

CFEC summary 2008-9: Victoria University evaluation

The organisational framework for the Computer for Every Child project (CFEC) was developed by Technology Access for Social Development Australia (TASDA). This voluntary organisation aimed to provide access to a multimedia-enabled computer and Internet connection to help families use technology in their daily lives, access the Internet and make stronger connections with their local schools.

The CFEC project started in Australia in 2006. It was based on the premise that access to computer and Internet technology from an early age is a critical requirement for every child so they can fulfil their learning potential. The mission for the CFEC project was to reduce the digital divide in Australia. The children, and their families, who had no access to either computer or Internet technology were the beneficiaries of the scheme. CFEC provided eligible children and their families with a computer for use in their home. The package included software, Internet connection and access to a Help Desk. Basic computer training was also provided to the student and a family member. CFEC aimed to make a major difference to the future of those children in our society who most needed it. It was hoped that participation in the project would empower participating children and their families to compete in our modern economy equipped with the computer and Internet literacy they require to succeed.

The stated objectives of the project relate to the provision of the following for disadvantaged families participating in primary schools in the Western suburbs of Melbourne:

- Access and connectivity to internet connected computers;
- Increased computer literacy skills;
- Increased opportunities for family interaction and engagement and for family and school engagement;
- Increased social opportunities and educational benefits for participating students;
- Increased family opportunities for employment and training.

In order to determine the impact of the CFEC program an evaluation team from Victoria University gathered data to ascertain detailed information about the use of the computers in the home to determine the impact of the CFEC program over time. Data was collected through:

1. Surveys - to evaluate the effect of the provision of the computer and capture what participants used their computers for in both the early stages and later stages of the project.
2. Interviews - with teachers of the participating children in the project to determine the extent about the participating student's work with computers in the school context.
3. Observations - of training sessions, and computer use in the home.
4. Focus group interviews - with groups of school students to gather data from the survey participants regarding two main issues they confronted in 2008 – access and home usage.
5. Case studies – rich portraits of children in the home.
6. eDiaries – to determine the type and quality of uses of computers in the home context. The use of eDiaries incorporates *mapping computer use* over a period of time to obtain a clear depiction of the usage of the computer in the home.

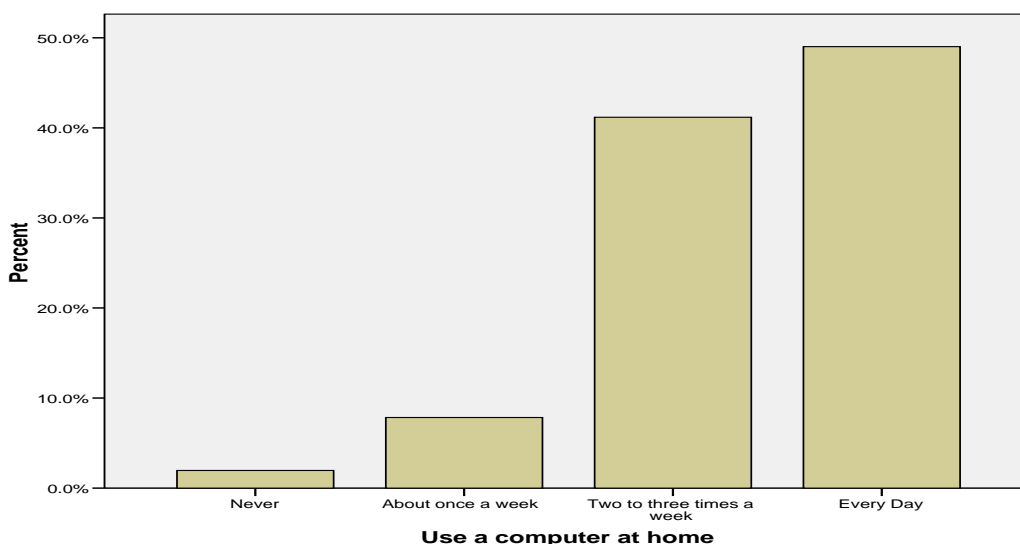
The project's success

In two major evaluations in 2007 and 2008 it has become apparent that the money allocated to the project has had a major and positive impact on the lives of the participating families. This is evidenced not only in the survey results which show increased use over time but also in the improved learning outcomes for the students over the duration of the project. For example, the students reported that they used the computer regularly with 90% using them every 2-3 days or more frequently. Additionally, the rich scenarios, interviews and narratives collected and analysed over two years of the project show the real impact and value on people's lives that the computers have made to the family members.

For the recipients of the computers the equipment provided to them had to be of sufficient quality so that software applications and Internet access happens without technical problems. The introduction of an adequate computer, a HP product in 2008 with broadband Internet capabilities with the more recent participants, lessened problems and was found to be much more reliable than previous reconfigured computers.

