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ABSTRACT

The New South Wales (Australia) Department of Education and Training has been employing distance education for remote students since the 1950s, using high-frequency radio supplemented by printed materials and audiotapes. In these settings, a four-way learning partnership evolved involving the teacher, student, learning materials, and home supervisor (usually the mother, guardian, or governess). A 6-week trial program using a satellite-based delivery system was implemented in 1999 which consisted of 12 students in grades 3 and 4 located on 11 different homesteads. The satellite system enabled the use of video, better sound quality, two-way interaction with the teacher, and Internet access. The new system's effect on the role of the home supervisors was examined through lesson reports, weekly reflective summations, and initial and final questionnaires and interviews. Key findings were: home supervisors and teachers believed the satellite system was superior to the existing radio system; with the new system, the teacher exercised a stronger facilitating role in the teaching and learning process, where previously the home supervisor had that role; home supervisors felt that more lesson content was covered and student comprehension increased; communication between teacher and student was improved; a new learning environment was created for the student and home supervisor; and the main focus of the home supervisor's role evolved from managing the student's rate of progress through the materials to acting in a facilitative and supportive role. (Contains 12 references.) (TD)

Learning partnerships in a remote rural setting

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Introduction

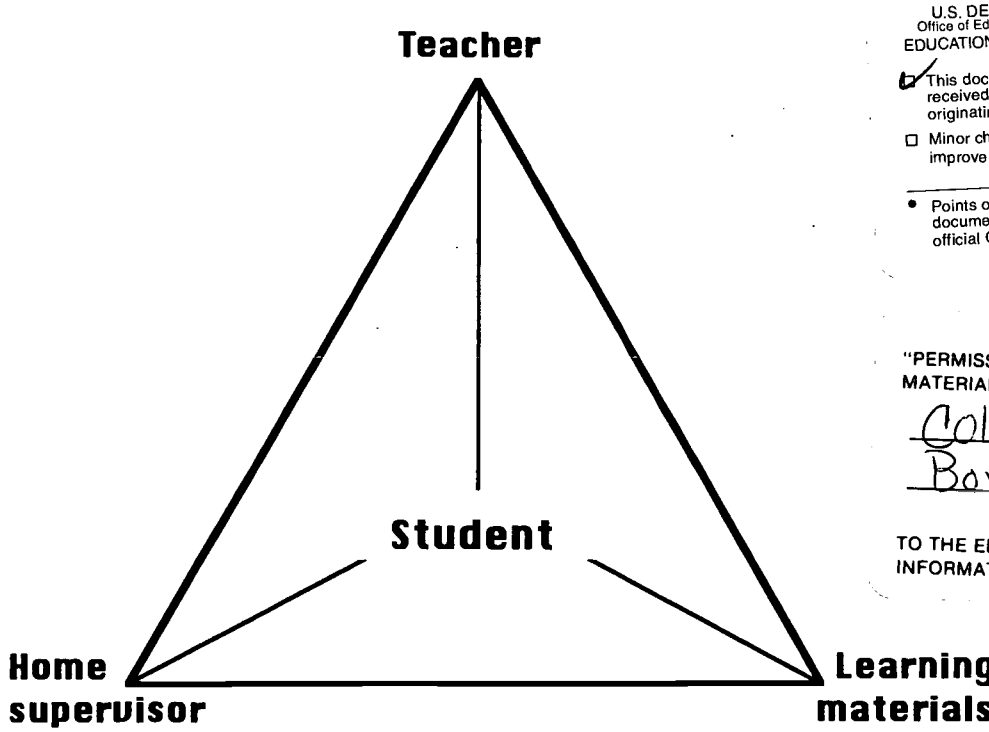
Jonathon Sher (1991) identified rural schools as 'wonderful laboratories for educational innovation and improvement' due to the unique challenges of cultural and physical conditions, small enrolments, distance and use of technology. He argued that the response of educational systems to these challenges was to provide 'ordinary education via extraordinary means' (Sher, 1991, p.1).

