

## Facilitator's Guide

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### If you are a teacher educator and you want to incorporate this site into your class,

#### 1. What are the purposes of this website?

The three main purposes of the Technology Integration Learning Environment website are:

- To assist with learning how to integrate technology in instructional activities and teacher tasks
- To provide an instructional resource for teacher educators
- To support the case-based reasoning learning process

To understand the background and case-based reasoning (CBR) process, read this document - [Applying Case-Based Reasoning Principles Within A Technology Integration Learning Environment](#) (pdf version)- which will be presented in SITE (Society for Information Technology & Teacher Education) conference 2004.

#### 2. How can I implement the learning website into my teaching?

Introduction and Goals
Technology Standards
Media Selection
Lesson Planning
Assessing Technology Integration Experiences
Creating a Teaching Unit
Summary

The learning environment is composed of several learning modules. The image on the left is the menu bar of the learning environment. The learning environment starts with a basic learning activity and progresses to more sophisticated learning activities including "Creating a Teaching Unit Integrating Technology." If your students do not have any experience related to technology integration, we recommend you use the entire TILE

modules step by step. However, each module focuses on only one topic at a time, and thus it can be easily tailored to fit into your purpose and context.

**3. What are the students' responsibilities to complete activities?**

Each section provides assignment lists which students complete before participating in the discussion and should submit to the instructor.

**4. How long will it take to complete each unit?**

It really depends on your situation. For each unit, students will need to prepare in order to participate in the discussion by reading the suggested articles and visiting some websites and completing the assignments.

**5. How can I implement the discussion activities?**

Each section provides a list of questions for discussion activities. If your class uses an online discussion board, you can post these questions. You can select one or two questions among the list based on your situation. If your class does not use an online discussion board, in-class group discussion would be a good alternative.

**6. How to evaluate?**

Evaluation methods for teacher education courses will typically involve a portfolio containing a technology integration lesson plan, instructional materials, and reflection papers. Our evaluation revolves around two basic outcomes:

- a. Learner can create a solution to an instructional problem that reflects technology standards and effective use of technology within instruction, and
- b. Learner knows how to recall appropriate cases that relate to their current problem, modify, and then apply to solve problem.

Implementation of a technology-integrated lesson will provide valuable feedback regarding how well the lesson was designed, but many students do not have to opportunity or time during the course. An alternative evaluation method is peer evaluation from students within the course. This method allows for further enhancement of skills by analyzing other student lessons, which can lead to additional self-reflection of strategies used in their own lesson plan. Criteria that will be used to evaluate the first outcome are:

- The technology is appropriate for the learner characteristics
- The technology is appropriate for the learning task
- The technology is appropriate for the physical structure of the learning environment
- The technology is appropriate for the delivery of the instruction

- The technology usage meets or exceeds the technology standards

For the second outcome, we can measure the case-based reasoning and problem-solving skills by examining instructional artifacts, reflection exercises, and peer discussions. The instructional artifacts will present the learners final solution to an instructional problem, but it may not reflect an understanding of the reasoning process. Therefore, we must integrate reflection activities throughout the modules so that students can continue to reevaluate their strategies and we can analyze their reasoning process. When the learner retrieves KITE cases and provides a solution, they must provide a rationale for their choices and solution. Table 1 describes the reflection questions that address their case-based reasoning process for the instructional problem.

Student Question	Analysis
How or where was the case retrieved?	It is important to determine if the learner retrieved the case from their memory or searched the KITE database. If the learner retrieved the case from their memory or remembered parts of case they had previously retrieved from the KITE, then the learner reflects retention of problem solutions. Retention leads to the development of technology integration knowledge.
What are the case similarities and differences based on the KITE index terms?	During the comparison process, the learner identifies KITE index terms such as technology used or learning outcomes. The index terms provide a foundation for easier storage and recall of cases.
What case components are applicable to the current problem?	The learner identifies and synthesizes the case components to create the new solution. This represents problem-solving and case-based reasoning skills when the learner applies appropriate components to the current solution.
How does the proposed solution facilitate appropriate technology integration?	The learner applies the criteria from the first evaluation outcome to self-assess their proposed solution. This evaluation aligns the CBR process with the overall outcome of learning how to integrate technology.

