of the major findings from the fourteen questions in the survey.

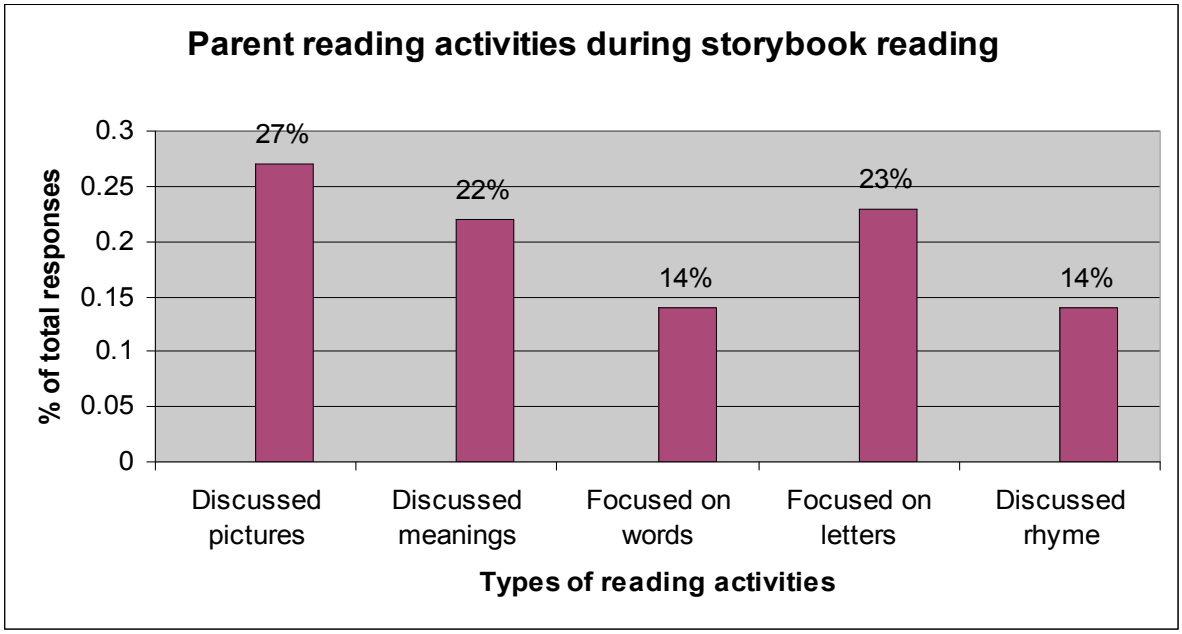
Storybook reading



Graph No. 1: Average number of weekly storybook readings per child by schools

Almost all parents indicated that they and family members regularly read to their children at bed-time and at other times of the day. These results indicate that children in these schools are being read to, at least once a day, by a parent or other member of the family. Storybook reading has long been an important message to parents and it seems, from these results, that the value of reading to children is getting through to parents.