For students living in isolated, remote rural regions of Australia, access to school with a class teacher and students to participate in the typical face-to-face range of learning experiences is physically impossible. Alternate modes of delivery are needed to cater for these remote rural students. In New South Wales, the Department of Education and Training has recognised the need to provide equitable educational participation for the remote rural students by responding to these challenges through the creation of Distance Education Centres. In these Centres, a distance education teacher plans and delivers to their class of geographically isolated students their whole elementary and/or secondary education via a range of available distance education delivery modes.

The learning partnership

In these distance education settings, a dynamic four-way learning partnership involving the teacher, the student, the learning materials, and the home supervisor is created. This dynamic partnership is clearly focused on maximising the learning opportunities for the student and the role that the home supervisor plays in this learning partnership extends beyond the role and expectations of parents with children enrolled in the face-to-face school setting. These students' program of study is coordinated and managed by the home supervisor who, in most cases, is the mother, or guardian, or an employed governess.

Figure 1: The teaching learning partnership for remote isolated students

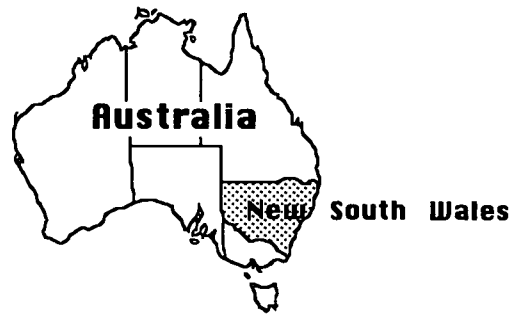


In the New South Wales Department of Education and Training, the role of the distance education teacher is clearly defined as: 'A distance education teacher plans and facilitates individualised teaching and learning that occurs, not in the classroom, but at a distant or isolated site (NSW DET, 1998:7). The relationship between the student, the distance education teacher and the home supervisor is seen as a mutually interdependent and interconnected one. Davis (1990) stated: 'distance education requires the teacher to build and nurture effective partnerships. These are done with reference to printed materials developed by curriculum development specialists (Davis, 1990, cited in New South Wales Department of Education and Training, 1998).

The relationship involved within the process of educating students in remote areas is best illustrated by Figure 1, that shows the major partners engaged in the education of students in remote areas.

Context

This study examined the impact of changing technologies on a group children living on large remote grazing properties in the Australian desert (Boylan & Wallace, 1999). Access to classroom based education is limited for such students. The nature of the education provided to these students is vastly different to that experienced by the average school child, not only because of the physical isolation, but also because of the nature of the educational process. For these elementary students (Grades 3 and 4), learning is managed remotely by a distance education teacher in partnership with home supervisors (who might be a parent or a governess), and those responsible for the development of the printed materials usually supplied to these students. Their learning materials consisted of printed correspondence materials supplemented with audio tapes and two 'live' 30 minute lessons per week delivered via the VHF radio network.



This paper focuses on the role played by the home supervisor in this learning partnership and on the effects of the introduction of an innovative educational delivery system on the home supervisor's role.

Changing teaching-learning technologies

The role of technology is an essential ingredient in the provision of equitable access to educational opportunities for these rural and isolated students. Willis (1993) observed that in many distance education settings, the use of a technology based delivery system is typically the conduit through which information and communication flows. This use of technology by the Department of Education and Training's distance education unit has a history going back to the mid 1950s when the high frequency (HF) radio technology was first used through the *Broken Hill School of the Air.*

The typical pattern of instruction is based on printed correspondence materials and audio tapes. Usually, these materials are supplemented with two contact sessions per week during which their teacher delivers lessons to cohorts of students using HF radio. These lessons allow the students to talk with each other and with the teacher. However there are ongoing problems with regard to the reliability of the medium, and also the lack of any visual content. The quality of radio transmission has been adversely affected by a range of factors including climatic conditions, solar activity, wildlife activity, time of day, and the vagaries of the electrical power supply. As a result, the system is unreliable and expensive to maintain, and an active search for an alternate delivery system commenced in 1997. At the same time the current telephone systems (land based and radio/microwave) provide restricted access to facilities which are fast becoming accepted as the norm in the wider community, including access for all students to the Internet and the World Wide Web. There appear to be no cost effective means to improve the telephone system to these remote properties, where current systems operate at low transmission speeds. Through an extensive analysis of the delivery options to the New South Wales Department of Education and Training, it was decided to trial the use of a satellite based delivery system to support teaching and learning for one group of the most geographically isolated primary (elementary) school students in the state.

