



Case Study

Australia
Intel® Teach Program

Preparing future teachers for the 21st century

Across the world the Intel® Teach Program has demonstrated that it can help classroom teachers, pre-service teachers and teacher educators to learn how, when and where to integrate information and communications technology (ICT) into teaching and learning.

Pre-service teachers at two Australian universities are learning to effectively integrate technology into the classroom and bring 21st century skills such as digital literacy, problem solving, critical thinking, and collaboration to their future students.

“I would highly recommend this program for any pre-service student and believe that it was a really enjoyable way to learn to integrate ICT into teaching practice and it is incredible what can be achieved.”¹

Pre-service teacher

Challenges

- Today's students need to acquire 21st century skills in order to participate in the knowledge economy.
- Pre-service teachers are in need of effective strategies to integrate ICT into their instruction and to help their future students acquire key 21st century skills.

Approach

- Deliver the Intel Teach Program to faculty to provide training on how, where and when to incorporate ICT tools and resources into teaching.
- Deliver training to pre-service teachers to enable them to integrate technology effectively in their classrooms and to help students acquire 21st century skills.

Benefits

- Increased focus by teacher educators on equipping future teachers to deliver contemporary and relevant learning.
 - New teachers start work in the classroom with increased skills and confidence to effectively use ICT with their students, and address 21st century teaching and learning.
-



The Intel Teach Program in Australian Universities

Knowledge of the Intel Teach Program's success in supporting teachers in schools led tertiary educators at Deakin University (Victoria) and the University of Western Sydney (UWS, NSW) to trial and implement the Intel Teach Essentials Course pre-service curriculum. The course was localised for the Australian education system and Deakin and UWS university trials showed that it was beneficial to students and able to satisfy vastly different university approaches and contexts.

Both Deakin and UWS pre-service teachers recognized the need to integrate ICT into their teaching after graduation but they did not fully understand how to do this. Thus many wanted to experience incorporating technology into teaching and learning units prior to taking up teaching positions. The Intel Teach Program was judged to support both of these needs.

The University of Western Sydney (UWS) experience

Veronica Schinella, studying for her Master of Teaching (Secondary), ranks student engagement as her number one priority when she begins teaching next year. "If students are excited about their learning, I will have won three quarters of the 'battle!'" She now recognises how important it is for young people today to take control of their own learning, have time to experiment and develop new ICT skills, building confidence both in school now and for their working life in the future. Prior to covering the Intel Teach Essentials Course modules, her assumptions about what she would be doing with students and computers in school revolved around set times in the computer lab.

"Now I know that ICT works best when it's integrated into units of work". For her final teaching practicum, Veronica is designing a year 7 media unit for English. Students will be engaging in a project based learning unit, during which they will research and video record each other role playing a television news program. Mock talkback radio sessions will also be recorded, and students will discover many different ways in which communication applications and mobile devices are used by today's media; RSS feeds, tweeters, blogs, wikis and chat rooms are all on the agenda! Veronica's overall goal as she takes on her teaching role, is to inspire students to want to learn more and more, and believes that her understanding of ICT integration will enable her to generate stimulating and relevant learning experiences in the classroom.

The use of computers by teachers in schools is influenced by personal attitudes and skill, the quantity and quality of training, access to computers and the technology support available. The same is also true for pre-service teachers who may use ICT extensively for their personal use, but may not necessarily understand how to use it in effective teaching. In introducing the Intel Teach Program into courses at UWS, teacher educators aimed to help students and lecturers develop an understanding of teaching and learning with technology.

The Deakin University experience

The potential of the Intel Teach Program was recognized by key teacher educators within the education faculty. The decision to conduct an optional 'professional development week' for final year students during their mid semester break provided the opportunity for these teacher educators to offer the Essentials Course to interested students.

"The unit of work we developed in the program and the skills we developed has been so valuable during school experience. I have presented relevant aspects of the unit to students, who really enjoyed the style of learning and teaching. I also provided a copy of my unit of work to a school I applied for, which made a really good impression on them."²

Pre-service teacher



“(There is) substantial evidence that the Intel Teach Essentials Course is impacting the future teaching practices of pre-service and new teachers across the region and creating a positive educational experience for students.”⁶

Carol Oakley (principal evaluator),
Deakin University

The Essentials Course integrated ICT across the curriculum and enhanced student learning through strong pedagogical practice. The course was ideally suited to the needs of pre-service teachers as they learnt skills by developing units of work using Curriculum Framing Questions and a unit portfolio that incorporated backward design, differentiated instruction and authentic inquiry.

Deakin staff conducted surveys and gathered valuable participant feedback which showed that the students felt the program addressed a very significant need, as an equivalent was not offered in their previous courses. All considered the course had been either a highly valuable (80%) or valuable (20%) contribution to their pre-service training. The program was considered to be challenging and intense but very worthwhile.

