

Establishing School-Family Partnerships in Distance Education Contexts: Pedagogical Engagement in Isolated Settings

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Abstract

This investigation examines school-family partnership relationships in rural and remote settings. The study highlights the teaching-learning relationships of classroom teachers, parents as instructors/supervisors, and students as they make sense of numeracy and literacy outcomes in distance education contexts. The case study data provide insights into how the distance education provider (the school) interacts with families to facilitate young students' learning experiences. At present, the school and the families they engage with have access to limited technological resources. This investigation considers learning engagement in these increasingly unusual settings and postulates the effect new technologies may have on pedagogical practices in the future.

Résumé

Cette étude examine les relations dans les partenariats école-famille en régions rurales et isolées. L'étude illustre les relations enseignement-apprentissage d'enseignants en salle de class, de parents comme instructeurs/superviseurs et d'étudiants qui s'approprient la numératie et la littératie en éducation à distance. Les données de l'étude de cas offrent un regard sur la façon dont l'établissement à distance (l'école) interagit avec les familles pour faciliter l'expérience d'apprentissage des jeunes apprenants. Actuellement, l'école et les familles avec lesquelles elle s'engage ont des ressources technologiques limitées. Cette étude tient compte de l'engagement à l'apprentissage dans ces environnements de plus en plus inhabituels et postule sur l'effet que les nouvelles technologies peuvent avoir sur les pratiques pédagogiques dans l'avenir.

Some students living in rural and remote parts of Australia are prevented by distance from attending a regular school daily. Schools of distance education provide schooling for such students as well as for students who for various reasons cannot attend regular schools. In the education of all children, families, home, and community connections and partnerships are vitally important (Askew, 2004). It could be argued that in distance education, home supervisors (usually parents) are more closely associated with students' learning than parents of students in regular schools. The

crucial nature of the partnership between the home supervisor and classroom teacher is clearly apparent, and even more so when the home supervisor is also the parent of the student attending the distance education school.

Distance Education in an Australian Context

The provision of schooling through schools of distance education is similar to that of regular schools in that they are typically similarly structured and are governed and guided by education authority policy and funding. However, there are obvious differences. Home supervisors play an important role in the education of students in schools of distance education (Louden & Rivalland, 1994) and clearly distinguish distance education schooling from regular schooling (Boylan & Wallace, 2000). Lesson delivery also distinguishes schools of distance education. Two-way radio lessons have historically been the prime mode of instruction. As an information and communication technology, the two-way radio is a means for students to communicate with their teachers and listen to fellow classmates in real time. This mode of lesson delivery has had a long association with schools of distance education, but can be regarded as old technology.

As mentioned above, schools of distance education operate similarly to regular state education sector schools. The school administration team comprises a principal and at least one other senior teacher. In addition, they have classroom teachers, usually assigned to specific school year levels, and associated support staff (which may include a resource teacher, teacher-librarian, curriculum coordinator, and learning support teachers). Families enroll their children with distance education schools in Australia for varying reasons: when families are traveling throughout Australia or overseas, because of medical or behavioral circumstances, or based on the premise that some families choose distance education as a form of schooling that would best suit their child and their lifestyle. Nevertheless, the most common enrollment pattern is based on the "tyranny of distance" many families experience when living in isolated areas. One of the main differences between regular and distance education schools involves program development and the implementation of learning activities. Ideally, program implementation is assisted by each child's home supervisor who must interpret the planned program and guide its implementation. A vital partnership between the distance education teacher and home supervisor is established through this engagement. In order to assist supervisors with program implementation, distance education teachers prepare accompanying notes on the planned program for home supervisors (usually in fortnightly theme-based units). Teachers encourage home supervisors and students to make regular contact with them during the school day, usually

via telephone or e-mail. Teachers have direct contact with students twice per week. Until recently such engagement was via two-way radio, but new technologies have resulted in a variety of modes of lesson delivery including teleconferencing, audio-graphic conferencing, and satellite lessons.