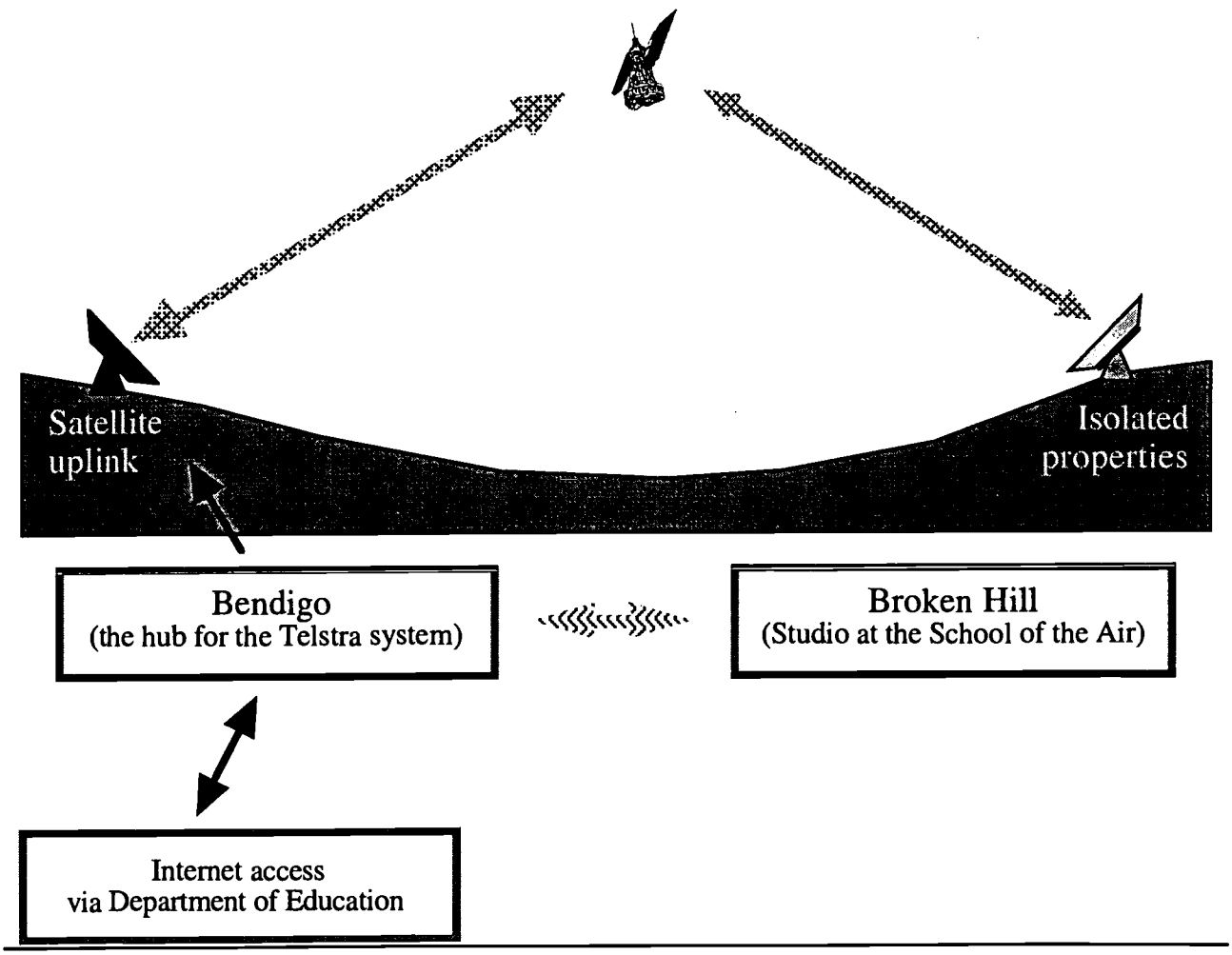
The development of satellite systems to deliver educational experiences for remote students would appear to have a number of advantages. These include:

- there is no reliance upon existing inadequate telephone communications systems;
- the system offers high quality sound, video and data communications to each student site, irrespective of location or physical circumstance;
- the sound quality problems experienced with the current radio systems are overcome, while quality video and data communications are added; and,
- costs of satellite communication are likely to fall as usage levels escalate in the next decade.