Activities during storybook reading

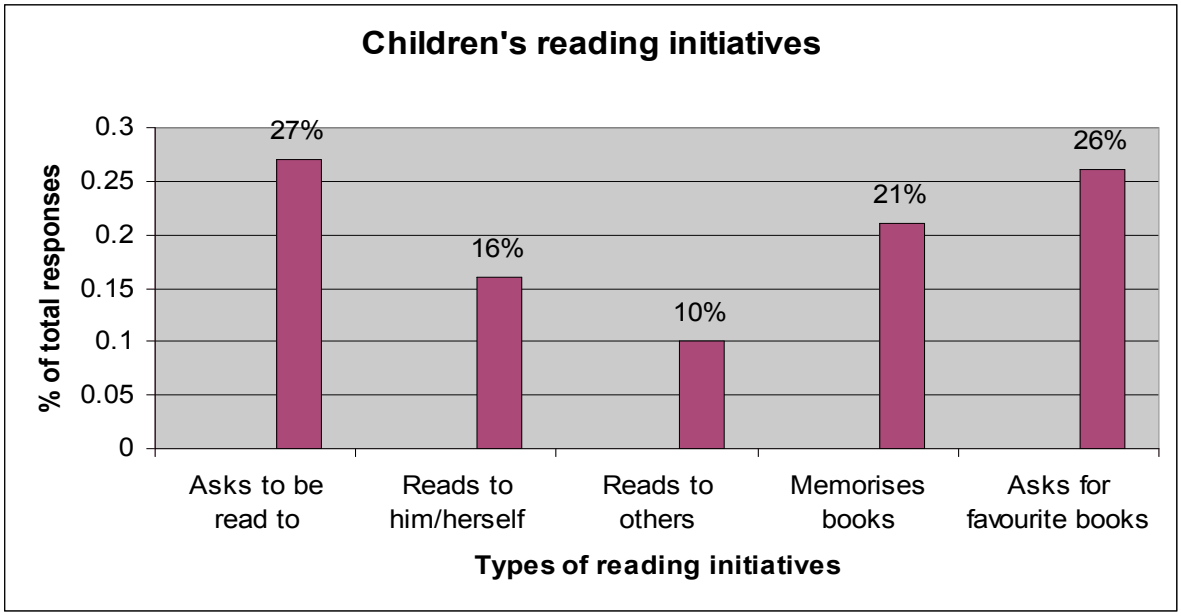


Graph No. 2: Parent reading activities during storybook reading

When reading storybooks to their children all parents indicated that they and/or family members participated in storybook related activities. Parents' responses indicated that they *discussed pictures* and *meanings* and *focused on letters* more often than they *focused on words* or *discussed rhyme.*

These findings are not necessarily surprising, as it would seem rather obvious when reading to children, to discuss the pictures in the book and to focus on meaning. What is interesting is that almost a quarter of parents indicated that they also focused on the letters, whereas, only 14% indicated that they focused on words and rhyming. It would seem that these parents held the belief that letter recognition was an important aspect of learning to read, particularly at the beginning reading phase.

Children's reading initiatives

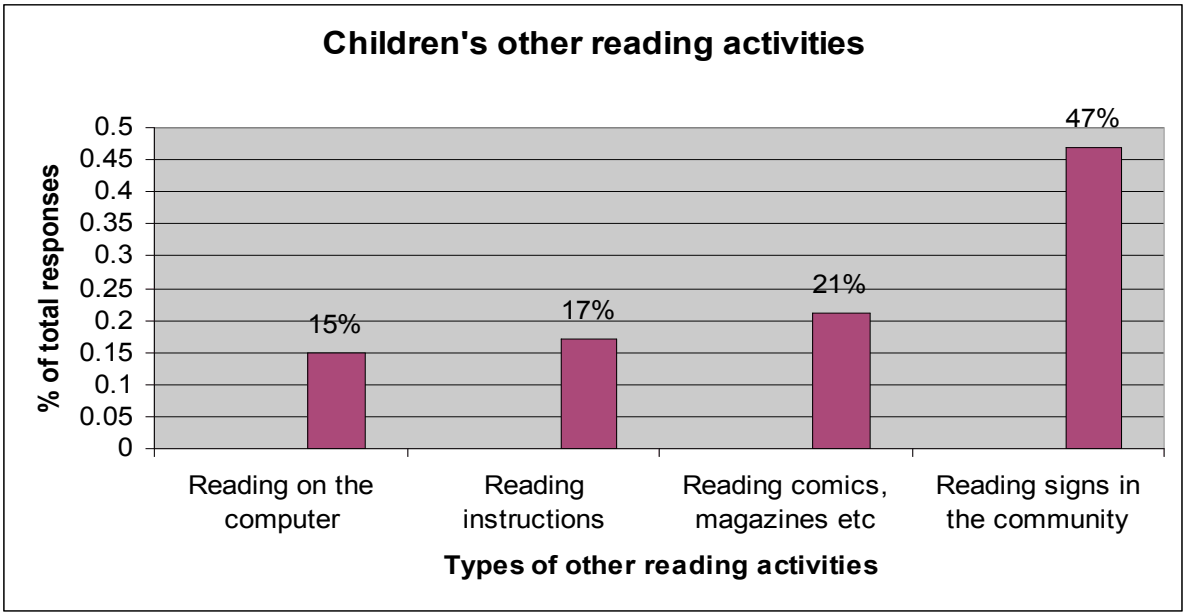


Graph No. 3: Children's reading initiatives

Parents indicated that their children initiated all of the reading activities listed. There were differences, though, in the frequency of the listed activities with *asking to be read to, asking for favourite books to be read* and *memorising books,* being initiated more than twice as often as *reading to others*. It was apparent, though that even at a young age, children chose to *read to themselves* and they *read to themselves* almost half as often as they *asked to be read to, or asked for favourite books to be read.*

When examining these findings with the previous graph, it can be seen that from the children's perspective, the activities parents indulge in with their children are enjoyable and engaging, since a similar per cent of children, it is reported, asked to be read to, and moreover, asked for their favourite book. We know from the literature cited earlier that such reading behaviours are important indicators of children's future reading development.

