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ABSTRACT
                This report describes the Remote School, a "center for
student leadership" in the high country of the Victorian Alps (Australia),
and presents findings from an ongoing evaluation. This state-supported
residential program addresses the needs of year-9 students on the threshold
of adulthood and seeks to harness their energy in positive ways. The school
serves only year-9 students during a one-term (9-week) residential program.
During the term, a mixed-gender group of 40 students undertakes an
experientially based curriculum designed to stimulate leadership ideas and
ideals that support enhanced self-concept development. Teams of students
design community service projects to be completed on return to their home
communities. A key program feature is the use of laptop computers and the
Internet to enhance learning. Evaluation findings presented here focus on
technology use and student self-concept. Teacher and student surveys covered
(1) teachers' use of various learning technologies, confidence with the
technologies, and related professional development needs; (2) students' use
of computers and the Internet in school, daily engagement in various types of
technological activities, attitudes toward computers, and confidence in own
abilities to use computers and to teach others to use them; and (3) students'
self-efficacy and self-evaluation with regard to 18 "enterprise
capabilities." (SV)

An alternative to the traditional educational program for year nine students: a new issue to research in an unchanging system

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An alternate to the traditional educational program for year nine students: a new issue to research in an unchanging system.

Abstract

A remote school located in the Victorian Alps has been established as "a centre for student leadership". Notable amongst the unique features is the fact that the school provides only for Year 9 students over a one Term live-in program where a gender balanced group of forty students undertake an experientially- based curriculum designed to stimulate leadership ideas and ideals to support an enhanced self-concept.

The project team operating out of Monash University, Gippsland, in close collaboration with the school staff, has gathered data which supports the school and staff in monitoring and evaluating the progress of the programs offered and as a means to assist the school in meeting its accountability obligations. This initiative is placing University staff at the coalface in a partnership which has been mutually beneficial and which has led to ongoing theory-into-practice developments in both institutions.

The students at this school through its residential program have taught themselves, taught each other and have been assisted in their learning through the one to one intervention of the staff rather than through direct teaching.

A key feature of the school's program is the use of laptop computers and world wide web information and interactions throughout the 9 week program. Analysis of the nature of this use, the instruction and learning which occurred over the Term and the observed impact this feature had on engagement and learning approaches, led the team to develop a model of engagement which has since been further investigated and applied in the University teaching context..

This school program breaks the norms of traditional education from many viewpoints. Year nine students are often difficult to inspire or enthuse yet these students are thriving in this environment. "The best time in my life" is a frequent comment from students at the end of this experience.

An introduction to the research and development study

A small team of academics from the Gippsland Campus of Monash University are working in conjunction with the school staff in a remote educational setting to develop, assess, monitor and evaluate the educational benefits to students of this alternate year nine program.

We start this paper with three sweeping generalisations that are so common that they are almost universal truths in many circles of society, particularly in school settings, yet they are gross stereotypes.

One of the most difficult school age groups for teachers in secondary education is Year 9. These students aged 15 plus, are developmentally known for testing boundaries at school and for the highest levels of school absence and disciplinary incidents.

Year 9 students, because of their reputation as being "difficult", require tight and structured teaching which will keep them under the thumb.

Many academics involved in Teacher Education at Universities are frequently stereotyped as "refugees from the classroom" or "out of touch with real students and learning situations" and involvement in school development and real partnerships between such academics and schools is therefore problematic.

This paper presents some data and details arising from the collaboration by two University staff with a relatively new and very different state school in rural Victoria. The program developed and presented at the school, the staff and student interaction and the learning and personal outcomes for the learners in one cohort from 2001 are presented and discussed. In addition, the paper also discusses how the researchers engaged in collecting the data and assisting the school to monitor student outcomes and development have become collaborators in the enterprise in a new "coal face" partnership.

This study, which is ongoing, has aimed to gather data which may support the school and staff in monitoring and evaluating the progress of the programs offered and as a means to assist the school to meet its accountability obligations as to student achievement and curriculum goal attainments

under the Victorian Education Department's Accountability Framework for schools. In addition, evaluation data about the success or otherwise of elements of the program and the student experience is to be collected and analysed. It is because of the unique nature of the clientele, (the students and their communities) as widely different, as well as the nature of the special curriculum focus of the school, together with the short term turn-over of students (a new cohort each term), that these different needs have arisen.

The research and development team met with the staff of the school, over a number of occasions during 2001, to develop ideas as to the special curriculum aims of the school, its emerging charter ideas and goals, and to gain an appreciation of the nature of the experience students might expect and encounter during a full term (9 weeks) 24 hours a day "school" experience in an isolated alpine environment.

It became clear to the researchers that this remote residential school offered a different and unique curriculum, with specifically local and significant features and needs and that the student engaged in the school program formed a very different clientele from most state schools.

An introduction to the educational setting

The remote school designated as "a centre for student leadership" is located in the High Country of the Victorian Alps and is approximately a six hour drive from Melbourne, the state capital.

