The TIME Model: Time to Make a Change to Integrate Technology

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Abstract

The purpose of this article is to report the successful creation and implementation of an instructional model designed to assist educators in infusing technology into the curriculum while at the same time create opportunities for faculty to learn, become more proficient, and successful at integrating technology into their own classroom curriculum. The model was successfully tested and implemented with faculty, inservice and preservice teachers at the University of Central Florida (UCF). Faculty, inservice, and preservice teachers were successfully trained to integrate technology using a theme based curriculum with an instructional model called the TIME model which consists of twelve elements that include: Vision, Incentives, Personalization, Awareness, Learning Communities, Action Plan, Research, Development of Modules, Skills, Implementation, Evidence of Change, and Evaluation/Reflection.

Keywords : *Educational technology; Instructional model; TIME model; Faculty training; Preservice teacher training*

Introduction and Background

In the 21st century, there is an expectation that there will be a seamless integration of technology in all phases of our lives, especially in education. No one argues that technology is necessary to our future or that our educators must infuse technology into their subject specific content as they teach in our schools. Research has shown that properly integrated technology by qualified and caring teachers can significantly enhance student learning, increase attendance and graduation rates, improve test scores, and motivate students to want to improve themselves (Schwartz, 1999). Integrating technology within the curriculum facilitates change in instructional techniques and encourages more student centered learning (Robyler, 2003). Unfortunately, the dramatic increase in purchasing technology at many of

our nation's public schools has not improved student achievement. The primary reason is a lack of effective professional development and teacher training (Gunter, 2003).

Instructional models have been introduced to prepare teachers to utilize technology to prepare students for the future. However, many of these models have not lived up to their intended purposes. What seemingly has occurred is that teachers learn isolated skills and lack the experience of a successful hands-on integration model (NCES, 2000). For example, Gunter (2001) reported that teachers could learn and become proficient in MS PowerPoint or other educational software programs but would lack knowledge of how to integrate them into their curriculum. Therefore, even though the teacher may have had technical skills, they still did not integrate technology in their classroom. The lack of technical expertise shown by educators extends from those educators who have just entered the profession to those already in the field. United States Secretary of Education Richard W. Riley noted in a speech, "Teaching and learning that uses technology effectively can lead to greater academic success and make a real difference in the lives of students. Unfortunately, only 20 percent of today's teachers feel very well prepared to use this technology" (Riley, 2000). Gunter (2001) stated, "Many researchers and educators from federal and state agencies, institutions of higher learning, and K-12 schools have been focusing on why technology has not made a difference in the classroom and repeatedly the same conclusion arises—teacher training. Unfortunately, most training initiatives to date have concentrated on how to use technology and not how to integrate technology."
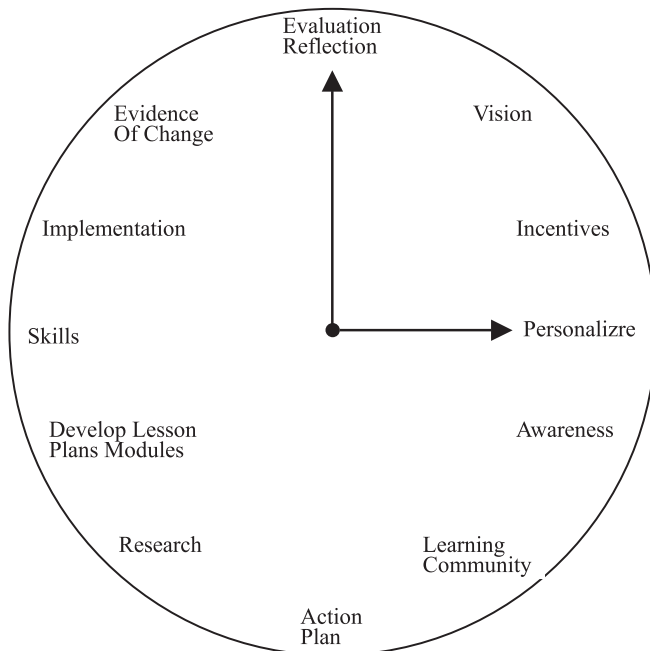
One instructional model that has been successful in planning for school improvement was created by Phlegar and Hurley (1999). They introduced the Authentic Task Approach (ATA), which includes an eight-step problem-solving approach designed to accomplish a task. The eight essential elements include: clarify your task, identify criteria for success, establish ground rules, use data to make decisions, identify relevant resources, schedule activities, reflect, and develop an implementation plan. The success of the ATA model provided the basis for the creation of the TIME model (Time to Make a Change to Integrate Technology) being used at the University of Central Florida (UCF). While the ATA is a systematic way to identify problems, set goals, and enhance school improvement, the TIME model was specifically designed for Tech IMPACT Training to develop technology proficient educators who can infuse technology into the curriculum.