The satellite technology was essentially a computer mediated conferencing system in which one-way video, two-way voice and two-way data communications were possible between the teacher and the students and their home supervisors. The system thus allowed students and the home supervisors to do the following:

1. Hear the teacher, and also talk to the teacher via a satellite telephone system;
2. Receive high quality video signals from the *Broken Hill School of the Air*, including visuals of the teacher and other video resources (pre-recorded tape as well as other inputs using video and specialist document cameras located in the studio);
3. Utilise HTML resources, including in-house pages as well as the Internet, which were available to these students and their families for the first time; and,
4. Communicate to the teacher using short text answers, email, and on-screen facilities to allow interaction with the teacher as the lesson proceeds.

Figure 2: Simplified Schema of the system used for the *Satellite Trial*



The system under which the *Satellite Trial* at Broken Hill took place is illustrated by Figure 2. The studio was set up at Broken Hill and broadcast lessons to the students via the *Telstra* facility at Bendigo in northern Victoria. The signal from Bendigo was then transmitted via the satellite to each of the participating properties as well as the window sites.

The satellite system used for the trial was developed in Israel by *Gilat* (Ziv-Tal, 1998). The system was developed in conjunction with the Open University in Israel and was based around proprietary hardware and software, which was used to create and broadcast lessons using satellite systems. It has been developed using the proprietary name *LearnNet*, and has been operationalised in Australia by *Telstra* as *SkyConnect Tutor*.

The supervisor and changing technologies

The home supervisor not only oversees student learning, but is normally present for all radio lessons. It is during these radio lessons that the home supervisor listens to, and communicates with the teacher, as well as helping the student to understand the lessons and instructions given by the teacher on the radio. They are however concerned that they are not educators, and they often find it hard to identify the standards set by the teacher, and the relative performance of the students compared to others in the group (Boylan & Squires, 1996).

In an extensive review of the literature on the roles expected of home supervisor, Boylan and Squires (1996) concluded: i) the home supervisor has a central or pivotal role to play in the education of the child; ii) the home supervisor plays a central intermediary between the distance education teacher and the child; iii) the roles expected of the home supervisor are complex and varied; iv) the home supervisor requires regular communication with the distance education teacher to implement successfully the learning materials; and v) there is an urgent need for specific programs to train and support the home supervisor in this essential education role. In most situations, the role of the home supervisor can be characterised as a managerial and supervisory one (Boylan and Squires, 1996).

Research by Taylor and Tomlinson (1984), Tomlinson, Coulter and Peacock (1985), and Boylan and Squires (1996) from Australia, and Dodds (1993) from New Zealand provided a foundation for the evaluation of the impact of the satellite delivered lessons on the role of the home supervisor. These authors acknowledged the central mediatory role played by the home supervisor in successfully achieving the educational outcomes for the child. Further, the perspective offered by O'Brien, Greenway, and Arnold (1993) on the value of the 'on-air' radio lessons established a contextual background for the current study. These authors argued that :'the on-air component of distance education for the geographically isolated child ... is a crucial part...It is that half hour when the child can feel and be part of a class' (p. 449).

The home supervisor regarded the opportunity to communicate with the distance education teacher as a crucial part of the learning partnership. This communication facilitates i) discussion on the learning materials and the rate at which the student was making progress with the materials, ii) advice on ways to modify the presented materials to suit their learner's needs and monitor the student learning, and iii) developing support structures for both the student and home supervisor to best support student learning. As Ripp (1995) noted, the implementation of new technologies for the delivery of lessons to students impacts directly on the home supervisor, particularly where additional support and training are required by the distance education teacher.