Teachers typically plan their programs in fortnightly segments that involve workbooks, the home supervisor guide, and accompanying resources. Copies of set material are archived in the school to support teachers in their planning and preparation. Ordinarily, these programs arrive at least one week before the previous set has been completed, and this time is necessary to provide home supervisors with sufficient time to prepare for program implementation. The student workbook that accompanies the set material is designed to be a record of student work over the fortnight. Home supervisors are expected to mark student work when it is completed and write accompanying comments both for the student and for the teacher. Completed student workbooks are often interleaved with other artifacts including photos, cassette recordings, and drawings, which serve as a record of student activity for the classroom teacher to peruse and assess. In order to supplement and extend this learning, a range of other opportunities is provided to development learning partnerships (including in-school experiences, school camps, school sports, and teacher home visits).

Learning Interactions in Rural and Remote Contexts

Some view students in rural and remote locations as educationally disadvantaged compared with urban students (Ryan, 2001). Du Plessis and Bailey (2000) report that parents recognize the educational disadvantage their children suffer through geographical isolation and emphasize the need to resource educational programs for their children more effectively and realistically. More specifically, research conducted by Dockett, Perry, Howard, and Meckley (1999) found differences in the perceptions of parents from city locations compared with those of parents from rural and remote areas. The differences were associated with what parents thought was important about children's transition to school, including the perceived importance of prior-to-school experiences and the nature of these experiences. Other factors included the particular effects of geographical isolation, school and class size, the nature of local communities, distance education, the effects of rural recession, the role of technology in children's education, and the nature of transition programs. Irrespective of the perceived differences between parents' beliefs regarding urban and rural education, greater collaboration between teachers, students, parents, and the wider community has the potential to affect the quality of teaching and learning experiences.

With new information and communication technologies (ICT) being rapidly developed and created, partnership arrangements among these stakeholders can be fostered. In distance education in particular, new technologies not only offer choices about lesson delivery, but also new ways to support learners and home supervisors in more meaningful partnership arrangements. Despite such advances in technology, the remoteness of some families in Australia has resulted in such access being either limited or nonexistent.

Flexible and Dynamic Learning Contexts

Some are of the opinion that new work contexts require people to be flexible and responsive to the changing needs of the environment in which they are located; and in addition, they need to be fluent and confident in using ICT in new and dynamic ways (Maughan & Ball, 1999). Moreover, they speculate that such organizations are collective entities where individuals are expected to make contributions that benefit the collective enterprise of the group and are “empowered with the responsibility for identifying and communicating new concepts and technologies that can positively impact performance and output” (p. 28). Such contexts demand new school curricula that are flexible, transformative, and contextualized. Such curricula should incorporate ICT as a tool for dynamic and authentic learning environments that provide opportunities for learners to maintain high levels of motivation and critical reflection. As Maughan and Ball stipulate, “an important goal of developing a contemporary curriculum is to create and integrate content units and methods with subject-specific core content, resulting in the preparation of students who can succeed in the 21st century” (p. 29). It could be argued that such an ideology cannot take place unless learners are confident with using ICT so as to facilitate new ways of thinking, exploring, interpreting, creating, and communicating.

Young children are becoming literate and numerate in out-of-school contexts and have demonstrated a capacity to engage with technology with a level of sophistication well beyond that expected in the classroom (Lowrie, 2004; Lowrie & Clancy, 2003). Hence in our classrooms, nothing much has changed, and traditional approaches still dominate activities in English and mathematics, which act as the skills base for literacy and numeracy (Yelland, 2002). Significantly, in remote settings, children have limited exposure to technology in both in-school and out-of-school contexts. Although the world has witnessed a massive change in what it means to be literate and numerate, some children in remote areas are not being exposed to these developments on a regular basis. The Information Age is a world where global and multicultural education, internationaliza-

tion of the curriculum, and the notion of multiliteracies exist (Yelland, in press).

Notions of literacy and numeracy have moved well beyond static and unitary concepts, and new learners in the Information Age must access, understand, transform, and transmit information at an exponential rate (Lesh & Harel, 2003). As Kibby (2000) maintained, "accessing information requires identifying and finding printed, oral, and graphic information; gaining information requires comprehension, analysis, synthesis, and evaluation; transforming information requires writing, speaking, and representing; and transmitting information means publishing or disseminating transformed knowledge" (p. 380). This investigation describes how schools and families work together to enhance young children's literacy and numeracy understandings in learning environments where exposure to technologies is limited.

