

# Footprints

## **Evaluation of the Victorian “Global Classroom” Telecommunications Project 1995**

**Prepared for:**

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## **PREFACE**

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**In November of 1994, the Directorate of School Education in Victoria agreed to support the The Whalesong Foundation's design of a plan to co-ordinate and implement a State-wide telecommunications project for all Victorian schools based on the I\*EARN Model.**

**The results and findings of this evaluation are based on the data collected through *Teacher Interviews, Online participation and observation records*, and *Formal Student and Staff surveys*. This evaluation and report is intended to provide the Directorate of School Education in Victoria, Australia with the data and observations necessary to assess the validity of a "collaborative, theme-based project" approach to the integration and use of telecommunications and related technologies in Victorian schools. This evaluation is also designed to provide the data required to make the necessary decisions to continue the possible future development of the "Global Classroom" concept and related activities.**

**The study design team would like to acknowledge the active support of all of the school-based project leaders and the School administrations that supported the teachers involved... Teachers who were willing to, in many cases, 'take on' a very real challenge to their professional teaching lives and participate in a project that placed many personal, professional and at times, even financial demands on them.**

**The study design team would also like to express a special note of thanks and appreciation to the Honourable Don Hayward, Minister for Education for his personal support and patronage of the project. To Mr. Geoff Spring, Director of School Education-Victoria, Mr. Bob Carbines and Mr. Dennis Bolster as Executive Officers of the Directorate of School Education for their assistance and ongoing support of the project. Mr. Neil Elliot and Mr. Bruce Rigby as Senior Project officers provided unyielding support and advice in many ways to both the study design team and to the teachers involved.**

**The study design team would also like to recognize the sizable contribution made by the I\*EARN group world-wide and the I\*EARN International Global Secretariat, Dr. Edwin Gragert and Dr. Kristin Brown as well as the support of the Copen Family Fund and its President Mr. Peter Copen. We would also like to thank all the students who participated in the Global Classroom activities and contributed to the evaluation programme.**



# INTRODUCTION

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***“The flood of instant information in the world today - at least in the Western Industrialized World, sometimes seems not to further, but to retard education; not to excite but to dampen curiosity; not to enlighten, but merely to dismay.<sup>1</sup>***

It was with this statement that the premise and imperative for the design and implementation of the Global Classroom project began in early 1994.

We see the domain of education as a key intervention point because of the large numbers of people it can reach and because of its ability to change the paradigm of the way we think. We also share the commitment to the power of the new communications technologies - namely, electronic mail, conferencing and video-teleconferencing - and the window that they offer into new worlds of communications between people and information locally, nationally and globally.

We are committed to the application of the power of these communications technologies, along with physical exchanges of people, to support and enhance the development and reform of current teaching and learning methodologies and to most effectively incorporate the benefits to learning and teaching that these technologies bring in to wider or ‘public’ practice.

As stated in the Report of the Victorian Government Working Party on the Use of Technology as an Education and Communications Facility in Schools;

***The introduction of technology has developed without planning. Those who pioneered the process were the early adopters, then there was a general rush to be involved. However, no one was in a position to know what was going on anywhere else. There was little thought to the outcome of circumstances where many “wheels” were being invented<sup>2</sup>.***

The Global Classroom project was specifically designed to address such findings and to provide an environment for school communities that was conducive to experimentation and discovery with such technology and provide a built-in mechanism for the dissemination of our findings.

Once again we refer to the Working Party report:

*...that attention should be directed to the human dimension, which promises to provide the key to more successful implementation of information technology in schools. It believes the issue should be addressed through structured professional development programmes based on information technology and an understanding of such matters as learning, change and the factors that affect school culture<sup>3</sup>.*

Telecommunications technology for its own sake, according to this report, has little intrinsic value for teachers and school communities. It was clearly the “human dimension” that the Working Party report found was lacking in previous attempts to integrate such technology in to the teaching and learning environment.

Learning, Change and School Culture were precisely the elements that the International Education And Resource Network (I\*EARN) were able to contribute to the project. The basic assumptions of this project were to assume that effective learning and teaching environments are created when students and teachers are provided with experiences that are designed to ;

- a. inspire and encourage
- b. provide a sense of self worth and achievement
- c. provide increased “learner driven” activities
- d. encourage “multiple ways of knowing”
- e. accept the different “drives” in the different learning phases.<sup>4</sup>

It was with these clear imperatives and the perceived “readiness” of the general or wider educational community in Victoria that lead the D.S.E and The Whalesong Foundation to collaborate on and to produce the Global Classroom project.

In the opinion of the evaluators, this project is in many ways, not only the first of its kind in Australia, but is rivaled only by the the Global I\*EARN experiment itself and the precursor to the I\*EARN project, the New York State/Moscow Schools Telecommunications project.<sup>5</sup> It is the very nature of the project itself, and the scale with which the project was undertaken that makes this work unique.

Some of the unique aspects of I\*EARN that separate it from other educational-telecommunications networks and thus provided the participants with a unique work setting included:

**1. Its philosophy: To empower youth to make a meaningful contribution to the health and welfare of people and the planet. And by doing so, to shift the paradigm from "I can't make a difference, to "I can".**

**2. Its process: Devoted to have youth work collaboratively on concrete-meaningful projects that have measurable social and environmental outcomes. To use holistic and multi-media learning methodologies in order to maximize learning impact (i.e. electronic mail & conferencing, speaker and video-speaker telephones, student and teacher exchanges, videos, CD ROM's, etc.). All as part of the educational process.**

**3. Its global nature: To consciously include youth around the world in a decentralized, global-village network. To have a global management team working together by telecommunications within the framework of the I\*EARN Global Constitution forged on the model of the United Nations Charter.**

**4. Its status: I\*EARN is a not-for-profit global organization.**

**In all, the Global Classroom project was (is) a bold attempt to focus on the curriculum and teaching needs of the classroom teacher, the Victorian Governments requirements of a statewide professional development programme available and relevant to all teachers and perhaps most important of all, the learning experiences and outcomes of all the students involved in the project.**

**Just over 100 schools, 3000 students and 200 teachers were involved in some or all parts of phase one of the project (1995). The project participants were selected via application in February and March of 1995 (See appendix 1) and divided in to Phase One and Phase Two schools. In essence, the phase one schools were seen as those that were relatively experienced and/or equipped to implement a series of collaborative theme based telecommunications projects with their teachers and students. Phase two schools were primarily selected on their willingness "to have a go". This is clearly in keeping with the prime objectives of the project to create an inclusive and achievable learning environment for 'expert' and 'novice' alike.**

**The Global Classroom Project 1995 began as a large scale pilot project, not to 'discover' the previously accepted benefits of collaborative theme-based project learning, but rather to create a vehicle for existing successful models of network learning and the I\*EARN model to be**

**implemented on a wide scale by a diverse cross-section of the Victorian educational community.**

**The associated training events for teachers and the curriculum projects for students were designed to provide a richer and wider educational experience for participants, to provide a greater basis and ability to develop inter-personal and inter-cultural understanding and to create a matched “human dimension” for the testing, design and implementation of information technology programmes in schools.**

**In essence, The Global Classroom project was designed to provide a human imperative to encourage, model and inspire teachers to investigate the use and implications of telecommunications and associated technologies in the classroom and in so doing, begin to systemically address the role of education in the wider problems facing the planet and its peoples.**

***The flood of instant information in the world today -at least in the Western Industrialized World, sometimes seems not to further, but to retard education; not to excite but to dampen curiosity; not to enlighten, but merely to dismay<sup>6</sup> .***

**It is hoped that a ‘Global Classroom’ will never allow this to happen.**



## **SUMMARY OF KEY FINDINGS**

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**Has this project achieved its goals? Has the implementation of the telecommunications and associated technology enhanced the teaching and learning environment or simply made it different??**

***Joining the "Global Classroom Project" has been the best thing I've done in teaching***

***A great concept and deserves to not only be followed up in 1996 but in fact be extended to include even more schools in not only Australia but in fact the world.<sup>7</sup>***

**The Global Classroom project has assisted the process of change in a number of traditional teacher / student relationships. It has in many ways, removed the excuse for either enforced or intentional isolation of the classrooms our students and teachers work in. It promoted and assisted collaborative learning by BOTH the teacher AND the student, creating a very real 'virtual' community of learners on a State, National and Global scale.**

***This seems a bit negative-sorry, but as usual in a tiny setting with only 1-2 persons to cope with the technical / financial / practical / training / curriculum issues, things moved slowly. The fact that this is what actually got us connected to the Internet is a winner<sup>8</sup>.***

**Literally, in the space of 12 months, the Global Classroom project has equipped hundreds of teachers and thousands of students with the technical ability, but more importantly, a curriculum imperative from which to launch themselves and their communities in to the use and application of telecommunication technology.**

**The results also suggest that the project did indeed make an impact on the students perception of school and their level of involvement in actually planning and implementing learning activities.**

***Working on the e-mail and conferences is excellent. I really enjoyed hearing from other students from around the world. Working on this stuff makes us seem more important and useful. Getting your names in publications is something I never thought I could do. Definitely do it again.***

# Evaluation Design

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The Whalesong Foundation, Ltd. has developed a series of data collection “events” over the course of the 1995 Phase 1 and Phase 2 sections of the Global Classroom project to obtain relevant information from teachers and students regarding the goals and performance of the projects as a whole. This evaluation received no formal funding.

Major project goals were:

- to enhance student learning utilizing telecommunications technology
- to provide/assist Victorian teachers in the assessment and application of telecommunications technologies in schools.
- to expose Victorian teachers and students to the I\*EARN collaborative theme-based project model.
- to support and develop student generated projects which make a meaningful contribution to the health and welfare of the planet and its peoples.
- to determine the impact of the use of telecommunications technology “in context” on teaching methodologies, student learning and school curriculum design.

Obviously, these broad goals are underpinned by many other related goals. Given the fact that many participants had NEVER used telecommunications OR computer technology before, whereas other participants had a number of years experience with the use of the technology, it was a matter of much debate and discussion to provide a series of relevant and “well pitched” experiences for ALL involved.

This evaluation focuses as a narrative of the experiences of those involved in the 1995 phase of the Global Classroom project. It is designed to be non-invasive (i.e minimal time requirements on teachers busy schedules) yet detailed enough to provide substantial and statistically significant samples of the randomly chosen 100 schools.

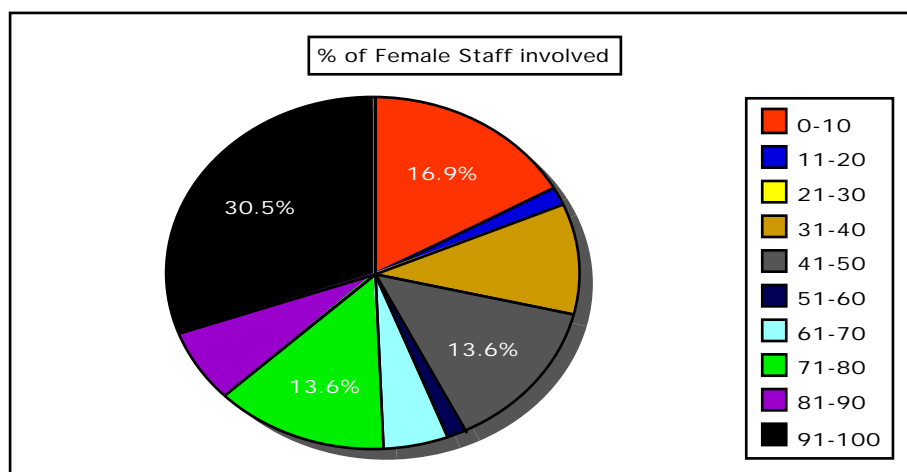
Participants involvement has been gauged by on-going monitoring and recording of e-mail and conference contributions, via personal interview, student publication, public presentation and formal survey.

To conduct the study, every participating school and teacher was polled with a seven page survey, covering some 30 questions related to training, commitment to the project concept, factors that contributed/hindered the application of the technology and student learning outcomes .

Of these some 76% of the schools responded in time for the publication of this document, another 4% of schools responded well beyond the deadline for inclusion of their data. Another 4% responded without using the formal survey documents as provided. Their responses have been included where anecdotal or directly comparable data was available.

Overall, we believe our responses rate is statistically credible and the results reflect the thoughts, comments, observations and learnings of the VAST majority of those directly involved in the project.

**Figure A1**



The evaluators believe that of particular note is the perceived increase of female staff members being actively involved in the online projects. When considering reports that outline less than 30% of the “online community” is female, it is significant to note that in 30.5% of participating schools 91-100% of their female teachers worked in projects. A further 6.8% of schools had 81-90% of their female staff involved and a further 13.6% of schools had 71-80% of their female staff involved. An additional 5.1% of schools had 61-70% of their female staff involved. Of interest is the other 16.9% of schools that had less than 10% of their female staff involved in online projects.

