Teacher-to-Teacher Mentoring

Kelley Faucheux, a faculty mentor seated on the right, assists teachers Mary Speranza (standing) and Julie Bourgoyne.

By Kathleen Gora and Janice Hinson

Subject: Professional development

Audience: Technology coordinators, library media specialists, administrators

Standards: *NETS•T* I–III; *NETS•A* I, II (http://www.iste.org/standards/)

Supplement: http://www.iste.org/LL/

PHOTOS BY CHARLOTTE PELLERIN.

Many principals want to provide effective professional development to assist teachers with technology integration, but they don't know where to begin. Sometimes teachers participate in professional development opportunities offered by local school districts, but these one-size-fits-all experiences seldom address teachers' specific needs or skill levels, resulting in uneven or infrequent implementation that rarely leads to instructional change. The Technology Study Group (TSG) Professional Development Model developed primarily by Maria Cloessner, the principal of Most Blessed Sacrament School, a K–8 Catholic school of 556 students, represents an effort to provide her teachers with comprehensive, in-house professional development to promote a positive change in instructional practice. The model can be adapted easily for use in a variety of public and private school settings.

As the technology facilitator at the school, I had an opportunity to be involved in the project and eventually submitted a description of the project as part of an assignment for a course titled Professional Development for K–12 Technology Integration. Janice Hinson, who taught the course, suggested we work together to prepare this article for publication.

Background
Three years ago, the Louisiana Department of Education created a professional development technology leadership initiative for school principals and district superintendents called Louisiana Educational Advancement and Development with

The Technology Study Group Professional Development Model

Technology (LEADTech). (*Editor's note:* Find this URL and others mentioned in this article under Resources on p. 40.) LEADTech, which began as a grant funded by the Bill and Melinda Gates Foundation, provides school and district leaders with a greater understanding of the role of instructional technology as it relates to total school improvement and student learning. As one of these leaders, Maria began to wonder, "What does it look like when technology is used well for teaching and learning? What needs to be done to have this happen at my school?"

Like many elementary principals, Maria is primarily responsible for the professional development of her teachers. One of her major goals is increasing the use of technology by teachers and students at her school. Under her direction, all classrooms have one to four networked computers, one of which is a multimedia teaching station with a TV for computer projection. Maria matched equipment with the needs of the school community, and parent volunteers stepped forward to provide technical support. Additionally, she formed a technology committee composed of faculty, parents, and technical advisors to assess the growing needs of the school. This committee met to assess the situation at Most Blessed Sacrament, looking at hardware and software needs now and for the future. It became obvious to us that a plan for maintenance was critical to keep the hardware and wiring infrastructure robust and to periodically evaluate for upgrades. We also identified the need for continuing education for the entire faculty.

Up to this point, professional development in educational technology at Most Blessed Sacrament had consisted of one-shot training workshops, guest speakers, and demonstrations by the computer lab teacher. Additional professional development opportunities were available to Maria's teachers through the local public school system and the local public broadcasting station, and Maria encouraged her faculty to attend. Even though technology integration was a "hot topic," these workshops were often generic and provided little instruction for more advanced computer users or ideas for relevant adaptation into curricula. Consequently, Maria noted little change in teaching practices and realized she needed another approach. While participating in LEADTech, she developed an in-house professional development model to increase the number of teachers at her school who could integrate technology into their teaching practices confidently and effectively.

The TSG Model

Maria recognized that professional development had to change if she wanted her teachers to make wide-scale leaps to tie technology to learning objectives and teaching strategies. She developed her own plan to provide her teachers with comprehensive, in-house professional development activities that were ongoing, relevant, and targeted to help faculty and

students meet specific teaching and learning goals. Her ideas reflected the intent of ISTE's National Educational Technology Standards for Administrators (NETS•A) in the areas of Leadership and Vision and Learning and Teaching. Her goals included developing a shared vision with stakeholders, crafting a cohesive long-term technology plan to achieve that vision, and cultivating a learning community that encourages responsible risk taking to improve student learning. Her objectives were to:

1. Increase teachers' comfort levels for using technology
2. Support technology integration through group membership
3. Identify and use expert teachers to provide training and mentoring for group members
4. Assess technology use often and modify plans to accommodate additional instructional needs

First Steps

The first step was to assess and increase the teachers' comfort levels for using technology. To do this, the entire staff completed the Bellingham Public Schools Staff Use of Technology Self-Evaluation Rubric and the Taking a Good Look at Instructional Strategies (TAGLIT) assessment tool. These assessments provided indicators of strengths and weaknesses, and targeted areas for technology staff development.