Research Context and Case Study Methodology

In this article I describe one component of a six-phase research project commissioned by the Australian government through the Department of Education, Science, and Training. This case study phase explores how teachers, families, and their children create numeracy and literacy meaning from contexts that are detached from regular classroom experiences. These case studies describe the educational connections that emerge from these stakeholders in distance education learning environments that have restrictive use of information and communication technologies. Specifically, this investigation outlines:

1. The pedagogical practices that were implemented across the distance education programs to engage children in numeracy experiences; and
2. The partnerships established as the respective stakeholders develop meaningful and authentic problem-solving experiences to enhance students' literacy and numeracy development.

In Australia, distance education settings tend to range from formal classrooms (where designated areas are created in the home to mirror regular classrooms) through to informal arrangements (where students learn seamlessly throughout the day through interaction with learning materials and engagement with their supervisor). These learning materials are distributed from a distance education centre (school) each fortnight, with a supervisor (usually a parent) responsible for establishing a learning environment and providing an opportunity for students to complete the designated activities over the two-week period.

This investigation provides an in-depth case study of two families whose children learn through distance education. It also considers and describes the role of the particular distance education site that delivers

instruction to these families in order to provide a comprehensive context for the study.

Initially, interviews with key personnel from the distance education providers were conducted so that information on the range and nature of services offered for the support of early literacy and numeracy assessment and intervention could be gathered. These personnel included the executive director of distance education, the respective district superintendents for the regions, the principals of distance education schools, and parents with longstanding associations with these schools.

The home supervisors (parents in the two particular case studies) were interviewed and observed in the home on a typical school day. Moreover, time was spent watching the students engaged in a range of literacy and numeracy practices as the supervisor made sense of the curriculum. Data from each home site were combined with data from the interviews with personnel from the schools of distance education to form a rich case study of practice. Case studies were analyzed and common themes identified. Case study data were also used to supplement an exposition of effective strategies, processes and pedagogies in literacy and numeracy development of rural and remote students in the early years of schooling.

A Home Supervisor Interview Schedule was developed to initiate a conversation with the home supervisor in order to ascertain the influence the program had on both the pedagogical practice of the program and the relationship initiatives that emerged from the program. Most items were associated with aspects of numeracy, specifically strategies used for promoting numeracy, feelings about the program in terms of developing their child's numeracy, support provided by their distance education provider, and the quality of support provided. Importantly, informal numeracy practices were also discussed, particularly in relation to the use of information communication technologies.

A Child Interview Schedule invited the child to compare schooling through distance education with that of a normal school. Students were also asked to state which particular informal literacy and numeracy practices they were engaged in outside their school program. Finally, students were asked what they would like to be when they grew up. The purpose of the interview was to provide children with an opportunity to share their ideas and thoughts on schooling in their environment. Asking students what they wanted to be when they grew up also provided insights into their world view and ambition. In addition, a School Interview Schedule was developed to ascertain teachers' views of the program and to gain insights into how they developed learning partnerships with families.

Case 1: The School Site

Context

Although a separate entity, the teaching and administrative buildings of this provider were on the same site as a local primary school. The teaching staff was required to undertake playground duties at the adjacent school, but they had their own staff room, classrooms, library, and administrative facilities. The school had an exceptionally good library, which seemed to be essential for a distance education provider. Although some distance education providers have an executive profile similar to that of schools (with a principal, deputy principal, etc.), the school's administrative structure was quite flat—consisting of the principal and teaching staff. The teaching staff comprised five full-time classroom teachers and a teacher librarian. The 1:14 teaching-student ratio is consistent across Australia in distance education settings. The geographical spread of students in the school's catchment area included families from coastal areas, highlands, mountain ranges, and those on rural properties in New South Wales. Nineteen children were enrolled in Stage 1 (the first three years of schooling). Most of these children qualified for distance education schooling because their homes were far from local primary schools.

The manager of the school had been involved in distance education for more than 15 years. It was immediately apparent that the manager had good rapport with other members of the staff. One of her most impressive qualities was her ability to identify particular strengths of each member of staff and use these attributes in productive and educationally exciting ways. It was evident that the staff respected her organizational ability and enjoyed the challenge of working in a distance education environment.

