Reflections on the Learning Theories in the Instructional Design Process
for the Utah Valley University Digital Media Portfolio

Review Acceptance Program

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The Digital Media Department at Utah Valley University will be moving to a new curriculum change for the 2012-2013 catalog year. This new change includes the Portfolio Review Acceptance Program. We have determined that instruction will be needed to explain this program. The instructional goal is to teach new undergraduate Utah Valley University Digital Media students about the Portfolio Review Acceptance Program. They will attend a face-to-face orientation meeting and receive a brochure explaining the process. There will be an online tutorial to supplement this meeting.

According to Merrill’s Component Display Theory, objectives are classified into two dimensions. The first is facts, concepts, procedures, and/or principles. The second is performance which is remember, use, and find (Merrill, 1983). These three levels of performance correspond to Gagne’s three cognitive domains: verbal information, intellectual skills, and cognitive strategies.

The first domain of learning for this instructional goal is psychomotor skills. We will ask the students to complete a computerized online tutorial about the Portfolio Review Acceptance Program on a computer where students will execute a physical action. The second domain of learning for this instructional goal is verbal information. We will ask the students to describe the Portfolio Review Acceptance Program. They will read a demonstration about the process and store the memory in order to answer the questions at the end of the tutorial. This will be specific responses to specific questions. The third domain of learning for this instructional goal is intellectual skills. We will ask the students to identify examples of the Portfolio Review
Acceptance Process. These learning concepts will be the steps of the Portfolio Review Acceptance Program and they should be able to describe each step. The concepts are combined to form rules. The fourth domain of learning is cognitive strategies. We will demonstrate and review the Portfolio Review Acceptance Program so the students will remember and apply new information. The meta processes used to manage our thinking skills and our own learning will be applied (Dick, Carey, & Carey, 2009).

Elaboration Theory Model

Procedural Epitome for learning the Portfolio Review Acceptance process

1. **Organizing content (procedures).** There are four major steps in the Portfolio Review Acceptance process.
   a. Register and complete lower division 1000 and 2000 level digital media courses. Students will need to obtain B- grades or higher. Because this is a very competitive field, grades will be very important.
   b. Compile a digital portfolio. This will be digital copies of the work on each project in the lower division courses. Google search “electronic portfolio” for examples. One example is: [http://mahara.org](http://mahara.org)
   c. Write a letter of intent and turn both the letter and the portfolio into the Digital Media Department for review. This will be the formal application for the Portfolio Review Acceptance Program.
   d. After the student has been accepted into the program, they will be able to enroll in upper division 3000 and 4000 level courses to obtain a Bachelor of Science degree.

2. **Supporting content—Concepts necessary for performing the procedures.**
   - Reading Skills
Content Elaboration on the Procedural Epitome

1. Organizing content (procedures).
   a. Procedures for identifying projects for the portfolio: completed labs, and final projects. Save all projects on a flash drive or external hard drive.
   b. Procedures for combining elements into an organized portfolio.
      • Reading skills, study skills, writing skills, computer skills, organizational skills
      • Letter of intent, digital copies of work

2. Supporting content.
   a. Concepts: Reading skills, study skills writing skills, computer skills, organizational skills, letter of intent, digital copies of work.
   b. Procedure: Combine all the concepts and completed projects into a digital media portfolio

   a. We will review each of the concepts taught so far and what is required for the Portfolio Review Acceptance Program. We will use a concise statement of each concept and step that has been taught. Questions will be encouraged and we will summarize all the steps in these statements.
4. **Synthesizer.**
   a. We will show a flow chart to depict the Portfolio Review Acceptance process in each emphasis which is a visual example of courses being taught. This will show the relationship between each course in the process. This flow chart will diagram the Portfolio Review Acceptance Program for each emphasis.

5. **Analogy.**
   a. The steps to complete the Portfolio Review Acceptance Program could be similar to an office building with workers in different offices. Each worker has a task and duty to perform and it is all dependent upon each other to complete the whole thing. For example one worker receives a piece of mail that requires a task, once this task is completed; the next worker completes another task building upon the prior worker’s task and so on until the whole office has completed the entire job. This analogy can be a cognitive strategy to help the students remember the steps in the Portfolio Review Acceptance Program (Reigeluth, 1983).

   The cognitive flexibility theory will be represented in the instructional design of the Portfolio Review Acceptance Program. This theory states that individuals learn and grasp complex information if it is presented with multiple representations of the same information in varying contexts. The instruction designed shows the steps in the process both visual and auditory. The online tutorial is designed with both visual learning and auditory with the speech to text function (Spiro, Feltovich, Jacobson, & Coulson, 1992). We will keep the instruction simple in order to keep the students engaged without a heavy cognitive load. Cognitive load theory can be summarized as follows: The learning mechanisms, schema acquisition and automation,
reduce the burden on working memory by emphasizing long-term memory (Sweller & Chandler, 1994).

In summary, my instructional design project uses several theories to explain the design process. They are the component display theory, elaboration theory, cognitive flexibility theory, and cognitive load theory. I have learned that using these theories in the design process has helped me implement my project and I believe it will meet the needs of my learners. Applying these theories to the instructional design has helped me to evaluate each component for functionality and whether or not the instructional goals are met.
References