The majority of participants believed the course would help them as teachers to integrate ICT into their teaching and learning:

“A highlight for me was how many different information communication technologies we were able to learn to use and incorporate into our unit plans. I thought that the skills we learned are valuable in every aspect of our teaching and that it provided something that had not been covered in our tertiary studies. Having developed a unit of work throughout the program definitely is advantageous when applying for teaching positions. To go to an interview with an electronic copy of a unit of work looks highly professional and makes a great impression.”³
Pre-service teacher

The students who used their learning in practicum experiences were very positive in their evaluations:

‘If I had not done this course I would not have had the confidence to go into the classroom and implement ICT – I feel so much more knowledgeable’⁴ Pre-service teacher

‘Intel (Teach Program) has offered us advantage over the rest of the students’⁵ Pre-service teacher

Participants welcomed the practical learning offered in the course and the broad range of elements for unit planning. Undertaking the course in their final year was beneficial as they felt they had already gained sufficient understanding of setting up unit plans as well as integrated units to be better prepared to incorporate ICT as an integral component at the planning stage.

Asia Pacific Evaluation of the Intel® Teach Essentials Course pre-service curriculum⁷

The Intel Teach Essentials Course was introduced into the Asia Pacific region in 2002, and has reached well over 150 pre-service institutions. It is progressively being seen as a sustainable and scalable way to reach the large numbers of classroom and pre-service teachers. A range of teacher education institutions who have implemented the Essentials Course believe it has transformed their teaching approach and content and that their graduates are now considered ‘more employable’.

An Asia Pacific region three year evaluation of the Essentials Course pre-service curriculum, began in 2005. The participating countries were Vietnam, Taiwan, Philippines, Pakistan, Malaysia, Korea, Japan, India, China and Australia and the evaluation was developed, coordinated and supported by Australia’s Deakin University.

Overall the study showed that, when implemented effectively, the Essentials Course pre-service curriculum is having a strong, positive impact on many pre-service teachers, teacher educators and teacher education institutions in the Asia-Pacific region.

As well as increasing the technology skills of students and their understanding of ways of implementing technology in teaching, significant changes to the way they were learning were noted by teacher educators and by the pre-service teachers themselves.

They demonstrated:

- An ability to communicate their ideas and opinions more confidently.
- Improved presentation skills and quality in their work.
- Increased independence in and responsibility for their learning, time management and endurance.
- Increased creativity, higher order thinking, problem solving and resourcefulness.
- Greater understanding of the connection between teaching and learning and technology and ways to use the technology more meaningfully in the classroom.

A core component of the study was an Impact Survey conducted with teachers six to eight months after they graduated from a pre-service institution. The newly appointed teachers told of applying the learnings from the Essentials Course in their classrooms:

Extent to which new teachers apply their learnings from the Essentials Course	
76%	Engaged in technology based lessons since they commenced their teaching positions, (6% daily and 25% weekly) and many in conjunction with project based learning approaches
56%	Had used all or part of the unit plans they developed during their training.
73%	Developed new unit plans based on the Intel Teach approach

Many of the new teachers stated that they shared their learning from the Essentials Course with other teachers in their school:

Extent and impact of new teachers sharing their learning with others in their school	
72%	Had shared their learnings from the Essentials Course with other teachers and had influenced other teachers to integrate technology into their teaching practice.
80%	Had noted, since commencing at their new school, an increase in whole school support for and commitment to technology based learning.
64%	Felt they had influenced their new school to become involved in the Essentials Course.

The strong alignment of the Essentials Course to each country's curriculum and pedagogical initiatives has been very significant in extending its impact at a classroom level and the capacity to support whole school change towards technology based learning.

"The Intel Teach Essentials Course - pre-service is showing its potential as a model which will have a profound effect over the long term, preparing

each generation of new teachers to implement and upgrade teaching practices that will shape the 'learning atmosphere' and equip students for the rapidly changing needs of the 21st century."⁸

Intel Teach Program

Intel is committed to improving education to prepare students around the world to thrive in the global knowledge economy. One of Intel's most successful worldwide programs is the Intel Teach Program, a professional development program that helps teachers improve the effective use of technology in the classroom to promote 21st century learning.

The Intel Teach Program is adapted in each country to address specific needs and has been localised by Australian teachers. The portfolio offers a range of face-to-face and online offerings designed to enable teachers to introduce, expand and support 21st century learning in the classroom.

The Intel Teach Program is a joint initiative between Intel and participating Departments of Education and is offered to pre-service teachers in selected universities. The program was introduced into Australia in 2003.

To date, more than 15,000 Australian in-service and pre-service teachers have completed the Intel Teach Program, together with over 5 million teachers in more than 40 countries.

Intel® Education Initiative

The Intel Education Initiative is Intel's sustained commitment to prepare all students, anywhere, with the skills required to thrive in the knowledge economy by improving teaching and learning through the effective use of technology, and advancing maths, science, and engineering education and research. Through a sustained public-private partnership with educators and governments in more than 50 countries, Intel works with international organizations and governments at an international, national, and local level. It invests approximately USD 100 million per year in education programs adapted to address the needs of each country to advocate for 21st century educational excellence through policy work and awareness efforts.

For more information on the Intel Education Initiative and the Intel Teach Program, visit: www.intel.com/education/au

This document is for informational purposes only.

¹⁻⁵ Intel® Teach Program Essentials Course Evaluation, Deakin University - focus group comments (October 2007).

⁶⁻⁸ Summary Report Evaluation of the Intel® Teach Program Essentials Course. Asia Pacific Region 2005-2007.

Copyright ©2008, Intel Corporation. All rights reserved. Intel, the Intel logo, Intel Education Initiative, and Intel Teach Program are trademarks of Intel Corporation in the U.S. and other countries.

*Other names and brands may be claimed as the property of others.

0608/LF/TMD/2000
319275-001