Methods of inquiry

The introduction of the technology based delivery system occurred in school term 2 of 1999. The class consisted of 12 students in Grades 3 and 4 located on eleven different homesteads. The technology was trialed with this class for a six week period during the school term. There were 11 home supervisors of whom 9 were the mother of the children and on 2 homesteads there were employed governesses. There was also a team of 30 professional support staff, which included teachers, technical and curriculum support and administrators. Data were collected from the students and home supervisors in the following ways over the school term: i) daily lesson reports from both

the students and the home supervisors; ii) a weekly reflective summations from the home supervisors; iii) initial and final questionnaires completed by the home supervisors; iv) telephone interviews with the home supervisors before during and after the trial; v) interviews with the home supervisors and students conducted at their homestead; vi) face to face interviews with students and home supervisors at a 3 day mini-school held on a property; and, vii) interviews with the distance education teacher before during and after the trail had concluded.

Results

This section provides a discussion on the impact of the new technology upon the role of the home supervisor, and the implications of innovations for the professional development of teaching staff and home supervisors in response to these implications.

Impacts upon the home supervisor

The roles of the home supervisor were explored, and are presented in the pie-charts below. One issue was the extent to which the home supervisor was more or less engaged in working with the student during the *Trial*. Responses varied between the home supervisors and the professional staff, with 67% of the professionals, but only 38% of the home supervisors believing that their role had been reduced. This disparity may reflect the extra demands placed upon home supervisors early in the *Trial*, which may not have been fully appreciated by the professional group.

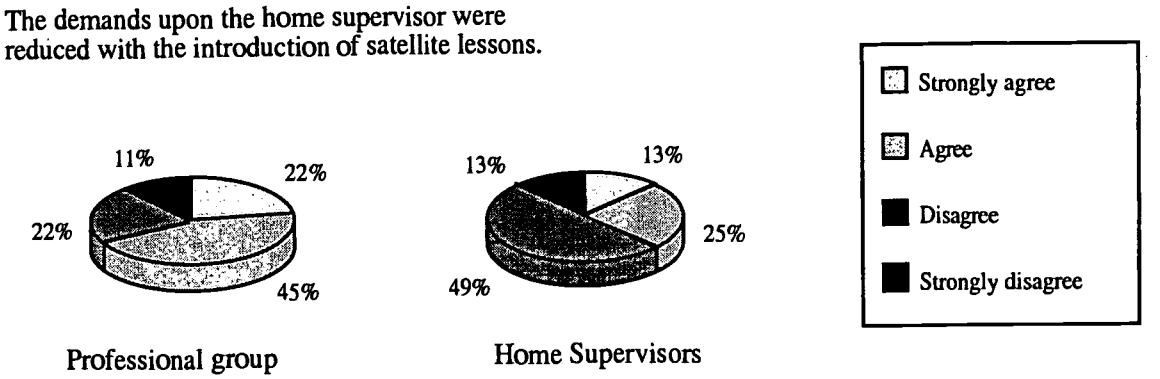


Figure 3: Demands made upon home supervisors

Home supervisors were asked specifically about the impact of the satellite technology with regard to their role in the longer term. Despite the comments just reported, all home supervisors believed that they would need to spend less time with their students in the long-term, as the initial problems with the set-up of the system dissipated, and as satellite lessons became part of the distance learning environment.

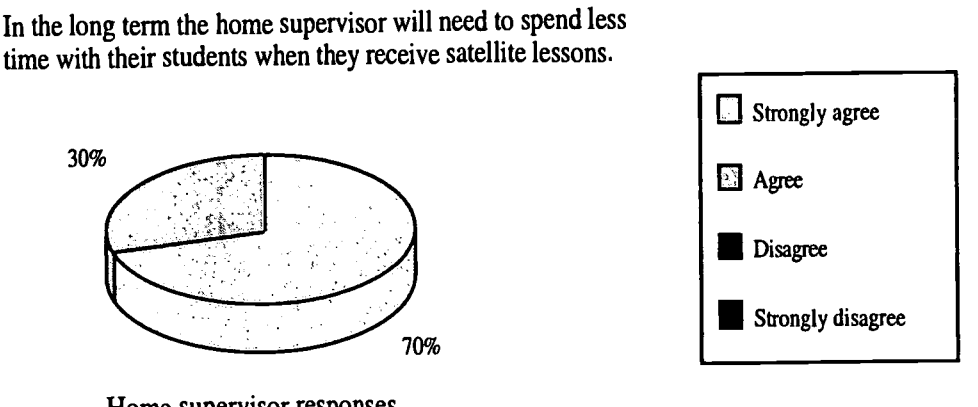


Figure 4: Long term demands on home supervisors

Engagement with the technology

The ease of use of the *Gilat* software and hardware was explored in the study. Data were collected through the *Weekly Summary* instrument, which was completed by the home supervisors, and also through the questionnaires completed by all participants at the end of the study.

