Teaching + Technology Coaching Initiative

T2CI

In the 2002–03 school year, the Puget Sound Center for Teaching, Learning, and Technology (PSCTLT) piloted an innovative strategy designed to improve technology-related professional development for K–12 educators. This model, funded by a U.S. Department of Education Technology Innovation Challenge Grant, is known as the Teaching + Technology Coaching Initiative (T2CI). T2CI received funding for an initial planning year, plus three demonstration years. This report summarizes Year 1 evaluation findings drawn from T2CI's first implementation year. Most findings were collected through online progress reports that were completed by 57 participants—28 faculty coaches and 29 of the teachers who worked with them, known as "collaborating teachers." In addition to the progress reports, the evaluation utilized observations, interviews, and focus groups to explore the following questions:

- In what ways did T2CI coaches and their collaborating teachers work together?

- What types of changes did T2CI effect in teacher practices?

- What kinds of challenges did coaches and teachers face in implementing their coaching plans?

- What kinds of training and support were most useful to coaches?

Background

The Teacher + Training Coaching Initiative (T2CI) is grounded in a peer coaching approach to professional development. Its stated mission is: To implement a professional development model to enhance standards-based instruction through engaged learning and technology integration.

T2CI identifies four program goals:

- Using the T2CI model to foster systemic integration of technology

- Training teacher leaders to serve as peer coaches for colleagues

- Preparing coaches to assist teachers to integrate technology in ways that engage students in learning

- Assisting schools to build capacity for sustaining the T2CI peer coaching model

In its first year, T2CI partnered with four Washington state school districts: Edmonds, Mukilteo, Seattle, and Shoreline. The pilot was launched with 30 coaches, representing 22 schools. The number of participating coaches and schools increases in each of the demonstration years.

> *I feel strongly that coaching IS the most powerful tool we have for helping teachers to integrate technology. Whether it is 1:1, small group or whole faculty, there is a way for any teacher to get involved with technology using the strategy most comfortable to them. I have one teacher who tends to be "computer-phobic" who likes to get her skills a "pinch" at a time. She knows that I will show her only what she wants to know, then can come back for more when SHE is ready.*

quote

A project of the Puget Sound Center for Teaching, Learning, and Technology

Program Description

PSCTLT worked with its four school district partners to recruit coaches in the spring preceding the 2002–03 school year. Aspiring coaches and their principals completed an application form; final decisions were made by a district staff/PSCTLT team. Those selected included classroom teachers as well as library/media and technology specialists. The coaching model varied at each of the 22 sites. Variables included coach job title (teacher or specialist), type of school (elementary, middle, high school), and level of technology proficiency. In addition, support such as release time or compensation for participating coaches or collaborating teachers varied by school and district, as some were able to funnel additional funds to support coaching. For example, some coaches received as much as a half day each week to work with teachers, and others as little as two days per year. Available hardware and software varied by classroom, school, and district as well. Despite the wide variations at the site level, the evaluation found commonalities in how coaching was "delivered" and what types of coaching were considered most useful.

Each coach was asked to recruit at least one "collaborating teacher." In some cases, selection took place in consultation with principals; in others, coaches recruited on their own. Most coaches reported working on a regular basis, defined as at least four or more times, with between three and six collaborating teachers. In

each case, it was up to each coach–teacher team to collectively determine what kind of assistance would prove most useful. Collaborative experiences ranged from designing and carrying out a one-time technology-rich learning project to weekly assistance with computer lab time. As one example of a technology-infused lesson, in a unit on Native Americans, one coach assisted her collaborating teacher in guiding students to: 1) find tribal legends on the Internet, 2) create a piece of art about that legend, 3) scan the artwork, and 4) incorporate it in a PowerPoint presentation about the tribe and the legend.

Most coaches (85%) said they met with teachers before or after work, or on an "unscheduled basis as time permits" (63%). For the most part, coaches and collaborating teachers worked together by meeting one-on-one. About half of the coaches (49%) reported teaching their collaborating teacher's class while the teacher observed. This strategy took place most often in elementary schools. Other ways of working together, especially in elementary schools, included team teaching, grade-level collaboration, and large group training sessions. Middle and high school teachers were more likely to meet one-on-one with their coach.

