

**Ethnographic Study Report
Executive Summary**

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A note about this project: This report represents the third in a series of four reports from the Center for Student Success study on the @ONE technology training project and good practice in technology. All four research reports are available at: <http://www.rpgroup.org/cssweb/default.htm>. Any specific questions

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EXECUTIVE SUMMARY

The following report presents findings from an ethnographic study of technology integration and diffusion in two California community colleges. The study was commissioned by @ONE to examine whether faculty behavior and, in turn, student learning outcomes, have changed as a result of @ONE instructional technology training and resources. The findings were generated through site visits conducted in May 2002 to Santa Monica College (SMC) and Fresno City College (FCC) by researchers from The Center for Student Success. The ethnographic research is one part of a three-pronged study. Findings from the two other studies, a literature review of instructional technology and a survey of faculty technology integration and student learning and its relation to @ONE training, are presented in companion reports to this document.

In comparing the level and pace of technology integration at SMC and FCC, the research team found a contrasting pattern of development. While SMC has enjoyed steady expansion since 1985, FCC's path to technology integration was truncated until key factors combined to create a fertile ground for a new technology initiative in the late 1990s. Similarly, while SMC launched a strong technology training program in the mid- 1980s, FCC's training, after a false start in the late 1980s, did not really take off until a decade later.

While the pace of technology integration varied, both institutions have recently seen the focus of their training change as faculty demand shifted from computer literacy and software-oriented training to more specific classroom applications. Correspondingly, the preferred format has changed from workshops that teach basic computer skills to sessions that help individual instructors integrate technology into a specific course. Intensive institutes remain popular, especially if provided outside instructional days and focused upon greater uses of web research, web-linked course resources, web-based course management and email for communication.

At FCC, an expanding and enthusiastic core group of users has integrated email communication and web research into a range of courses. Some instructors have gone farther, including an interdisciplinary group that is developing technology-infused learning communities. SMC has a large group of faculty who has integrated technology into the curricula across the disciplines. Individual faculty members are assessing how these tools affect student engagement and retention in courses using instructional technology.

Three primary variables had a pronounced impact on either supporting or compromising training initiatives in the two colleges: leadership, infrastructure, and funding. At FCC, it was not until the late 1990s that leadership at the college and district level made technology integration a high priority. The college's financial situation became stronger then and a major infrastructure project improved the network, despite continuing liabilities. Recently, more access to computers and the Internet has been provided for students and faculty. At SMC,

the leadership has consistently prioritized instructional technology diffusion. The college has had an adequate network bolstered by a large IT support staff in place since the mid 1980s. They have also allocated considerable resources for adequate access to computer labs for student work and faculty development.

Since 1998, @ONE's role at FCC was to support the early adopters and show the mainstream "what was possible" at the Summer Institutes; @ONE also connected FCC faculty in technology projects across the disciplines. At SMC, @ONE bolstered the early adopters and growing mainstream users of instructional technology. As for changing faculty teaching behavior in the two colleges, @ONE helped create a vision that supported technology integration. In both colleges, however, @ONE was only one of many drivers pushing technology integration at the colleges. It is difficult, if not impossible, to directly link @ONE's training to specific faculty changes. Suffice it to say that @ONE, California Virtual Campus Region 4 (CVC4) and on-campus training activities all contributed to advance faculty use of instructional technology, but that the impact of various training initiatives were influenced by the three variables noted above.

Overall, the findings suggest that regional training is most effective in the early stages of development and that local training is most effective during the later phases of curriculum integration. Training also needs to change emphasis over time, becoming increasingly individualized as faculty users master the basics and become more interested in applying new online tools to the classroom.

The findings also suggest that systematic and routine assessment of student learning is not yet under way across courses using the new tools. At this point, neither college has much more than anecdotal evidence to support that technology integration increases student motivation and performance, much less learning. At both colleges, faculty expressed keen interest in beginning such assessment.

The site-visit section concludes with a brief synthesis and with a discussion of nine factors that contribute to the integration and diffusion of instructional technology:

1. A faculty-driven initiative to identify what technology can do for student learning—by discipline and program,
2. A comprehensive cyclical planning process with a written, flexible Tech Plan that guides development without constricting it,
3. Local training and faculty development activities that reflect the needs of faculty for specific program curricula and identified student outcomes,
4. Commitment of the CEO, key administrators, and Academic Senate leaders,
5. A growing infrastructure with IT leaders who understand what students need for learning and what faculty need to generate learning,
6. A funding plan with a minimum annual percentage of the budget dedicated to learning technology,
7. Diffusion of curriculum integration by discipline or program areas,

8. Comprehensive assessment of learning outcomes with multiple measures, as developed from the process in the first factor, above, where faculty identify the best uses of technology for learning in their program, and
9. An Information Literacy graduation requirement and a commitment of instructors to train their own students in using course software or websites.