parts the other group members would assume. For the sake of *Jerry Springer-esque*, antics, the other group members often take on the personas of other characters within the script. The Titania group will, for example, bring on Oberon, forcing an on-air showdown, and will demand an explanation for his pernicious behavior toward her. This assignment consistently exceeds my expectations. Formerly reticent students turn in remarkable performances as characters or hosts, and students who seem to be asleep show a keen insight into plot and character development.

The assignments mentioned have been predicated upon classes containing no more than 30 students. The instructor of large classes can also implement oral skills by making students give short presentations, perhaps only 30 seconds in length, in which a concept is defined and explained. Larger classes can also be broken into smaller sections, time permitting, which can provide an opportunity for lively debate and discussions. Not only is this another assessment tool, it is also a way to promote interaction between students and faculty. Students who have participated in large lecture classes that utilize these strategies report that the techniques succeeded in making the class seem like a small seminar (Morreale, 1998).

The ability of our students to communicate may affect the sorts of jobs offered them. By utilizing formal or informal presentations within our classrooms, we are provided with another tool of assessment as well as a way to improve students' futures as employees and as community leaders.

Technology for Teachers: See It, Do It, and Implement It

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The outcomes of the technology for teaching and learning cannot be automatic, they are the result of a collaboration between the teacher, student, and the designer of the technology (Poole, 1997). The question is, how can we go beyond the fancy formats of the presentations to obtain a collaborative result of teaching and learning. One of the answers is to let teachers see it, do it and implement it. Funded by the University System of Georgia Teaching and Learning Grant, a curriculum/technology alignment model has been developed to enhance Kennesaw State University's pre-service teachers' mathematics methods course.

Curriculum/Technology Alignment Model

The curriculum/technology model mainly consists of three blocks: curricular contents, technology components, and instruction. Curricular contents include major topics of mathematics that are required by the NCTM. They are numeration and number sense, place value, addition, subtraction, multiplication and division with whole numbers, concept and computation of fraction, decimal, ratio, percentage, measurement, probability, statistics, geometry, and problem solving. Each of the topics is specified with grade levels (K-5). Technology components are categorized into World Wide Web resource, mathematics software, audio and video material, and multimedia application, plus mathematics manipulative and other instruments, projected or printed. Instruction bridges the curricular contents and technology components. Within the instruction section, teachers design a lesson with specific mathematics content that is aligned with one or multiple technology components. The instruction includes specific and measurable instructional objectives, supportive and learning-focused instructional activities, and a reasonable assessment plan.

Pre-service Teachers Training

Mathematics instructional programs should use technology to help all students understand mathematics and should prepare them to use mathematics in an increasingly technological world (NCTM, 1998). To meet this standard, those involved in pre-service teachers' training are challenged to implement innovative, effective technology as part of the mathematics methods class. The author has adopted curriculum/technology alignment model to provide KSU pre-service teachers with five-phases of training in the early childhood and elementary mathematics methods classes. These are: reviewing, exploring, identifying, developing, and teaching.

The training starts with reviewing. Pre-service teachers are guided to review NCTM standards, Georgia's Quality Core Curriculum (QCC) standards and local mathematics curriculum. The review provides them with a global view of mathematics teaching and learning, sequences of math-

ematics taught from kindergarten to the grade five, and mathematics textbook adopted in the schools. With the global view, pre-service teachers are required to observe cooperating teachers' teaching, review the textbook, and get to know about students in the classroom. Working with cooperating teachers and the university supervisor, pre-service teachers select a content from the mathematics curriculum at the assigned grade level, and investigate students in the assigned classroom.

The second phase of training is to explore technology components. Pre-service teachers explore available technology in the school media center, computer lab, and library. They search technology resources from the Internet, examine mathematics software, and preview audio or video and other projected or printed materials. Guided by cooperating teachers and supervised by the university supervisor, they select technology that will enhance their teaching.

The third step is to identify specific instructional objectives. The objective is a specific guideline for a lesson. With training, pre-service teachers are able to state an instructional objective clearly based on their review of the mathematics curriculum, program standards, and available technology resources. In the objective, they should be able to state the instructional goal, learning environment, learning performance, and expectation for evaluation.

The fourth phase of training is to develop curriculum/technology alignment with instructional activities step by step. The coherence of the activities is important. Pre-service teachers may have many creative ideas; however, those ideas should be coherent to and focused on the instructional objective(s). Assisted by cooperating teachers and the university supervisor, pre-service teachers learn to develop instructional activities, become familiar with curriculum/technology alignment model, and design lesson plans with the integration of technology. Finally, pre-service teachers post their teaching plans, including instructional objectives and assessment plan, on the Web database for sharing.

The last phase of training is to teach mathematics in P-5 classrooms with the integration of technology. Early childhood and elementary education majors take the mathematics methods class in their senior year at Kennesaw State University. This training occurs just before student teaching. It includes a ten-week preparation and five-week teaching practice under the supervision of cooperating teachers and university supervisors. With the curriculum/technology alignment, pre-service teachers teach their lessons in the assigned classrooms. After teaching, they can meet with the university supervisor to discuss the effectiveness and weakness of their teaching, and can edit their posting on the WWW if they think there is a need.

Technology for Teachers

This curriculum/technology alignment model has provided pre-service teachers with opportunities to select and preview technology, design lesson plans with the appropriate technology, and teach mathematics using technology in P-5 classrooms. This approach has brought cooperating teachers, pre-service teachers, and university supervisors together to work collaboratively for effective teaching and learning. The technology in pre-service teachers' training is therefore no longer simply the use of computers and projectors in the classrooms. It has gone beyond the use of technology in the classroom for technology itself. Pre-service teachers, in-service teachers and university supervisors have aligned the technology components with the mathematics curriculum in a collaborative effort.

The true value of technology in the integration is the alignment of curriculum. Competency in basic technology skills should be required for pre-service teachers. Obtaining this competency, of course, should not be limited to one or two technology classes in the program, although those classes are helpful, particularly to technologically illiterate and non-traditional students. However, basic technology competency skills must be mastered before they enter the junior and senior years' program. Unless pre-service teachers have mastered these basic skills, they cannot integrate them into unit and lesson planning, and adopt them in the real classrooms. For the 21st century, it is important for us to put more emphasis on curriculum-guided technology training for pre-service teachers. Meanwhile, we must provide teachers with more flexible training modules to meet each individual's needs. Let them see it, do it and implement it.