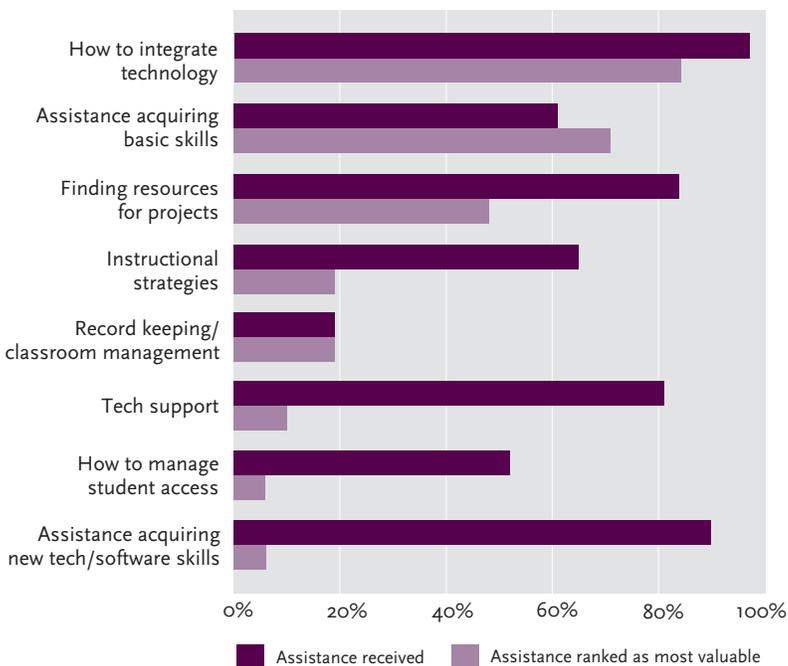**How Coaches and Teachers Worked Together**
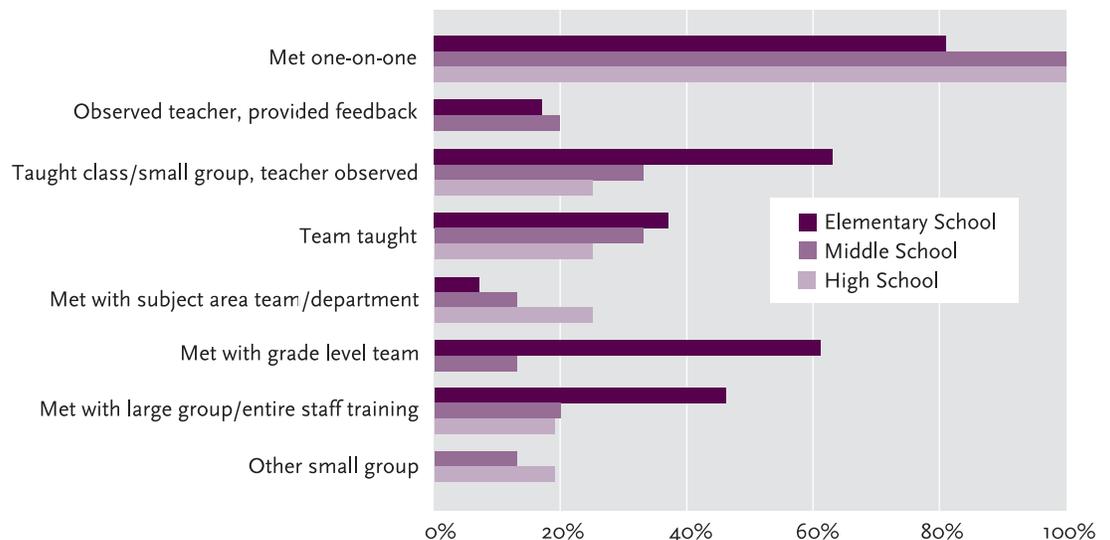
How Coaches and Teachers Worked Together

Coaching efforts were directed to supporting collaborating teachers in providing a technology-rich learning environment. At each site, coaches and their teachers developed their own unique plan for how and when they would meet and communicate, and what types of "coaching" would take place. Because each teacher/coach pair operated under different circumstances, it is hard to generalize across the program. However, although each team worked in quite different ways, teachers overwhelmingly reported that the most valuable assistance was in "how to integrate technology."

For over half of the teachers, receiving assistance in attaining basic technology skills was a prerequisite to being able to integrate technology, and 71% ranked this assistance as most valuable. Nearly all teachers (90%) received coaching assistance in acquiring new technology or software skills. Coaches also supported locating online resources for 84% of their teachers, which was the third most valued assistance.