# STUDY FINDINGS

**The sections that follow describe the key findings of the study. The findings are organized according the five headings:**

- **Preparation**
- **Training**
- **Teacher Participation**
- **Student Participation**
- **General Observations/Learnings**

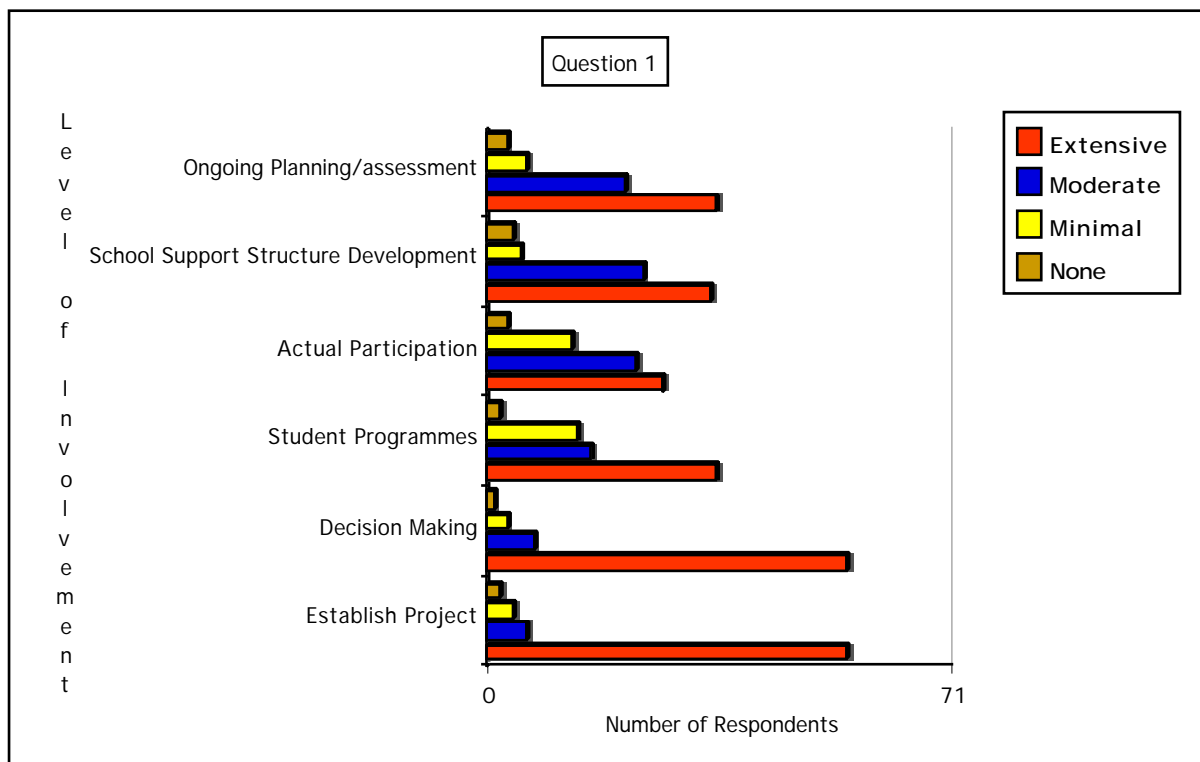
- **Preparation**

**To begin the study, the evaluators thought it relevant and important to ascertain the level of involvement between those that secure project funding for the school community and those that actually implement the project. We were interested to see if this project was adopted as a “top down” project or as a coordinated effort between those requesting the assistance and those actually being asked to perform the duties, i.e. Were teachers being asked to take it up without prior involvement in the planning or application for involvement because it was seen as “the next thing that had to be done” or was it seen as a conscious effort secure support and involvement in the study of telecommunications in schools??**

**Respondents were asked:**

**To what extent were/are you involved in the implementation of the GCP activities in your school.**

**Figure 1.**



**Figure 1 above, indicates that the vast majority of those completing the survey were extensively involved in both the establishment and initial decision making regarding the project. It also indicates that the vast majority were also moderately to extensively involved in the ongoing planning and assessment of the project's value within the school setting and that the respondents were also very heavily involved as part of the school support structure.**

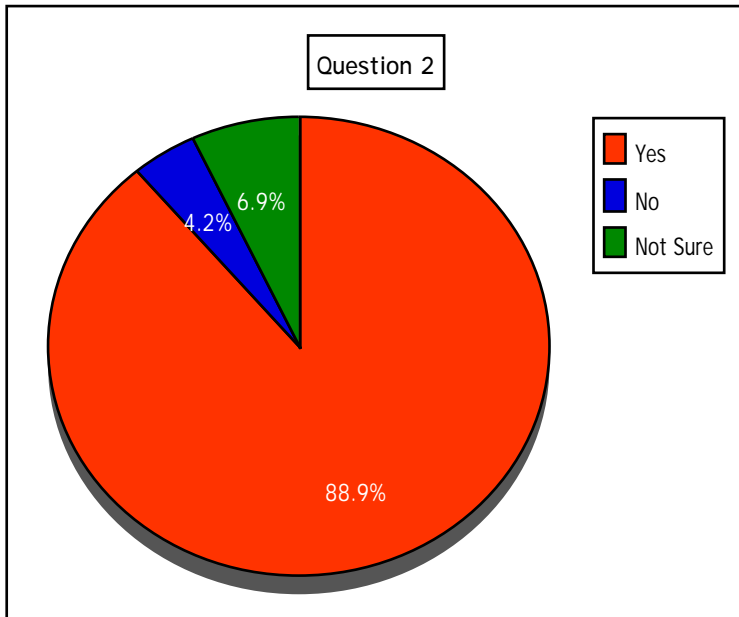
**Figure 1 also indicates that there was some variation between those that established and decided on the project and those that were actually involved in the project operation. This is demonstrated both in the Figure above and in the number of teacher responses to the questionnaire. In many cases, the people completing the major part of the survey were not completing the teacher section of the survey, leaving this to those that were intimately involved in the day to day operation of the project. In many cases we have a variation in total numbers responding to different questions, primarily because of the larger number of teachers that answered ONLY the teacher survey section.**

**In essence, the Global Classroom Project was undertaken by school communities that mainly adopted a team approach. That is to say that a group of sometimes up to six teachers were all involved in different aspects of the project, providing specific skills or expertise as a contribution to their schools involvement.**

**The Figure below represents responses to the question:**

**Do you have a clear understanding of the goals of the project?**

**As we can see from Figure , almost 90% of those**

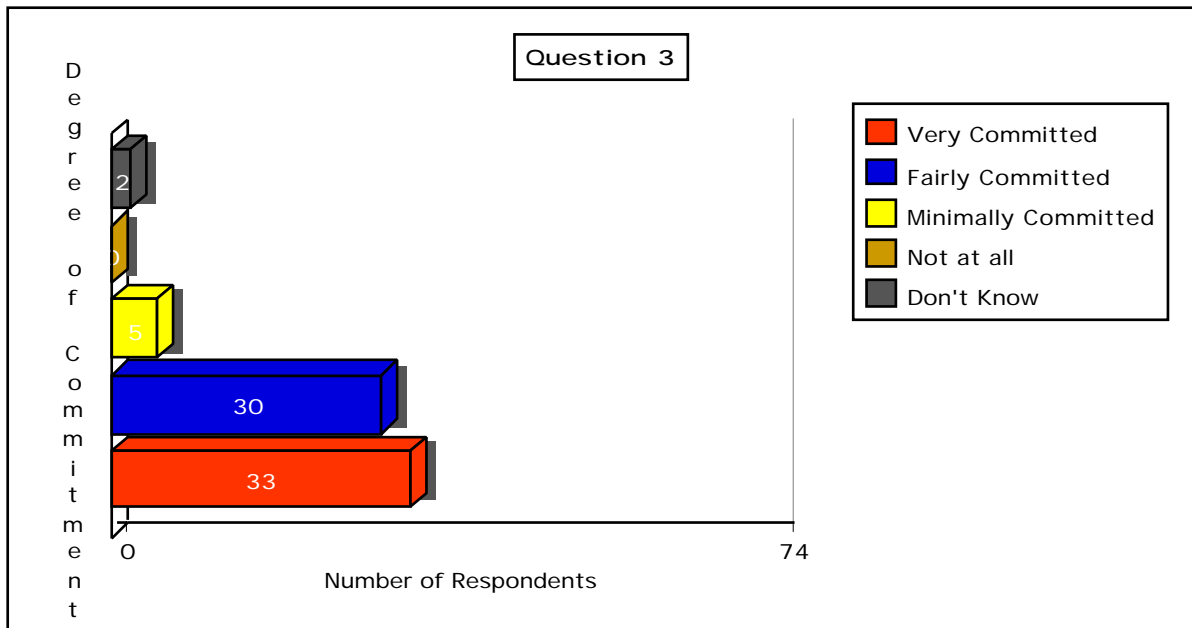


**answering the survey believed they had a clear understanding of the project goals.**

**This graph supports the notion that school communities involved in the GCP had made very conscious decisions to participate and felt they clearly understood the purpose of the work.**

**Figure 3 (below) demonstrates that 89.1% of respondents felt fairly to very committed to the stated goals of the project.**

**How would you describe your commitment to the project goals?**



**It should also be noted that one respondent indicated that they had no intention of participating in the project, stating that they were collecting e-mail addresses and examples of projects for the schools**

**individual use.**

**Two more respondents indicated that they were unaware of the projects goals and a further 5 respondents (6.75%) indicated that they were only minimally committed to the project goals. These statements also appear to be supported by observational evidence of online work that demonstrates a similar breakdown of online time with just over 85% of schools having what the evaluators would consider to be “significant involvement” in online work.**



- **Training**

**A significant focus of the Global Classroom project design was, in fact, the development of a training and support infrastructure that could support and nurture teachers WITHIN the normal school environment, taking in to account the pressures and constraints on the average work week of a teacher. In many cases, teachers were embarking on the use AND application of telecommunications technology within the classroom, for the first time.**

**The training of 25 Phase 1 schools was designed to produce a group, cadre or cohort of schools across the state that were relatively ‘technically’ competent and “curriculum aware” and allow them to work as models for the larger number of Phase 2 schools which would come online in the second half of the year. Training methodology was critical to the success of the project and resource expenditure at this time reflected this need. Spending per teacher TRAINING hour as opposed to spending on teacher related “equipment” or online time, was in the order of 4 to 1 (4:1). In other words for every dollar the project allocated for technical or hardware assistance, we allocated 4 dollars to the training and professional development of the teachers involved.**

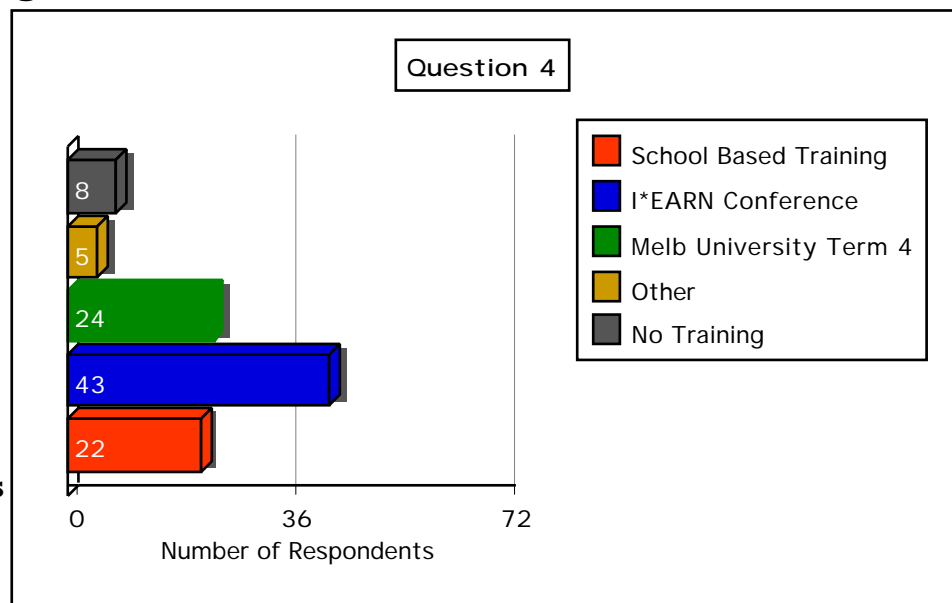
**The following responses on the next page relate directly to the type, level, relevance and quality of the training respondents received.**

**Respondents were asked:**

**Did you participate in Phase 1 or 2 Training?**

**Figure 4**

**The Figure to the right indicates the four main areas of training activities available to participants in the GCP.**



**The single most popular and (anecdotally) effective training activity was the I\*EARN International Teachers Meeting at the University of Melbourne in July of 1995. (See Appendix 1 for Melb. Training Evaluation)**

**Just on 60% of respondents attended this meeting and when added to those schools that received face to face training either at their school (30%) or at additional training days at the University of Melbourne (33%) we can state with certainty that given the diverse locations of schools and teachers involved in the project, each school community had at least two opportunities for initial and then follow-up training.**

**6.9% of respondents involved also organized or participated in additional or other training activities outside of that organized by the GCP project. It is also important to note that 11.1% of respondents indicated that they had no training.**

On further investigation, over half of these appear to be teachers responding from schools where training did occur, but they were not present or teacher transfers had meant that they were new to the position. The other half, making approximately some 5% of respondents indicated that they had NO training at all. As an anonymous survey, it is impossible to clarify or identify why this was the case.

Teachers were asked:

