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Educational Report for 5243 Instructional Design Theories and Models Project

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Abstract

The Introduction to Technology Workshop project involved two parts, the development of an original instructional design model and the development of a lesson using the model. The ICEE model was developed based on constructivist ideas overlaid onto a Hannafin Peck-like process. The instructional design goal for the Introduction to Technology Workshop is for the learners to be able to grasp the underlying patterns and similarities of how current software interfaces are designed, how to exploit or transfer those commonalities when faced with learning a new software application, and how to discover further answers on their own based on what they already know. The workshop creates a learning situation in which the learner is in a sense unaware of the complete scope of the learning that is occurring. The Educational Technology standards demonstrated in this project are development, management, and evaluation.

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Project Description

This project involved two parts, the development of an original instructional design model and the development of a lesson using the model. The model developed was based on constructivist ideas overlaid onto a Hannafin Peck-like process (Hannafin 1988).

Phase one is *Investigation*. Before a commitment to teaching a workshop on a given subject is made, a progressive investigation should be performed. An instructor should always make sure there is a reason to build a workshop. Following the decision to go ahead with the workshop, an investigation of barriers to overcome should be performed.

Phase two is *Creation*. The creation phase will encompass the bulk of the time spent on the workshop design. Micro-scripts will be identified and utilized for the planning of the tasks to show the learners the similarities mentioned in the instructional goals. Based upon the skill level determined, the difficulty of the tasks should be adjusted.

Phase three is *Evaluation*. Traditional evaluation methods, such as exams, are not revealing or can lead to confusion in constructivist learning situations. Since it would be necessary to make justifications for time and money invested in the workshops by the sponsoring department, some sort of worthwhile evaluation must show that useful learning occurred. Evaluation methods that are congruent with constructivist learning must be chosen.

Phase four is *Emendation*. Based on the evaluations performed over time, modifications to the investigation and creation phases could be made. If changes in

the learners occur, the evaluation should show that change. In response to that change, existing micro-scripts and tasks could be retargeted. Additionally, if the evaluation shows that the micro-scripts and tasks are not helping the learners with the stated goal, the adjustments can be made for the next workshop.

In addition to the creation of the model, an instructional workshop was built using the model as a guide. The workshop's goal was to create an instructional environment where people can learn the similarities between common applications and use the knowledge of those similarities to be more confident and capable in future situations when confronted with new applications. Short tasks and micro-scripts were devised to help the learners attain the goal.

Program Identification

This project demonstrated the standards of development, management, and evaluation. The instructional material for this lesson was not developed for the usual printed or computer-based visual aids. One of the goals for this lesson was to teach the similarities among a number of common software applications and thereby instill greater confidence when confronting an unknown application. The primary materials for this lesson were the latent abilities within the students. They must have some basic computer knowledge from which to work.

The linchpin of the lesson rested with the ability of the facilitator to draw connections, help the students learn how to help themselves, and instill confidence in their own abilities. This was accomplished primarily by creating "need-to-know" scenarios and offering hints until the students saw the commonalities and could facilitate their own success.

To aid the instructor, there were several handouts that contained discussion topics and micro-tasks (need-to-know scenarios) to assist with the lesson.

This lesson also showed the standard of management. The lesson was planned and organized to comply with the developed ICEE instructional design model. The number of resources necessary for the development of the project included time, application knowledge and proper material development. Also, it was necessary for the success of the workshop for the facilitator to know the subject matter thoroughly enough to manage the time in the workshop effectively and manage their individual preparation time to know when it was sufficient.

Different methods of evaluation were also demonstrated. During the lesson there would be the possibility for constant feedback by watching the students' faces and answering questions. Also, at the end of the lesson there would be a discussion (with prompts by the facilitator) of the methods that the students found helpful in the workshop and how those methods will help them to continue to develop ways of discovering information. There is a handout for the facilitator that has questions to help with the final discussion.

Since most of the learning in the workshop is task orientated, the students will be given a "real world task" to complete. It combines previously known material with newly learned tasks, and they should be able to complete it in a relatively short time. Additionally, an anonymous follow-up email survey sent two weeks after the workshop, that would ask questions and for suggestions and comments. Success of the workshop might not be revealed in the completion, but later when the learners' used the knowledge gained to have confidence and find their own answers.

All of the stated evaluation methods can be fed through phase three of ICEE to make sure that the lesson is fulfilling its goal.

Educational Reflection

This project reinforced my personal belief that constructivist learning leads to better comprehension and retention. Imagine this lesson taught by memorization. The students could memorize the contents of the File menus in Photoshop, Dreamweaver, etc., and that could help them for as long as they remember. However, learning the patterns and the context of the grouping would be much more useful. With the advent of the Internet and the World Wide Web, the “what” of any question can be known in seconds; the problem now begins with how to ask the question. That is where learning how to learn becomes the door to the greater comprehension of how all of those previously memorized facts fit together.

After studying several different learning theories in the class, I understand that different methods work for different types of people. This lesson was designed for adults with some basic computer experience but lacking in confidence. The informal setting of a workshop led by a subject matter expert establishes credibility for the instructor and comfort for the learners. Discussions and short tasks work as opposed to lecture or research papers. The lesson is just as much a pep-talk as it is instructive.

In this class I learned to tailor instruction to the student and the value of evaluating instructional success.

Resources

Hannafin, M. & Peck, K. (1988). *The Design, Development, and Evaluation of Instructional Software*. Macmillan Publishing, New York.