In Summer 2000, UCF, College of Education, was awarded a federally funded grant from the U.S. Department of Education, Preparing Tomorrow's

Teachers to Integrate Technology (PT3) initiative. Tech IMPACT was creat-ed to provide a research-based, content-rich, hands-on technology develop-ment program for educators. Technology proficient teachers should be able to **I**mplement, **M**odel, **P**lan, **A**pply, **C**ontinually use, and **T**each with tech-nology. The UCF plan included the training of College of Education faculty, Arts and Science faculty, preservice teachers, and K-12 teachers to establish a similar technology integration experience at UCF. In order to successfully implement professional development for these groups, the TIME Model was developed as part of Tech IMPACT Training.

The TIME model consists of twelve elements: Vision, Incentives, Personalization, Awareness, Learning Communities, Action Plan, Research, Development of Lesson Plans/Modules, Skills, Implementation, Evidence of Change, and Evaluation/Reflection (Figure 1). The TIME model is used as a guide and the steps are flexible to accommodate the goals of the individual or group. Since individuals will be at different stages of technology profi-ciency, this model can be used for each person to progress through their own journey of technology integration. The model would be used throughout the entire progress and revisited many times through the training and staged of growth. The twelve elements are further delineated in the chart below including questions to consider during each stage.

Figure 1 The TIME Model Consists of Twelve Elements

The TIME Model

Vision	**Use more technology in my teaching. Redesign curriculum to integrate technology appropriately and enhance student learning** Always keep in mind the broad vision. * Why is having a vision important? * At this early stage, what do you think this vision might look like in your classroom? Remember it may be necessary to revisit and/or revise your vision and to later write specific goals to better guide you through the process.
Incentives	**Incentives must be important to the individual.** Identify personal reasons or incentives to further integrate technology into your own teaching. * Why are you attending the Tech IMPACT training? * Why should you change? * What are your own personal incentives for wanting to learn how to include more technology into your curriculum? * What do you need to implement or integrate technology? * What are the barriers to integrating technology into your own teaching? Often this step is overlooked. You must have a reason or incentive to want to make changes in your classroom. Without incentives, changes may not occur at all, or may occur gradually. Therefore, it is essential that you assess your personal and professional incentives for making these changes.
Personalize	**Use curriculum content or themes that you already teach or projects that are meaningful to you.** * What are some of the major themes that are in your curriculum? * How could you enhance those themes through the use of technology? Find a theme into which you could integrate technology.
Awareness	**Experience the overview of Tech IMPACT that is a program that focuses on theme-based integration.** Develop an appreciation of the model. * Now that you have had an overview of the Tech IMPACT Model, why do you think the model been so successful? * What information supports the model? * At this point, how do you think you might apply examples given in the overview to your own teaching (curriculum)? This is an important time to revisit your vision since it may have changed, due to the awareness gained while learning more about Tech IMPACT.
Learning Community	**Find others with similar goals and develop supportive relationships.** Plan ways that members of the group can work together. * Who has similar themes or interests that could be part of your learning community? * What strengths does each person have to contribute to the group? * What conditions, attitudes, and behaviors are essential for a healthy learning community? * What ground rules do you personally need to be a productive member of the group?
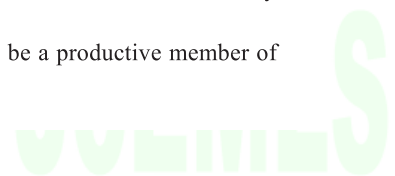
* How will you communicate, interact, and make decisions?