The manager promoted self-directed learning in both professional development contexts with staff and teaching-learning interactions with students. Her sound knowledge of pedagogy in a distance education framework was impressive and was particularly focused on promoting strong learning communities between teachers, students, and parents. She appeared passionate about creating individualized learning programs for students that not only supported her views on self-directed learning, but reflected the forms of professional development that she challenged her teachers to undertake.

It was evident that the entire staff not only respected the manager's corporate knowledge of distance education, but also valued the opportunities she provided to staff with respect to professional development. Several members of staff commented that the role of the manager was complex, particularly because a public image was becoming increasingly challenging. Some held the view that it took at least two years for a teacher to adjust to the various demands of being a distance education teacher and

that having a relatively stable staff profile was critical in order to adjust to the different dynamics associated with this form of pedagogy. The turnover of staff at the centre was certainly low, with several teachers commenting that they were fortunate that such infrastructure knowledge could be passed on to new staff members relatively seamlessly. Interestingly, they highlighted that this was not the case for all distance education providers in the state.

Several of the teachers had concerns about the changing nature and perceived purpose of distance education over recent years. Most of these concerns were associated with either the diverse student base attracted to distance education learning or managing programs with restricted resources. Increasingly, students with severe learning difficulties were being enrolled in distance education programs, and it seemed that parents were opting for this form of learning if their children were not “adjusting” to mainstream education. Although the teachers enjoyed working with students with diverse needs, it was argued that specialist teachers were often required to support students’ needs with such learning difficulties more adequately. There was a strong view that distance education learning could not be regarded as another alternative for individuals who were unable to be integrated effectively into mainstream schooling. The other major issue concerned adapting to a broader student base involved the increasing enrollment of students with behavioral problems. Although it could be argued that these two elements of student diversity did not have a direct effect on the literacy and numeracy outcomes of children in the early years of school at this time, it was having an indirect effect on both the teacher’s preparation time and capacity to keep abreast of the research literature.

It was recognized that appropriate teaching materials were more critical in a distance education framework than in other forms of schooling. The centre had a good resource library, which certainly formed a major part of the children’s learning experiences in a distance education context. Despite this crucial aspect of learning, particularly in relation to the promotion of literacy outcomes, the site did not have a librarian. All text, audio, video, and software resources were collated by the student’s teacher. Most current views of librarianship would suggest that such a specialist is required in traditional school contexts: it would seem even more vital in a learning environment challenged by distance and isolation.

The other aspect of resource-based support that is fundamental to any distance education program is the teaching-learning materials mailed to the parents and children every fortnight. These materials could only be described as a crucial form of support for the supervisor and the most influential form of pedagogical engagement that occurs in the development of literacy and numeracy outcomes. Although the teacher-super-

visor partnership remained a strong catalyst for learning, these materials shaped the content, learning strategies, and assessment decisions on a daily basis.

In the centre, it seemed that the teachers did not have the time to write these materials and currently did not have the flexibility even to modify written materials to support the needs of individuals. Consequently, the strength of these written materials greatly affected the promotion of literacy and numeracy in the early years of school.

All schools of distance education provide orientation programs for new home supervisors and for home supervisors of students in their first year of formal school. In addition, schools have a program where classroom teachers make home visits (usually twice per term). These face-to-face sessions are of critical importance to home supervisors, not only for demonstration purposes, but for the opportunity to seek guidance one on one. The tyranny of distance often means only a small window of opportunity to engage in conversation about teaching and learning. Many home supervisors said that they would like more time with the classroom teacher than they presently receive but understood the difficulty of this.

Case 2: The Young Family

Context

The Young family lived almost an hour from a small township, and their property was surrounded by several other holdings—in fact the access road to their property was on two other neighbors' land. The Youngs had three children. The elder two had previously attended school in town (in a more traditional face-to-face manner), but this had lasted only two years. The youngest would begin school in two years. The two school-aged children, both boys, now attended school in town one day per fortnight. Although they were relatively isolated, the decision for the children not to attend the school in town every day had as much to do with lifestyle choice as it had with issues of isolation. The rationale for sending the children to school in town once a fortnight was predominantly for socialization, or as the youngest commented, "to make friends." Although Kyle (a kindergarten student) felt that the type of activities he completed at school were similar to those he engaged in at home, he maintained that it was much easier to concentrate at home. The three children were comfortable talking to me about their work, with the two boys eager to discuss what they had been working on that day and to present the work samples they had completed in their respective numeracy and literacy units from the previous two weeks. They both loved drawing, with images from the first *Lord of the Rings* movie influential in the youngest's work.

