# The Domain of Utilization

The domain of utilization is one of the oldest domains. Its systematic process of implementation has been used since the 1920's with the integration of media centers in the school systems. It has grown and transformed with the explosion of media formats. The domain of utilization is concerned with implementing the project into a real world context. In order to effectively implement a project, an instructional designer has many factors to consider. First, the instructional designer must evaluate the project prior to deploying. Then, he/she must consider how one will effectively implement the project. The instructional designer must have a diffusion or change management plan. Within the diffusion plan the instructional designer uses a variety of strategies to create awareness, develop interest, allow for evaluation, promote trialability, and finally increase adoption (Havelock, 1985).

Utilization addresses the interface between the learner and the instructional material or system. It consists of a wide range of activities and teaching strategies. The instructional designer engaged in the domain of utilization is concerned with matching learners with specific activities and materials. During the utilization process, the learners are prepared for interacting with the selected materials and activities and are provided with guidance (Seels & Richey, 1994). Utilization is comprised of four subcategories: media utilization, diffusion of innovations, implementation and institutionalization, and policies and regulations.

## Media Utilization

Media Utilization is the *"systematic use of resources for learning"* (Seels & Richey, 1994, p. 46). Media selection decision is influenced by the type of learning desired and based on learner characteristics. In other words, the type of learning outcomes (knowledge, skills and attitude), learners' literacy level and technology skills along with cultural background and learning and cognitive styles are all important factors in Media selection. One of the models that is widely used by instructional designers/technologists to select a proper media is called ASSURE. The ASSURE model proposes a systematic approach to selecting proper media. The components of the ASSURE model are:

***A**nalyze Learners*
***S**tate Objectives*
***S**elect Instructional Methods, Media, and Materials*
***U**tilize Material and Media*
***R**equire Learner Participation*
***E**valuate and Revise*

The ASSURE model incorporates Gagne's Events of Instruction to include effective use of media in instruction (Heinich, Molenda, Russell, Smaldino, 1999). The ASSURE model uses learner analysis and learning outcomes to assist with the decision making process of identifying the most appropriate media

to meet the student's learning outcomes. The media should be the most appropriate to work with the instructor's approach, the objectives, and the students.

There are many models to assist with the decision making process of identifying the most appropriate media for delivery such as the Air Force Model and Bates' ACTIONS model. The Air Force Model judges the effectiveness of certain criteria to guide the decision making process. The criteria are: developmental effort, convenience of instruction, student motivation, equipment/support requirements, instructional requirements, level of interactivity, feedback capability, ease of revision, ease of use, and versatility. By using the criteria to compare and contrast media alternatives, one is able to make an informed decision on media selection (AFH 36-2235).

Tony Bates' ACTIONS model focuses on media selection in terms of current technology. This model addresses some of the common concerns such as media availability, cost of the media, and the rate at which the current technology becomes obsolete.

**A**ccess
**C**osts
**Te**aching and Learning
**I**nteractivity and user-friendliness
**O**rganizational Issues
**N**ovelty
**S**peed

Seels and Glasgow (1999) use a flowchart to narrow down the media choices. First, learner characteristics need to be identified followed with identifying the group size, along with any constraints and resources. Finally, determine the delivery system.

## Diffusion of Innovation

This sub-domain is largely concerned with bringing about change. Since a majority of technology projects or products are essentially trying to implement change or increase the rate of adoption of an innovation or product, diffusion of innovation can mark the success or failure of a project.

Individuals do not adopt an innovation or idea all at once, but over time. Everett M. Rogers *Diffusion of Innovation* has stated that there are five adopter categories:

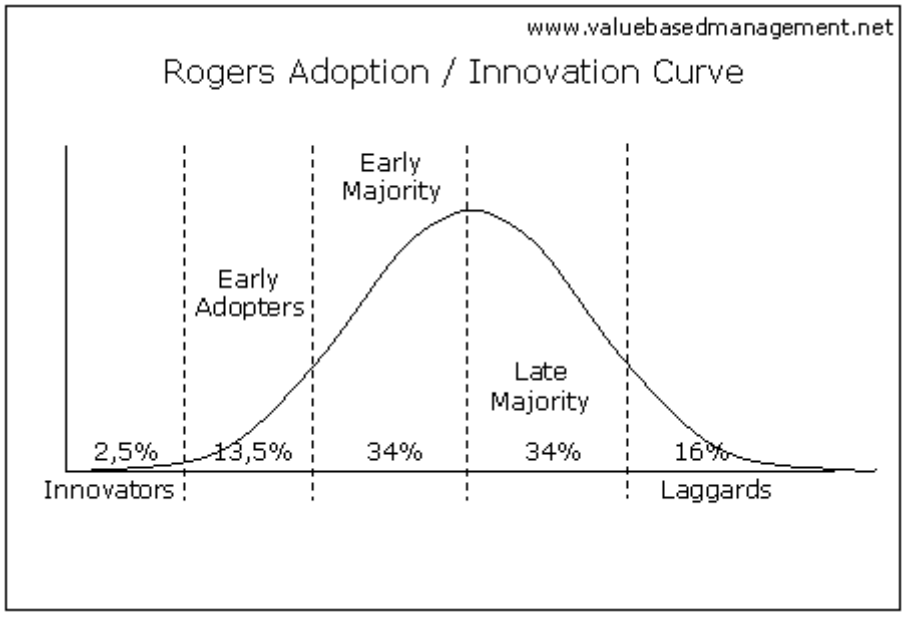


Figure 1 – http://www.valuebasedmanagement.net

In his Diffusion of Innovation theory, Rogers (1995) indicates that the rate of adoption of an innovation is based on five attributes: relative advantage, compatibility, complexity, trialability, and observability. Relative advantage is the degree to which the individual perceives the innovation as advantageous. This can be in terms of economic, social prestige, or convenience. Compatibility is the degree to which the innovation is perceived as being consistent with the values and needs of the individuals. Complexity is the degree of difficulty as perceived by the potential adopters. Trialability is the degree that the innovation may be experimented with on a limited basis. Observability is the degree the results are visible to others (Rogers, 1995). Figure 2 As Figure 2 shows, these characteristics influence the rate of adoption. Innovations that are perceived by individuals with high relative advantage, compatibility, trialability, observability, and low complexity may be adopted more rapidly than other innovations.

Understanding the process of the diffusion of innovation is essential to implementing a new innovation into a system whether it is a micro or macro system. Instructional designers need to consider what the innovation is, the media they plan on using to diffuse the innovation, the best time to implement the change, and timeline for the change, along with understanding the culture the innovation targets.

## Implementation and Institutionalization

This sub-domain emphasizes the importance of planning for change. "*Implementation is using instructional materials or strategies in real (not simulated) settings."* (Seels & Richey, 1994, p. 47). Implementation is to ensure proper use of a change by individuals in an organization. The instructional designer should develop a plan for effective implementation. The implementation plan considers the organization and the people that will be affected. This ensures that the innovation will be properly integrated into the organization. For example, the instructional designer needs to plan a timeline and consider resources and constraints for implementation of on innovation into an organization while at the same time develop a plan for individual change. When planning for individual change, the

instructional designer needs to consider the motivation of the adopters. If the adopters are not motivated, the plan would address this issue.

Once implementation has been achieved, one more decision must be made: Is this innovation something we want to continue for the immediate future? Thus, "*Institutionalization is the continuing, routine use of the instructional innovation in the structure and culture of an organization* (Seels & Richey, 1994, p. 47). Once the instructional designer effectively integrates a new project or idea into the system and there is evidence that the new project or idea is utilized on a regular basis, it has been institutionalized. It is at this point that the instructional designer conducts a summative evaluation to ensure that the project was effective.

## Policies and Regulations

*"Policies and regulations are the rules and actions of society (or its surrogates) that affect the diffusion and use of Instructional Technology"* (Seels & Richey, 1994, p.47). An instructional technologist must be aware of the laws and regulations that govern the specific area where they may be working. Some examples of policies and regulations are copyright law, or state policies for educational curriculums such as Section 508. The instructional designer also must be aware of the possible development of laws and policies when implementing a new idea or innovation. One example would be implementing the use of the Internet in the classroom. With the diffusion of this innovation, policies would have to be developed to regulate appropriate use within the classroom.