It is essential for each member of the learning community to share his or her needs with the group and reach consensus on the expectations and ground rules for the learning community to be successful.

Action Plan   **Determine modules that will be developed, then determine group goals and clarify tasks of module development teams.**

Determine common goals of the group and agree on a theme. The purpose will be to develop teaching lessons/modules that appropriately integrate technology into what you are already teaching.

* What are the goals of your learning community?
* What are the tasks associated with these goals that your group would work on to accomplish the development of modules/lessons during this process?
* What is the timeline for accomplishing each task?
* Who will be responsible for completing each task?
* What measures will be taken regarding follow-up?

You need to consider how your group will approach the collection of data, assignment of tasks, and initial development of a plan.

Research   **Collect data, find other resources, and analyze data.**

* What resources exist within your group to help you accomplish goals?
* What information and/or resources do you need to help you accomplish goals?

When considering resources, think about people, print or electronic materials, agencies or institutions.

Develop Lesson Plans / Modules   **All members interact, share, support, and complete the lesson plans /modules.**

* What data collected is important and how will it be used?
* What parts of your time line have been completed?
* Does your plan need to be changed or altered to successfully complete the plans/modules?

Use data to make decisions, develop time-lines, clarify tasks, and identify criteria for success. Develop your own rubric for completion of the lesson plan/ modules. Remember to use technology standards as well as your curriculum (sunshine state standards)

Skills   **Develop or enhance technology skills and knowledge during the Tech IMPACT experience.**

* What skills and knowledge have you gained from experiencing the model?
* What skills and knowledge would you like to continue to develop?
* What new skills would you like to learn?
* What would you need to feel confident to implement technology in your own class?

You will find that skills learned for one software application are easily transferred as you experience new applications. This transfer of learning will help by building your confidence.

Implementation   **Apply what you learned from the model and integrate the lesson plans / modules.**

* What processes or procedures are necessary in order to implement the lesson utilizing technology?

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	* What equipment, resources, or support do you need?
	* What backup and adaptations might you need?
	* What preparation or steps must you take to prepare to implement technology in your lesson?
	Develop a checklist for implementing your lesson plan/modules.
Evidence of Change	**Track your work, keep records, and collect student work and artifacts.**
	Documentation and evidence of change should be charted.
	* How will you document technology integration in your lesson plans?
	* What evidence of teacher change will you collect?
	* How will you show an impact on your students due to the changes you have made?
	* What student products might show evidence of progress/change?
	Evidence of change should be reflected in your lesson plans, syllabi, teacher presentations, class assignments, student presentations, etc.
Evaluation / Reflection	**Evaluate and assess your integration.**
	If you were to teach the lesson again consider:
	* Was the technology integration appropriate?
	* What parts of the technology integration would you keep?
	* What things would you change to be more effective?
	* Is there a different technology integration that would enhance the lesson?
	* What other lessons did you learn from the experience?
	* How will you use what you have learned from this experience?
	* What other skills do you need to develop to be more effective?
	Ongoing evaluation and reflection are critical to the success of this model. Some reflection should occur with every step or phase of the process.

Implementation of the TIME Model

The TIME Model was introduced to UCF faculty their first day of Tech IMPACT Training. They were asked to fill out a needs assessment question-naire during the training and complete the TIME Model needs information for implementation and reflection as they integrated technology into their own teaching. Using the Model enabled them to think more clearly and complete the integration with more reflection and success. They would use the model throughout the entire process.

Vision: Use more technology in my teaching

When signing up for the Tech IMPACT training, faculty became more aware and were able to adopt the vision for the grant goals and the training objectives. The goal of the training was for each individual to move along the technology continuum, create a vision, and integrate more technology in their teaching.