The Technology Study Group (TSG) Professional Development Model represents one principal's effort to provide her teachers with comprehensive, in-house professional development to promote positive change in instructional practice.

Patti Osterberger, Margaret Fortier, Deborah Watts, and Kem Sivils plan a lesson.

These assessments were followed with a survey of personal technology skills and experiences, which helped each teacher develop individual short-term personal goals. These goals are addressed by ISTE's NETS for Teachers (NETS•T). Specifically, teachers wanted to improve their knowledge, skills, and understanding of technology use in educational settings, stay abreast of current and emerging trends, and design appropriate technology-rich lessons that address content standards and student technology.

Lists of individuals' goals, skills, and experiences were then posted on a bulletin board in the library, and teachers formed groups based on commonalties and interests. Using the assessment tools, we identified an "Expert List" of teachers who were more experienced with particular programs and could offer individualized help.

Finding time for professional development is a problem at most schools, and Maria's school was no exception. To accommodate the TSGs, teachers agreed to meet from 7:30–8:20 a.m. twice a month from September to May. Once the groups were established, Maria outlined her expectations. Each group had to:

1. Identify 3–4 topics or concepts to explore, based on school goals, student achievement, or personal shared interests
2. Submit a work plan with specific goals
3. Meet before school every other Tuesday to develop ways to meet goals
4. Use expert teachers to learn new applications and techniques
5. Meet quarterly with Maria to discuss the group's progress
6. Provide feedback on progress through group member surveys and mid- and end-of-year evaluations

Model Implementation

For their first assignment, each group identified areas of interest and suggested strategies for classroom integration or schoolwide implementation. There was a wide disparity of skill levels, and this was reflected in each group's short-term goals. For example, some groups concentrated on becoming more proficient at software applications such as PowerPoint, while others concentrated on revising the school's technology plan. Teachers on the Expert List served as mentors to individual faculty members and assisted TSGs with specific software applications. Presentations were organized around topics of interest and delivered to individual groups.

The librarian, technology leader, and additional technology-practicing teachers prepared and presented various lessons. Even our middle school students conducted presentations to TSGs on specific software applications. In addition, guest speakers were invited to address topics of general interest. For example, a representative from the Gale Group made a presentation to the TSGs on Internet research skills. Once teachers and students learned to access the materials, most bookmarked the Gale Group on classroom computers and took home instructions for evening and weekend access.

In addition to asking teachers to meet specific group goals, Maria also asked them to become proficient users of specific software applications. For example, teachers needed to check e-mail twice daily for announcements or to communicate with parents.

Teachers were also expected by our administration to record grades using GradeQuick and to use SchoolNotes to post classroom announcements and Internet links that students could use at school or home. The TSGs offered training for these applications and provided mentoring.

Additional Classroom Support

To facilitate further technology integration, Maria reassigned a library paraprofessional to create a Tech Team of myself and Charlotte Pellerin. Weekly, the Tech Team visits each K–5 classroom to develop technology connections involving curricula, current areas of interest, and students' computer lab time.

Recently, while the third grade was studying the Peruvian town of

Paracas, Charlotte created a PowerPoint presentation with imbedded Internet links to supportive sites. One interesting site described petroglyphs so large they can only be seen completely through the use of satellite photography. During the next period in art, each student created his or her own petroglyph on a nature theme. Students later shared their petroglyphs and the information they had gathered from the Internet in their social studies class.

First-Year Results

As faculty members sharpen their skills, technology integration is spilling into classrooms. In the middle school, for example, students are participating in cross-curricular projects and using various technology tools to extend traditional research and reporting methods. Several ongoing middle school projects continue to be successful, such as producing a school newspaper, creating graphs and charts for science and social studies fair projects, generating a poetry book, investigating the legislative process for the Youth Legislature program, and developing PowerPoint presentations on the planets, oceans, plants, animals, and kindergarten graduation.

Teachers are finding that technology integration requires additional time to investigate computer programs and Internet sites and to discover positive ties to curriculum. Although a number of current textbooks incorporate technology links, even these must be previewed, as some are inactive, not on the children's reading level, or simply not useful. However, teachers reported that they enjoy working with the members of the TSGs to find or review suitable Internet sites.

Although no data were collected to assess the effects of this professional development model, the Tech Team and administration have observed an increase in the number of teachers who have been integrating technology into the curriculum. However, more needs to be done. Currently, teachers still rely heavily on the Tech Team for curricular support and rarely participate in computer lab activities with their students because this is a free period for them. To encourage more classroom technology integration, Maria plans to make schedule changes to help teachers collaborate with the Tech Team and participate in computer lab activities while still having a free period.

Second-Year Plans

Maria realizes that systemic change takes several years to implement. During the first year, teachers essentially concentrated on learning software applications. However, Maria wants her teachers to move beyond application comfort and focus on specific strategies to incorporate technology into the curriculum. She states:

> Having equipment and software is only a part of integration; the appropriate use of technology is a very necessary component of successful integration. Software should be acquired based on curriculum needs. Instructional goals should drive the use of technology.

During the second year, the TSGs concentrate on developing a technology-supported curriculum that shifts the focus of learning outcomes from, "What and how will I teach?" to "What do I want my students to learn, and how will I reach all students?" In support of this, teachers are using the TSG Technology Lesson Plan Profile (p. 40) to prepare two technology-rich lessons for classroom use. Teachers will present these lessons to their TSGs and then to the faculty. Collaboration is valued, and teachers are encouraged to share their skills, ideas, and expertise.

Thank You!

ISTE members are wonderful and generous. The *L&L* staff would like to especially thank the members who volunteered time from their busy NECC 2003 schedules to meet with us. Look for members like this month's subject, Mike Barton, in the new member profile section each issue on p. 46.

We'd also like to express our gratitude to **ISTE 100 member Intel** and its Innovation in Education program for providing Intel digital microscopes as gifts for the participants.

If you'd like to be the subject of a member profile next year, please contact us at letters@iste.org.

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TECHNOLOGY LESSON PLAN PROFILE

Teacher's Name: _____   Grade: _____

Date: _____   Lesson Name: _____

Learning Objectives:

What will students be able to do after this lesson?

What are the steps to this lesson?

What software or Web sites do I plan to use?

What outcomes do I expect?

How will I measure student learning? If this doesn't work, then what? (Plan B)

Download this form for your teachers to use in the supplement at http://www.iste.org/LL/.

In addition to these changes, Maria hopes to develop an accounting system of software application classes taken by teachers. As more software is incorporated into schools, the need to stay current with technology and improve basic/advanced skills continues. During the last four years, teachers at Most Blessed Sacrament have participated in numerous workshops, inservice training sessions, and classes on applications and integration. Consequently, a tracking system to gauge present knowledge is necessary to project future professional development needs.

Summary

As principal, Maria realized that she needed to initiate changes to achieve desired outcomes. Therefore, she developed a model that enabled her staff, as stakeholders, to help each other meet individual and group goals for technology integration.

Results indicate that changes are occurring; however, Maria realizes that effective change is not static, and she continues to adjust the model to enable every teacher to exhibit stronger technology-integration skills. Through strong leadership, a vision, and a cohesive plan, any school can use or adapt the TSG Model to initiate cost-effective and meaningful professional development to improve teaching and learning.

Resources

Bellingham Public Schools Staff Use of Technology Self-Evaluation Rubric: http://www.bham.wednet.edu/technology/technology.htm

The Gale Group: http://www.gale.com/

GradeQuick: http://www.jacksonsoftware.com/

NETS: http://cnets.iste.org/

LEADTech (Louisiana Educational Advancement and Development with Technology): http://www.lcet.doe.state.la.us/leadtech/

SchoolNotes: http://www.schoolnotes.com/

TAGLIT assessment tool: http://www.taglit.org/taglit/Assessment/PreviewAssessment.asp

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