**How well did the training prepare you?**

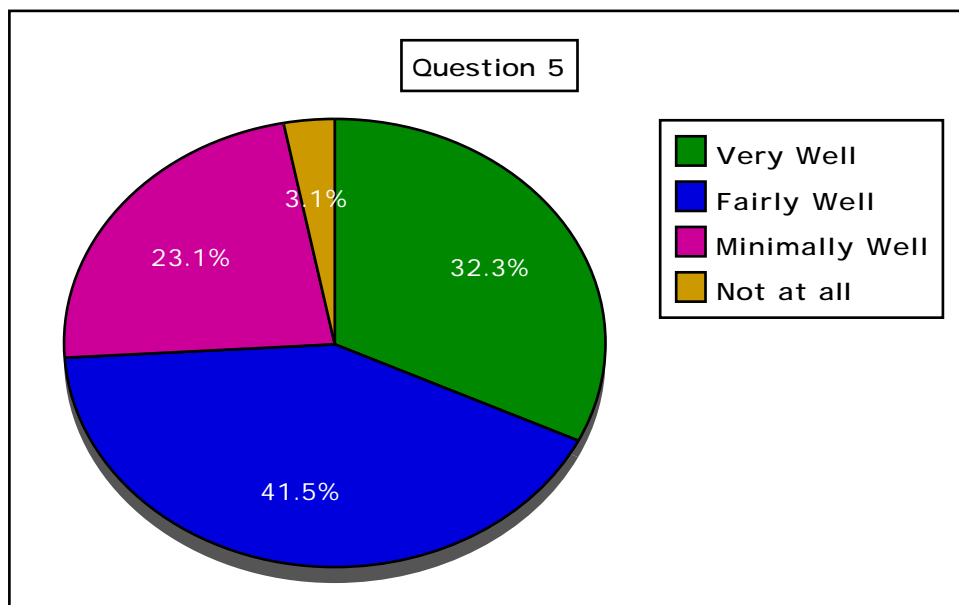


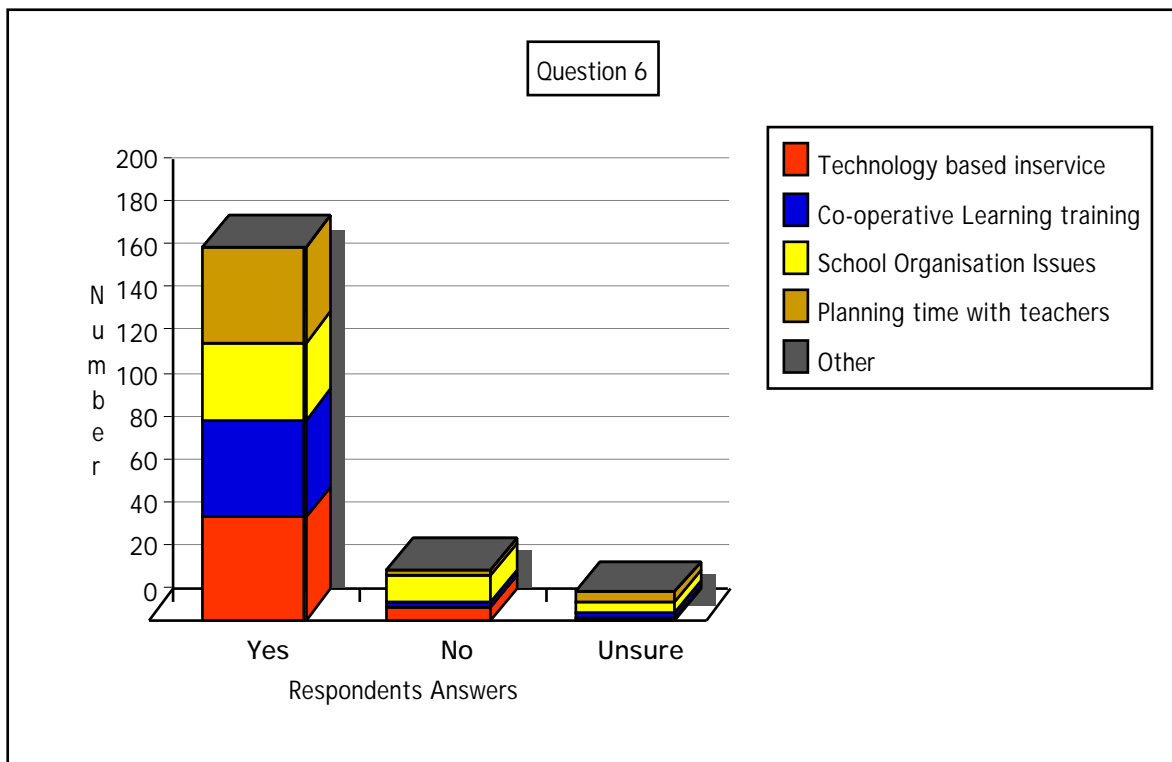
Figure 5

Figure 5 indicates that just on one third of respondents believed the training prepared them very well, with a further 41.5% stating that they believed the training prepared them ‘fairly well’. When collated, this amounts to some 73.8% indicating that the training provided was positive and relevant.

Of some significance is the 23.1% who indicated that the training was of only minimal use in preparation. When quizzed further regarding the things they would require to make the training more meaningful or relevant, teachers clearly indicated 4 major areas that needed to be addressed.

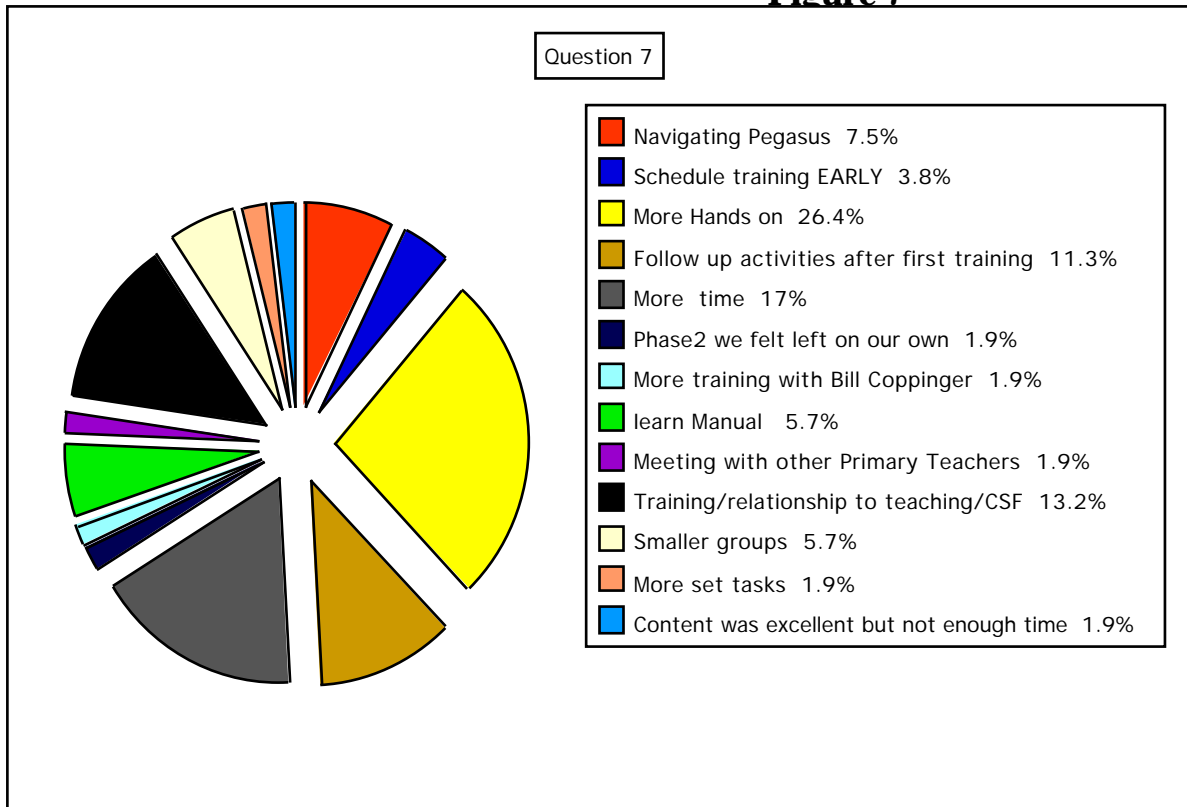
**Figure six outlines these responses below:**

**Figure 6**



**It should be noted that of those teachers that believed the training needed to be improved, they indicated that TECHNICAL training was really only one quarter “of the problem”. We found that teachers also were desperately wanting to simply find “allocated” time to work through the issues, teachers wanted co-operative learning strategies training and they wanted to see more training on school/class organization issues. The evaluators would like to point out here that in many cases the schools indicating a need to reassess classroom organization and co-operative learning strategies were nearly exclusively secondary schools. These issues were not quite as paramount in the Primary schools where it appears such technology did not pose a threat to accepted or ‘normal’ teaching practices.... Technical assistance was higher on the agenda in primary schools, it appears because of a smaller pool of experience. When teachers were asked SPECIFICALLY how future training events (planned for 1996 and beyond) could be improved, their responses were as follows:**

**Figure 7**

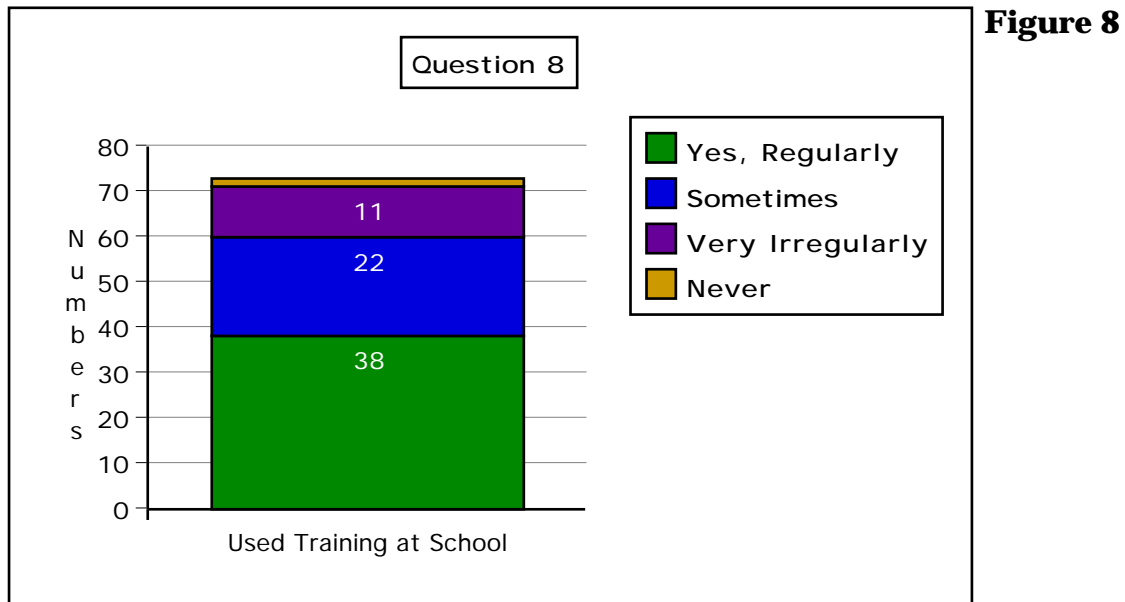


**Overwhelmingly, teachers indicated “more hands on” with over 26% of respondents saying they needed more time ‘at the machine’. At first glance one might assume this meant ‘technical training’ but from interview, the evaluators have found this is not the case. Rather this figure represents a “time” factor for teachers, the “time” to get to a machine and a spend a block of time developing confidence, knowledge and expertise. When this is added to the 17% of respondents that indicated TIME was a factor in improving training, we come to some 43% of respondents indicating they need time to develop a plan to effectively integrate this technology in to their classroom.**

**A significant request for future training activities was to more closely link activities to the CSf and National Profile documents.. Some 13.2% of respondents said they would need training linked to these documents. A further 11.3% requested that ADDITIONAL or FOLLOW-UP training was built in to the programme, to allow teachers to reconvene, as it were to reassess and evaluate/reflect on their first ‘round’ of training and**

experience. As evaluators, we too found this to be a worthy recommendation.

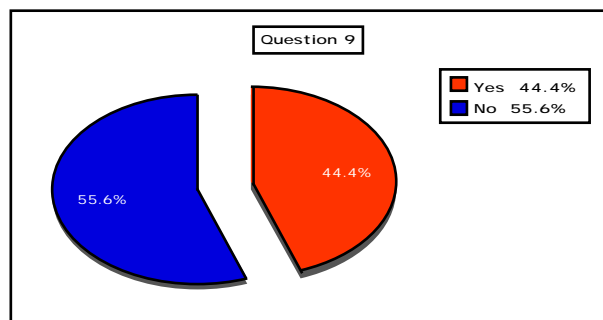
Some 52% of respondents also indicated that they were able to regularly put their training in to practice, with a further 30.5% saying



**Figure 8**

they could **SOMETIMES** put their training in to practice. In all, some **82%** of respondents indicating that their training was applicable in school. Of some note was the **55%** of respondents who indicated that they don't think they used the **Online Support** or support office effectively.

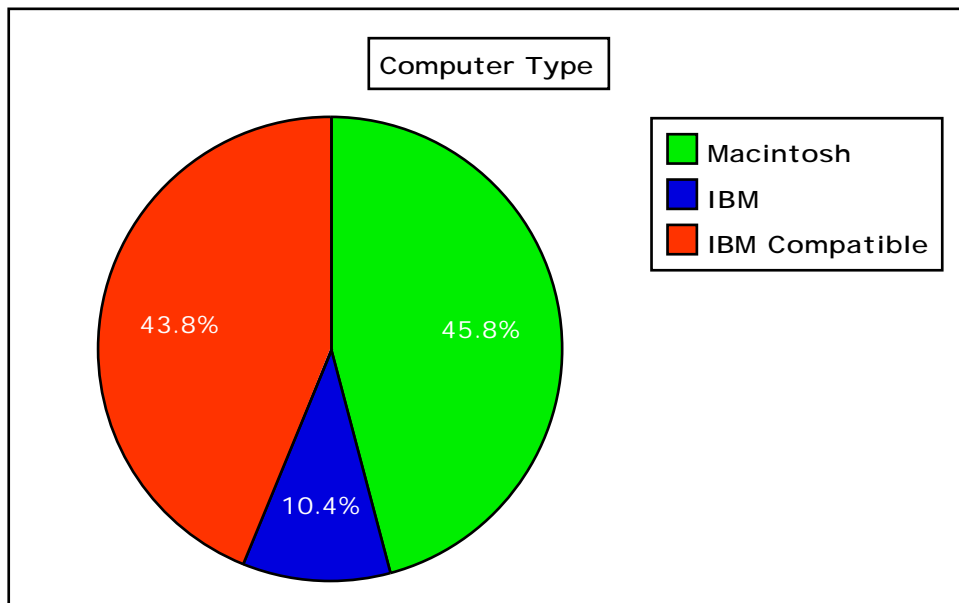
**Figure 9**



The issue of the use of the support ‘mechanisms’ in place has caused some debate. It appears that “time” is a big factor for teachers combined with technical issues that took them ‘off-task’ long enough to cause both motivational and scheduling difficulties. In one month, the **I\*EARN** support office fielded some **600** pages of faxed questions and some **5-8** phone calls a day. Added to this was the receipt of some **60-80** personal e-mail messages per week by the project coordinators, amounting to some **22-30** people hours per week being devoted to project

participants. In some cases, the resources allocated for teacher support were found to be inadequate, particularly in the field of technical configurations of computer systems. Given the very diverse nature of the computer systems available and the numbers involved, this became, for a short but significant time, an all consuming factor in the preparation and training process of the schools involved.