Type of Assistance Found Most Valuable

Bar chart legend: Assistance received · Assistance ranked as most valuable

Categories (top to bottom): How to integrate technology; Assistance acquiring basic skills; Finding resources for projects; Instructional strategies; Record keeping/classroom management; Tech support; How to manage student access; Assistance acquiring new tech/software skills. X-axis: 0% to 100%.

> *I think just opening teachers' eyes to the potential that technology has in regards to enhancing their curriculum has been invaluable.*

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Coach Training and Support

PSCTLT invested extensive efforts in coach development, both through in-person training sessions and ongoing online support. Coaches were required to attend a residential four-day summer training institute and two one-day learning sessions. Training focused on developing coaching skills, structuring a coaching program, aligning technology-rich curriculum with state standards, acquiring technical skills, and locating curriculum resources. The required sessions were rated as "very" or "mostly" useful by over 92% of participants. Optional trainings in curriculum development and technical areas were also offered during the year. Reflection was an integral part of the training, and coaches were asked to keep "collaboration logs" documenting each lesson, what students learned, and their own analysis of what to change in future lessons.

Because coaches were dispersed across four districts and over 20 schools, effective project-wide communication was essential. Coaches gave high marks, i.e., were "extremely" or "somewhat satisfied" with PSCTLT, in all areas questioned: Responsiveness to emails or phone queries (100%); Project information shared at training sessions (96%); Information on project requirements and responsibilities (85%); and Information distributed on the listserv (73%). The T2CI Web site http://www.pugetsound-center.org/t2ci/ serves as a one-stop shop for everything from curriculum resources to tips on coaching skills.

Impact on Teachers' Skills and Classroom Practices

Because of working with my coach, my use of technology in the classroom has gone to the next level. She has shown me ways to integrate technology past word processing and WebQuests. Technology is less of a focus and more of a tool that the students use daily.

Coaches and collaborating teachers alike enthusiastically noted the benefits of the coaching experience. Many commented on the advantages of working together as a team and how it energized their professional experience. They also said that teachers opened up to new possibilities of reaching their students and raised their expectations of what students can do, and that some teachers felt more comfortable taking risks and trying new strategies.

In contrast to traditional professional development experiences such as off-site workshops, many remarked that site-based peer coaching is ideal for technology-related instruction. Teachers wanted to learn a little bit (small chunks), practice what they learned, have someone to help them in their own classroom using their own hardware and software, and then try new things at their own pace. In particular, they emphasized the effectiveness of "just in time" technology-related coaching. Proximity of assistance was key. One said, "I've got a resource right down the hall, and I'm not on my own trying to figure out how to...implement technology into the daily plan. I think if I didn't have the support...I wouldn't do half of the things I've done this year in my classroom."

Overall, teacher gains fell into the following categories.

- Increased technology literacy, ability to overcome "computer-phobia"

- Increased comfort and confidence in the classroom use of technology

- Improved knowledge of how technology can be used to enrich curriculum, deepen understanding, and develop critical thinking skills.

- Awareness of online instructional resources

- Increased understanding of how integrating technology can be used to achieve academic goals, including addressing state learning goals (EALRS)

- New opportunities to collaborate with other teachers

I think this model was most effective for my eager teachers and my reluctant teachers. For my eager teachers, it was the timely step up they needed to do the things they wanted to do with technology. For my reluctant teachers, it was the steady support without pressure, allowing them to progress at their own rates, and recognizing that even small steps were big steps.

The teachers in my building do not currently do much team planning. This experience enabled me to get the three teachers together to do some planning, and two of the three teachers indicated that the input of the others was very helpful.

The teacher I coached was afraid of technology when I met her, but she was willing to try. Every small success (like printing a document) was met with great joy. She has begun trying things on her own...I am so proud of her that I could just burst!

Impact on Students

One of the promises of T2CI is its potential to transform the classroom experience. As one participant said: "I believe that the integration of technology after coaching helps teachers create assignments that require the student to deal more in depth with subject matter. Students are required to analyze and synthesize rather than regurgitate information. This is teacher, not technology, dependent, but is supported by the use of technology."