The Youngs' living conditions could be described as primitive. The two batteries that powered their generator provided the family with adequate

lighting, but not much more. Their computer could be used only for a few hours per day. Mr. Young explained that they required an additional four batteries in order for the generator to function satisfactorily, but that the cost of purchasing these was exorbitant.

The Youngs had a telephone line that had taken eight months to install from the nearest connection point. Unfortunately, the telephone line was often unreliable. The children could hear their teacher during radio lessons, but it was difficult to hear other children. Connection to the Internet via a modem was essentially impossible. Telstra (the service provider) could guarantee byte rates of only 19Kb, but the connection speed rarely rose above 9Kb. Not even the most basic Web pages could be reloaded at this speed as most Web pages require an access speed of 40Kb. Consequently, the only option for Internet access would be satellite technology not currently available through the distance education school's provider.

Literacy

The Youngs were satisfied that the literacy needs of their children were being met in the distance education environment. They were pleased that a range of functional literacies was being addressed in the program and valued the thematic nature of the learning activities. The parents had strong views about best pedagogical practices and although contrasting, provided a holistic model that supported their children's learning. Both parents maintained that the development of the children's self-concept was important and continually encouraged and supported them. It was evident that the parents really valued learning, and this influenced the culture of the learning context.

Both parents regularly read to their children (the 2-year-old girl continually asked her father to read a book to her while I was in their home). The notion of reading for pleasure was promoted, but it was not necessarily linked to the distance education reading and writing programs. Some held the view that the literacy program did not have a clear framework and that supervisors were not provided with short- or long-term goals or outcomes for their children. Although the spelling unit had a core list that could be learned and completed, little structure seemed to exist in other components of the literacy program. The Youngs said they would appreciate more information about how the various parts of the literacy program were linked so that they could go beyond the scope of the fortnightly units and this would provide them with more flexibility and empowerment in their supervisory role. Also, the Youngs would appreciate having access to a larger library, maintaining that their distance education school's library had a limited number of resources. Interestingly, their solution to the problem would be to allow distance education children to have access to the much larger library (from a provider

hundreds of kilometers away) or to have one combined state-based library that would ensure that all resources could be pooled. They felt that the work they (as supervisors) were required to cover each fortnight was probably two or three times more than if they themselves were the classroom teachers. At times they felt that they needed more guidance in relation to the amount of content they had to cover in each literacy-based unit. Mrs. Young said that she had to make decisions about many aspects of learning without having an idea of the effect these decisions would have on subsequent units of work. She felt that it was important to get through all the work, but she was uncertain whether this was always best for the learner. It was apparent that she thought deeply about teaching and learning, but would benefit from more feedback from the school.

The Youngs indicated that the support they received from the school was good. Both parents felt that the teachers seemed to be hand-picked in the sense that they worked extremely hard and tended to be amazingly caring. They maintained that their children's distance education teachers were much better than the teachers they had encountered in regular school contexts. The Youngs indicated that the teaching staff always put an enormous amount of work into the preparation of the mini-schools and hoped that (with additional resources) they could occur on a more regular basis in the future, such was their value to the children. The Youngs felt that the teaching staff should be provided with additional support staff because they were already working to their full capacity. Mr. Young argued that other (less structured) initiatives could be developed to help support and develop their supervisory role. One idea would be to have more regular sharing sessions with other parents that did not require the preparation and organization of the mini-schools.

Numeracy

The Youngs were far less happy with the numeracy program. Mrs. Young described three instances when she was not able to understand the mathematics content, only to realize that the problem solution, instructions, or strategy base was incorrect. She argued that her supervisor time was precious and that such instances could either deflate her confidence or confuse her children. These mistakes were still in the program two years later. Mrs. Young maintained that the writers of the program did not appear to modify or update content even when mistakes were highlighted. Mrs. Young commented that the mathematics program was meant to be tailored to the needs of the individual, but that her children continued to receive more of the same work in both the content and problem-solving approaches identified.