One faculty stated, "When I entered the room for the first day of train-ing, I was happy to find 30 other faculty members who also wanted to learn
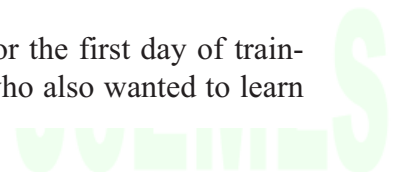
more about technology integration. I felt that I was not alone and I would have others to share this journey." The welcome and introduction informed faculty of the overall mission of the grant in a multimedia presentation. Faculty also were introduced to the *International Society for Technology in Education* (ISTE) National Education Technology Standards (NETS) for Teachers project. This project provides teacher preparation programs with models and examples to follow to make certain that preservice teachers graduate with the necessary skills and knowledge to use and integrate technology effectively for improved student learning (ISTE, 2003). Faculty were shown how even the name Tech IMPACT was a result of the ISTE Standards (Figure 2).

Figure 2 Six National Teacher Technology Standards (ISTE)

	Technology Proficient Teachers:
I	Implement curriculum plans that include methods and strategies for applying technology to maximize student learning
M	Model a sound understanding of technology operations and concepts.
P	Plan and design effective learning environments and experiences supported by technology.
A	Apply technology to facilitate a variety of effective assessment and evaluation strategies.
C	Continually use technology to enhance productivity and professional practice.
T	Teach with the understanding of the social, ethical, legal, and human issues surrounding the use of technology in PK-12 school and apply that understanding to practice.

Incentives: Incentives must be important to the individual

Most faculty wanted to be more up-to-date and prepare their students to use and integrate technology in their own teaching. Many were feeling left behind as they observed fellow faculty members in their use of technology. Some knew they needed to make changes and that they needed to model technology in their own teaching. Many said they wanted to create assignments for students in which they would use technology but just did not know where to start.

Many faculty saw barriers to integrated technology, one faculty stated, "The barriers for me were lack of knowledge, lack of confidence, and I knew that I would need support as I tried to implement new ways of teaching in my classroom. My confidence would soon be built with more awareness, learning new skills, finding ways to bring technology into my own teaching, and most importantly finding that I would have support on this adventure. A technology specialist would help us plan our technology integration and come into our classrooms to assist us with the technology lessons. This would help me bridge the gap until I could become more confident and deliver all of the instruction myself." Another faculty stated, "I

notice my students know more than I do and that makes me feel uncertain and afraid to learn. I know I need to know more and integrate more but I have a lack of many of these technologies."

Many faculty were internally motivated; however, many were very pleased with the external incentives that could be obtained as they could earn professional development stipends. They could use the money to purchase software, hardware, or travel to technology conferences to enhance and further their knowledge or technology integration after completing the initial training. These incentives were disseminated in a very positive fashion, yet faculty were requested to provide evidence of change. Faculty had to show changes in their syllabi, class assignments, and have continual technology skill advancement before they could earn the all three levels of incentives. Many faculty stated this forced them to continue to improve and change.

Personalize: Use curriculum themes that you already teach or projects that are meaningful to you

For most of the faculty this was very important to not totally recreate the wheel and to be able to spend their time working on curriculum materials that they could actually use in their courses. So often at technology workshops, participants learn skills in isolation and the products developed during the training cannot be used in the faculty's own classroom. The faculty already have many teaching strategies and themes that they wanted to continue and redesign. The training had to become personalized to create an authentic learning experience for each faculty member. The faculty's curriculum themes were basically what they already taught and were excellent, but many lacked the integration of technology. They found it enjoyable that they could brainstorm and work on their own curriculum to create positive learning experiences in their classes. Many were unaware of ways to integrate technology; however, by using their own classes and projects they felt they were making progress toward integration and could implement the technology into their teaching by the next semester. Faculty found the time valuable to work on their own teaching strategies which included various educational themes and to think of ways to change their student projects so they could involve technology in the learning process. This training also helped them to think of ways to create learning situations for students to become active learners and create different types of personalized integration projects for students. Facutly looked at two major questions: what are some of the major themes that are in your curriculum and how could you enhance those themes through the use of technology?
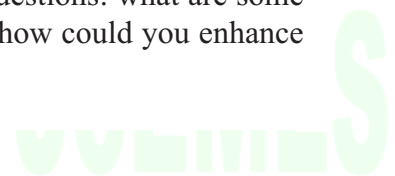
Awareness: Experience the overview of Tech IMPACT, which is a program that focuses on theme-based integration

Faculty experienced a theme-based integration model demonstrated by the Tech IMPACT Team. Right from the beginning, the team modeled appropriate technology integration throughout the training. To start the day, when faculty started their training they entered a room filled with various technology and curriculum tools and a kiosk or slide show set on a timer that advanced every five seconds. The slides gave participants information about the goals of the day, some logistical information about breaks and rules of the room, and suggested Web sites they may want to research. It was explained to faculty that this would be a good teaching tool for their own classroom and could to help their classes to have an organizer of the class activities for students as they entered the room.

