

## **Workshop on Integrating Technology**

### ***Instructional Analysis***

In order to conduct the workshops, a proper instructional analysis needs to be preformed. What is known for these workshops is that there will be four one-hour workshops for 20 teacher or instructors. The teachers are very knowledgeable in their subject area of teaching but lack free time to learn new information about technology outside of the workshop environment. This means that their skill level using the computer is unknown as well as their literacy in integrating technology. However, their goal is to learn how to better integrate technology into their instruction.

With this information in mind, the task is now to determine what is needed in order to complete the workshops. The types of information that need to be considered are the learning context, the participants, and the learning tasks. Based on this information, the pieces of the project will be developed and further expanded.

The first piece of information is to determine what are the needs and what is the learning environment. The overall needs for these workshops are already stated in that the participants will be learning how to integrate technology into the classroom. However the learning environment is currently an unknown. It would be best if the workshops could take place in a computer lab. If this is the case, then the question is to determine how many computers there are, projectors, software available, etc.

The second piece of information is to find out more about the participants. What are the characteristics of the learners and how could the characteristics impact the proposed design.

This information can be found by using two different procedures. The first procedure would be for the learning environment. This would simply involve determining if a computer lab is available and asking what is on the computers. If a computer lab is not available, then a suitable classroom will need to be reserved with a computer hooked up to a projector.

The second procedure would involve doing an anonymous survey of the faculty participants on the computer skills and technology integration. I recommend using a tool such as SurveyGizmo (<http://www.surveygizmo.com>) to conduct this survey. The tool is free, easy to use, and if the survey is developed appropriately, it will be quick for the faculty participants to do.

The learning tasks are the last piece of information that will come from an analysis of the information gathered. Depending on the classroom situation, the learning type will be a mix of lecture with open-ended activities designed to stimulate the faculty participant's interests. The skill level of the participants will influence the prerequisites for the workshops as well as the objectives for the workshop. One cannot set an objective for a workshop to be advanced if their participants are still at a more basic level.

## ***Timeline***

### **Analysis Phase**

- Conduct faculty survey on computer skills and technology integration
- Investigate computer lab facilities
- Book workshop dates in computer lab or classroom
- Analyze faculty survey

### **Design**

- Select method of delivery
- Select method of assessment
- Select method of formative evaluation

### **Develop**

- Create content for workshop
- Create assessment
- Create formative evaluation questions

### **Implement**

- Conduct workshop

### **Evaluate**

- Conduct post workshop interviews
- Analyze feedback from faculty participants
- Analyze instructor experience

## ***Instructional and Learning Strategies***

The instructional strategy selected for the workshop is a combination of directed-learning as well as open-ended learning. Depending on the level of computer skill, selected methods of integrating technology will be modeled by the instructor. Information will be broken down into manageable parts for the instructors to see. However, unlike directed-learning, activities will be designed

to simulate the learner's personal connection to their subject area of expertise. Actives will be setup for the learner to explore the information presented and create their own technology infused material. Allowing faculty to design their own material based on their subject area, it should help provide faculty a greater comfort with using technology.

### ***Assessment***

The assessment for the workshop will be through observation as well as performance based assessment. Throughout the workshop the instructor will observe the faculty participants as they participate in the open-ended activities. The final workshop will involve volunteer participants showing what they have created and discussing what they have learned. This type of assessment is a performance-based assessment of the participant. The assessment involves an evaluation of the quality of the work produced during the workshop.

### ***Media Selection***

Factors that should be considered are the attitudes, learning styles, and prior knowledge held by faculty members. The attitude of a faculty participant can greatly affect how the workshop will go. One must be ready to receive resistance to change. However not all faculty, have bad attitudes toward technology, some embrace it. Much can also be said about the prior knowledge held by the participants. This will greatly impact the workshop and media selection. The greatest impact to media selection is the different learning styles faculty holds.

However, computer assisted instruction should be incorporated based on the learning styles and prior knowledge the faculty participants possess.

Computer assisted instruction can greatly enhance instruction and provide those with different learning styles a more universal experience. It can make the material more appealing to a wider audience in order to overcome any resistance from attitudes faculty hold.

### ***Formative Evaluation***

The formative evaluation will be modeled after the Smith and Ragan approach (1999) where the evaluation is conducted over four stages. These stages are the design review, expert review, learner validation, and ongoing evaluation. Depending on the stage, individuals involved will range from instructional designers, content experts, or learners.

The first stage is the design review where the accuracy of the information is evaluated after each stage of the instructional design. The second stage is the expert review. Content experts review drafts of the instructional material and provide feedback. Both of these stages will involve the instructional designer as well as content experts. The time needed for each evaluation will vary depending on the stage. The design review stage should take less time per section than the expert review.

In learner validation stage, learners provide feedback within small groups or one on one. This stage will involve the instructional designer gathering feedback from learner participants from observation or interview. The instructor should observe the learners for the duration of the one-hour workshop. Notes

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should be take during or immediately following the workshop. Interviews should be conducted on a sample of the learners and should take no longer than a half hour to an hour. The materials needed should only be pen, paper, and a computer to compile the notes.

The final stage is ongoing evaluation. This stage collects data on the effectiveness of the instruction. The notes from the observations as well as interviews should be organized to review over time. This will allow the instructional designer to determine the effectiveness of the instruction.