The Youngs indicated that the theoretical framework of the mathematics program was quite problematic as there was much less evidence of

short- and long-term outcomes in this program than in the literacy program. Mrs. Young needed these outcomes in order to gauge her children's progress. Such signposts or indicators of achievement would allow her to devote more attention to areas of strength or weakness, whereas currently the activities were often presented haphazardly. Mrs. Young said she was not confident of her own mathematical ability and thus required more scaffolding than with the literacy program. She felt that the program needed to be updated because she believed that many important mathematical concepts were hidden with diversionary activities that failed to embed mathematics into the lessons. She provided the teachers with a great deal of feedback about her reflections on the numeracy program, and fortunately, the teachers responded well to this and gave her a great deal of support. Nevertheless, she was left to her own devices much of the time and still required a program that could support her: the documentation of this program was not achieving this goal.

Technologies

The children used a number of ICT experiences. Although audiotapes remained the primary source of communication, the children did have exposure to a weekly teleconference and one electronic classroom session. Both parents indicated that the audiotapes could be "pure torture" in the sense that they became monotonous. The fact that such feedback could never be dynamic made this form of communication problematic for young children. I suspect that the supervisor spent time decoding this information for the children, but Mrs. Young felt that the teachers themselves probably had not listened to them.

The Youngs recognized the importance of using technology to promote literacy and numeracy outcomes. They believed that these forms of communication provided variety in the learning, but maintained that there was no direct attempt to link unit work to ICT-rich contexts. Consequently, the learning links remained informal and unintentional. The children used a number of CD-ROMs (including mathematics games, encyclopedias, stories, and adventure games) to support their learning. Mr. Young was computer-literate and was able to help the boys to use the computer as an effective tool. As mentioned above, his expertise rather than links to any formal program enhanced the children's learning experiences.

The Youngs desperately needed a laptop computer in order to allow the children to work regularly on the computer (a laptop does not require as much power to run and can be efficiently battery-charged). Although an expensive option, it would allow the children to have access over extended periods of time when the generation of power is problematic. The parents conceded that the children's ICT experiences would remain limited while

they had such an unreliable phone line, but this could change if the distance education school was able to move to satellite communication.

Voice of the Children

The two boys certainly enjoyed being schooled at home. Both agreed that it was much easier to concentrate on their school work at home rather than being in a classroom with other children (their once-a-fortnight experience). Although they enjoyed the canteen in the town school and the chance to make new friends, it was apparent that they enjoyed the flexibility of the distance education day and the company of their parents. Each morning they would begin the day making puzzles and playing with their Lego blocks. They would then begin some supervised work undertaking writing and spelling activities before having the opportunity for reading. Mathematics activities were generally scheduled after a period of play with painting, crafts, and PE activities after lunch. The boys took pleasure in working with each another, but also looked forward to working on individual tasks. Their passion for learning was impressive, and they were comfortable talking to me about their work.

Reflections

This family would benefit greatly from having access to satellite communications. Mr. Young's computer-based expertise would certainly ensure that such opportunities would be used productively and efficiently. It would have the potential to enhance significantly the children's literacy and numeracy development.

Case 3: The McDonough Family

Context

Although the McDonough family lived less than 40 minutes from a township with good amenities and shopping facilities, they generally visited the town only once a fortnight. Most groceries were purchased on such journeys, and contact with other families was infrequent. The McDonoughs did not have electricity or a phone connection. Power was supplied through a generator, but had to be used conservatively. The McDonoughs had direct line-of-sight access to a digital tower and consequently had a reliable mobile phone signal.

The main reasons they did not regularly need to leave this relatively remote site was because they ran a business from home. Most contact with the outside world was from selling their timber and furniture products at markets on the weekend. Currently such business initiatives were on hold because the truck used to transport the furniture was not roadworthy.

The McDonoughs had five children, two of whom lived at home. The case-study participant Janelle was in grade 2. Some of the other children had previously attended school in a nearby township, but Janelle's three years of schooling had been in a distance education mode. Janelle did not talk during the two-hour visit although she did carefully listen to questions asked of her, nodding her head, laughing, and whispering responses to her mother from time to time. Until recently, Janelle had also been reluctant to talk to her teacher or other children at the mini-schools.