The Remote School Program is a unique program that has been designed to address adolescent needs and harness their energy in positive ways. It recognises that Year 9 Students are on the threshold to adulthood and need to be given the space and challenges to make the transition to the mature life and way of thinking they envisage for themselves as adults.

The school is a Victorian State Department of Education school in its establishment and operation, but it has a number of unique features. Notable amongst the unique features is the fact that the school provides only for Year 9 students over a one term live-in program where a mixed group of 40 students undertake an experientially based curriculum designed to stimulate leadership ideas and ideals to support an enhanced self-concept development for these students. The program is also designed so that each school team initiates a community-based project that is brought to the Alpine School for completion during the school term. This aspect is meant to benefit the students' home-base local community.

Additionally, the school is located in a relatively isolated Alpine setting, close to a number of winter resorts. This location was intended to enable outdoor and experiential education activities, including overnight expeditions, to be core elements of the programs at the school.

The program is significantly different from the 'normal' school involvement these students would experience at their home school for the term and the fully residential nature of the program and site make for a very strong impact on the students selected.

A further unique feature of the program at this School is that, from the outset, the use of laptop computers by all students and staff is a key element.

The School and its Programs

The school provides a 24 hour 7 day per week program. This necessitates a range of different elements form other Victorian state schools. Such elements include the following facilities and personal needs:

- The need to provide gender segregated and supervised sleeping facilities
- The need to provide adequate meal facilities and nutrition arrangements
- The need to provide adequate after normal school hours recreational activities and facilities
- The need to provide appropriate communication and liaison possibilities with a widely disbursed set of parents/caregivers and families
- The need to provide adequate support for students to link to their home schools

In addition, the following elements were deemed to be significant challenges for the school in terms of educational programs and student development:

- The challenge of providing a "leadership" and self enhancement set of curriculum experiences for Year 9 (15 year old) students
- The challenge of maintaining students' interest and development in the range of other curriculum areas whilst they are at the School

- The challenge of ensuring students at the School maintain adequate contact with their home school and successfully complete a relevant home community-linked project
- The challenge of adequately supporting peer group interaction and development across a group of students who had little prior experience with each other
- The challenge, for the staff, to provide 24 hour care and student welfare support
- The challenge of incorporating experiential outdoor education activities into the program and ensuring safety and appropriate skill development for students who have a wide range of individual differences.

The major features or components of the program are summarised in Figure 1

Figure 1:The main components of the program

- *Leadership program*
- *Community Learning project*
- *Passports and presentations of learning*
- *Personal reflection*
- *Whole Brain learning*
- *Alpine Learning Project*
- *Expeditions*
- *Environmental Education*
- *Adventure recreation*

The School has the following goals specified in its School Charter:

"The delivery of high quality educational services to students from Victorian government schools, developing enterprise and leadership capacities as a special focus.

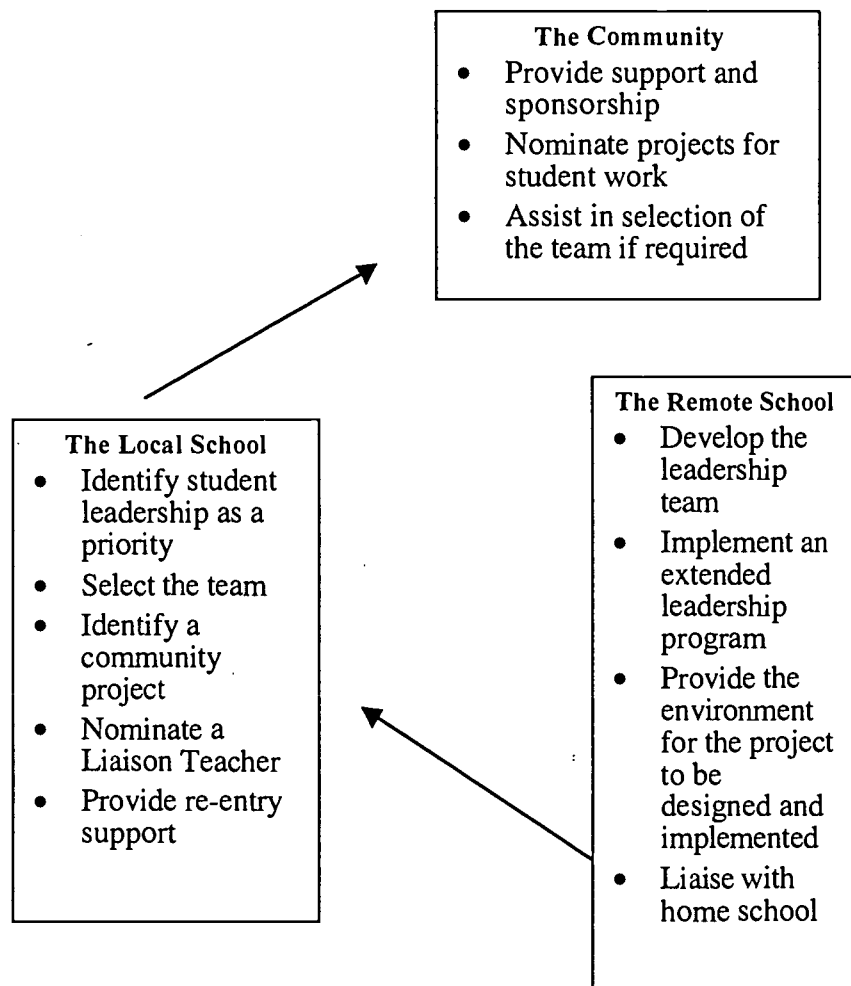*Leadership and Enterprise education will emphasise:*

