

## The Domain of Utilization

Media Utilization • Diffusion of Innovations • Implementation & Institutionalization • Policies & Regulations

Utilization, to some, may sound the easy part of an instructional project, but it is actually the hardest part. People who have tried to diffuse an innovation have almost invariably encountered resistance from potential users. To get an innovation utilized successfully as designed depends on not only quality of it but also the strategy or technique of those who engage in utilization. Some people who engage in utilization can make a poorly developed program work well and a well developed program work great. Of course, some people can make neither work. Within the domain, practitioners are responsible for matching learners with specific materials and activities, preparing learners for interacting with the selected materials and activities, providing guidance during engagement, providing for assessment of the results, and incorporating this usage into the continuing procedures of the organization. Among these responsibilities involves a wide range of activities and in the domain of utilization. It consists of four sub-domains: media utilization, diffusion of innovations, implementation & institutionalization, and policies & regulations (Seels & Richey, 1994).

### Media Utilization

Media utilization is the “systematic use of resources for learning” (Seels & Richey, 1994, p. 46). The definition indicates that media utilization encompasses two major components: examining media and utilizing media. Prior to utilizing media, practitioners should examine media that have specified in the design and development phase in the following aspects:

- (1) accessibility and conditions,
- (2) integration and compatibility,
- (3) comfort with learners,
- (4) special requirements and constraints, and
- (5) cost.

Sometimes, in the process there is a need to produce the new or alternative media such as instructional materials, software, and so on. For an experienced practitioner, an alternative plan will be developed in case any of media fails accidentally. Regarding to utilizing media, there are a number of models for practitioners' use. Utilizing media usually doesn't occur until selecting media is completed. They constitute chain events in the instructional system development so media selection models that explained previously are also appropriate for guiding how to utilize media.

Media utilization is a key step for ensuring that diffusion of innovations and implementation & institutionalization happen smoothly.

### Diffusion of Innovations

Innovation is something that is perceived as new by individual or community, such as an idea, practice, or product. How to get the innovation to be used fully by potential users is the major task of the phase-diffusion of innovations. Diffusion of innovations is the process by which an innovation is communicated through certain channels over time among the members of a

social system (Rogers, 1995). From the definition, it can be seen that there are four distinct elements that affect the process of diffusion: innovation, communication, time, and social system.

**An innovation's** effectiveness and efficiency is not correlated directly with the likelihood of being adopted and used. When trying to diffuse an innovation, practitioners need to know about characteristics of it and the way the potential users perceive that it will influence them personally, and then combine them effectively. There are five characteristics that determine an innovation's rate of adoption. These are (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability and (5) observability (Rogers, 2005).

**Communication** is an avenue of combining them. Mass media communication and personnel communication are the two major ways to combine them to improve the diffusion of innovation. Mass media communication refers to disseminate messages through a mass medium such as radio, television, the Internet, or print media. Interpersonal communication is defined as "a face-to-face exchange between two or more individuals" (Rogers, 1995, p. 17). Mass media communication can reach a wider range of potential users; on the other hand interpersonal communication may be more effective in positively affecting adoption of innovations. The decision to use them separately or together depends on the phase of diffusion as well as organization itself. In the initial phase, interpersonal communication may be more appropriate for gaining innovators and early adopters; after this phase, to gain the majority of adopter, I think, the combination use of interpersonal communication and mass media communication is desirable for increasing the speed of diffusion. The way can affect the early majority and late majority internally and externally at one time. In the late phase, mass media communication I believe is enough. In addition, if an innovation is imperative in the organization, then mass media communication plus pressure from the organization is the more effective way of diffusing it quickly.

**Time** influences diffusion of an innovation through the innovation-decision process of the potential users. According to Roger's (1995) model (See figure 3), the innovation-decision process consists of the five stages of potential users from first knowledge of an innovation to full use of it:

- (1) knowledge (get a rough idea of purpose and functions of it),
- (2) persuasion (form a favorable or unfavorable attitude),
- (3) decision (commit to adopt or reject it),
- (4) implementation (put it into practice), and
- (5) confirmation (test and use it ultimately).

In the above each step, time that is spent on individual potential user is different. To carry out the process efficiently and effectively, Rogers (1995) groups individual potential users into five adopter categories based on the innovation adoption rate: innovators, early adopters, early majority, late majority and laggards. The innovators are the ones who launch the new idea in the system, making up 2.5% of a system. They will adopt new ideas most quickly. The early adopters, 13.5% of the system, refer to opinion leaders that are respected by other members in the system. They are the key to the success of diffusion of an innovation. The instructional designer as a change agent should focus on drawing on these individuals to move the diffusion process towards critical mass. In one sense, the early adopters put their stamp of

approval on a new idea by adopting it. The early majority (34%) will take a longer innovation-decision process than the innovators and the early adopter do with their deliberation. But they will gradually fall in line with the early adopters, constituting an important link in the diffusion process. The late majority (34%) are skeptical and cautious about the innovation. Usually they adopt the innovation from an economic necessity and the increasing peer pressures. The last in the system to adopt an innovation is the laggard (16%). The laggard tends to be suspicious of the innovation and of the change agent. Their innovation-decision process is lengthy.

**Social system** refers to the networked environment that affects the process of diffusing. It includes social structure, system norms, opinion leaders and change agents, types of innovation decisions, and the consequences of decisions. Of them, opinion leaders and change agents, and types of innovation decisions are relatively more variable. Opinion leaders and change agents are a key to build interconnected interpersonal network in a social system through which an individual will be more innovative in adopting the innovation. In addition, types of innovation decisions influence the innovation-decision of potential users. Rogers (1995) describes three types of innovation decisions: optional innovation decisions, collective/group innovation decisions, and authority innovation decisions.

### **Implementation and Institutionalization**

Implementation and institutionalization is kind of equivalent to two steps in the innovation-decision process: implementation and confirmation. Implementation is the wide utilization of the developed instructional materials or product in real settings, and while institutionalization is "the continuing, routine use of the instructional innovation in the structure and culture of an organization" (Seels and Richey, 1994, p. 47). They are interrelated to a continuous process. During the process practitioners need to intervene user-related training and other follow-up support for proper use and routine use.

### **Policies and Regulations**

Policies and procedures refer to the rules and actions of an organization system that affect the diffusion and utilization of an innovation. There is an overlap with social system mentioned above such as system structure, system norm. To accomplish utilization of an innovation, relevant policies and regulations should be incorporated into the process of diffusion, implementation and institutionalization. Practitioners need to not only be familiar with existing policies and regulations of an organization but also make sure that conditions and procedures related to utilizing an innovation as intended are compatible with them. This step is important because its results are to determine whether new policies and regulations on utilization of the innovation are developed and implemented. In addition, practitioners should realize that policies and procedures include adherence to copyright law, relevant standards and compliance with the Acts involved in the field.

As stated above, among the domain of utilization involve a wide range of activities, programs, personnel, time, social system, facilities, policies and regulations. Organizing, coordinating, and monitoring these events become an important task of the domain of **management**.