Schooling at Home

As supervisor, Janelle's mother attempted to develop a consistent structure to the school day. The routine generally consisted of a free-time period in the morning followed by a block of time when she did mathematics and then some writing activities. Janelle was then allowed to play before coming back to do some more school work. Janelle's favorite subject was mathematics, which she proudly displayed. She was currently working on a thematic-based unit that contained work involving the use of the addition algorithm. The only subject Janelle did not enjoy was handwriting—although she had received numerous awards for the presentation of her work.

Most school-related learning activities were finished by 2:30 p.m. each day. Mrs. McDonough said that Janelle did not learn when pressured, with most positive learning outcomes occurring when Janelle was given the opportunity to think about concepts or approaches to solving problems while off-task, usually when given the space to play. She said that Janelle was not able to concentrate on tasks for extended periods, so activities needed to be relatively short and followed by some thinking time away from the lesson structure. It appeared that the distance education program was followed quite rigidly and that most learning experiences were presented in and around the program sent from the school. While I was at the site, I gained a strong sense that there was a time for school and a time for play and that engagement did not overlap.

Janelle was proud of her achievements at school. She showed me a large scrapbook full of awards that she had received from her teachers: at least 100, carefully displayed across every possible area of learning. It was evident that Janelle had engaged in most of the learning activities highlighted in the survey, with the exception of searching the Internet and reading or writing e-mails. Although she had some limited experience with using the Internet at her uncle's home, all members of the family indicated that they were not very computer-literate. Consequently, most of her computer-based experiences were undertaken through participation at the mini-schools organized three times per year. It seemed that Janelle was provided with a range of learning experiences, but they were

generally completed in a closed (rather than an integrated and investigative) manner.

Literacy

In general, Mrs. McDonough felt that the literacy program was quite effective. She maintained that the diversity of activities in the program allowed Janelle to work in both structured (e.g., spelling) and relatively unstructured (the free choice in writing tasks) ways throughout the day. The daily routine formulated for spelling activities provided opportunities for the supervisor or student to discuss letter patterns and word blendings while establishing the challenge to increase accuracy throughout the week. Mrs. McDonough also commented that the flash cards provided in the program were useful for word recognition as they were "a bit of brain-washing, but an effective way of learning." As her supervisor, she encouraged Janelle to use the look-see-cover approach to learn her words although she emphasized the importance of "just having a go" when using unknown words in her writing.

When encouraging her to write more creative stories, Mrs. McDonough found that letting Janelle listen to audiotapes, then "having a go" herself was usually effective. Mrs. McDonough maintained that one of the most rewarding aspects of being a supervisor was when Janelle experienced a learning breakthrough. She explained that these achievements often occurred when least expected, in situations when she felt that Janelle would "never get it." Knowing her daughter's personality so well meant that she appreciated when Janelle was ready to learn. In such instances, she was cooperative and engaging. She never attempted to set specific long-term or short-term goals for her daughter, maintaining that her learning occurred naturally and in a pattern consistent with the program. There was no scope-and-sequence chart to follow, and consequently most learning outcomes were isolated to individual lessons or the two-week units.

Mrs. McDonough regarded the mini-schools as a particularly valuable aspect of the distance education program. Although only two were held per year (with an additional camp in term 4), they were extremely valuable for both the student and the supervisor. Janelle was reluctant to talk to people outside her immediate family, and the mini-schools provided her with the confidence to communicate with both adults and other children in various ways. The rapport she had developed with her teachers at the mini-schools remained strong. She referred to her teachers "auntie teachers," and they were almost part of her extended family. She did not have many friends of her own age, so the mini-schools also became an important component of her socialization and friendship-building. From a literacy perspective, important aspects of telling, listening, and communicating were developed in these schools as could not have been undertaken in

her day-to-day world. Without satellite communication, the radio lessons also took on a critical role, particularly because Janelle preferred to listen rather than interact in such contexts.

Numeracy

Mrs. McDonough was equally happy with the numeracy program offered in the distance education mode. She was pleased with the range of activities provided and was particularly impressed that there was more to mathematics than studying multiplication tables. Janelle enjoyed numeracy activities more than literacy-based understandings, and not surprisingly, tended to be stronger in this area. Some of the work involved rounding off numbers. Mrs. McDonough said that she was finding this concept difficult to grasp because it was difficult to relate such understandings to realistic concepts because we no longer have one- and two-cent coins in our currency. Although not explained in detail, it may be that limited exposure to purchasing items from shops may hinder conceptual understandings in this area. However, Mrs. McDonough had been playing shopping games with Janelle to simulate these real-life contexts. Janelle enjoyed playing all the mathematics games provided in the distance education program, and the concrete materials were frequently used to explain new concepts and help reinforce others.