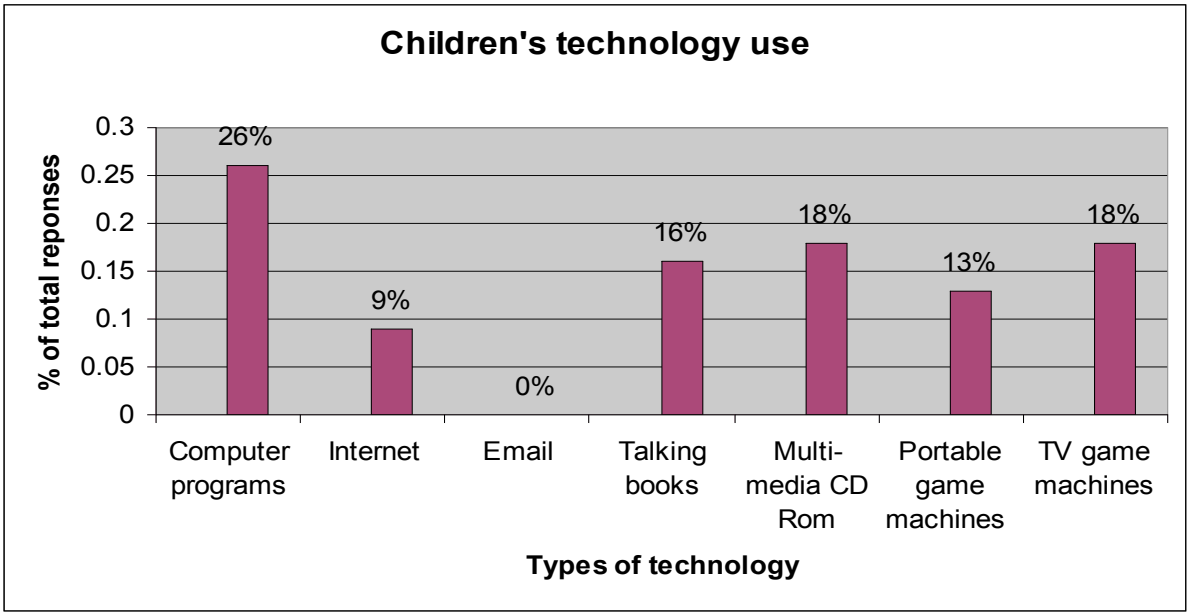
Children's other reading activities



Graph No. 4: Children's other reading activities

Responses to this question demonstrated a marked difference in children's participation in other reading activities. Parents indicated that their children *read signs in the community* far more often than any of the other three reading activities. The results of the other three reading activities were comparable, with *reading on the computer* being judged as the least used activity. These results may seem rather predictable as parents have been encouraged along with storybook reading, to engage their children in environmental print. However, they also appear to support the warning that Beavis (2002) shares that the current definition of literacy tends to include only print and paper-based texts rather than digital texts that the children would read on the computer.

Children's techno-literacy practices



Graph No. 5: Children's technology use

When asked what types of technology were used by their children, parents indicated that their children used *computer programs* more often than other types of technology. No one indicated that their child used email. *Internet* use only accounted for 9% of the total responses while other technologies – *talking books, multi-media CD Roms, portable and TV game machines* had fairly comparable results, being between 13% and 18% of total responses.

Again these results are rather predictable. The children were not considered to be readers by their parents, let alone writers so the use of the internet and email, one would expect would be used sparingly. What is surprising is the rather low percentage of children using other types of technology. One possible explanation is that some parents felt that other types of technology, such as TV game machines, and portable games like Gameboy, are not educationally sound and therefore they did not like to admit that their children had such 'toys'. It would have been interesting to ask the parents to list the computer programs that their children did use, as it is possible that these were 'educationally relevant' games.

Again responses to this question tend to support the emerging view that parents view reading to be a print and paper-based enterprise.

Parent views on technology and its value in learning to read and write

There was an open-ended question at the end of the survey: 'What are your views on the value of technology in learning to read and write?' Most parents' responses could be categorised as being supportive or non-supportive of the value of technology in learning to read and write. Thirty-three parents (51%) responded positively with twenty parents (31%) being non-supportive. Twelve (18%) parents' responses were non-committal.

It seems, therefore, that most parents thought that technology was a useful tool for teaching their children to read and write, however, it was also clear from their responses to the other questions that they believed it was far more important to read books to their children. The following comments demonstrate the range of views held by parents regarding their children's developing techno-literacy skills. For many parents, these were viewed in the same vein as 'play' and therefore not 'academic'.