**Figure 10**

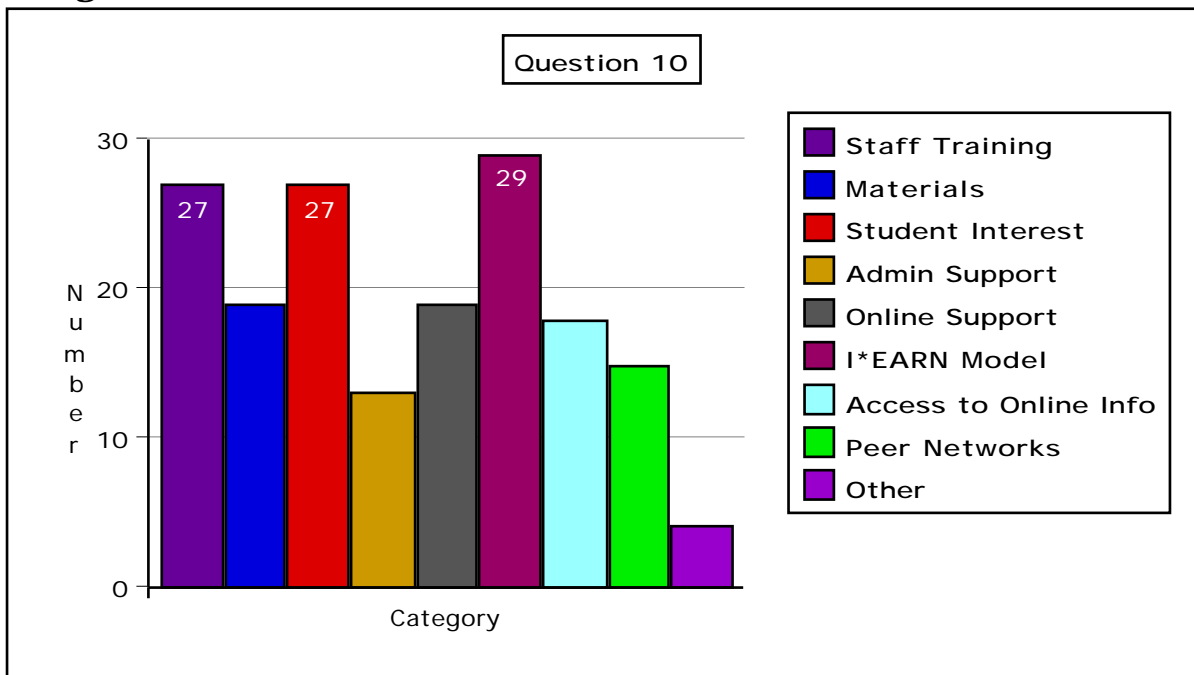


Although computer platforms were distributed roughly evenly between respondents, it was the experience of the support office that the configuration and operation of IBM and compatible computers required the most attention by a factor of more than 3 to 1.

Interestingly, respondents were also able to clearly determine in their own minds the factors that **POSITIVELY** contributed to their understanding and application of the new technology.

**Figure 11** outlines a number of the factors that teachers indicated **CONTRIBUTED TO** their professional development.

**Figure 11**



**Of note, are the three marked responses in this graph, indicating that the largest single factor that assisted in the training was access to the I\*EARN theme-based project model and classroom examples. This was followed by two factors in equal second place. These related to the quality of training teachers received and the level of student interest that was generated by participation in the different projects. Curriculum examples and online support materials were also suggested as very positive factors in training. These factors CANNOT be OVEREMPHASIZED.**

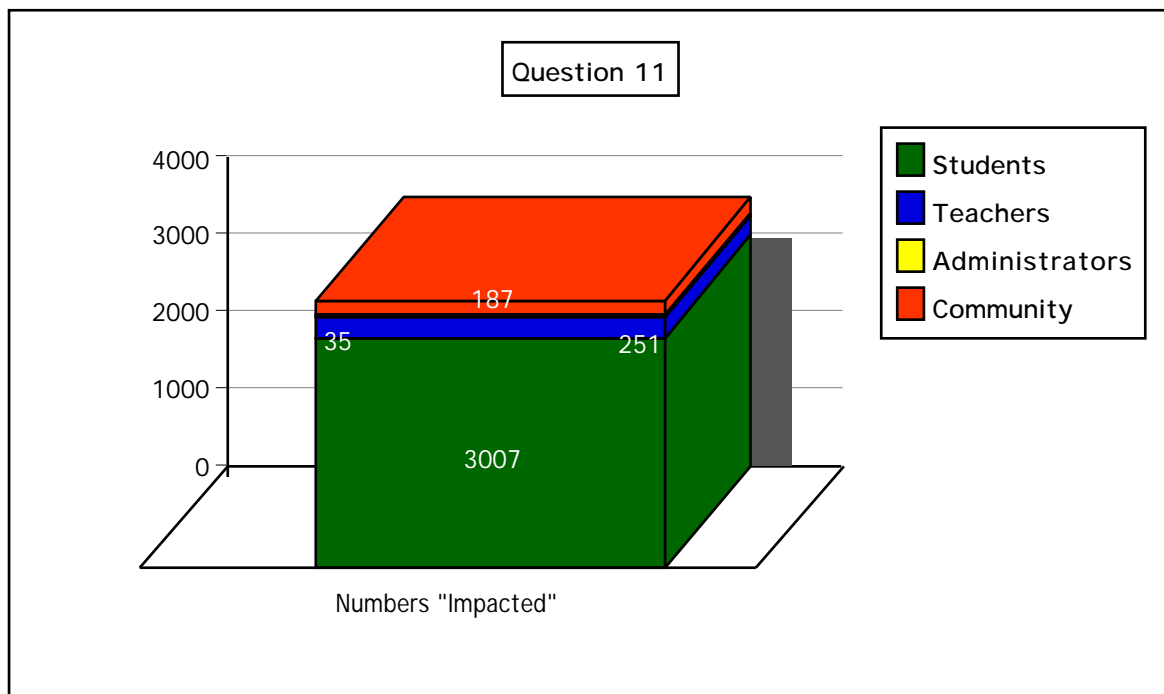
**Overall, the evaluators (although recognizing the dangers of self assessment) believe that the figures above indicate a VERY favourable and positive response to the training process that was implemented throughout 1995. Many of these finding are being incorporated in to the training programmes for 1996.**



## • Teacher Participation

The following data really strikes at the heart of what we perceive to be the greatest goal of the first 2 phases of the global classroom project. Specifically, we have designed a project to engage and immerse teachers in relevant and contemporary theme based projects that attempt to provide local relevance, yet exposure to wider and perhaps even divergent thinking on the use and application of telecommunications technology in the classroom.

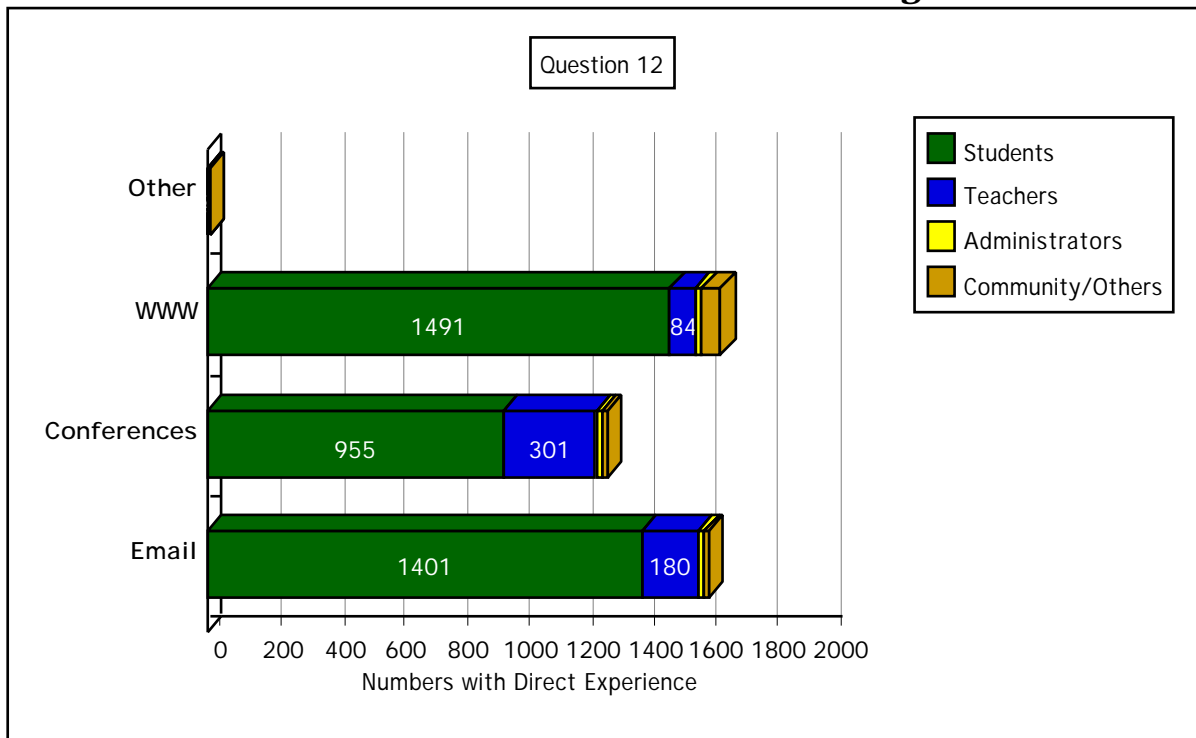
Figure 12



By way of introduction, it should be noted that some three and one half thousand teachers/students and school community members were **DIRECTLY** involved in the GC project. Of this group we had some 251 teachers and some 3007 students who respondents indicate were 'impacted' by the project. Of the 3007 students and some 251 teachers involved, it is perhaps more useful to look at the figures of those that were **DIRECTLY INVOLVED** in the execution of the project in schools.

**Figure 13 provides a detailed insight in to areas of participation :**

**Figure 13**



**This figure demonstrates a relative ‘positive’ uptake of the three main mediums employed in the Global Classroom Project. Of all the teachers involved in the project (251) some 33% had DIRECT experience with the World Wide Web, some 71% had direct experience with email and a seemingly incorrect number of 301 teachers ( 119%) DIRECTLY involved with conferencing. This medium appeared to have appealed the most to teachers, with many teachers having their colleagues “join in” on projects and converse with colleagues in other countries. Hence the inflated figure here. We record this somewhat clumsily as a “partial/direct involvement”.**

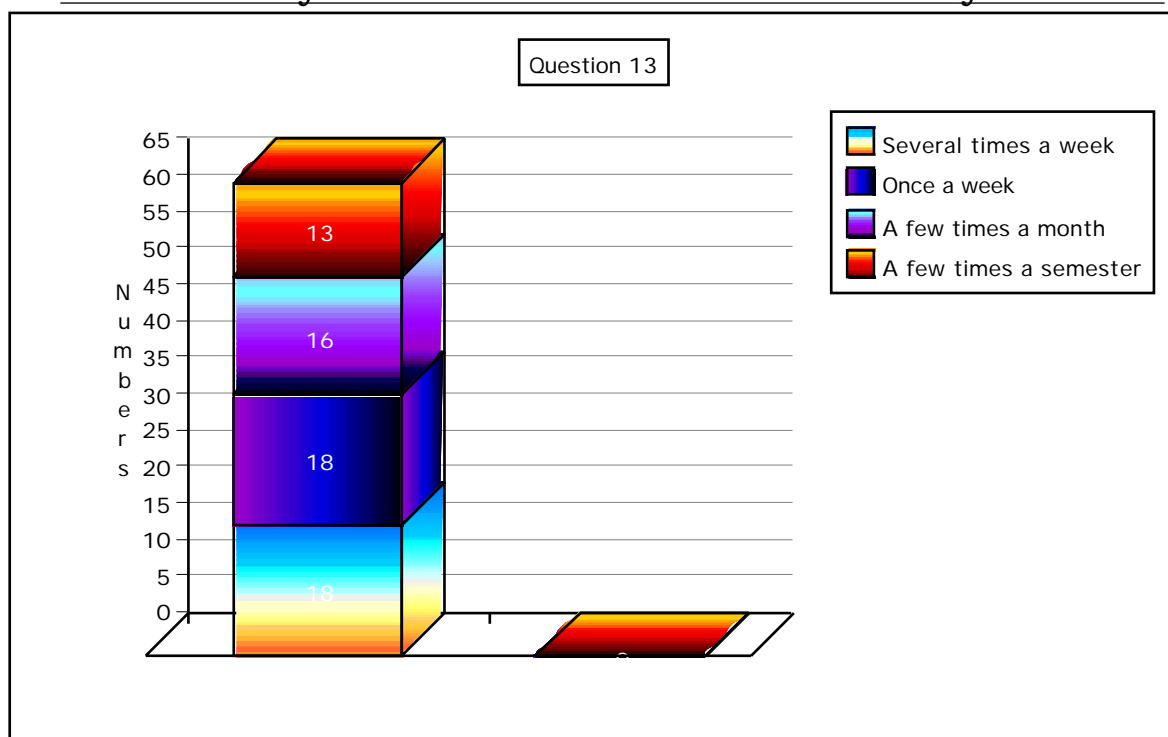
**Of significance here is the high ratio of students to teachers having DIRECT access to the Web, Email and Conferencing. It appears that even with limited access in schools, teachers were still able to provide HANDS ON experience for their students in SIGNIFICANT NUMBERS, making the application of the technology in both its qualitative and quantitative forms, a reality. This signals VERY positive signs for the growth and development of projects in 1996 in schools.**

Perhaps even more telling and positive is the **FREQUENCY** with which teachers involved in the GC project were able to utilize the online community. It has become **VERY** apparent that many teachers experiencing the “connectedness” of the online educational community have begun to look for ways of incorporating this “community” in to there everyday activities. We believe this is a significant and measurable shift in existing “school culture”