Table 1: Evaluation of Student Reflections

Although we want the learner to create solutions that are effective and appropriate, learning also occurs from trying a solution that does not work. In addition, the peer discussions provide an opportunity for students to defend their solution and consider alternative ideas presented by their peers. Thus, student reflections are important activities for determining learners' understanding and if they are applying the CBR process.

### **Guidelines for Discussion Activities**

This course is designed to facilitate learning through readings, relevant activities, and interaction with others in the class. The exchange of ideas among class members is a vital element in maximizing learning outcomes. For this reason, it is critical that everyone participates in discussions. If you are participating in an electronic discussion, please be sure to read and respond to each other in addition to posting your own replies to the topics that will be posed. For those participating in Face-to-face discussions, please try to not only initiate comments, but be sure to voice your opinions about the comments of your peers.

#### **1. Guidelines for Electronic Discussion Board Activities**

While electronic discussion boards are wonderful venues for sharing ideas, the task of participating can become overwhelming due to the volume of postings. The following list provides guidelines to make the most of this tool. Please model your postings after this information:

- The Discussion Board should be accessed at least twice weekly (**one original posting and two meaningful responses are required**).
- Discussion board postings should begin early in the learning unit to allow maximum interaction.
- Please title your initial posting with your own title (in the subject line window). Responding to someone else's post with your initial posting makes it hard to determine what your initial response/posting is. To determine that you have posted your initial response to the discussion board, it is imperative that you use your own title in the subject line window.
- Make your subject lines informative and descriptive. When replying to someone, you may change the subject line to more closely reflect your topic. That will avoid the possible scenario of having 20 replies with "Re: Internet"

as the subject line. Please review, specifically, the section in the scoring criteria on responses to other postings

- Make your postings contribute something of value. Please don't respond just for the sake of responding. Responses such as, "Thanks for the site. This will help a lot." OR "What a great resource! Thanks!" are not meaningful postings. You should examine a new topic from a different perspective, explain issues more in-depth, and/or contribute to the groups overall understanding of the topic being discussed. (It can be frustrating to wait for a message to open, and then find that it contains nothing of substance.)
- Remember that without the communication cues we get when conversing face-to-face, there is a greater chance for misinterpretation. Therefore, choose your words carefully and read what you've written before you submit your posting. Many students find that the online environment enhances the dialogue among students.

## 2. **Guidelines for Face-to-Face Discussion Activities**

Face to face or face-to-face discussions are one of the best methods for sharing knowledge and learning with peers. The non-verbal cues that we are able to observe as we discuss help to make conversations clear and develop relationships with peers as we learn. To take advantage of this benefit, we must all participate in the class discussion activities. Please model your comments after this information:

- Try to make at least one original comment and two replies in each class discussion.
- Make your comments contribute something of value. It is not considered a response if you simply say "I agree"; try to extend the conversation by asking questions, suggesting different solutions, further explaining a topic, disagreeing with an opinion, etc.

## 3. **Discussion Activities Scoring Criteria**

- MEANINGFUL AND NEW IDEAS  
Ideas examine topic from new perspective that contributes to group understanding of topic.

- MESSAGE/COMMENTS COHERENCE  
Messages/comments explain issues, provide new perspectives, effectively question, and/or meaningfully elaborate on topic.
- RELEVANCE OF REPLIES TO OTHER MESSAGES/COMMENTS  
Responses elaborate, contradict, modify, and/or explain the original message/comment.
- LOGISTICS OF POSTING - only applicable to electronic discussions  
Messages are posted in a timely manner.

### **What is the Knowledge Innovation for Technology in Education (KITE)?**

The Knowledge Innovation for Technology in Education (KITE) project, funded by a PT3 (Preparing Tomorrow's Teachers to Use Technology) grant from the U.S. Department of Education, seeks to assist teachers in learning how to integrate technology into their teaching by presenting cases containing technology integration stories collected from other teachers.

The KITE case library is a knowledge repository with nearly 1000 stories or cases describing the real-life experiences of in-service teachers as they integrate technology into their teaching. KITE provides a wealth of knowledge that can be readily accessed.