Evidence of Impact

Intel® Teach Pre-Service Program

Evaluation of Implementation and Impact on Student Teachers

The Intel® Teach Program is a professional development program that integrates technology into the classroom through inquiry-oriented and project-based teaching and learning. Originally, the program was designed for in-service teachers; however, the need for this kind of training at the pre-service level quickly became apparent. Therefore, the Intel Teach Program is now adapted for use in pre-service institutions around the globe.

The Intel® Teach Essentials Course serves as the core component of the program. The 40-hour Essentials Course consists of 10 modules. The course has been adapted for colleges and universities in a variety of formats by faculty members. For example, some faculty members have used all or nearly all of the modules (eight to ten modules) as the primary curriculum for an instructional technology course. Other faculty members have used a smaller number of modules (one to three modules) to structure specific activities or class sessions within the context of an education course, particularly in curriculum design and content courses. Some colleges and universities have offered the Essentials Course as a freestanding workshop outside of regular class time.

Since 2000, Intel Corporation has offered 32-hour Curriculum Review sessions designed to familiarize higher education faculty members with the Essentials Course. After completing the Curriculum Review sessions, educators are equipped to incorporate the curriculum into their own institutions' programs. During the sessions, faculty members participate in group discussions that address how the curriculum can be best incorporated in higher education programs.

Evaluations

In 2003, EDC/CCT undertook an evaluation to determine how the Essentials Course was used in schools in the United States by faculty who had attended Curriculum Review sessions. The evaluation also included documentation of faculty responses to and perceptions of the Curriculum Review itself. The evaluation combined online survey data with site visits and phone interviews to gain a deeper and richer understanding of the faculty responses.

In addition to the survey, an ongoing, large-scale study is being conducted by Deakin University Faculty of Education in the state of Victoria, Australia. This study evaluates the Pre-Service Program in the Asia Region, which includes Australia, China, India, Japan, Korea, Malaysia, Pakistan, Philippines, Taiwan, and Vietnam. The study has begun to yield some key information about program impact on participating student teachers as well as provide an understanding of the development of these types of programs worldwide.

EDC/CCT: Perceptions of Faculty Training and How the Essentials Course Is Used

The EDC/CCT survey showed positive faculty responses to the Curriculum Review. In the online survey conducted by EDC/CCT, 90 percent of respondents reported that they would probably or definitely recommend the training to a friend or colleague, and 83 percent reported that at the end of the training they felt adequately or well-prepared to present the curriculum to their own pre-service students.

The large majority of faculty members who completed the training made use of all or part of the curriculum in their own teaching—80 percent of respondents reported using at least one module once or more than once since the training session.

Percentage of faculty using each module of the Intel® Teach Essentials course

A total of 545 faculty members were contacted to participate in the online survey. Of these educators, 202 completed the survey for a response rate of 27 percent.

Module	Percentage of Respondents Who Used All or Most
M1: Getting Started	72%
M2: Locating Resources	75%
M3: Creating Student Multimedia Presentations	78%
M4: Creating Student Publications	68%
M5: Creating Unit Support Materials	44%
M6: Creating Student Web Sites	47%
M7: Creating Teacher Support Materials	52%
M8: Creating an Implementation Plan	49%
M9: Pulling Unit Portfolios Together	46%
M10: Showcasing Unit Portfolios	41%

The faculty reported using the Essentials Course in three types of adaptations:

- Replacement of prior curricula in which all or almost all of the modules are used in an education course
- Adaptation of specific modules in which typically all or most of Modules 1 through 5 are used in content-specific or curriculum design courses
- Freestanding workshop in which multiple modules of the Essentials Course are used and treated as an informational resource that students can draw on or review for their own purposes

In addition to adaptation, participation in the Essentials Course program in some instances has catalyzed or supported larger planning processes focused on redesigning how pre-service students are introduced to educational technology. Furthermore, the faculty survey indicates that many of the faculty who participated in the Curriculum Review use software tools more frequently than before and have begun to teach pedagogical concepts and practices featured in the curriculum that they had not taught before.

The faculty respondents described three types of benefits that they associated with the program as it is implemented in their schools:

- Support for pre-service students' learning, particularly access to high-quality resources and an opportunity to familiarize themselves with content-oriented, research-oriented uses of technology
- Opportunities for the school or department to strengthen its course offerings and improve the integration of technology across the curriculum
- Support for meeting external requirements for certification and accountability

Deakin University: Preliminary Results on Program Impact

Deakin University has begun a large-scale study of the pre-service programs in the Asia region. A core component of this study is an Impact Survey designed to be conducted with teachers six to eight months after they graduate from a pre-service institution. Thus far, the survey instruments have been piloted in the following four countries: Japan, India, Taiwan, and The Philippines.

Some of the key findings emerging from the study include a greater appreciation for and understanding of the logistical challenges to the evaluation efforts themselves, such as time requirements, logistical difficulties of tracking pre-service students after they have left their pre-service institution, and the diversity among implementation models.

In addition, some preliminary impact data from three of the four countries piloting the evaluation instruments have been collected. The data suggest that the pre-service implementations are having a positive effect on student teachers. For example, 80 percent of pre-service teachers surveyed in one of the countries intend to use technology-based teaching and learning when they become teachers. The Impact Survey responses from new teachers in the same country show that 86 percent have actually implemented technology-based lessons in their classrooms. Most of the teachers have implemented all or part of the unit plans they developed in their pre-service course. In a second country surveyed, 85 percent have implemented technology-based lessons, and 62 percent have implemented all or part of their unit plans.

Further Reading

McMillan Culp, K., Keisch, D., Light, D., Martin, W., & Nudell, H. (2003). *Formative evaluation of the Intel® Teach Pre-Service Program: U.S.* New York: EDC/CCT.