> *I think there is a place for technology in learning to read and write but definitely reading books to my children every day has helped them to enjoy reading.*
> *(Parent of boy, School 1)*

> *My children probably still value books the most and it is the best interactive form of teaching. Techno devices start off with good intentions but often disintegrate into an easy way for us parents to entertain the children, so we tend to leave the children alone playing games rather than sitting with them and teaching.*
> *(Parent of girl, School 1)*

> *I feel it is important for children to learn about technology as it is their future as they will need to know these skills in the workplace. (Parent of boy, School 2)*

> *The access to learning and teaching internet sites has been invaluable for me while teaching my child to read. (Parent of girl, School 2)*

> *I think it can be very useful – it attracts the child's attention but it has to be backed up with 'old fashioned' books as well – technology is not everything.*
> *(Parent of boy, School 3)*

Computers and computer games are great but it should be balanced with reading from books. (Parent of girl, School 3)

The comments from parents in this question support the findings of previous questions. Parents view reading and, in particular learning to read as being primarily the domain of print and paper-based materials. While techno-literacy practices might be considered important and certainly present in the daily lives of their children, it seems they are viewed as '*an addition to'*, rather than an '*as well as'* component. However, what is clear is that children do have many opportunities to develop techno-literacy skills, as well as print-based skills in their homes.

CONCLUSION

The survey established trends at three Sydney metropolitan schools of kindergarten children's multi-literate practices in their homes, and shed information in relation to the use of technology in early literacy learning. Findings are consistent with studies by Luke (1999) who suggested that children's early literacy and play experiences were shaped increasingly by the electronic media, and Downes (2002) who argues that "many kindergarten children enter school with informal competencies and predispositions for learning that have developed from the use of computer technologies in their homes" (p. 184). While this may be happening, it seems neither parents nor teachers of early years children value these 'competencies and predispositions for learning' very highly. If we are to accept the views of Snyder and others, that literacy is no longer only print-based material, but now also includes combinations of signs, symbols, pictures, words and sounds, it seems we are doing young children a disservice by not incorporating such competencies into their early literacy education, both in the home and in schools.

IMPLICATIONS FOR THE FUTURE

This study has demonstrated that the literacy practices of kindergarten children in their homes included both paper-based and techno-literacy practices. Their experiences are extensive and the potential of young learners entering our schools with 'funds of knowledge' that include techno-literacy practices is high. A major implication, therefore, for schools is to 'make ready' (Comber, 1999) and provide a learning environment that will build on this knowledge.

Another implication is to take heed of Snyder's (2001a, 2001b, 2002) warning that techno-literacies need to be valued as important components of literacy learning both at home and in the school settings. To do so, will require a change in teachers' definition of what constitutes literacy practices in the early years, for as Turbill and Murray (2006) propose "teachers of early childhood continue to operate within the paradigm that literacy is a set of skills to be mastered, and technology is a tool to be used to master those skills" (p. 2). Turbill (2001) also reported "a group of principals at a conference lamented that in spite of each classroom in their schools having at least one computer, teachers of the early years in particular, were reluctant, even resistant, to the integration of computers into their literacy curriculum" (p. 256).

Similarly, there needs to be a change in current views of parents. This study has demonstrated that young children use technology in their daily home lives and while parents view this as 'useful', they still tend to hold the view that learning to read using books, pencils and paper is more important than developing techno-literacy practices.

Makin et al., (1999), McNaught et al., (2000), and Arthur et al. (2001) suggest that even the pre-school experiences that involve multi-literate practices are likely to not only be ignored, but actually devalued in the school setting.

It is apparent, therefore, that the value of 'reading to your child' in the home setting has been accepted and practised by the parents in this study. Teachers have been instrumental in espousing this message to parents. Thus, if we are to acknowledge, value and build on the techno-literacy practices that kindergarten children experience in their homes and thus bring to school, it seems we must first begin with the teachers of school entry classes. While this is happening in some schools, most classroom settings are just not conducive to using computers and other technologies in teaching and learning experiences. As Murray (2000) pointed out, in some classrooms, computers are so close together that the mouse has to be operated by moving it around on top of the computer. This scenario, sadly, is common in many classrooms. Only when teachers are in a position to understand and espouse the synergy between techno-literacy practices and paper-based literacies, will parents also begin to acknowledge the value of the many multi-literate practices their young children experience in the home setting.

With computers having been in school settings for over twenty years and new technologies such as iPods playing an ever increasing role in the lives of our young children, there is still much to do in our classrooms in order to 'prepare our young children for the future'.

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