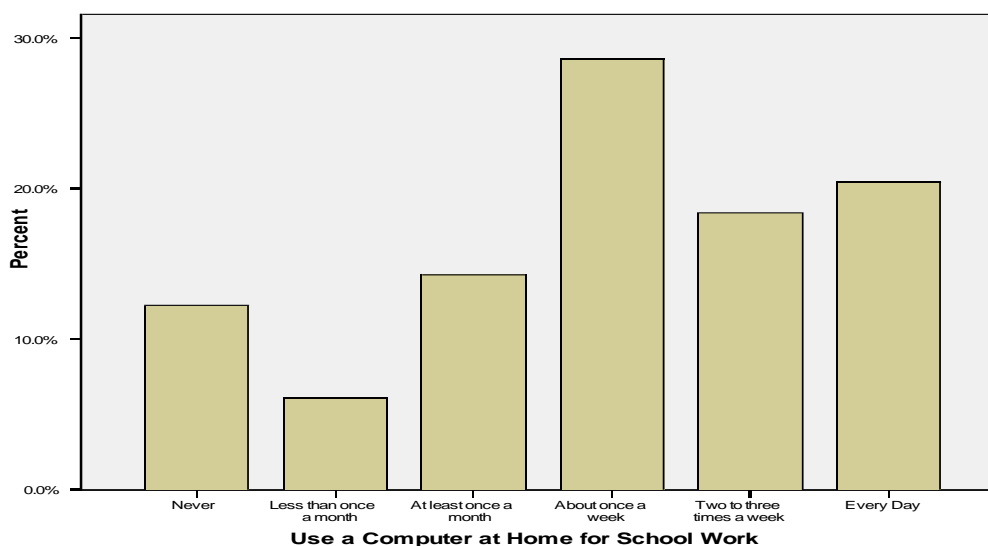
Some selected findings.

The independent evaluation of the CFEC Project identified the impact on participants. Given surveys captured what students were doing 6 months after first receiving their computers, the students reported that they used them regularly, with 90% using them every 2-3 days or more frequently as shown in the graph below:



Survey data highlighted that the various uses and applications were game playing and Internet searching as the two major computer uses. It needs to be noted that the game playing was generally with unsophisticated games that are low level cognitively and thus do not challenge the children in any way. The computers are less used for social networking and communication. Parents are more likely to use the computer to communicate with friends and family as well as to seek out media e.g. online newspapers and community services and information.

The e-diaries were a valuable source data collection that clearly indicated the regular use of the computer, outlines the variety of applications and users, and highlights the value of the computer as a valued resource in the home. Given the aim of the Project was to lessen the digital divide, the following graph illustrates that 65% of the students reported using their computer at least once a week for school related work. This included writing on the computer (79% of the students reported this sort of activity); using the Internet for school work - 63%; drawing or playing with images on the computer - 51%; using educational software - 47%; sending and receiving emails - 43%; and making and designing things -37%.



Additionally, the findings from the teachers, clearly articulate the value of the CFEC home computer and educational benefits. They noted that it provides:

- the students with increased opportunity to improve skills and knowledge e.g. Year 5/6 teacher – the home computer *“has allowed students the opportunity to become more familiar with computer skills. They go home for extra research from school. Those without (a computer) tend to be more reliant on others, and prefer not to use computers. They’re not as confident.”*
- an increase in their self confidence, Year 3 teacher: *she is more confident. She is now able to turn on a computer, and search on the Internet. The home computer has allowed her to type her work and she produced a poster.*
- a healthy working relationship between school and home. Year 3 teacher: *At the start of the year [student’s name] couldn’t speak English. I believe the computer has contributed to her language development.*
- a safe and comfortable learning space for self-directed learning opportunities, Year 4 teacher - *He has gained in confidence with the Internet, able to search using Google (having a specialist IT teaching session has assisted this process). The extra time at home has helped his maths recall, and*
- a sense of belonging. A review of one case study’s school reports highlight the educational outcomes specific to their ICT skills and knowledge and demonstrate some of the influence the home computer had on the student’s school learning. In

Year 5 the end of year report read: *With more attention to detail and more practice at using the computer she should make some improvements in the future.* For the mid-year report of the Year 6 student after further home computer access the report read: *She has very pleasing computer skills and she uses them to produce products of a sound standard.*

Training was an integral part of the CFEC design. Training was particularly successful when it was devolved into the family's local community and involved interpreters to lessen communication problems. When the content was aimed at the individual's needs and there was opportunity for the user to apply new skills in real time, much was gained from the experience.



Whilst the project is underpinned by a philosophical commitment to diminishing the digital divide, as addressed in more detailed evaluation reports, the ongoing success of the project remains dependent on the varying administrative structures that support the initiative, the extent of support mechanisms that enable the project to continue, and the realities of the ways in which having a computer benefits the families in both the short and long term.

It is essential that continued planning for follow up skill building programs be investigated at the local level to ensure that participants have the opportunity to know what is available to extend their technological skills. Further, follow up support and specific contact points must be provided for all participants so that they know where to go for technical problems and assistance. In this respect funding could be sought for the design of a portal that all participants can access for a variety of purposes including: technical assistance, community bulletins, ideas for blogs and wikis about using a

computer for real purposes related to both adults and children's lives, safe URLs for specific topics and a range of other user identified purposes.

Finally it is essential that participating schools in the program should be encouraged to work with their students and new technologies to promote higher order thinking skills and creative endeavours. Research has shown that many of the children are using the computers for low entry games and leisure uses that do not require a high degree of thought and challenge. It would be beneficial for schools to promote more advanced uses so that students are aware of them and can incorporate them to their daily lives.

The CFEC Project has endeavoured to enhance the learning of children and lessen the digital divide amongst some of the disadvantaged families in the western metropolitan region of Melbourne. It is a unique project in Australia which supports families to engage in the Information Age. After two years the CFEC Project has successfully supplied many computers and has supported those families with appropriate training and technical support. As such, the home computer has become a valued addition to many families who have not been in a financial position to afford such a resource. There is no other project like it in Australia since it provides a context in which families can acquire the skills to enable them to participate actively in contemporary society. Without the project they would be disenfranchised and thus the implementation of CFEC is a major contributor to social inclusion in Australian society today.

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