**Figure 14**

**Figure 14 outline the response to the question:**

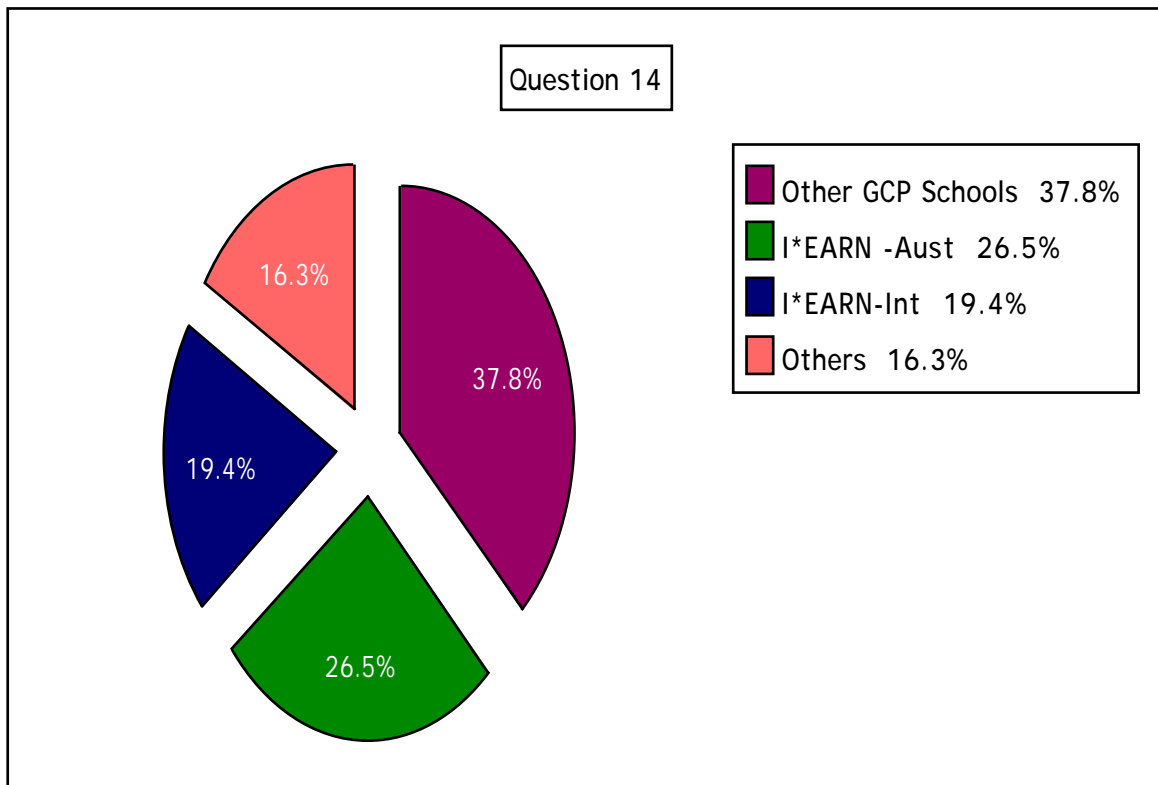
**How often did you communicate with others OUTSIDE your school?**



**In essence, teachers used this medium, at the VERY least, a few times a semester ( 20%) but most encouragingly, teachers found that a few times a month or once a week was not unusual (58%) and even 20% found that a few times a week was not an unusual usage pattern for communicating with colleagues in other schools. An encouraging result we looking for the development of an ‘online’ collegiate network..**

Primarily, these teachers communicated with **OTHER VICTORIAN global classroom schools ( 37.8%)** - see **Figure 15** and other **I\*EARN Australia members (26.5%)**. Significant still is the **19.4% of international I\*EARN Schools** and the **16.3% of respondents who communicated with “others”**.

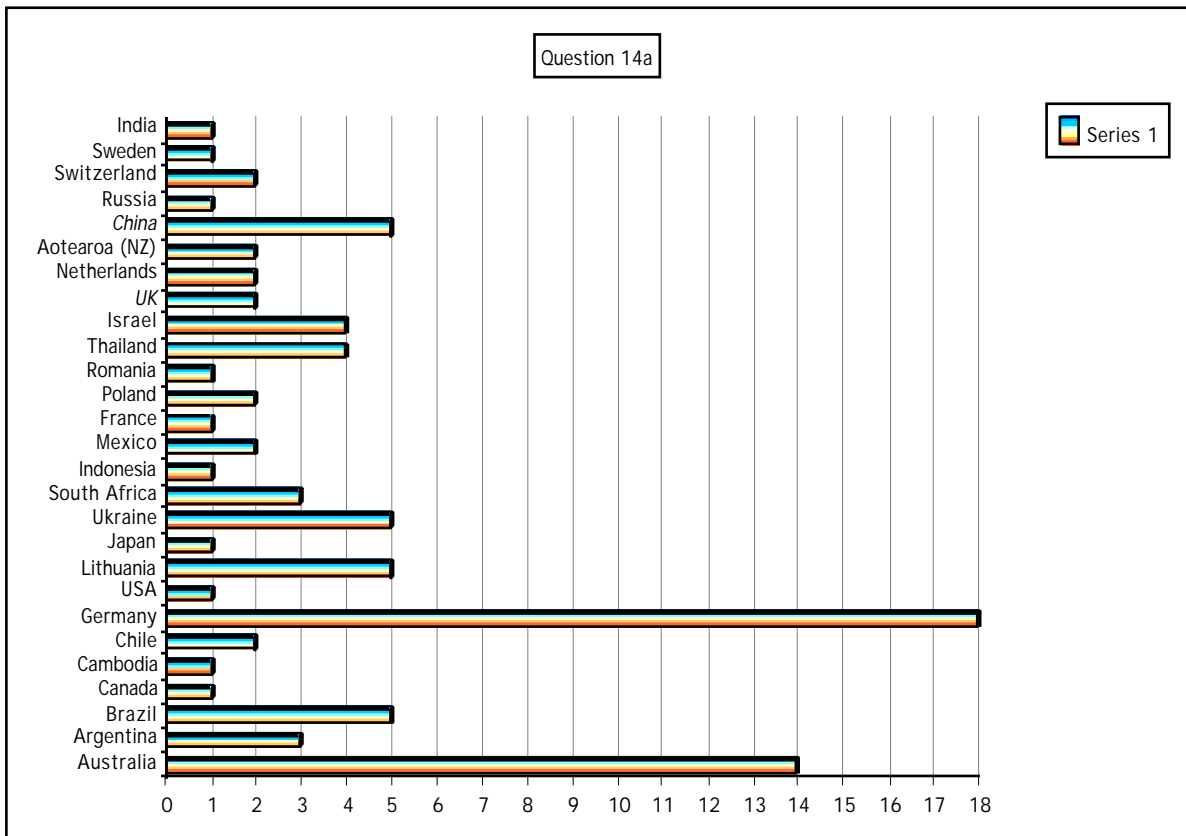
**Figure 15**



Perhaps of interest is that of the **19.4% of respondents that communicated with International schools, this communication consisted of schools in some 26 countries. The communication has ranged from individual e-mail, faxes and phone calls, to participation in online theme-based projects right through to the coordination and planning of an exchange programme between schools in Russia and Victoria.**

**Figure 16 (following) outlines the 26 countries that Victorian schools communicated with during 1995 (not including Australia) and the NUMBER of schools that worked with groups in each of those countries.**

**Figure 16**

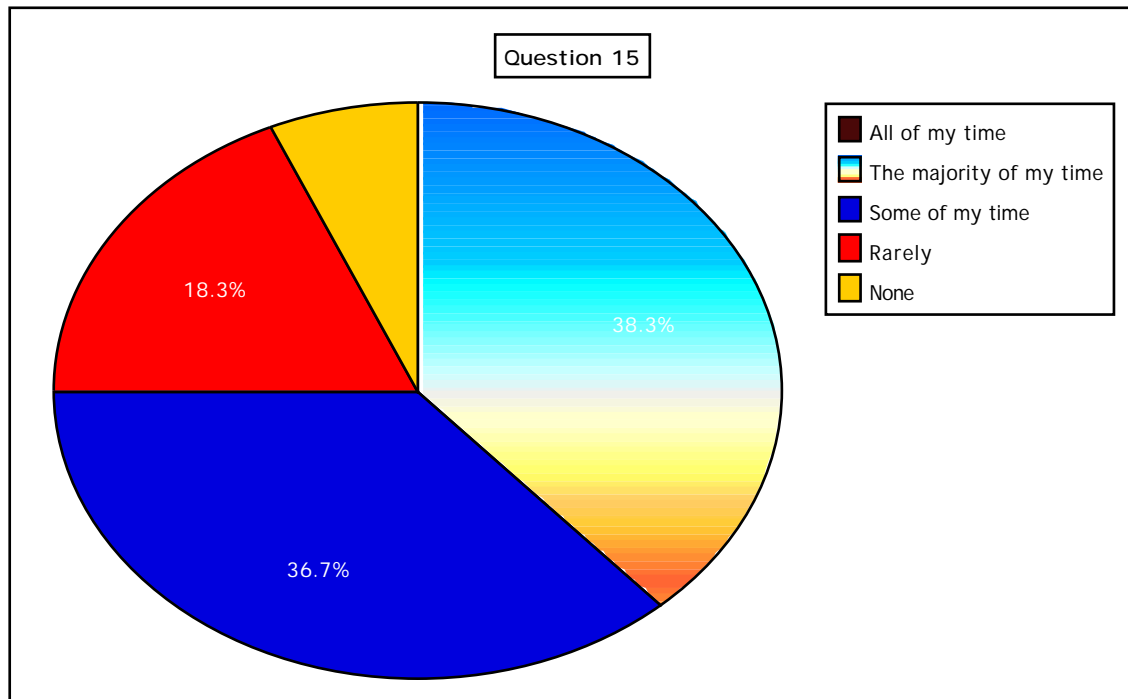


**Having created both the imperative and the ability for teachers to work independently (after training) , it was still quite important from the programme designers perspective to ensure that the original curriculum model i.e. theme-based projects, was completed. This would ensure both measurable outcomes in terms of student involvement and development in project work as well as encouraging and guiding teachers to confront the issues of curriculum design in relation to the use of the internet and telecommunications technology in their school.**

Teachers were asked directly:

**How much of your online time was spent on Theme Based Projects?**

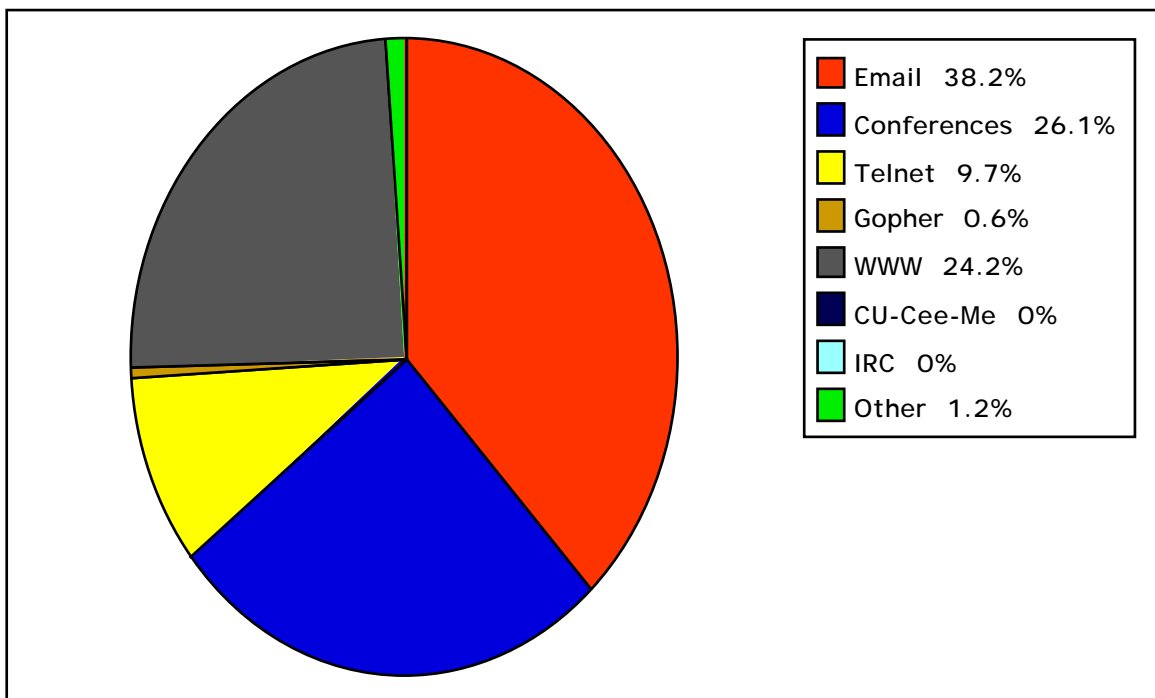
**Figure 17**



**Significantly, over one third of all teachers (38.3%) spent the majority of their time on Theme based projects, a further 36.7% spent some of their time on Theme based projects, meaning that 75% of the teachers involved had exposure to and participation in theme based projects. A group of some 18.3% rarely had time in the theme based projects (conferences) and approximately 6% had no involvement. This figure correlates with the earlier non-training/non-participation figure of some 5-6%. (See Appendix 2 for Project Samples)**

**Figure 18 (below) shows the array of online tools teachers have used during 1995 to participate in this project. It is interesting to notice the level of “skilling” that teachers have acquired. The evaluators would like to note that in many cases, teachers indicated that such skill acquisition would not have happened without the context of a theme based or organized project.**

**Figure 18**



**It is very encouraging to note that with these new found skills, teachers have utilized their abilities to develop and sustain a ‘virtual’ collegiate network as well as developing or renewing support networks within their own schools, a network of colleagues, discussing everything from Japanese and Spanish language classes, Year 12 Physics common assessments tasks, student exchange programmes and even the latest football or golf score!!**