Coaches and teachers were asked to describe what kinds of impacts they observed with their students. Most of their comments related to motivation and engagement. However, their range of examples demonstrate perceived increases in:

- Motivation
- Engagement with academic work
- Self expectations
- Critical thinking skills such as being able to evaluate a Web site
- Development of collaboration and teamwork skills

Coaches and their collaborating teachers described how their engagement with T2CI affected student outcomes:

- I think the students feel empowered by what they've learned and are more willing to work hard to finish a task.

- I saw that the kids absolutely loved doing technology-rich lessons. They got tricked into thinking that reading and writing was a game because it was on the computer. My kids were so engaged!

- My students are much more productive when involved in technology-rich lessons. After doing such a lesson, and seeing them achieve, I've noticed that I have higher expectations for them, and they have higher expectations for themselves. It's almost as if they just had

Working with my coach on planning deliberate, integrated units is reflected in my students' learning. Students are researching, asking essential questions, and using the skills practiced in their performance assessments. Furthermore, the students are motivated to do the projects because they are relevant and useful to their lives.

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to see for themselves that they could do something, and once they did, it set a pattern.

- My students are more confident learners. They have learned to evaluate sites and sources. They question the information they find and dig deeper to prove or disprove it. They have taken ownership of their learning. The 7th graders come in on a regular basis for their own "coaching" and sharing time. They have become student coaches to each other and their teachers. I had not anticipated this! The students know that I am always experimenting and that has given them the freedom to experiment and discover. That's what learning is about!

- Our primary focus was on one subject area and we did see significant improvement in student outcomes. Our current students scored poorly on the 4th grade WASL two years ago, relative to the classes on either side of them. This spring they scored better on the math section of the ITBS then any sixth grade class had before them. Technology integration was a part of that success.

Getting teachers that in the past have said they had no intention of learning all this computer stuff, their kids did enough of it at home, to feel like they want to incorporate some technology into a lesson...that makes me feel quite successful.

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Program Challenges

In its first year, T2CI experienced some programmatic challenges. Because each coach-teacher pair determined its own way of working together, and each worked under different circumstances, monitoring implementation, progress, and impact was challenging. As a result, newer reporting systems and clearer program expectations were implemented for future years.

At the building level, the most common participant concern was over having sufficient time for collaborative work. While some coaches were granted limited release time for coaching, their collaborating teachers did not have that benefit. One coach said, *"Clearly one of the major weaknesses in my case is lack of time. I have no extra time this semester. That will change next semester when I will get a release period. Time is really the major obstacle. It really isn't the question of being paid for extra time, which is always a plus, but more the fact that one person can only do so much in 24 hours."* However, it is also interesting to note that there was a downward trend in perceived barriers, including time issues, over the course of the year. Coaches were asked to identify what barriers they experienced in their coaching in November, and again the following May. There was a notable drop in the ranking of "lack of common planning time" which was cited as a top barrier by 50% of coaches in November, but only 23% in May, and in "Finding time to meet with teachers" which dropped from 88% to 62%. However, coaches consistently reported spending too much of their time troubleshooting hardware and software problems.

Barriers Reported by Coaches
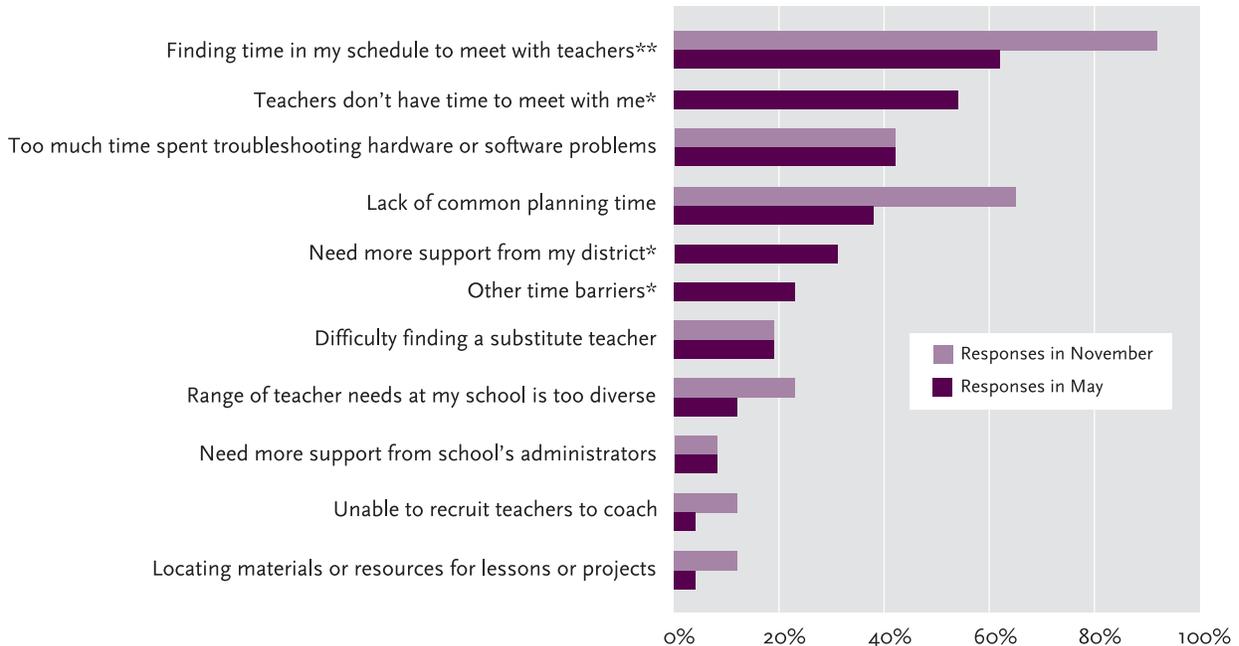
*Not in the pre-assessment
**The wording on this item was different on the pre-assessment: "Finding time to meet with teachers."

Collaborating teachers were also asked to identify what barriers they faced in working with their coach, and then to identify the top three most significant barriers. While time-related concerns were two of the top three ranked (lack of planning time was number 1 and finding time to meet number 3), lack of time to learn new software was the second highest ranked barrier.

Characteristics of a Successful Peer Coach, Collaborating Teacher, and School Readiness for Peer Coaching Model

Characteristics of a Good Peer Coach

- Able to build trust with peers
- Can coax others to be coached
- Open to learning new software programs
- Team player
- Communicates well, listens to teachers
- Can show teachers how to replace what they are doing for something better, instead of presenting technology as an "add-on"
- Able to give teachers a menu of options and let them decide what might be useful for them
- Flexible
- Always has a back-up plan in case of technology glitches
- Highly organized, plans well in advance with teachers
- Understands that there will be a lot of extra work, including writing up own lessons for a substitute teacher while they are coaching
- Committed to providing professional service to fellow teachers
- Recognized by staff as a strong/outstanding teacher
- Has enough depth and breadth of knowledge to help teachers who are at various stages of technology integration
- Knows how to organize/structure a technology-rich classroom
- Provides a safe, risk-taking environment, is approachable and encouraging

Characteristics of a Teacher Ready To Be Coached

- Has to see the need, purpose for this work
- Willing to be coached
- Able to see how fun it is
- Comfortable making mistakes and asking dumb questions
- Open to learning
- Can be helpful if teacher has an existing relationship with peer coach

Characteristics of a School Ready For Peer Coaching Professional Development Model

- The staff is "tight," has a team and "help each other" ethic
- Building goals relating to technology are in place
- Faculty can be computer-phobic but need to be risk-takers

Next Steps

In Year Two, T2CI is expanding to over 55 coaches at more than 35 sites. In addition to the T2CI grant, the model is also being replicated in school districts both within and outside of Washington State. Districts are finding new ways to capitalize on the coaching opportunity; one focuses all efforts on training Library/Media Specialists as coaches, and another funnels coaches only to middle and high schools. At least one district provides support to Year 1 coaches to continue coaching another year.

The evaluation will continue to document outcomes, and in particular will focus on assessing change in technology integration skills and classroom practices among participating teachers. Future evaluation reports will also document best practices at the building and district levels in institutionalizing peer coaching.

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Some...teachers have begun to try things and feel free to ask for help when the machines don't perform as expected...they are no longer intimidated by the new technology. They believe it is a problem of information, not one of mystery and lack of intelligence. That is my biggest success.

For further information on T2CI, including a full copy of the Year 1 evaluation report contact:

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The Puget Sound Center for Teaching, Learning, and Technology provides future-ready technology training solutions to corporate and educational communities in the Puget Sound area.

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