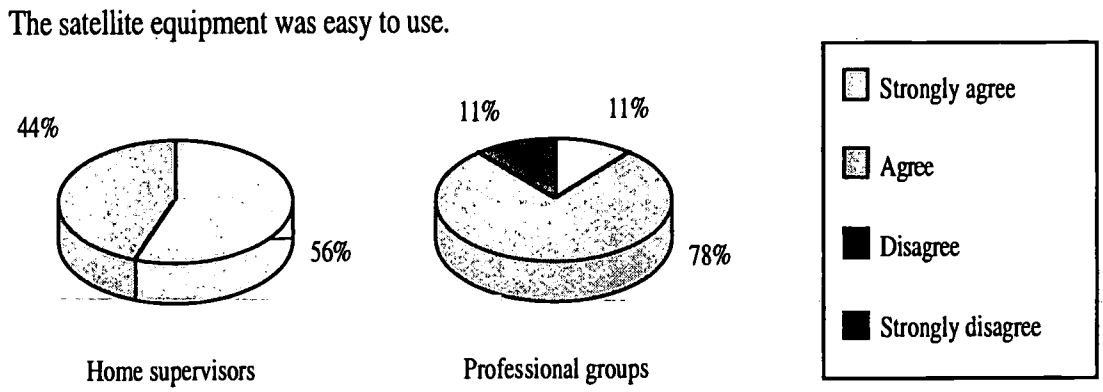


Figure 5: Ease of use of the *Gilat* system

The home supervisors were strongly of the view that the equipment was easy to use. The professional groups, working from the studio rather than from the homesteads, had a slightly different view, seeing the use of the technology as slightly more problematic. Interestingly the four people who made regular use of the satellite system for teaching, all indicated that they wished to *Agree* with the statement.

Training and development

The need for a sustained training and development program to support home supervisors was identified by Ripp (1995) as an essential component of the successful implementation of new technologies for the delivery of distance education initiatives. The training and development program provided to the key participants was assessed in the final questionnaire. Figure 6 illustrates responses for both the professional group and the home supervisors. It should be noted that the home supervisors were comfortable with the training programs implemented for the project, but the professional staff were less comfortable.

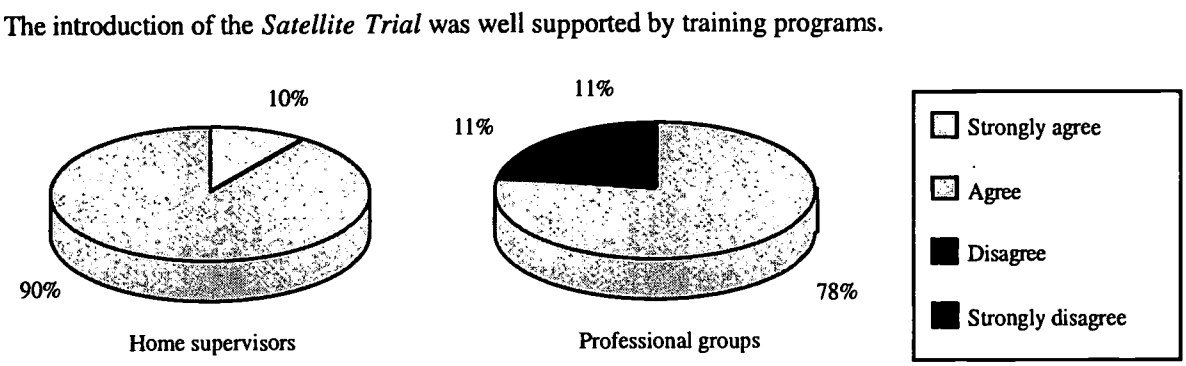


Figure 6: Reactions to the Training Programs developed for the *Satellite Trial*.

Computer Anxiety levels of the home supervisors

The level of computer confidence, anxiety, and attitude towards computers was assessed for the professional group and the home supervisors using the *Computer Attitude Scale* (Loyd and Gressard, 1984a and 1984b). A statistical analysis of the means was carried out using a t-test. The results of these analyses revealed no statistical difference between the home supervisors and professional staff on both computer confidence and attitude towards computers subscales. However, a statistical difference was found between the two groups on measures of computer anxiety. The home supervisors were more anxious about using computers than the professional group ($t=2.64$, $p<0.05$, $df=18$). These levels of computer anxiety did not however translate into dissatisfaction with the *Gilat* system, given comments about the ease of use of the system. In terms of professional development though, there would be value in considering issues of computer anxiety in the planning of development programs to meet the needs of professional staff and of home supervisors in particular.

While the individual scores of the participants are not reported, there is value in noting that the main teacher in the project was more anxious about using computers than many of his professional colleagues at the beginning of the *Trial*. When interviewed at the end of the *Trial*, the teacher reported high levels of comfort and confidence as working with the *Gilat* system became easier as the features became more familiar.

Advantages & disadvantages of satellite technology for lesson delivery

Both home supervisors and the professional staff were invited to make analytical comments about the perceived advantages and disadvantages of the satellite system for the delivery of lessons. Before presenting the key findings to each question, it is significant to note that the overall ratio of statements of advantages to disadvantages identified by the participants was almost 2:1 in favour of the advantages rather than the disadvantages of the system (64.6%: 35.4%).

The reported advantages of satellite lessons focused on learning and teaching. Some similarities and differences in opinion between the home supervisors and the professional staff were identified. Similarities in their responses dealt with:

i) improved access to more learning resources, eg. *access to wider fields of information with the Internet;* and *use of Internet and research and communication tools after lessons;* and,

ii) the use of a range of teaching strategies, eg. *practical demonstration and ability to learn from a different medium* during a lesson as advantages.

iii) improving the home supervisor workload, eg. *after the student had learned the system, then they could do it without as much supervision.* The home supervisors suggested that they only needed to write down the followup work set by the teacher for the students. They indicated that the work load for the home supervisor was decreased over the period of the trial.

One difference in the perceived advantage was also identified. The home supervisors more frequently identified the potential for better evaluation of student progress to occur than did the professional staff, eg. *far more accurate assessment of student's capabilities;* and *Their work can be captured and used - rewarding.*

The perceived disadvantages of satellite lessons were also sought. Areas where both groups agreed there were disadvantages associated with the satellite lessons were:

i) the lack of student to student interaction in lessons, eg. *at this point less interaction with other children in class; group interactivity not available (only teacher student 1:1);* and *less student to student verbal communication*;

ii) the need for the student to develop proficiency in typing skills, eg. *Typing skills may hinder their performance - less creativity;* and *a lot of typing - should be more time allotted to teaching children to type in the first instant;* and,

iii) a recognition of an increased workload for the teacher, eg. *lessons demand concentrated effort from teacher, support from others; a good deal of pre-planning - adds to their workload; a lot of face to face time where they have to be very prepared;* and *have to prepare more lessons.*

Differences in opinion about the nature of disadvantages associated with the satellite lessons were noted also. These included:

i) the need for home supervisor training, eg. *a bit of training required* (home supervisor);

ii) a change in range of teaching skills required, eg. *learning a whole new way of engaging with the teacher and the materials* (professional staff); and,

iii) the need for the home supervisor to solve technical and operational problems, eg. *technology is dependent on a certain level of understanding of how it works. There will be problems;* and *Any problems with technology* (home supervisor).

Conclusion

Students, home supervisors and teachers stated that the introduction of the satellite system had created a number of significant advantages. These included the creation of a whole class environment involving live interactions between the teacher and students, improved quality of the audio signal, the addition of the video screen which displayed the teacher, and access to the Internet. The introduction of the satellite delivered lessons had changed the nature of the relationship between the home supervisor and the teacher. In particular, the home supervisors believed that their workload would lessen as the teacher assumed more responsibility for the teaching and learning that occurred during a lesson.