Next, the Tech IMPACT team gave information about the grant as well as the model they were using to demonstrate technology integration. This model was based on an environmental theme in which they used ***The Florida Black Bear Curriculum*** that had been developed by the State of Florida. This was a great unit plan but lacked technology integration. The team explained and modeled how you could take existing curriculum and appropriately integrate technology into the delivery. They showed products that were made for ***The Black Bear Curriculum*** using several software programs.

In the training, some of the experiences included:
* how to concept map or brainstorm using Inspiration
* how to search the Internet and effectively use the information
* how to develop a multimedia presentation using MS PowerPoint
* how to develop a newsletter using MS Word or Publisher
* how to develop a Web page using Netscape Composer, MS Publisher or Macromedia's Dreamweaver
* how to develop a trading card, post card, or Venn diagram using Word
* how to integrate math concepts using Excel, GraphClub, and Graph Master
* how to capture and edit video using iMovie
* how to use and integrate a PDA
* how to use centers or stations for students to experience and use various software applications. Faculty experienced worked through centers like students would in a classroom setting. The stations were equipped with Inspirations, TimeLiner, GraphClub, Kidspiration, KidPix, Intel Microscope, etc. The team also modeled for how you might use technology in a classroom with only one computer or only a small number

of computers.

Much of the training was based on developing faculty's awareness of various methods of technology use and integration in the classroom. In addition, they were able to see the resources developed by Intel's Teach to the Future, which is a rich resource binder filled with many modules, Web resources, units plans, materials, assessment tools, examples and much more for faculty to use for integration strategies. UCF is training all of their pre-service teachers (over 700 a year) to use these materials. Most of the software could be used in with any curriculum area and many demonstrations showed faculty the various products that had been developed by other teacher, faculty, and students.

One faculty member stated, "My head was buzzing with new ideas as my awareness increased. Right away I could see some possible applications for my own teaching. I could also see why the model was so successful. They used themes you were already teaching, they gave you an awareness of software applications that could be used with any curriculum and instead of just practicing the software applications — you began right away making products for your own classroom. My own personal vision became much more vivid and stronger as I choose the methods and began developing a plan for my own classroom due to the awareness gained while learning more about Tech IMPACT."

Learning community: Find others with similar goals and develop supportive relationships

In part of the training, faculty were encouraged to form teams or families with similar goals. Many learning communities were formed with faculty in the same discipline area, yet some faculty created cross-curriculum communities. Some faculty that had participated in previous training had encouraged other faculty to go through the training and then asked those faculty to be part of their learning community. This was an excellent asset for collaboration in the college and growth of the faculty. Group activities were developed from the start to get the learning communities working together. Each group had to develop a project and work together. The learning communities were one of the most successful and powerful outcomes of the training. Once faculty stated, "The time I spent interacting with colleagues during Tech IMPACT training sessions was some of the best professional collaboration I've had at UCF. I worked with people I normally do not see on a regular basis and are in disciplines other than language arts. Now I have a strong relationship with the English department faculty based on our Tech IMPACT sessions."
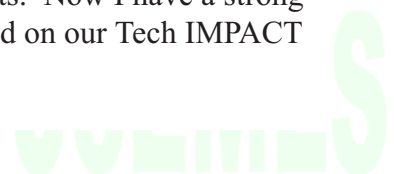
Action plan: Determine modules that will be developed, then determine group goals and clarify tasks of module development teams

In each of the learning communities, faculty had to develop their action plan with group goals and develop lessons/modules based on the overriding themes. In some cases, so there would not be overlap, each group member was assigned a particular area of the curriculum to develop. Many faculty had skills that were beneficial to the group, yet everyone had room for growth. Each group determined a leader and the groups began to develop models with learning objectives, learning task, and activities that integrated technology throughout the curriculum. The collaborations between faculty and across disciplines were phenomenal to witness. Technologies were integrated such as Web resources, scanners, digital cameras, e-mail, CDs, and Alphasmarts so students could create their own projects and reports. Each task had to have a timeline, how the task would be completed, would the student be actively engaged or passively engaged in the learning process and how would the learning be evaluated. Rubrics and other alternative evaluations tools were developed.