- *Students taking responsibility for their own learning*
- *Connectedness to programs and initiatives developed in the home school*
- *Creation of links between the classroom and the outside world*
- *Teamwork in learning inside and beyond the school*
- *Self initiated appraisal of learning and outcomes*
- Use of technology as a tool for learning and communication"

A 'broad' definition of enterprise is a set of qualities and competencies that enable individuals, organizations, communities, societies and culture to be flexible, creative and adaptable in the face of change. (This approach is based on the belief that enterprise involves using imagination, being creative, taking responsibilities, identifying ideas, organising for action, making decisions, managing, dealing and communicating with others, assessing performance and the like in a wide range of living and working contexts'). (Approaches to Enterprise Education, Curriculum Corporation, 1995).

The Remote School Community Learning Model

Underpinning the approach taken at this School is a Community Learning Model that relates to the Remote School, the Home School (or local school) and the Community (that is the Home Community where the students live).

Figure 2:The community learning model

The Community
- Provide support and sponsorship
- Nominate projects for student work
- Assist in selection of the team if required

The Local School
- Identify student leadership as a priority
- Select the team
- Identify a community project
- Nominate a Liaison Teacher
- Provide re-entry support

The Remote School
- Develop the leadership team
- Implement an extended leadership program
- Provide the environment for the project to be designed and implemented
- Liaise with home school

One key feature of this Community Learning Model is that each team of students from a school is expected to develop a proposed Community project in consultation with their school and its community. This project is intended to form the basis of the teams' development task over the period of the term at the School. The home school's Liaison Teacher is also expected to be involved and aware of the project, its place and development and the follow-up for the project to be implemented. Project examples include planning a community playground for a local town in cooperation with the Local Council and planning the reception and progress of the Olympic Torch through a small rural community to involve local primary Schools and community members in this unique experience.

Students do not receive a report when they leave the Remote School. Instead they are required to present their individual growth and learning in the form of a passport.
In the words of Michelle, one of the term 1, 2001 cohort.

> The passport is a record of all the leadership and enterprise skills we have learnt while up at the [remote] school. We give examples of each different leadership and enterprise skill we have learnt. We created the passport instead of a normal school report. The passport gives evidence of the different qualities we have learnt instead of just a grade and a standard comment by the teacher. By creating the passports by ourselves shows that we know and understand what we have learnt and what we need to focus working on. (Michelle, 2001).

Another student Jeff has prepared and presented his own metaphor.

> My [Remote] School experience has been like climbing a huge mountain. You start off at the bottom not knowing anyone. As you start to climb you make new friends. Then the mountain gets steeper as you face new challenges. No part of the mountain is the same and every day is different with new challenges. As you climb you are always learning new things and by now you've made friends that will stick with you for the rest of your life. You climb a bit further till you reach half way. It's dead flat here and your [Remote] School experience has halted for a while, but you get to see your parents. After two days you say goodbye to your parents as you start to climb again. Climbing and climbing, you near the top. You look back down and you can just see the bottom. You realise how far you've come since that first day when you started climbing. After a few weeks of climbing you finally reach the top. It has been a great journey but also a tough one. It's time to say goodbye to the [Remote] School and all your friends for now. It's been a long journey but it had to stop. It's time to leave the [Remote] School and start climbing back down the mountain. A few weeks later your life is back to nearly what it used to be. You're a new person and life will never be the same."
> Jeffrey, Year 9, Term 4, 2001.

The Research and Development Project

The Remote School research and development study arose out of the School's desire to gain assistance to gather data and examine progress in its first year of operation with a view to developing information about its programs and student achievement. There was also a need to examine alternative ways to assess student progress and development given that each school term dealt with a new cohort of pupils and as such the regular student achievement ratings and data other state government schools were utilising for this purpose was not appropriate.

The study involved initial visits by the team from Monash University's Faculty of Education at the Gippsland Campus to the school in the high country. These visits allowed the research team to identify key aims and staff concerns and issues surrounding the specific approaches taken by the Remote School. Through informal open discussions held with the staff the following emerged.