Home supervisors believed that the satellite system was a better form of distance education provision than was the pre-existing radio system.

The teaching and learning process which was facilitated by the satellite technology identified a number of benefits for both the students and their home supervisors. The key findings were:

- There was a perception that the teacher exercised a stronger facilitating role in the teaching and learning process, where previously the home supervisor saw themselves as having that role.

- Home supervisors identified a number of important learning outcomes benefits derived from the satellite lessons which included:

    i) the increased amount of lesson content covered;

    ii) a better understanding of the lesson content by the students; and,

    iii) the improved communication between their teacher and the remote student was possible with the pre-existing printed materials and radio lesson system.

- Home supervisors and the teachers recognised the superiority of satellite delivered lessons for student learning and understanding when compared with the existing radio system.

The role of the home supervisor changed in ways that were unexpected. They reported that, after the initial technical problems were solved, their role evolved to a more facilitatory one and one where their student was developing more independent learning skills. Additionally, they reported that they were able to devote more time to working with their other children not involved in this satellite technology trial. The home supervisors reported they used their time more productively with their Grade 3/4 students to support extension and enrichment learning experiences or concentrate on remedial activities and support for their student's learning.

This study demonstrated that: i) the introduction of the satellite technology created a substantially new learning environment within which the student and home supervisor operated; and ii) the role of the home supervisor evolved from one with a strong focus on managing the rate of progress through the prescribed materials into one where the home supervisor could act in a facilitatory and supportive role.

References

Boylan, C. & Squires, D. (1996) Supporting home tutors in providing quality education. Paper presented at 12th National Society for the Provision of Education in Rural Australia Conference. Hobart, August.

Boylan, C., & Wallace, A.R. (1999) *Distance teaching and learning: using satellite technology systems.* Wagga Wagga: Charles Sturt University.

Dodds, A.G. (1993) The surrogate teacher: The supervisor in distance teaching. *In* D. Riley (Ed.) *Towards 2000: Schooling Through Distance Education.* 9th National S.P.E.R.A. Conference, Cairns, July. Toowoomba: S.P.E.R.A. Inc.

Loyd, B.H. and Gressard, C. (1894a) The effects of sex, age and computer experience on computer attitudes. Paper presented at the annual meeting of the Eastern Educational Research Association, Florida.

Loyd, B.H. and Gressard, C. (1894b) Reliability and factorial validity of the computer attitude scale. *Educational and Psychological Measurement*, 44, 501-505.

New South Wales Department of Education and Training. (1998) *Distance Education: A guide for primary teachers.* OTEN - Distance Education, New South Wales Department of Education and Training: Bathurst.

O'Brien, C., Greenway, M. & Arnold, L. (1993) Support for home tutors. *In* D. Riley (Ed.) *Towards 2000: Schooling Through Distance Education.* 9th National S.P.E.R.A. Conference, Cairns, July. Toowoomba: S.P.E.R.A. Inc.

Ripp, B. (1995) Using appropriate technologies to assist the primary home tutor in Western Australia. In D. Riley (ed) *Lifelong learning in rural areas: Between a rock and a hard palace.* Proceedings of the 11th S.P.E.R.A. Conference, Ballarat.

Sher, J. (1991) Common problems uncommon solutions. *Rural Education.* 2(1).

Taylor, D. (1993) Study of the scaffolding process of home tutoring with particular reference to the role of dialogue. *In* D. Riley (Ed.) *Towards 2000: Schooling Through Distance Education.* 9th National S.P.E.R.A. Conference, Cairns, July. Toowoomba: S.P.E.R.A. Inc.

Taylor, P. & Tomlinson, D. (1984) *Primary distance education.* National Centre for Research in Rural Education, Perth: University of Western Australia.

Tomlinson, D., Coulter, F. & Peacock (1985) *Teaching and learning at home: Distance education and the isolated child.* Research Series No. 4. Nedlands: National Centre for Research in Rural Education, University of Western Australia.

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