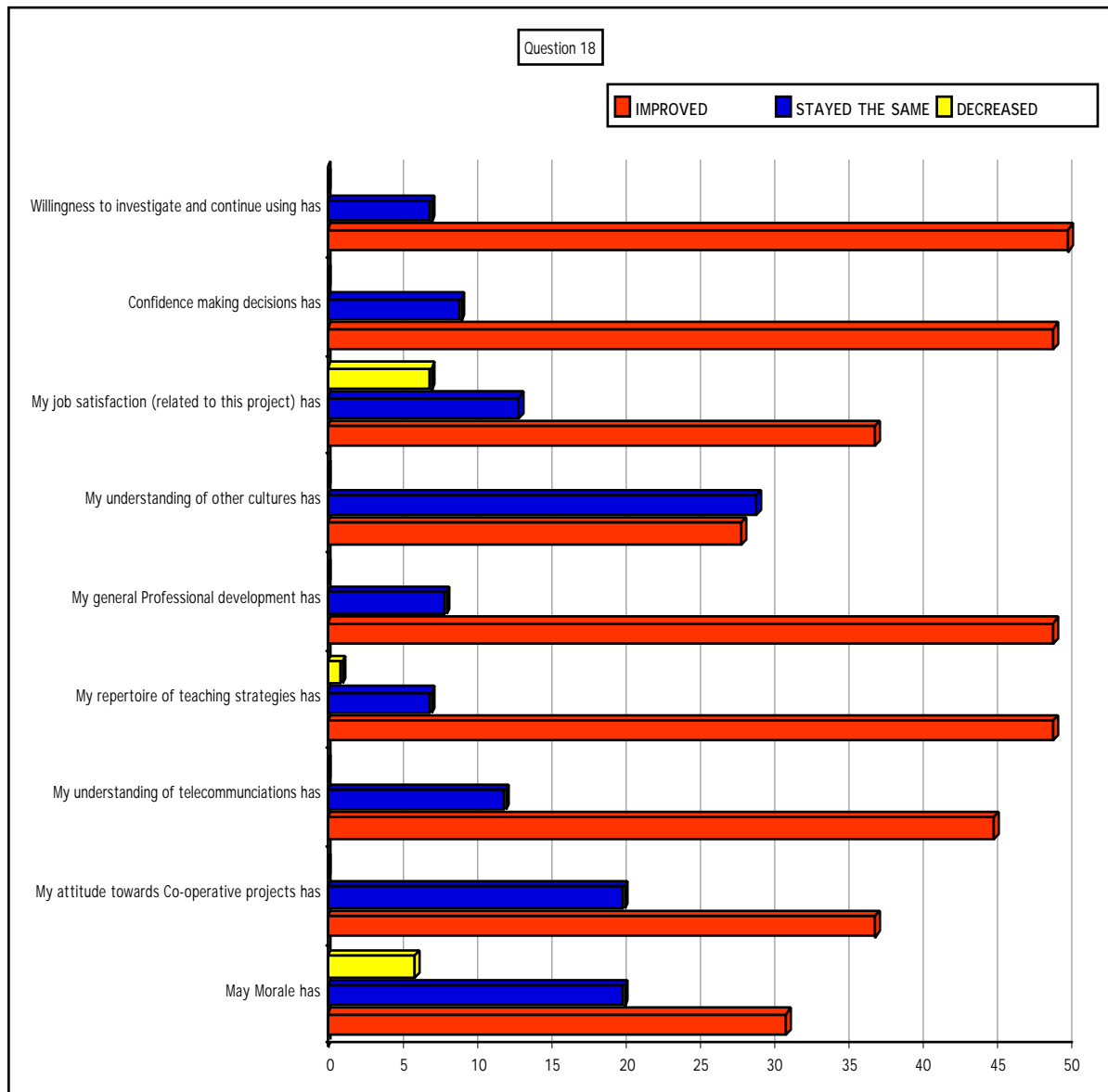
**Significantly, some 45% of teachers communicated with colleagues in their OWN school on a regular basis, with a further 23.6% communicating with colleagues in their school about the project but on a less frequent basis, amounting to perhaps a ‘few times a semester’. We believe this indicates a significant level of ongoing commitment by the teachers involved to the project.**

**Perhaps most significantly, is the response teachers provided to the specific questions relating to their own experiences and feelings in the Global Classroom as a whole.**

**Teachers were asked how they were PERSONALLY affected by their involvement in the project and the responses are very encouraging and perhaps the best indicator as to the success or failure of the project.**

**Figure 20 show the responses to the Question:**

**How have you personally been affected by involvement in the GCP?**



**The evaluators feel the significance of many of the responses here MUST be highlighted.**



**According to the data in Figure 20, 87% of the teachers indicated that their willingness to continue to investigate and use the technology and related curriculum model has in fact IMPROVED because of their involvement in the project. When added to those teachers that indicated that their motivation and/or willingness to continue in such a project had at least stayed the same, the figure becomes an overwhelming 100% . An almost identical cohort of 84% of teachers said their confidence in making decisions related to the use and application of telecommunications technology had also IMPROVED, again adding this to the 16% that indicated that at the very least their confidence had stayed the same (i.e not negatively affected) we have a second result of 100% of surveyed teachers indicating a positive result.**

#### **Job Satisfaction:**

**64.9% of teachers indicated that their Job satisfaction related to the Global Classroom Project had IMPROVED, with a further 22.8% of respondents indicating that there Job satisfaction had not been reduced by participation. Again this equates to some 87.7% of teachers across the state indicating that the Global Classroom Project had helped to maintain or improve their job satisfaction.**

**12.2 % of teachers indicated that involvement in the project DECREASED their job satisfaction. On three occasions, the evaluators were able to identify time constraints, lack of response to project work and the inability to complete project work which led to some of these comments.**

### **Other Cultures:**

**Of interest, and somewhat a point of discussion amongst the evaluation team, is the result that indicates some 50.8% of respondents that indicated their understanding of other cultures had remained the same, while 49.2% of respondents indicated their understanding of other cultures had IMPROVED. A particularly polarized result in comparison to the other results in this figure, and one that perhaps relates more to individual knowledge and experience than any other single factor that we can determine.**

### **General Professional Development:**

**Teachers self assessment of the worth of the project to what they value in their own professional development is of great interest. From Figure 20, we again see an overwhelmingly positive response, with some 85.9% of teachers indicating that their own professional development has been IMPROVED by their participation in the project. No teachers indicated that the professional development had been negatively affected by the project.**

### **Teaching Strategies:**

**Perhaps of greatest significance of the many positive results, is the overwhelming 85.9% of teachers that indicated that their teaching strategies had been broadened both in quantity and quality (see general teacher comments). In essence, involvement in the Global Classroom project has allowed teachers to trial and modify new strategies, WITH the technology, in real classroom situations. This above all else (in the opinion of the evaluators) is a signal that the Global Classroom project has had a positive improvement on the shape of Victorian classrooms.**

### **Teacher Morale:**

**A VERY significant figure of 89% of respondents indicated that their level of morale had either remained the same or improved because of participation in the global classroom project. A further 11.5% of teachers indicated that their morale had been DECREASED because of involvement in the project, a percentage that the evaluators consider significant in this context. At this stage, no further detail was available to more clearly explain the reported decrease in morale.**

### **Understanding of telecommunications:**

**From a purely technical perspective of “up skilling” teachers in relation to their understanding of telecommunications and associated technologies, 78.9% of teachers indicated that their technical understanding of telecommunications had been IMPROVED by participation in the project.**

**Significantly (and thankfully), no teachers indicated that their understanding had been reduced.**

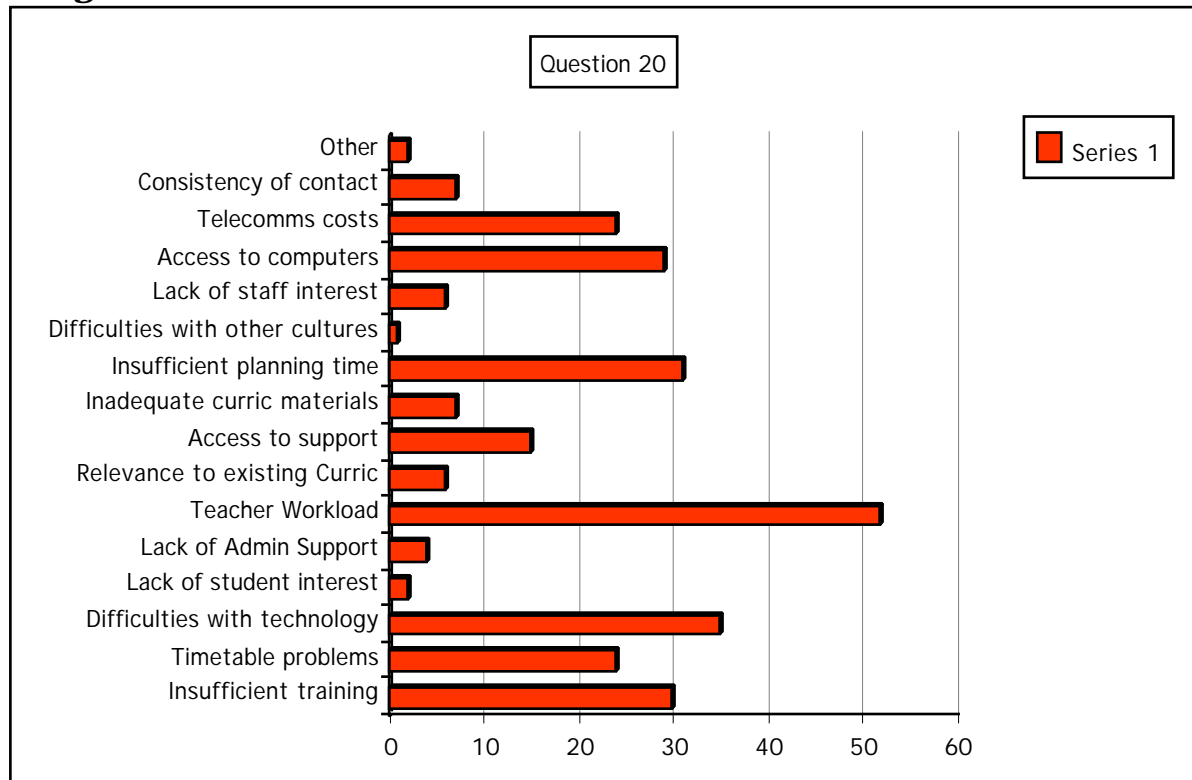
**In context of this “technical confidence” it is very encouraging to note that 64.9% of the teachers involved said their attitude towards co-operative online projects had been IMPROVED, with the remainder of teachers indicating their attitude had remained the same. Considering that all the teachers had already indicated a willing to work on theme based, network learning projects, this increase is all the more significant.**

**In relation to the personal observations of teachers about their own positive development, it is also important to consider the structural factors that they have identified that hinder their progress in the use of telecommunications in the classroom. In particular, the findings in figure**

**21 should prove most beneficial as benchmarks for much of the development work in the second year of the Global Classroom Project.**

What factors,if any, are the greatest barriers to the successful implementation of the GCP in your school?

**Figure 21**



**Overwhelmingly, 86.6% of teachers have indicated that teacher workload is the SINGLE MOST restrictive factor in the further development of network learning environments in schools. When coupled with 61.5% of teachers that also indicated they had insufficient PLANNING TIME, we can see that the very time structure in schools is not conducive to consistent and quality development of such programmes. It is a testament to all the teachers involved in the 100 GCP schools that they did achieve as much as they did in the allotted time they had. In fact, the second highest cohort, at 67.3 % of teachers indicated that it was in fact difficulties with the technology that prevented consistent and coherent development of the programmes in schools. When considered together, these two factors alone, present serious problems for school administrators and curriculum planners.**

**On further investigation and personal interview of respondents, it was found that many technical systems in schools were not provided with the relevant support mechanisms to allow teachers to develop their expertise in confidence. In many cases being left alone with the vagaries of a network system that they did not understand, with little structural support in place to correct the problem. 55.7% of teachers reported that access to computers within their own school was a problem: coupled with some 46.1% of teachers who indicated that timetables worked against sharing the technology, we begin to get a picture of current organization patterns (or lack of) defeating the need of teachers.**

**In many cases, no mentor or tutor for staff members were available and in many cases, there was no facility for teachers to continue any of this work OUTSIDE of normal school hours or with school equipment. Those schools that appeared to provide access to machines OUTSIDE of school hours for teachers appeared to have more teachers involved in projects over a longer time span. This was OBSERVED by the evaluators throughout the conferences online, with many teachers replying on Saturday and Sunday nights from home, with borrowed machines.**

**This may raise the question of WHOLE school access to computer technology, rather than limited access to individual departments. It may also require reassessment of the level of staff access REALLY needed to make consistent and effective use by the all of staff members truly a reality.**

**On a systemic scale, it may point to the need to look at “Workforce solutions” to equip teachers with the technical capability over a meaningful time-span to take advantage of the obvious and proven motivation and curriculum imperative created via the GC project. Perhaps investigation of sales tax exemptions for registered teachers over the period of twelve months may not be out of the question, as one way of alleviating competition for resources within the school environment.**

**Insufficient training was also a significant response, with some 57.6% of teachers indicating that they did not have the continuing access to training they required. This also relates to the findings in Figure 9 where some 55% of teachers indicated they did not feel they utilized the support structure as effectively as they could have. Again, time played a big factor in this area, with some responsibility being taken by the I\*EARN Support Office for not anticipating the extent of support required for some teachers, thus greatly retarding the “response time” provided.**

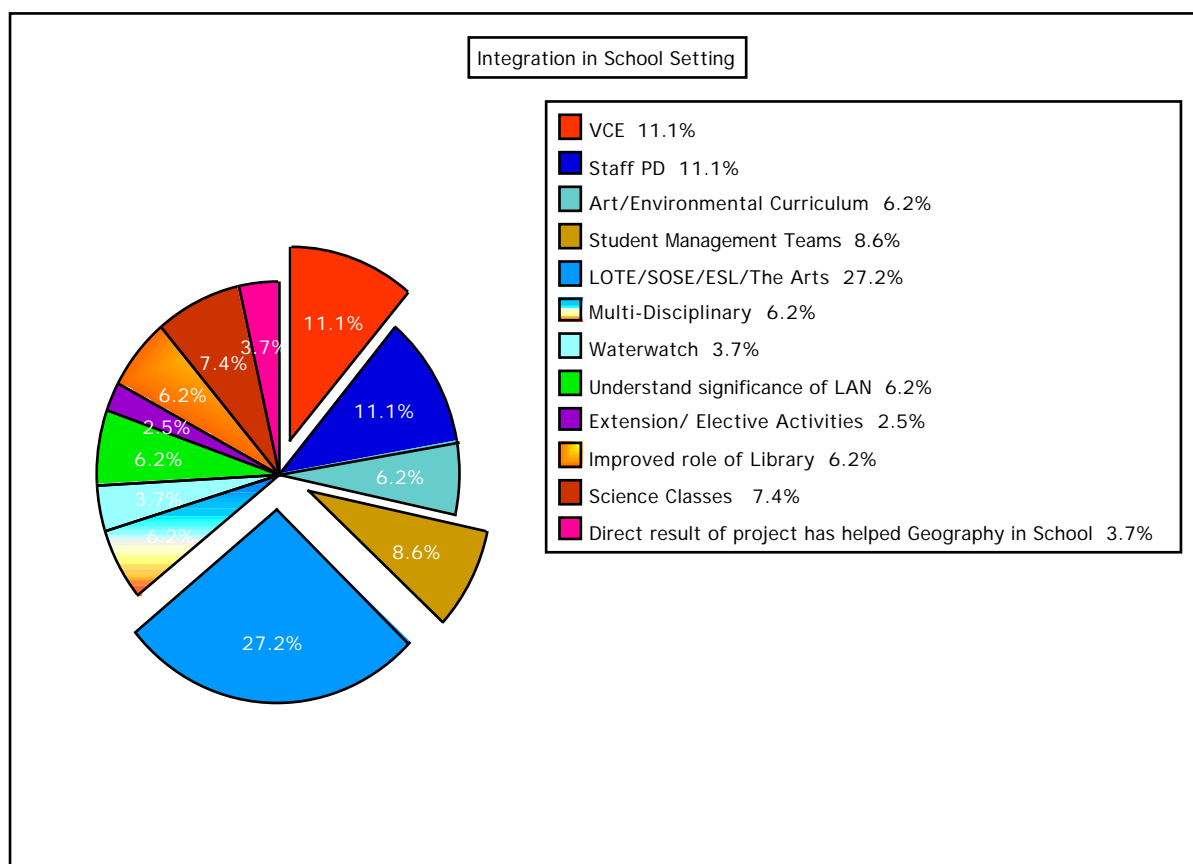
**On further investigation, “insufficient training” related almost directly to what happened once the teacher was “in situ”. In other words, the teachers required further ongoing support/training on site as it were and did not feel, because of a combination of time and other pressures, that they were able to take the benefit of what was available. This has most certainly being taken in to account for planning of 1996 projects, with a network of some 40 trainers and mentors being selected throughout the state to assist other teachers.**