When the staff were asked what they saw as the aim of the school they directed their attention to the students and indicated the following:
We want

- students to be able to make a difference in the community on their return to own school.
- to have more faith in themselves
- the students to grow in self awareness and in an awareness of what they have to offer to community life
- students to develop a recognition of the importance of environment
- students to recognise the importance of values for living in communities
- students to appreciate the close environment of this school
- students to know how to reach their full potential through holistic education

When the staff were asked how they viewed leadership they responded as follows:

- effective leadership is action
- not the telling others but leading through being a team player and by doing ie by action
- skills and tendencies of the leader need to be developed they don't just happen
- leaders need the time and ability to self reflect.
- leaders need to be able to negotiate

The staff in their documentation of programs developed policies and guidelines about the following:

Staff developed a comprehensive list of skills, that is, Enterprise and Capabilities

- Self reflection on skill development
- Self Assessment
- Enterprise passport
- Alpine passport
- Demonstration of leadership/integration /presentation skills
- Assessment by peers
- Community feedback
- Self managed learning
- Thinking skills through the use of Debono thinking hats
- Teaching students thinking skills

Following these initial visits further development of ideas and major aspects to be examined were determined.

There were four main areas identified as the foci of the schools program and as the foci of the research.

1. **Intensive personal skill development**

- Personal awareness
- Living in groups (decision making, conflict resolution, team work)
- Information Technology skill development with peers

2 **The essence of youth leadership**

- What leadership means to students?
- What can be identified as the characteristics of youth leaders?
- What is different about youth leaders and adult leaders?
- Are these students going to be leaders or are they trying to explore potential?

3   Community building, sustainability and transference

- What learning occurs in the close micro community?
- Is isolation in the remote school a critical factor?
- How is community built in this environment?
- What transfer , if any, occurs between the experiential community and the home community?
- What and how is it transferred?

4.   **The power and the place of information and communication technology (ICT)**

- What place does the technology play in the technology of the remote school?
- Does access to the Wide Area Network facilitate learning in a remote area?
- How can the technology be used to enhance links with the home school and the home school curriculum?
- What and how is ICT used to enhance the teaching and learning opportunities?
- What ICT skills do the students have on arrival and what skills do you use in the remote school?
- Does the use of ICT reduce the isolation?
- How do the students learn the skills in ICT that they don't possess?
- Do the staff have the skills to facilitate the use of ICT?

In February of 2001 a pilot group of students and parents were surveyed.

At the commencement weekend for the intake the researchers and the school explained the study to all parents and students and provided an explanatory statement. All participation was voluntary and all parents and students were asked to sign a personal permission agreement to participate before completing any surveys.

In line with the School's goals and aspirations for its programs as outlined above, the data collection focussed on pupil expectations, self appraisal and parent views as well as program progress by way of Learning technology use and appreciation of the enterprise capabilities. The students and parents were surveyed at the commencement of the term and students were surveyed again at the conclusion

of the term. Pupils were also interviewed in focus groups during the term and these were transcribed and analysed. The focus groups raised points about the experience of the program including "expos" (expeditions) and projects as well as links back to home school.

A later phase of the project will attempt to examine the longer-term impact of the remote School experience and the views of the home schools on the student experience and community impact (if any) in the home school.

Instrumentation

The following instruments were developed for this study and form the basis for the data collection process.

- **Learning Technology**

There were two aspects of the Learning Technology area that were examined in the instruments. These related to both the Teacher and their understanding and capability with the technology and the students and their familiarity, use and confidence with the technology.

1. Teacher Learning technologies survey (DEET standard teacher capability survey)

2. Student Use of Learning technologies (Specially developed for this study)

- **Student self appraisals**

This aspect set out to tap students' expectations of the program they were about to face and a self-report of their "self appraisal" which was a short self-efficacy scale of ten items. (Self efficacy is a psychological construct which is about an individual's confidence in their capability to perform a task or tasks)

3. Remote School: Program Survey 1

4. Remote School: Program Survey 2 (repeat of 1 with questions about what students actually achieved in their judgement, together with a repeat self efficacy scale).

- **School Program Impact**

The organisation of the remote school Curriculum around a set of Enterprise Capabilities was seen as a significant element. To examine the impact of this set of capabilities an instrument was designed for the study which listed all the capabilities which students were to include in their "Passport" and asked student to rate their success in achieving each.

5. The Enterprise Capabilities Survey

Results and Discussion

In this paper the results of the learning technologies surveys and the pupil personal attitudes will be presented and discussed. The data from the parent surveys on expectations and pupil surveys on aspirations will be reported in a subsequent paper.

Teacher Use of Learning Technologies

The purpose in conducting this survey was to investigate the skills, knowledge and attitudes of the staff of the remote school in Learning Technologies (LT). The sample size for the LT survey included all ten members of the school staff. Whereas this is a small sample, it is in reality, the staff group with the responsibility to facilitate the use of LT within the school.

Because of the small numbers involved it was seen as important to examine the school staff as a whole rather than as individuals. This was considered important so that no individual member of staff could be identified. The instrument used to gather the data was the DEET (Victoria) Learning Technologies Teacher Survey.

In examining the school overview it is apparent that the staff have a heightened awareness of the importance of LT and have, for the most part, developed personal skills. All staff considered themselves to have at least basic skills in managing technology, basic applications, publishing and communication technologies. However the personal skills of the teachers in their use of multimedia was considered to be below a basic level. Multimedia was also considered to be an area where classroom use by teachers was also below a basic level and used only rarely. Overall the classroom

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use of LT by the staff in managing technology, basic applications, publishing and communication technologies was considered to be only used sometimes, rather than used on a routine basis.

The staff, as a whole, considered themselves to be personally confident in the use of learning technologies in the following areas:

- Teaching and Learning
- Classroom management
- Classroom planning
- Monitoring and reporting

However very few staff indicated confidence in the use of LT for Administrative purposes and, as a whole, did not consider themselves capable of helping others in any of the above areas.

In all the Key Learning Areas (KLAs) the personal skills of the teachers in their use of LT was stated by them as being at a basic level. This pattern is also evident when the staff considered their classroom use of LT in the KLAs. In all the KLAs LT was rarely used by the staff. In the LOTE and technology KLAs LT was never used or even referred to. The highest area of usage was in the English KLA.

In the learning technology capabilities, associated with approaches to teaching and learning, the area that the staff identified as their greatest need was in Professional Development (PD) to facilitate the development of skills, knowledge and understandings of LTs.

When examining the particular learning technology skills that the teachers list as high priority PD areas a number of times the following data emerges.

Both desktop publishing and web authoring are listed as high priority areas for PD i.e. identified more than fourteen percent (14%) of the time. Electronic conferencing is seen as a PD priority ten percent (10%) database, graphics, authoring programs and e-mail six percent (6%) of times referred to. Of some interest is the data that indicates that the following areas are not, in any instance, referred to as PD priorities.

- Operating the scanner
- Operating the printer
- Using the network
- Word processing
- Spreadsheets

o File transfer

• Intranet

• Collaborative projects

One can assume from this information that the staff are indicating either comfort, confidence and competence in these areas or see that they have no need for skill development in these areas.

In summary the LT survey presents an overview that can assist in planning and developing a PD plan in learning technologies to guide the work of the school. The staff, as a body, recognize the importance and significant place of learning technologies for schooling in the Digital Age and in this Alpine environment in particular. In terms of particular skills the staff have indicated their interest in PD that is directed towards their personal and classroom applicable skills in the following areas:

• desktop publishing

• web authoring

• electronic conferencing

• multimedia

Student Use of Learning Technologies

The student group (N=44) were surveyed on two occasions during their nine (9) week stay at the Remote school. The survey instruments were almost identical. The difference consisted of two questions used in the first survey Q2 and Q4 that referred to the student home use of computers and the Internet. Whereas this question provided a benchmark for home usage, during their last school term, it was not applicable to the students in the remote school.

The purpose in conducting these surveys on two occasions was to investigate the skills, knowledge and attitudes of the students at the remote school in Learning Technologies (LT) at an entry point, February, and re-examine possible changes and growth at an exit level, April.

In the February survey eighty one percent (81 %) of the students claimed to have used computers for four (4) hours or less per week. Only sixteen percent (16%) used computers over seven (7) hours per week. A significant change is evident when examining the data from the second survey. Seventy three percent (73%) used computers in the remote school over five hours per week and of these thirty two percent (32%) used computers over seven (7) hours per week.

This information alone informs us that the students have significantly increased their usage of computers in the Remote school.

The following table presents information about student use of computers in a school setting. A number of key areas or categories of computer usage are identified and the frequency of number of students examined from an entry (start of term) position and an exit (end of term) position. Although the list is not exhaustive it covers most of the possible areas that students are likely to use computers in schools.

Table 1

Use of computers in Schools:

USE OF COMPUTERS IN SCHOOL	AT START OF TERM		AT END OF TERM	
to organise and store information	81.8%	36/43	97.7%	43/44
to manipulate/analyse/interpret data	43.2%	19/43	38.6%	17/44
to collect data and perform measurments	50%	22/43	40.9%	18/44
to communicate information gathered as a result of investigations/research	63.6%	28/43	75%	33/44
to create visual displays/presentation of data/information	63.6%	28/43	88.6%	39/44
to plan draft, proofread, revise and publish written text	79.5%	35/43	88.6%	39/44
to create visual displays	68.2%	30/43	70.5%	31/44
to perform calculations	63.6%	28/43	27.3%	12/44
to create models or simulations	9.1%	4/43	11.4%	5/44
to support individualised learning experiences	27.3%	12/43	40.9%	18/44
other (please specify)	18.2%	8/43	38.6%	17/44

The areas that show a ten percent or more increase in usage during the experience of the Remote school are the following:

- to organise and store information
- to communicate information gathered as a result of investigations/ research
- to create visual displays/presentations of data/information
- to support individualised learning experiences

These areas for the most part would seem to form the bases of the work of the students during their nine-week experience. Most of their work on the Community Learning Project (CLP) and the Alpine Learning Project (ALP) would be centred in these areas. It is also apparent that the use of a personal laptop and the non-directed facilitation of learning experiences in the use of LT may lead to an increase in the support for individualised learning experiences.

The areas showing a decrease in usage appear to be those that required calculations or the manipulation of data. Computers are perhaps not used or implemented in the programs of this nature in the remote school.

The following table shows the use of the Internet in the different school settings. The use of the Internet in the home school, during the previous school term, is show as the information presented below in the column titled 'At the Start of the term" The experience in using the Internet in the Remote school is indicated below as "At the end of Term"

Table 2

Use of the Internet in schools

USE OF THE INTERNET AT SCHOOL	AT START OF TERM		AT END OF TERM	
to gather information from a range of sources	93.2%	41/43	79.5%	35/44
to communicate with others within your school	77.3%	34/43	97.7%	43/44
to communicate with others outside your school	61.4%	27/43	100%	44/44
other (please specify)	4.5%	2/43	13.6%	6/44

It is significant to note that the communication within and outside the school has increased between approximately thirty and forty percent.

Frequency of Student Use in a Range of Learning Technologies

The following four Tables present data gathered from question seven of the student questionnaire.

Table 3

Daily usage of Learning Technologies

DAILY USE OF THE FOLLOWING	AT START OF TERM		AT END OF TERM	
Computers in general	70.5%	31/43	97.7%	43/44
Word processing	34.1%	15/43	40.9%	18/44
Spreadsheets	2.3%	1/43		
Databases	2.3%	1/43	4.5%	2/44
Graphics Applications	9.1%	4/43	6.8%	3/44
Presentation software (eg.Power Point)	2.3%	1/43	11.4%	5/44
Desktop publishing (eg.Pagemaker)			2.3%	1/44
Any internet activity (eg.e-mail,www,chat)	45.5%	20/43	100%	44/44
Search engines (eg.yahoo,Lycos)	27.3%	12/43	47.7%	21/44
Multimedia (eg.Hyperstudio)				
Simulation software (eg.Sim City)	11.4%	5/43		
Drill & Practice programs (eg.Superspell)				
Tutorials (eg.Typing Tutor)	2.3%	1/43	2.3%	1/44

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The data from the two questionnaires, February and April was gathered and assimilated into tables which compared the daily weekly, monthly and never use of various applications of LT. The information is listed as a percentage and as a number of participants at two points in time. The start of the school term at the remote school and at the end of the term at the Remote school. The information at the start of the term provides a benchmark or entry level based on the previous experience of their home school. The information provided at the end of the term at the remote school is based on their experience in the remote school itself.

From Table 3 above it is apparent that there is an increase (greater than ten percent) in the daily usage of LT in a number of key applications. The following applications are shown to use more frequently on a daily basis in the environment of the remote School.

- Computers in general
- Word processing
- The Internet
- Search Engines

Attitudes to using computers in terms of value and confidence

The following four tables, for the most part, show an attitudinal development and growth over the term.

Table 4

Computers make school work more interesting

USING COMPUTERS IN SCHOOL MAKES THE SCHOOL WORK MORE INTERSTING	AT START OF TERM		AT END OF TERM	
Strongly Agree	27.3	12/43	36.4	16/44
Agree	38.6	17/43	50	22/44
Neutral	31.8	14/43	13.6	6
Disagree				
Strongly Disagree				

Table 4 shows that after the experience of the remote school eighty six point four percent (86.4%) of the students agree or strongly agree that computers make school work more interesting. Approximately sixty six percent (66%) held this opinion prior to the experience of the remote school. At the end of the term only six students have expressed a neutral or unsure opinion and no one disagrees that computers make school work more interesting.

Table 5 below shows that after the experience of the remote school seventy seven point three percent (77.3%) of the students agree or strongly agree that computers help them to do their school work better. Approximately fifty seven percent (57%) held this opinion prior to the experience of the remote school. At the end of the term ten students expressed a neutral or unsure opinion but no one disagrees that computers help them to do their school work better. There is a slight change in two students who disagreed with this opinion at the start of the term.

Table 5

Computers help me do my work better

USING COMPUTERS IN SCHOOL HELPS ME TO DO BETTER IN MY WORK	AT START OF TERM		AT END OF TERM	
Strongly Agree	20.5	9/43	40.9	18/44
Agree	36.4	16/43	36.4	16/44
Neutral	36.3	16/43	22.7	10/44
Disagree	4.5	2/43		
Strongly Disagree				

Table 6 below shows that after the experience of the remote school eighty four point one percent (84.1%) of the students agree or strongly agree that they feel confident in using computers. However eight six. four percent (86.4%) held this opinion prior to the experience of the remote school. It would therefore appear that one student may have lost some confidence in using computers as the result of their experience. At the end of the term six students expressed a neutral or unsure opinion and one student disagrees that they are confident in using computers.

Table 6

Feel confident in using computers

I FEEL CONFIDENT IN USING COMPUTERS	AT START OF TERM		AT END OF TERM	
Strongly Agree	34.1	15/43	47.7	21/44
Agree	52.3	23/43	36.4	16/44
Neutral	6.8	3/43	13.6	6/44
Disagree	4.5	2/43	2.3	1/44
Strongly Disagree				

Table 7 below shows that after the experience of the remote school approximately sixty six percent (66%) of the students agree or strongly agree that they feel capable enough in using computers that they could teach others. Approximately forty one percent (41%) of the student group held this opinion prior to the experience of the remote school. At the end of the term the neutral position is almost the same as it was at the beginning of the term (31.8% -29.5%). The most significant opinion shift can be noted from the agree and disagree positions. Only one student disagrees (2.3%) and one strongly disagrees (2.3%) that they are capable enough to assist and teach others in using computers. Prior to the experience of the remote school twenty five percent (25%) of the students did not believe that they were capable of assisting or teaching others in the use of computers.

Table 7

Feel capable of teaching other students

I FIND MYSELF CAPABLE OF TEACHING OTHERS STUDENTS	AT START OF TERM		AT END OF TERM	
Strongly Agree	18.2	8/43	25	11/44
Agree	22.7	10/43	40.9	18/44
Neutral	31.8	14/43	29.5	13/44
Disagree	18.2	8/43	2.3	1/44
Strongly Disagree	6.8	3/43	2.3	1/44

The information gathered about the student use of LT presents the picture that the students in the remote school environment are making good use of the available resources.

Seventy three percent of the students are using computers for more than five hours per week and over thirty two percent use computers more than seven hours per week.

The use of computers in general, for word processing, Internet usage and for Internet searching are being used daily by the students in the remote School. Graphics and presentation software are now used on a weekly basis by forty five to sixty percent of the student body.

The availability of the Laptops for personal use and ready access to the Internet has facilitated the effective and frequent use of LT.

Although multimedia and desktop publishing are seldom used by the students the potential exists for these areas to be enriched by the students and the staff.

Eighty six percent of the student group agree that computers make their school work more interesting and seventy eight percent agree that computer help them top do their work better.

As a result of the experience of the remote school eighty four percent agree that they are competent in using computers and sixty six percent hold the belief that they can assist others in learning to use LT.

The students have taught themselves, taught each other and have been assisted in their learning through the one to one intervention of the staff.

All in all the use of computers at the remote school is a rewarding experience for the students.

Student Self Efficacy

The study developed a self efficacy scale especially for the remote school context and this was administered at the commencement of the term and at the end of the term. The scale consisted of ten statements (eg "Can lead a team in an activity") to which students responded by rating their confidence that they could do this activity on a scale from 0 to 100 points.

Self –Efficacy is a powerful motivational factor and refers to a person's belief in their own capability to perform tasks. It differs from *self-concept* , which is more about how a person sees themselves and *self-esteem*, which is about how a person judges themselves in society. Self-Efficacy is a concept developed by the American Psychologist Albert Bandura at Stanford University and it has been shown in many international studies to be among the most powerful predictors of academic achievement and school success

The scale was scored and statistically analysed using the Statistical Package for the Social Sciences (SPSS).

A Cronbach Alpha test for reliability was calculated, as well as mean scores and standard deviations across the scale for the repeated measure. In addition, a "t" test was computed to ascertain whether the differences in the mean scores for student self-efficacy from the commencement of the term to the end were statistically significant. Table 8 presents the results for these calculations.

Table 8

Student Self-Efficacy

	Start of Term		End of Term	
	Male	Female	Male	Female
Mean Score	80.75	78.10	87.43	85.52
Standard Deviation	11.06	16.57	7.78	9.81
All Students Mean Score	79.71		86.24	
Standard Deviation	13.91		9.14	
Cronbach's Alpha	.9136			
"t" test (Paired Samples Test) Repeated measures, two tailed	**t=4.189, df=37, Sig=.000**			

As indicated in Table 8, the boys began the term with a higher Self-efficacy score than the girls, though there was no significant statistical difference between the two. At the end of the term, both groups had increased in self-efficacy and the mean scores of all students when compared over the 9 week term showed a statistically significant difference, clearly indicating a strong increase in self-efficacy. The scale shows a high Cronbach alpha score for reliability as a measure and appears to be a potentially useful scale for the remote school to use in measuring student development over the term. It is interesting that both girls and boys scores increased over the 9 weeks.

This means that the school's aim to increase student self confidence has been very successfully achieved. Student self-efficacy, or belief in their capability to complete the remote school program elements, increased significantly over the term.

Students and the Enterprise Capabilities

Another key element of the remote school program was the completion of the Enterprise Capabilities Passport, a focus of the curriculum experience during the term.

An Enterprise Capabilities Survey Scale was developed based on the 6 main areas of Enterprise Capabilities listed in the curriculum documents for the school. These covered the areas of Leadership, Planning and Organising, Being Flexible, Thinking Outside the Square, Taking a Risk, Initiating Ideas. The scale consisted of a total of 18 sub-areas of Capability which students were asked to respond to as to their confidence in their ability to complete each on a scale from 1 to 10. (Item example: *Be flexible when dealing with change).*

The student responses to this scale were scored out of 10 (maximum possible score 180) and analysed using the SPSS package.

Table 9 presents the results of the Enterprise Capabilities Survey.

Table 9

Student responses on Enterprise Capability

	Male (23)	Female (19)
Mean Score	140.69	139.58
Standard deviation	15.66	17.18
Total Student Mean Score	140.19	
Standard Deviation	16.17	
Cronbach's Alpha	.9149	

The Enterprise Capabilities Survey appears to be a reliable and useful; instrument with which to assess this part of the remote school curriculum. Scores are well distributed over the range, with a minimum score of 106 out of the possible 180 and a maximum score of 173. There was no significant difference between the boys and the girls on test scores.

Discussion

This study is, as was emphasised at the outset, a work in progress. In addition this study, as a collaborative partnership between the University staff and the School staff led to a number of mutually beneficial outcomes.

The School is now applying and developing clear curriculum statements based on a defined and coherent position with related developing outcome measures which enable it to address, more effectively, its Accountability requirements in ways relevant to the alternative groups and programs.

Second, the study, particularly in this initial stage, focussed heavily on the use made by staff and students of Information Technology, as it is a core plank of the school's delivery and activity. Arising from the data reported and the interviews of students as well as the observation of student activity and engagement, the research and development team has developed an Engagement Model which pulls together the aspect deemed necessary and appropriate to engagement with Information Technology learning at the School. This Model has been entitled, the Actuality Engagement Model (Cairns and Dyson, 2001) and has led to further (Cairns and Stephenson, 2002) and is currently being investigated and applied in other settings such as the University's fourth year Internship program in pre-service Teacher Education.

The Actuality Engagement Model is a theoretical conceptualisation of the elements which appear, from the observation and analysis of the engagement of the students at the remote school during this study, to be necessary as a combination, for real (actual) engagement with learning technology.

The concepts are closely aligned with some of the research and theory arising in the area of social cognitive psychology. Dusick (1998) has argued, for teachers, that there are a range of social cognitive factors which influence use and "take up" of computers in teaching. She also suggests that the teachers, as students, "can successfully learn to use technology for instruction in a self-regulated manner.

The Actuality Engagement Model suggests that there are five elements which are necessary for learners to really engage with Information Technology. These elements are:

- *Opportunity*- learners need to have readily available the opportunity to use relevant computer hardware and software with minimum difficulty and maximum ease
- *Necessity*- learners must have some realistic need to use and involve the computer for communication and resource purposes other than just teacher/instructor admonition

- *Propinquity-* learners should have a nearness of other computer users who are both modelling and immersing the learners within the medium
- *Sagacity-* There is a need as well for learners to see and understand the wisdom of engaging with the computer learning. Such wisdom should be seen clearly to be a feature of social values and future development of potential by the learner.
- *Sanity-* Finally, the actual involvement by the learners in the use of Information Technology should be see by each learner to be a sensible thing to do. Those young adults who identify the use of computers as a "dumb thing" or a non "cool" thing to do will not engage fully.

The actual take up of ICT appears to require all five elements to be present.

The interplay, as a reciprocal interaction model (Bandura, 1997), among the three elements of Theory, Research and Practice, as the project has developed, has been a valuable outcome for all concerned.

There remains much to be further developed. Aspects yet to be studied in detail and analysed include:

- The impact and significance in learning terms of the Experiential education component of the program.
- The long term follow –up of students who have returned to their Home School and how the experience and enhanced self-efficacy impacted on their Home School activity.
- The impact and significance of the Community Learning Project and what links this maintained.
- The extent and impact of the program in terms of Leadership potential realised post the Remote School experience.

Each of these elements is currently being built into the program of the research and development study to be worked on in 2002-2003.

Conclusion

This research and development study started out in the Action Research tradition as a collaboration between two University staff and a newly established remote school to identify, clarify and study elements of the approach and curriculum to support the School in finding ways to meet its Accountability outcomes as a state school, but also as a means to examine student learning and achievement.

The study developed into a partnership which is ongoing, and which has engaged the team in many useful and cooperative elements with mutual benefit.

The four main areas identified earlier in this paper as the foci of the research element of this study were :

1. Intensive personal skill development
2. The essences of youth leadership
3. Community building, sustainability and transference
4. The power and the place of information and communication technology

The study reported has begun to investigate and develop aspects of areas 1 and 4 with some discussion and consideration of area 2. The ongoing research and development will focus more on areas 2 and 3 in the next phase, but will also significantly examine the role played by the experiential activities in the curriculum and personal skill development of the students.

The major realisation for all concerned (University, School staff and Students themselves)is that Year 9 students, placed in a different environment, with learner-centred approaches aimed at self development, with teachers and resources which lead to actual engagement, learn and develop dramatically in 9 weeks. In addition, both the University staff and the school staff learnt that the mutual interdependence in an action research type approach leads to fruitful educational enhancement for all.

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