Changes in Technology Integration Skills and Classroom Practices

Survey Description

The T2CI Skill and Classroom Practice Survey is designed to assess changes resulting from T2CI participation. Both collaborating teachers and coaches rate themselves on the same 18 items. In addition, coaches rate themselves on six items relating specifically to the development of their coaching skills. The survey is divided into question sets that assess the following:

1. Level of expertise in selected technology skills.

2. Proficiency in integrating technology into high quality learning activities.

3. Frequency with which respondent integrates technology into various aspects of their own classroom practice.

4. Frequency with which respondent's students are asked to use technology in academic work.

The survey was administered to K-12 faculty member participants in four Washington state school districts: Edmonds, Mukilteo, Seattle, and Shoreline.

■ Collaborating Teacher Survey: Coaches identified 114 potential collaborating teachers. Seventy-eight teachers completed the baseline survey; of these, 57 (73%) completed the year-end survey.

■ Peer Coach Survey: The baseline survey was completed by 53 coaches; 41 completed the year-end survey for a response rate of 77%.

The Skill and Practice Survey is one of several evaluation strategies used to assess the impact of T2CI. Next year, the evaluation plans to utilize a comparison group in order to determine the unique impact of T2CI.

Findings Highlights

The Teaching + Technology Coaching Initiative (T2CI) is a professional development model designed to improve the integration of technology into standards-based teaching. T2CI trains and provides ongoing support to faculty members who serve as peer coaches for colleagues who are known as "collaborating teachers." Coaches and their collaborating teachers work together in order to engage students in technology-rich learning.

The Skill and Classroom Practice Survey was designed to measure to what extent coaches and collaborating teachers reported improvement in their technology-related skills and classroom practices over the course of the school year. Teachers and coaches completed the survey in the fall of 2003, and again in June, 2004.

Overall, survey findings are impressive. The mean ratings increased after participation in T2CI on every skill and practice item for both coaches and collaborating teachers. The majority of these gains were statistically significant. Because the questions are closely aligned with T2CI curriculum, these results strongly suggest that the project had an important impact on the skills and classroom practices of both coaches and teachers.

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Collaborating Teacher Findings

- Teachers reported improvement on all 18 survey items; 17 of the items showed statistically significant improvement.

- Teacher self-assessments increased from a basic to a high level of proficiency in three areas: Create learning activities using Internet resources; Able to use presentation software; and Create standards-based, technology-enhanced lessons.

- Teachers were asked how frequently they used technology as part of their classroom practice. Means on all items improved over the course of the year, though use was still infrequent at year end in all but one of these activities—Communicating with students, faculty or parents via email.

- Areas of technology use showing the most gain were: **1)** Assessing student learning through activities that integrate computers and related technology, **2)** Developing learning activities that use technology to promote critical thinking and problem solving, and **3)** Developing learning activities that require students to work as a team, while integrating technology into their work.

T2CI Collaborating Teacher: Improvement in Skills and Classroom Practices

Item	Baseline	Year end gain
Create activities using Internet resources	3.7	+1.4
Create standards-based technology-enhanced lessons	3.6	+1.4
Able to use presentation software	4.0	+1.4
Locate best Internet resources	5.3	+1.1
Plan and implement problem-based lessons	4.3	+.9
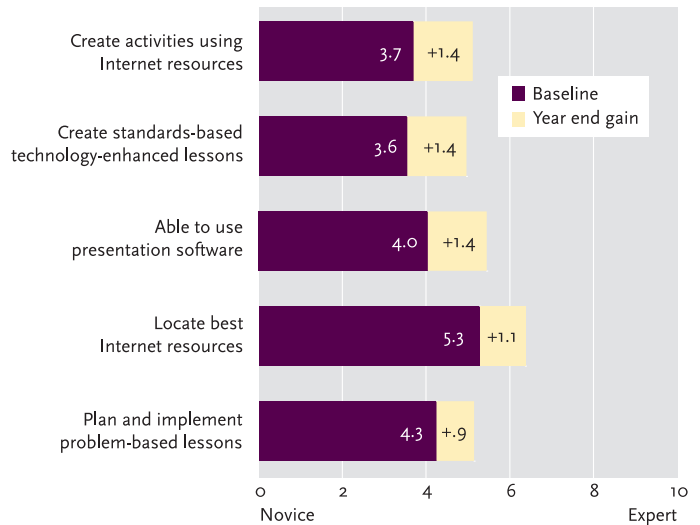
Coach Findings

- T2CI coaches receive focused training in coaching skills. Coaches were asked to rate themselves on their proficiency in guiding and collaborating with fellow faculty members to provide technology-rich learning. Five of the six items relating directly to improvement of coaching skills increased by more than 1.5 points on a ten-point scale.

- Coaches began the year reporting "high proficiency" in both technology skills and integrating technology. In most cases, coaches reported progressing to being "able to teach others."

- Every one of the 14 items relating to technology skills, proficiency in integrating technology, and coaching skills showed a statistically significant positive change.

T2CI Coach: Improvement in Coach-Specific Skills

Item	Baseline	Year end gain
Guiding other teachers to plan problem-based lessons	5.4	+1.7
Working collaboratively to infuse technology	5.9	+1.6
Using structured communication strategies	5.7	+1.5
Working collaboratively to implement standards-based technology-rich lessons	5.8	+1.4
Providing guidance on how to improve learning activities	5.9	+1.3
Helping others locate best Internet resources	6.8	+.9