**A not insignificant 44.2% of teachers also indicated that COST was a limiting factor. This relates directly to the availability of internet access per region, and as this report is being written, we are documenting a further increase in access to sites that previously had none, and a reduction in cost, in some cases of 50% or more from previous months.**

**A large technical barrier has been overcome, to allow access to all I\*EARN and related sites via any internet service provider of choice. This will reduce cost structures to participating schools enormously.**

**The wider and more general issue of internet access/speed and price is a discussion outside the brief of this report, nevertheless, we do believe that this project has clarified for many administrators and teachers the outcomes available for the expenditure required.**

Please indicate how you have integrated network learning in to your school setting. **Figure 22**



**Having examined some of the more negative aspects of implementing a coordinated telecommunications projects in schools, it is encouraging to compare those observations to the curriculum benefits that teachers have gained by participation.**

**Simply, teachers were asked how they integrated the network learning projects in to their schools. It is very interesting to note that there has been quite a diverse application of the technology right across the learning areas (as we had hoped!).**

**Perhaps, better than most, these findings demonstrate HOW schools are applying the Global Classroom concept and what changes are taking place.**

**Of greatest significance is the 27.2% of schools that applied the technology and project activities to the LOTE/SOSE/ESL/Arts areas. In many cases, schools utilized the potential to have access to native speakers of languages they were studying, available and online. Others used the contact in these areas to have cultural and historical information available “from the source”. Others used the access to the web as a general (and apparently) an effective research tool for their subject areas.**

**Of further interest was the 8.6% of schools that established Student Management Teams as part of the “structural adjustments” when implementing the Global Classroom projects. It is the belief of the evaluators that these student management teams signal a realization by the schools involved that much of the work that will be completed by students will, characteristically be done outside “normal” class times, with a series of interactions between students of different levels/ages and from different subject areas. It will also quite often require planning and evaluation stages to maintain the momentum of the project. This is quite different from a teacher - led “instructional” environment that characterizes the classes not involved in Network learning projects.**

**These figures are also supported by respondents saying that the projects have encouraged a “multi-disciplinary” approach (6.2%) and that the role of the Library was also improved (6.2%)**

**Additionally, the significance and benefits of Local Area Networking and general level of improvement in teacher competency with computers was also considered to be a positive change within 6.2% of schools.**

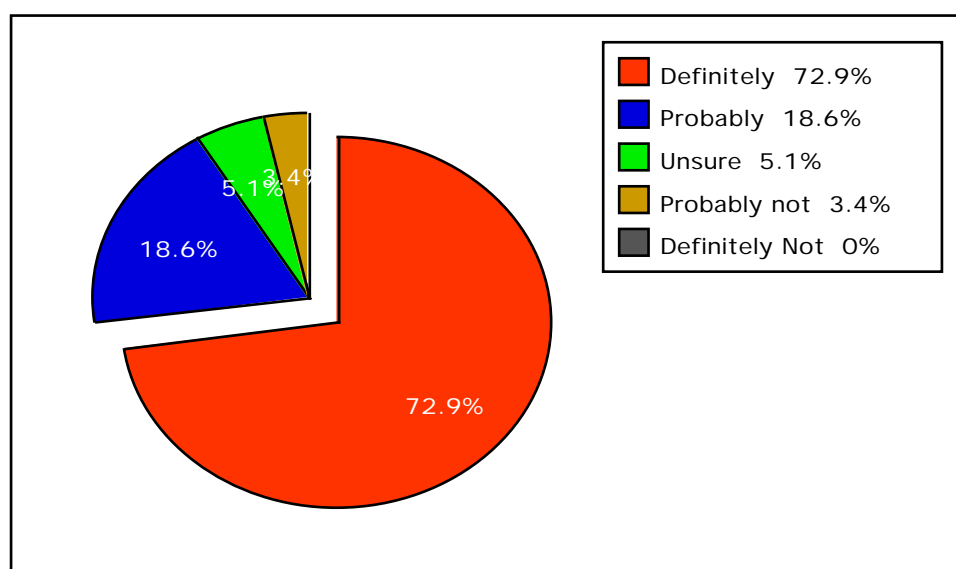
**It is also worthy of note that 11.1% of respondents indicated that Staff professional development gained from the involvement. 11.1% of schools also utilized the network learning activities for VCE classes.**



**In general, it appears that schools found MANY uses for, and applications of, the technology. Apart from stating the obvious, it should be noted that in many cases, it was the first time that schools began to look at resourcing “non-traditional” subject areas with “high technology”. With these decisions also came what appears to be significant benefits to both teachers and students, in terms of their motivation and ability to more effectively utilize (in the minds of the teachers responding ) the computer resources in the school.**

**Figure 23**

Would you involve your school community in a similar project in 1996



**Perhaps the “acid test” question for teachers was simply;**

**Would you involve your school community in a similar project in 1996? A significant 72.9% responded with ‘definitely’ and a further 18.6% indicating they ‘probably’ would. This makes some 91.5% of teachers replying affirmatively to the question.**

**Of the 3.4% of those teachers indicating that they would ‘probably not’ involve their school community again, it was difficult to ascertain the reasons for this. Of those that did indicate some reasons, costs and access to computer facilities appeared to play a big part, as did time to allocate to the maintenance of the project. This has also been supported in earlier findings.**

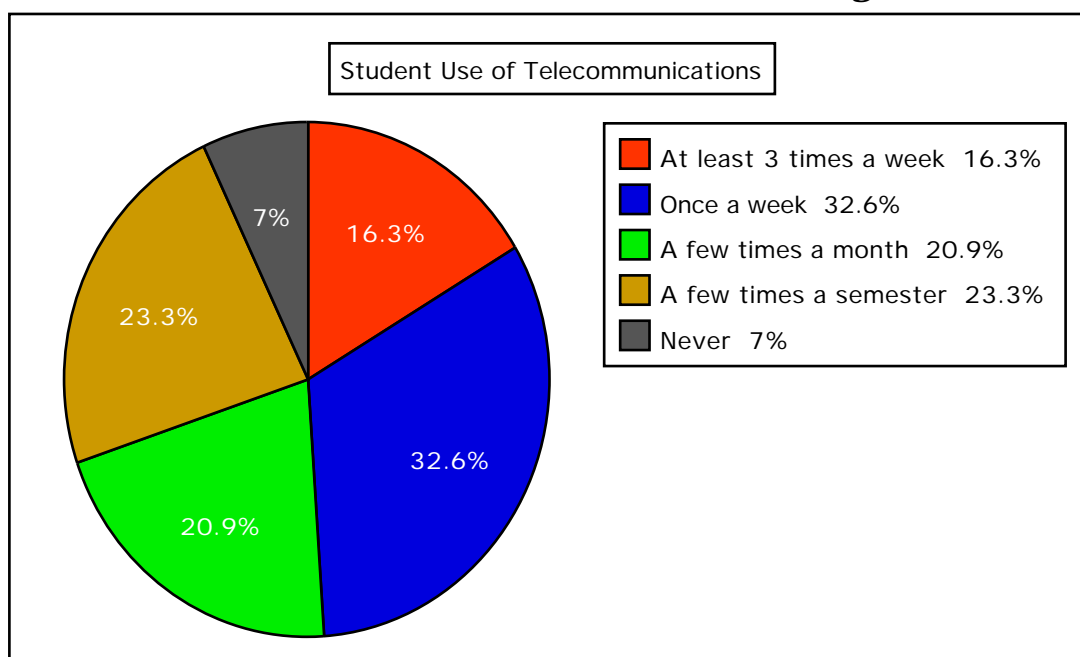
## • Student Participation

### How often did you get to use Telecommunications as part of your normal classes?

One of the prime foci for the Global Classroom project, was to adopt one of the prime tenets of the I\*EARN network; specifically, to assist in the empowerment of youth to make a meaningful difference in the world. Throughout the course of the project, it was essential to ensure that students were in FACT participating in all facets of the project as part of their NORMAL classes

Figure 24 clearly indicates this.

Figure 24



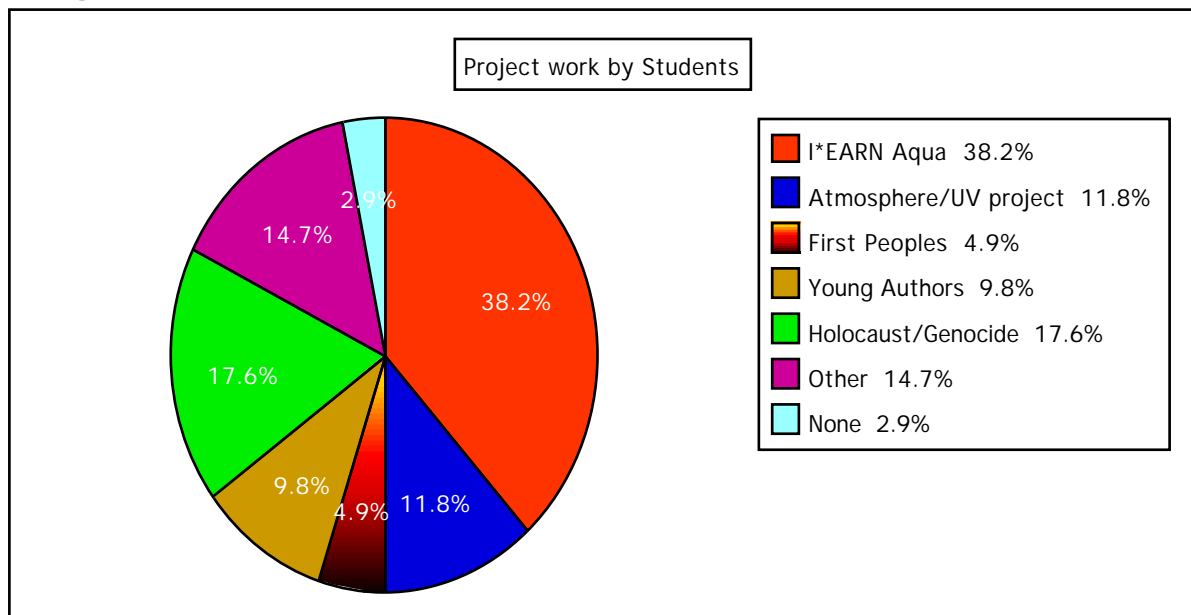
Some 32.6% , almost a full one third of ALL students involved in the project, had use of the technology in their normal classes, a further 16.3% had use of the technology 'at least 3 times a week'. This is quite a significant use. Together we have 48.9% of students utilizing the technology as part of their normal working week.

To have a further 20.9% of students using the technology in normal classes a ‘few times a semester’, we begin to get a picture that indicates that a significant percentage of the students surveyed, in total, some 69.8% of students have had what the evaluators believe to be “meaningful, regular exposure” to the technology over the course of the project.

Just as significantly was the relatively minor 7% of students that never used the technology ‘as part of normal classes’. It should be noted that this does not necessarily mean they did not use the project, it may have been that a number of schools designed extra-curricular activities for students to be involved in.