Mrs. McDonough felt that the resources provided by the school were abundant and extremely good. At times, however, they were overwhelming, so Mrs. McDonough preferred to have support in how to use them effectively, which suggests that she was probably not using the materials to their full capacity.

Technologies

Janelle was exposed to a range of ICT applications, including a computer (provided by the school), Playstation, and Nintendo. She enjoyed playing numeracy-based games (Number Maze), read CD-ROM books, and also used other technology tools (the slide show with Kid Pix and photo disks). Janelle played the Number Maze game regularly, which supported her understanding of numeration and addition-subtraction concepts.

Janelle had developed a better understanding of using technology-based tools than anyone else in her family. Mrs. McDonough said that she would find it difficult to support her technology needs, but she appreciated that it was essential for Janelle to develop such skills. She believed that it would be beneficial to have access to the Internet, but this would be problematic because they had no telephone line. The only feasible possibility would be satellite access, and this could only happen if the school was able to fund the installation and maintenance costs. Mrs.

McDonough said that they would require a great deal of training and support to ensure that such resources would be used effectively.

Reflections

The McDonough family lived a peaceful existence in a relatively isolated environment although they were quite close to popular tourist destinations. Janelle had no regular contact with children her own age and was timid and shy. She seemed calm and contented and eager to please her teachers. She enjoyed her school work, and her mother wove her schooling into a flexible daily routine.

Although she had access to many of the ICT-based resources used by other children her age, most of these technology interactions were self-directed and learned. She had used the Internet and e-mail at a relative's house, but it was unlikely that she would ever have access at home unless it was supported by the Department of Education. Writers of learning materials should be aware that some children will not have access to the Internet for some time. Nevertheless, Janelle did use some technology resources, and her mother said that they had influenced her learning.

Discussion

The home supervisor had an influential role in the construction of the teaching and learning processes being implemented to support young students' numeracy and literacy development. The dynamics of the learning environments were significantly different from traditional classroom-based contexts, with the supervisor having the strongest influence over how pedagogical practices and learning outcomes were presented to children, particularly considering the dual role (that of also being a parent) that these individuals played. The respective supervisors were able to establish strong connections between in- and out-of-school engagement (Masingila & de Silva, 2001) and actively attempted to create such contexts even when blurring of these boundaries presented other challenges. The shared decision-making that was negotiated and established in this distance-education context (Goos & Jolly, 2004) was highly influential in the students' literacy and numeracy development.

The advent of a more flexible learning environment—satellite communications technology—may weaken the influence of the home supervisor in the distance education context. At present, the case study participants have limited access to the Internet and other forms of communication technology. It may be that the classroom teacher will become more influential and change the dynamics of learning partnership if the supervisor does not have the confidence or capacity to move into a new technological age. The prospect of the students being able to “see” their teacher weekly, rather than listening through the poor radio communication, may

also shift the learning dynamics. Moreover, these technological advances will provide opportunities for learning materials to be represented in a number of multimodal forms, which will probably have a dramatic effect on learning (Lowrie & Clancy, 2003).

It seemed that the home supervisors were more committed to developing authentic learning experiences than the students' distance education teachers. Although some distance education teachers were committed to establishing these contexts, there was limited support material for the students to embrace rich learning experiences fully. The dual role (that of a supervisor and parent) of the supervisor provided opportunities for the reconstruction of learning activities that were abreast of personal contexts and were much more aligned to the individual's interests and needs. This is not to say that the distance education teachers were not willing to personalize the curriculum; however, the supervisors' capacity to access a range of authentic artifacts helped establish powerful and rich learning environments despite their limited knowledge of the curriculum. As Goos and Jolly (2004) argue, the structure of schools delineates the nature and scope of parental involvement with mismatches between the home-school partnership. Failure to recognize parental diversity can cause barriers in these relationships. It could be argued that teachers are failing to utilize parents to their full potential and that additional barriers will develop as technology becomes a more influential component of the pedagogy.

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