Our school, Yale Primary, is now offering Computer Education as part of its support programme along with PD for the staff - all on a limited budget.

Background

In 1994 we had a collection of about a dozen Acorn Master Compacts with Epsom Printers, some Microbees also with printers, three Apple IIGs with Image Writer Printers, all located in classrooms, and a Macintosh LCII, also with a printer, located in the Library. Our Library was automated with two student terminals and the School office was running a Novell Network with two machines for Administration purposes only.

Some teachers were keen to use the Master compacts in their classrooms but were lacking confidence and knowledge in the use of the machines, software programmes available and how to include the computers effectively in their classroom programmes. Few staff members had access to a computer for administrative preparation nor the skills to use them.

We started to question what we wanted to achieve for our students and drew up Computing Priorities for each year level and what computing system and staff input we needed to reach these levels.

Firstly we felt children needed to develop keyboarding skills beginning at year 4 level so that by the time they were in year six they were competent typists.

Secondly we saw the need to develop skills in the use of Applications and Research packages as student and teachers wanted to move towards developing students’ skills using new technology and introduce the advantages of work produced on computers rather than only by traditional methods.

As we learned of the lease packages available we made detailed inquiries and in Term 1 of 1994 leased, for three years, with the right to purchase, an IBM machine and printer for staff use. This was networked on the Novell administration system and situated in the staffroom. We also purchased an administration software package, Cosy Corner, for use with student records and test data.

The development of our computing system

During the first term of 1995 the Technology account was allocated $15 500 for the purchase of a bank of computers. The original idea was to try and lease machines over a three year period and much research was put in to obtain the most economic deal for the school. During this time the Education Department released guidelines for the lease of computers in schools and once we studied these we found what we wanted to set up and our budget did not balance out. We found that even if we did lease a small number of machines the cost per year was going to be a few thousand dollars - quite a drain on our resources.

Based on these priorities we began making inquiries as to second hand computers and discovered a source in Universities where their banks of computers are turned over every three years or so. We were able to successfully tender to Murdoch University for a bank of 15 Macintosh LC computers which had Ethernet cards and connectors for cabling.

With great help from an enthusiastic electrician we rewired a withdrawal room and, by putting new tops on old tables, built benches to hold some of the computers. We also converted trapeziod desks into split level computer tables for part of the room. Extra monies were given to aircondition the room, provide the cabling to network the machines and add extra security to the room in the form of deadlocked doors and a sensor.

To make the bank useful to a whole class of 32 students we purchased one more second hand machine to make 16. We purchased two CD-ROM drives for the system and two Image Writer printers and with the skills of an expert technical consultant, Quentin Hall, set the machines up in two small networks for 8 machines with a printer and CD-ROM on each network.

We did not have a dedicated file server for the networks but Quentin was able to set the system up so that the machines used the memory available across the whole system. However, on the two ‘main’ machines we did have more...
memory available, 10Mb and 6Mb which helped run the system faster.

The total cost of the project was $22000. My budget for running and upgrading the system in 1996 has only been $3000.

The room was ready to use by the beginning of term 3 of 1995. Since our school had over 600 students we decided to offer lessons to the upper primary classes for the first term. We used support time for formal lessons of 40 minutes per week per class with the class teacher attending lessons to learn to use the system and assist the computer teacher. Classes were also timetabled into the room for ‘TTapps’ - usually twice per week, with the class teacher managing this programme.

As we were short of support time in the school we decided on the policy of using the computer teacher for lessons with the class teacher in attendance for only the middle and upper primary classes with year 1 and 2 being invited to introductory sessions once per term and year threes being timetabled for a 30 minute time slot once a week with their class teacher for Maths problem solving if the teacher wished. The six Upper school classes were programmed for term three and the six middle school for term 4.

1996 Class arrangements

The class arrangements have continued with slight modifications to the timetable - classes are now only 30 minutes and are set in the morning sessions because of alterations to the support timetable. Typing classes have continued and year 7 classes have timetabled their classes for an extra 60 minutes per week for research and assignment work. This has meant that the computer room is in great demand.

We have also replaced the Image Writers with two colour StyleWriters using print share which has given us high quality print out.

Children are assigned to a computer with a partner for ease of monitoring and saving work. The room is just large enough to have one student at each computer and the remainder of the class working at tables around the room. When a new skill was being introduced both students sit at their computer and work cooperatively on the skill. Once a lesson is introduced children work by themselves on related worksheet or assignments to gain competence.

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Outcomes

Middle and upper school teachers are now much more confident in the use of computers and children’s confidence and skills have been developed beyond the priorities we set up. Upper school students use the bank for assignment work, along with the increasing number of home computers, and teachers are programming computer use into their daily activities. Year 6 and 7 use the CD ROM for research on a regular basis - especially for information gathering using key wording.

The future

We have now been operating for 18 months and we plan to upgrade the system by increasing the RAM to 10Mb. We feel the system has three to five years of useful life using a similar set up with the classes but we may stop lessons to Year 7 classes and allow those teachers to use the computers for larger blocks of time for student assignment work and research. This will enable us to introduce the Year three classes to computer lessons on a regular basis and even look to Year 1 and 2 children coming in for CAL programmes.

To keep up with new developments we plan to purchase at least 8 new machines in the library which can be connected to the Internet and on which we can use some of the vast range of research material coming onto the market. There are already discussions on the best way to extend the administration computer set up so that teachers have more access to student information and use of computers for record keeping.

In today’s environment where we are urged to have the latest in everything, it has been good to have had to work within a small budget and look realistically at what we wanted as a Primary School to achieve for our students and staff.

PD for staff

During term 3 we used the computer bank for PD for the teachers and I gave five one and a half to two hour sessions covering the use of our network, an introduction to the application package Claris Works, mainly in Word processing and Spreadsheets, and use of the problem solving package Maths Circus and the CD World Book Encyclopaedia.

Problems

The shorter lesson times of 30 minutes this year has made individual work more difficult in the lesson times. However, as the teachers have gained confidence they are now able to bring their class in to complete my assignment work during the week when their already very busy timetable allows.