**Which projects did you work on?**

**Figure 24**



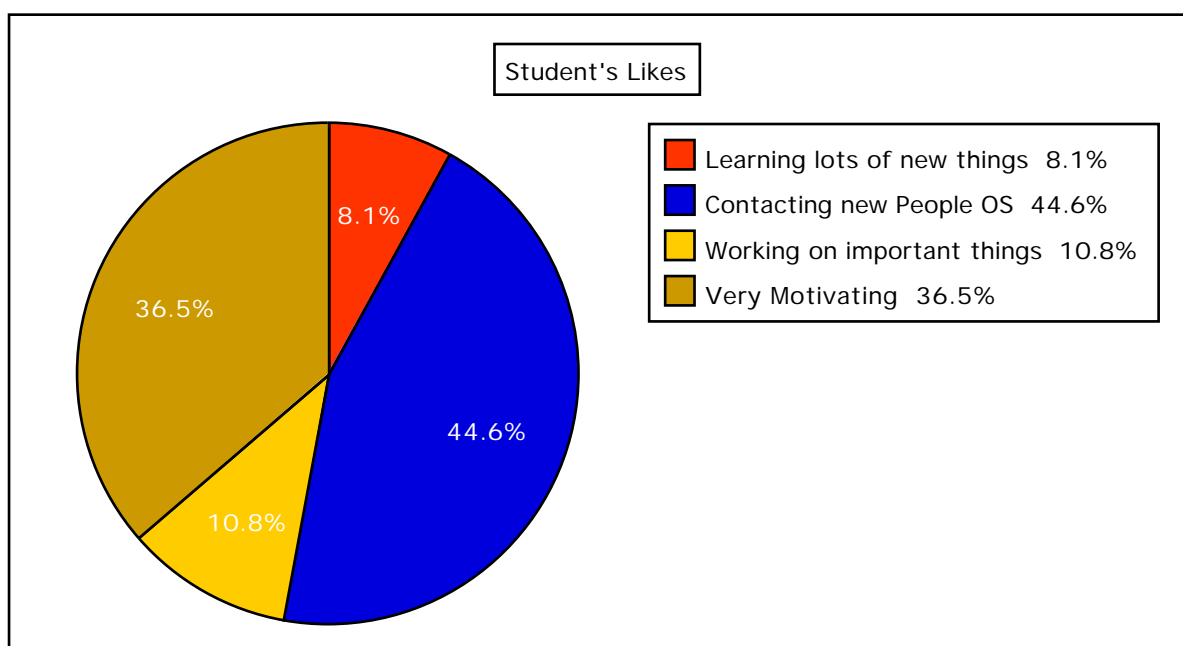
**38.2 % of students surveyed indicated that they worked on the iearn.aqua projects as offered. Apart from this most popular of projects, supporting, in many cases, existing curriculum programmes in schools, the other project offerings enjoyed a relatively similar patronage. Of the 4 “FORMAL” projects offered, Aqua, Atmosphere (UV), Authors and Holocaust/Genocide, the HGP and Atmosphere projects received 17.6% and 11.8% of student involvement respectively.**

Some 9.8% of students were also involved in the Authors project, which included iearn.tc, iearn.vision , iearn.oneday and iearn.kidscan conferences (see attached Conference Index booklet).

It is interesting to note that students also began developing their own projects/network links and e-mail correspondence, a further 14.9% of students working on other projects. The evaluators believe the diversity of work students have been involved in will encourage schools to look more closely at ways to facilitate and support these students and has clearly shown the teachers involved the potential motivation that access to the internet and associated resources can provide.

As a motivational tool, we think that there can be little doubt as to the effectiveness of this technology. Figure 25 indicates the students responses to the question;

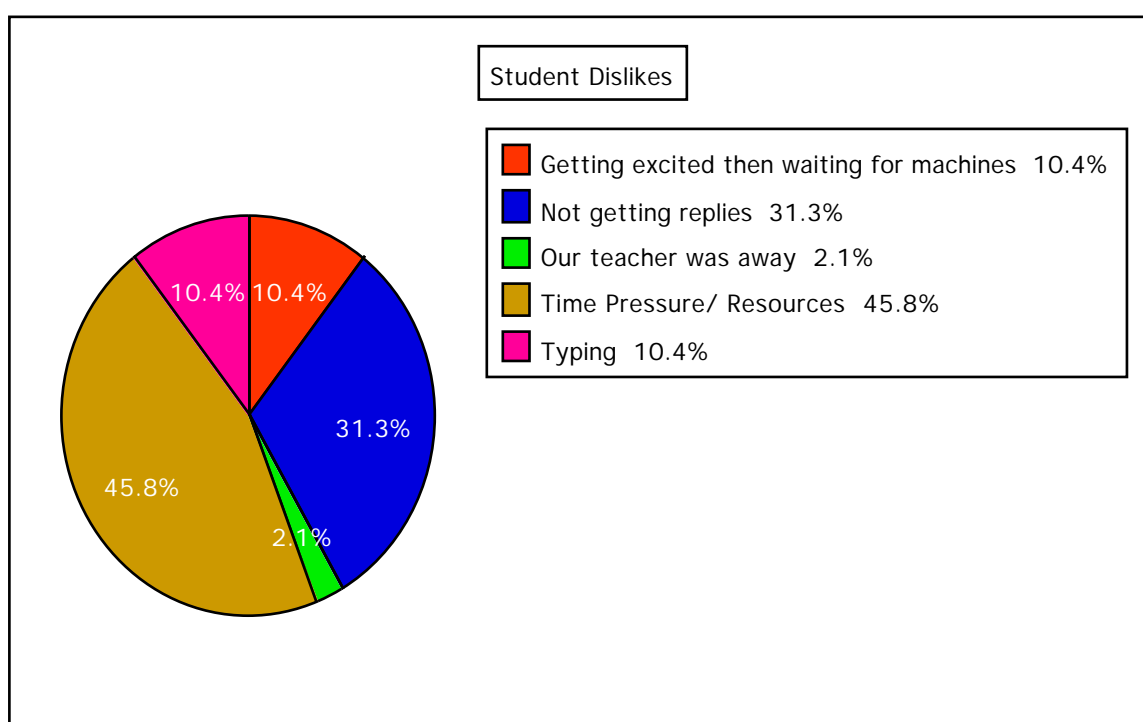
What did you like most about the projects?



Clearly, students found contacting REAL people in other countries very enjoyable (44.6%) A further 36.5% indicated a preference simply because it was “fun” or different”. There was also some 10.8% of students that noted the “importance” of the work they were involved in, feeling “useful” and “important”.

**One could not comment on what students enjoyed most about the network learning projects without commenting on what they enjoyed LEAST about them. Figure 26 indicates that the single most significant “dislike” for students was the “time pressure” or lack of “resources”. The evaluators have taken this to mean a comment on the difficulties faced when “engaged” students are thwarted by lack of availability to**

**Figure 26**

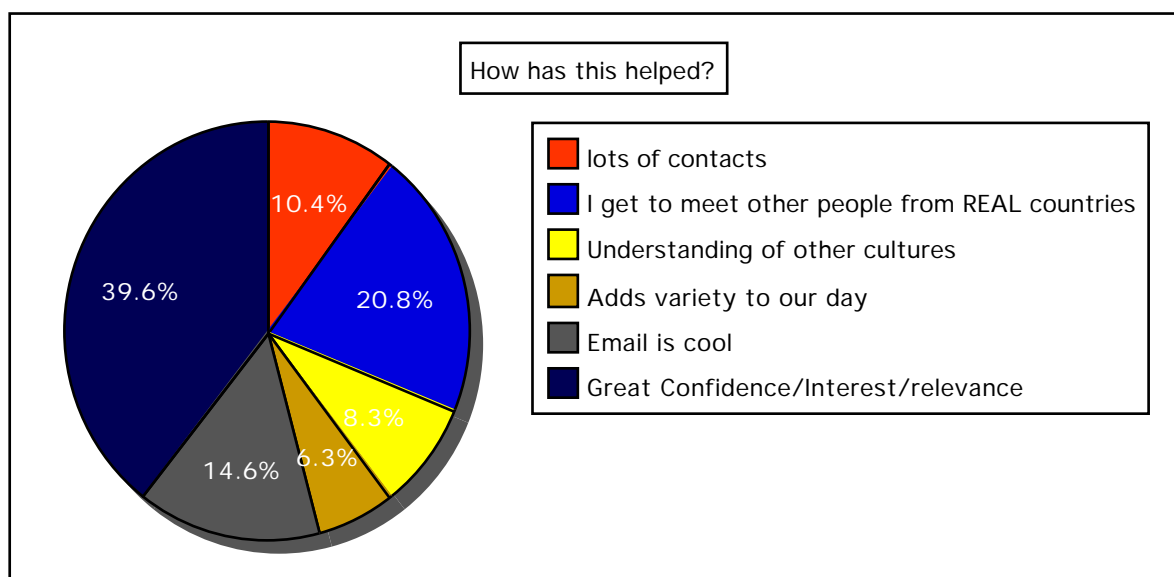


**equipment or face unrealistic timelines for project work. It should be noted that a further 10.4% of students articulated this more precisely by noting their frustration at “getting excited” then “waiting for machines”. From personal experience, the evaluators can relate to this finding, having attempted to co-ordinate an effective programme for 25 students trying to utilize one or two machines.**

**A significant percentage, in fact some 31.3% of students indicated that “not getting replies” was also a BIG negative. On closer examination it was also found that many students had NOT posted replies themselves, preferring to wait for users to reply to their message.**

**To be fair, on some occasions, teachers and classes did commit to participate in joint projects only to find that they did not maintain this commitment. This can be the most disappointing experience for new users in the telecommunications field; it is perhaps more a function of the time and resource pressures that teachers experience on an almost universal basis.**

**Perhaps just as encouraging is the response to the question Has the global classroom project helped you in any way?**



**Perhaps of greatest note is the 39.6% of students that said it added confidence/interest and or relevance to their day. The international connectivity 20.8% also proved very popular.**

## • General Findings

This section outlines the other, more general findings from the survey:

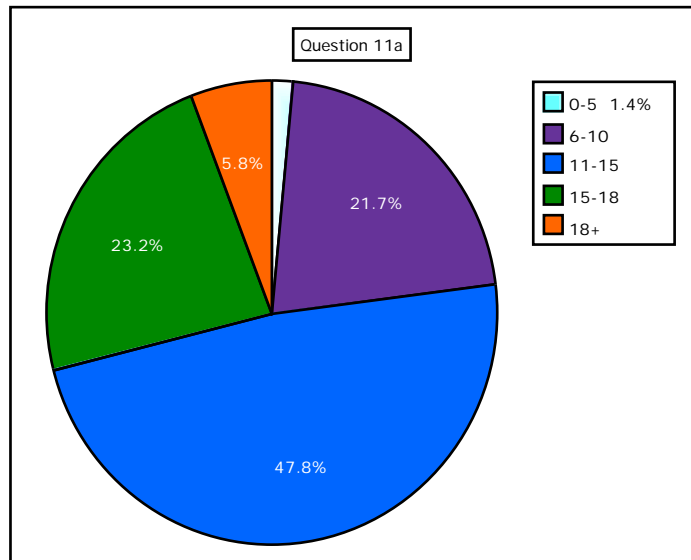
**School use of computer platforms was divided as shown.**

**47.8% of all students**

**involved were between  
the ages of 11-15.**

**28.2% were 16-18 years old.**

**27.7% were between the  
ages of 6 and ten years.**



## **A. E-MAIL and CONFERENCE PARTICIPATION**

**Over the course of the 10 Months of the project in 1995, teacher and student contributions were monitored to “track” specifically what the evaluators call “TAKE-UP” rates. In general, this process was a simple recording of the time it took for schools to complete training activities and “enter” the project by becoming active in online communication. We define “ACTIVE” as schools that maintained a presence ‘online’ over the course of 4-6-10 weeks, averaging some 2-3 entries per week.**

**This information is partially flawed, as it does not and cannot assess or indicate the personal mail to mail communication between schools. An indicator that supports this assessment is the high level of schools that communicated with German schools/teachers yet we have no record of this on the public Newsgroups/conference area.**

**“Take-up” rates for Phase 1 and two schools are considerably different.**

**On average, Phase 1 schools appeared to become “self-sufficient” within 4-8 weeks of initial training, highlighting the level of readiness they had in their schools. This included technical support, some previous experience and personalized/individual training activities.**

**On average, Phase 2 schools appeared to become “self-sufficient” within 8-14 weeks, a considerable difference. The evaluators believe this was due to more “generic” training activities, the lack of previous experience and perhaps even the time of year in which many schools began the first ‘foray’ in to the medium.**





# Summary and Conclusions

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**The first stage of the global classroom project has been an unqualified success. It has achieved everything it set out to do in November of 1994.**

**We believe that the report and accompanying documentation has clearly demonstrated that student learning opportunities have been enhanced. The evaluators believe that Victorian teachers have been provided with a pedagogical and methodological framework from which to judge and plan for the application of telecommunications and associated technologies in the classroom.**

**We also believe we have determined that the impact of such technologies, when in context, is a genuinely profound and consistently positive experience for the vast majority of school communities.**

**Classroom projects, the teacher/student relationship and the broader understandings of the teaching community have all gained from participation in the global classroom project.**

**At the beginning of this report we noted the words of the 1994 Victorian Working Party**

***...that attention should be directed to the human dimension, which promises to provide the key to more successful implementation of information technology in schools. It believes the issue should be addressed through structured professional development programmes based on information technology and an understanding of such matters as learning, change and the factors that affect school culture<sup>9</sup>***

**If nothing else, we believe the Global Classroom project has placed the Victorian education community in a strong position to meet this challenge.**

**As stated earlier in the report:**

***“Perhaps the “acid test” question for teachers was simply; Would you involve your school community in a similar project in 1996? A significant 72.9% responded with ‘definitely’ and a further 18.6% indicating they ‘probably’ would. This makes some 91.5% of teachers replying affirmatively to the question”<sup>40</sup>.***

**This is, in many ways, the “bottom line”. Teachers have indicated that the model, after nearly 12 months of examination and experience, is, in their minds, relevant and beneficial to the goals of a school and the education community. The DSE/I\*EARN Global Classroom project set out to put the needs of students and teachers and the wider Victorian educational community FIRST. It appears that by most indicators, the needs of the participants in relation to the integration and utilization of telecommunication technologies in to classrooms, has been successfully met.**

**1996 and the second phase of the Global Classroom Project, will draw heavily from these findings to further enhance the learning opportunities for all students and teachers as we prepare to live and work in the 21st Century, a period in human history, which will no doubt be marked by exponential rates of change.**

**The evaluators are confident that the “curriculum imperative” approach to the issue of the integration of telecommunications and associated technologies in schools has demonstrated considerable success in its first of a two year project period. We look forward with confidence to 1996.**

**Bill Coppinger**

**Andrew Hocking**



- 1        **Shawcross, William**                    The Quality of Mercy.
- 2        Victorian Government Working Party Technologies for Enhanced Learning Page 4 Sept 94
- 3        ibid      Page 2 Section 1.3.2            Technologies for Enhanced Learning
- 4        **Atkin, Julia**                                Schools of the Third Millennium Conference Feb 1996  
   Principles and Practice of Effective Learning
- 5        New York State Education Dept        Evaluation of the New York State/Moscow Schools  
   Project. February 1992
- 6        **Shawcross, William**                    The Quality of Mercy.
- 7        Anecdotal Staff replies on anonymous surveys.
- 8        Anecdotal Staff replies on anonymous surveys.
- 9        Op Cit                                         Victorian Government Working Party  
   Technologies for Enhanced Learning
- 10      Coppinger, Bill Hocking A.            Footprints: A report of the 1995 Global  
   Classroom Telecommunications Project: