Educational technology-related professional development (ETPD) can be designed in many different ways. It varies by general purposes and goals, specific learning objectives, curriculum content, the student grade levels for which the strategies and tools presented are appropriate, professional development model(s) used, how it is matched to participating teachers’ characteristics, and the ways in which it is evaluated. Providers can ensure the effectiveness of technology-related professional development by considering these seven aspects during planning, so that ETPD sessions and programs align well with participating teachers’ professional learning needs, interests, and contextual realities.

Last issue’s article reviewed 20 different ETPD models, organized by five general types of professional learning. This installment explores combining goals and models then matching combinations to fit particular teachers’ characteristics. Next month, we’ll assess the efficacy of those designs.

Planning ETPD
When designing ETPD, begin by selecting goals that can be applied to either individual professional development sessions or multiple-session PD programs. Base these selections on the learning needs and preferences of the educators for whom the ETPD is designed. There are six general goals that ETPD sessions or programs can address, either singly or in combination:

- Awareness and/or trial of specific tools or resources
- Curriculum integration in specific content areas
- Change in instructional practice, focusing on specific instructional techniques
- Curriculum and/or instructional reform
- School organizational or cultural change
- Social change beyond the school

For more on goals, see the first article in this series (L&L, February 2008, pp. 18–23).

One of the central goals of all ETPD is to persuade the learner to learn about, try, then continue to use an innovation.

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2. Individualized learning (four models)
   • Unassisted independent exploration
   • Assisted exploration
   • Individualized learning plan
   • Prescribed and managed instruction

3. Collaborative learning (five models)
   • Classroom visits
   • Mentoring
   • Peer coaching
   • Sharing best practices
   • Lesson study

4. Data-based inquiry (three models)
   • Independent action research
   • Action research done collaboratively with other teachers
   • Action research assisted by external researchers

5. Development of materials & approaches (two models)
   • Collaborative materials creation
   • Materials and approaches developed individually

More information on each of these ETPD models is available in the second article in the series (L&L, March/April 2008, pp. 22–26). Examples of specific programs that illustrate the models above are linked on the ETPD Web site that supports the series: http://etpd.wm.edu.

How should models be matched to goals? Several examples illustrate this process.

Matching Models to Goals
Some goal and model combinations are easy to pair. To help teachers become aware of social information tagging tools such as del.icio.us, for example, use instructor-led sessions, such as brief demonstrations at faculty meetings, with optional hands-on workshops to follow for those who want to learn more about how these tools work. Address awareness and trial goals also in an individualized way, through unassisted or assisted exploration, as part of an individual professional learning plan or as part of specifically prescribed and managed instruction.

If the goal and focus is effective technology use in particular curricu-
Though certain PD models do support particular goals better than others overall, individual learners receive the same models differently.
Taxonomies describing ranges of possible ETPD goals, models, and learners and suggesting all of their possible permutations can be very helpful to PD designers.

heightened focus on quality, the ETPD models best suited to their learning are those that help participants to develop and determine best practices together. Models such as large- and small-group problem-solving sessions, sharing best practices, mentoring, and lesson study should appeal to members of this adopter group.

**Early Majority**

Early majority members comprise the next ~34% to adopt an innovation. Early majority members are known for interacting frequently with colleagues. Unlike innovators and early adopters, they do not often hold leadership positions within the social system, either officially or unofficially. Their primary role is to provide connections between and among the different interpersonal networks within the community. It takes early majority members longer to decide to try a new tool, technique, or idea than early adopters and innovators.

However, once a new idea has “caught on” among early majority members, it spreads rather quickly, mostly because of their predisposition to interact with others. It is during the adoption process among this particular subgroup’s members that critical mass is reached. Given their predilection for interaction, the more collaborative and group-oriented ETPD models are best suited for early majority members’ professional learning: large-group and small-group interaction and problem-solving sessions, and all five types of collaborative learning.

**Late Majority**

Members of the late majority in a social system comprise the next ~34% to adopt a particular innovation. These folks are quite skeptical of new ideas, methods, and tools, and this skepticism makes them more cautious about trying an innovation than any of the groups already discussed. They also have relatively scarce resources, when compared with the previous 50% of the local population, which adds to their challenges in using educational technologies in many schools with limited technology access.

Rogers tells us that late majority members will often adopt an innovation only out of necessity or due to strong peer pressure. For them to adopt, most of the uncertainty about the innovation must have been removed, and the norms for behavior and belief in the social system must already favor its adoption. The ETPD models that best support late majority learners are therefore group-based, structured, and more assisted than independent and include: demonstration or awareness sessions, hands-on workshops, organized classroom visits and peer coaching, and lesson study.

**Laggards**

Did you chuckle when you read the name that Rogers gave to this group? He warned us against seeing the last ~16% of the social system negatively, or as somehow worthy of blame. Laggards are the most traditional of all of the members of the social system. They are extremely cautious in the exploration of new ideas, tools, and techniques, and usually have few resources to support their doing so. Their point of reference is the past. Therefore, they often serve a very important function for the social system: they remember its history and provide its continuity.

While innovators are the most globally oriented of all of the social system members, laggards are the most locally focused. Yet, laggards and innovators are quite similar in that they most frequently interact with others similar to themselves, and they can be “loners” in the social system. They adopt an innovation a long time after they become aware of it, and usually only when existence within the community demands this change. The ETPD models best suited to their learning are individualized and assisted, such as individualized learning plans and managed instruction.

**Permutations and Combinations**

Taxonomies describing ranges of possible ETPD goals, models, and learners and suggesting all of their possible permutations can be very helpful to PD designers. To structure successful ETPD, however, they must be used artistically, rather than mechanically. Technology integration is a complex endeavor involving curriculum content, pedagogy, and myriad contextual considerations, in addition to the attributes of the technologies themselves. Deep knowledge of these dynamics should guide the combining of ETPD goals and models into designs best suited to the characteristics of professional learners.

How can we determine the efficacy of an ETPD design with a particular group of educators? Answers to this question will serve as the focus of next issue’s final article in this four-part series on customizing ETPD.