Research: Collect data, find other resources, and gather data

The group accessed all types of curriculum materials and then determined what other resources might be needed. Each member of the group then conducted research on their area or assignment to meet the action plan. Much of the new research was on new software applications and Web based informational resources. Depending on their topic, additional people and agencies were contacted to provide information. For the first time, many faculty were given the time and opportunity to explore new resources. One faculty member stated, "collaborating with personnel from the Florida Fish and Wildlife Conservation Commission on the Black Bear units and gathering research was one of the highlights of my Tech IMPACT research experience."

Develop lesson plans/modules: All members interact, share, support, and complete the lesson plans /modules

As the faculty developed their lessons, each were required to provide evidence of change. Each faculty member shared their lesson plans and modules with all the other participants on the last day of training materials were then placed in folders to provide documentation that represented and provided indication of how the faculty had gained and implemented new skills, and integrated technology into their teaching. Most provided syllabi that demonstrated change in their teaching and student assignments.
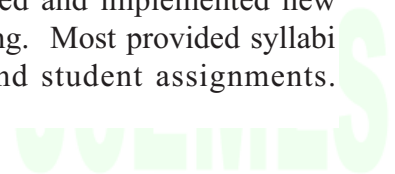
Examples showed that they had not only developed their own skills but were changing teaching strategies and their own expectations of students.

Skills: Develop or enhance technology skills and knowledge during the Tech IMPACT experience

Faculty were excited about new skills learned and even the most knowledgeable technology participants reported learning new ideas for technology integration. One of the most notable outcomes was that many gained skills in other areas and in other disciplines. Collaboration between departments was a real benefit. Faculty who taught Reading where helping faculty that taught technology and visa-versa. Most redesigned class curriculum with integrated technology, which was a great sign of change! One faculty stated that since the training, "Most notably I have filmed, produced, and edited tons of movies for classroom use. For example, last semester I filmed a video on behavior management in a local school that included real world strategies and real kids! It was very effective. I have also made equipment available to students and have taught many to create classroom materials. For the classes, EED 6226 and EED 4210, Teaching the Emotionally Handicapped and the undergraduate version, students were required to create a video as a part of the course requirement." Faculty had to redesign their curriculum to integrate technology appropriately and document those changes. Another stated, "Indirectly I learned about iMovie (or was inspired to look into it!) through my association with Tech IMPACT. I also made great connections with colleagues that helped spur creative uses for tech in the classroom." The technology staff for the college noticed a big change in the scheduling of technology resources and technology labs. In the past, the same people were checking out computers, Alphasmarts, and other devices. After the training they noticed a big difference in the number of faculty checking out equipment. They had seen a 100% increase in laptops, projection systems, mobile labs, and instructional computers being checked out by faculty. Another actual problem that developed that could be considered a good occurrence was that computer labs were being continuously scheduled by faculty that in the past had never used the labs. This was clearly a sign of transformation.

Implementation: Apply what you learned from the model and integrate the lesson plans/modules

Faculty used the TIME model to support integration in their syllabi and lesson plans. They were required to complete forms documenting their goals and scheduled times with one of the technology specialist on the Tech IMPACT Team. The Tech IMPACT team members would meet with the faculty and help them prepare for the instruction in the classroom. At the

beginning, the team members would come to the classroom and assist in the delivery of instruction and technology integration. However, the process was to get the faculty comfortable with the technology so they could integrate and deliver these lessons on their own. Slowly the team would do less delivery and become a support person for faculty. They were always around to support the faculty with technical support, resources, equipment, and the creation of new integration strategies.

Evidence of change: Track your work, keep records, and collect student work and artifacts

As mentioned, file folders were kept on each faculty member; however, many faculty kept records of their own change. On their annual evaluations, it was noted how many faculty had integrated technology, changed teaching strategies, updated their curricula and course activities on their syllabi and updated course activities with new instructional materials. The Tech IMPACT Team wanted faculty to see how much they had changed. Kolzow (2000) stated most people discuss change and develop extravagant plans to change, but most never make it to the implementation phase. In other words, no change takes place. However, this has not been the case with the faculty using this model.

Many faculty have presented at conferences in their field and also technology conferences, some have published articles together and by themselves on their accomplishments and several have provided student work as evidence. One of the most exciting events took place in the Summer of 2002. The Tech IMPACT team and 20 College of Education faculty traveled to the National Educational Computing Conference (NECC) in San Antonio, Texas. Many of the faculty presented on their experiences, change, and integration successes.

One faculty stated, "I am collaborating with three separate entities on a grant to digitize artifacts related to central Florida history. Part of the project involves creating lesson plans for teachers who teach Florida history. The writers of this curriculum studied sample units on the INTEL Teach to the Future CD for format and ideas. As we present the curriculum at conferences in the fall and spring we will create PowerPoint presentations, again using ideas from this resource and my Tech IMPACT training. Last year I co-authored an article on our experiences as a result of the Tech IMPACT training."

## Evaluation/reflection: Evaluate and assess your integration

The faculty response was overwhelmingly positive concerning experiences during the Tech IMPACT training. One faculty sums this feeling up by stating, "I feel very thankful to all those who helped me through the

process and inspired me to integrate technology in my classroom, create technological ties with public school partners, and to publish the outcomes of what I learned through Tech IMPACT."

The days were long and faculty worked very hard. However, the sign of true success is was change continuous and did the faculty continue to change. Did they see changes in how they were teaching and how the students were learning? How have you made an impact on your students and their learning due to the changes you have made? One faculty responded, "How do we ever evaluate the impact of our teaching on the students' learning? Rarely do students return to say, Your teaching changed my learning and eventually my teaching. But I do feel that my integration of technology has enhanced the learning of students. And I fervently hope that this will eventually trickle down to their students. One example might be the ESOL modules created by Educational Studies faculty following the summer 2002 Tech IMPACT training. These modules have made it possible for every student to receive the same ESOL preparation in each of the three foundations classes, EDG 4323, EDF 4214, and EDF 4603." Another faculty stated, "My students expect me to use technology because I require them to use it. We are not talking Power Point presentations. We are talking the use of mathematics based software as a teaching/learning tool. They are expected to be able to use technology to teach new mathematics — not review — not be plug and chug, choke and puke, drill and practice stuff. They have to use the technology to take their students from a point of not knowing to a point of knowing some mathematical concept. The Tech IMPACT material and knowledge I gained helped them accomplish that program goal more dramatically and thoroughly."

Summary

Tech IMPACT has been a very successful professional development model used with college faculty. One surprising finding is that in addition to being used for faculty development, a similar sequence occurs in preparing preservice teachers for the classroom. When faculty are working with preservice teachers in education methods classes where the expectation is for them to develop appropriate lessons for the schools, the TIME model can be used. The faculty must share the vision for that particular lesson; discuss incentives which may be driven by the preservice teacher preparing units for their teaching or by the grade that they may receive in the class; help them personalize to their teaching situation or real-world events; provide information and make preservice teachers more aware as they model appropriate
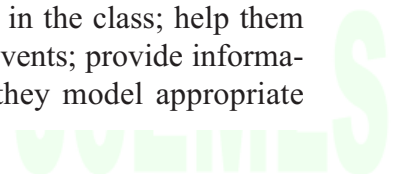
technology integration; provide optimum learning by allowing preservice teachers to form learning communities; allow them time to develop an action plan of how to meet goals and objectives of the class; give them an opportunity to research their assignments or topics; then develop appropriate lessons that they might use in their schools; provide an opportunity to implement the lesson; have them record how they have used their new knowledge and skills; and then evaluate and reflect on their lesson.

In addition, it has been found that the model should be shared at the beginning of the class or workshop and revisited often to gain the full potential of the model. This provides direction and allows participants to focus on the learning process as well as developing useable materials for their own teaching.

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