Learning Theories and GDLN Program Design Principles

In Paper 4 various blending options and opportunities for meeting learning challenges in specific learning situations were discussed. This section will explore pedagogical aspects of GDLN program design, and will offer some basic guidelines and principles.

Major learning theories and implications for instructional design

Instructional Designers (ID) view each request for assistance as a unique situation and make design decisions keeping learning theory in mind. There are many learning theories that study and explain how people learn from different perspectives. The behavior, cognitive and constructivist models are major learning theories that help us understand how learning happens and under what conditions. Another learning theory highly relevant to GDLN program design is adult learning theory, which deals with how adults learn by describing adult learner characteristics.

Behaviorists such as Pavlov, Thorndike, Watson and Skinner focused on the study of overt behavior that can be observed and measured. They defined learning as a change in behavior. Training became a primary means of changing behavior and improving job performance. Ralph Tyler's (1949) basic principles of curriculum and instruction have been adopted by teachers and trainers and include: definition of specific goals and objectives based on task analysis, description of content and learning activities, and evaluation. Behaviorism's strongest influence on instructional design is the inclusion of behavioral objectives in training and learning activities.

The cognitive model focuses on brain activity that processes and structures information and how an understanding of these processes can be used to promote learning. Instructional design implications of the cognitive model differ little from the behavioral model for objectives are defined and learning progress measured later. The differences in the two models are that in the cognitive approach the emphasis is on the learner and not on the analysis of tasks and there is a focus on how to connect and integrate new knowledge with that acquired earlier by sequencing and organizing learning content, and pursuing means of enhancing learner attention, memory and knowledge structure.

The constructivist model sees learning as making sense of experience or of a search for meaning. Learners make personal interpretation of the world around them through experience and reflection. The instructional design associated with this model provides a learning environment that focuses more on the search for knowledge rather than knowledge itself. Learning programs using this model often contain case studies and field trips and foster reflection and collaborative knowledge sharing that enable the learners to add to their store of knowledge.

Adult learning theory assumes that "…as a person matures (a) his self-concept moves from one of being a dependent personality toward one of being a self-directing human being; (b) he accumulates a growing reservoir of experience that becomes an increasing resource for learning; (c) his readiness to learn becomes oriented increasingly to the development tasks of his social roles; and (d) his time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly his orientation toward learning shifts from one of subject-centeredness to one of problem-centeredness" (Knowles, 1980).

The majority of those who seek a way out of poverty and its associated lack of development are adults. So too are those who frame policies and plan and implement programs and services for poorer areas and populations, and those people in the formal education system who equip students with knowledge and skills that will continue the development process in the future. GDLN has the responsibility of helping development stakeholders to share information, to learn, and to enhance their individual and collective capacities to solve development problems. Since a majority of development learners can be classified as adults, there are some principles that need to be acknowledged if effective learning is to take place:

- Learners should be encouraged to participate in their own needs assessments
- The expected outcome of the learning activity should be clear
- A non-threatening environment should be created where adult learners feel safe from intimidation arising from their sometimes lack of formal education or due to having been away from education for a long time
- Good relationships should be developed between teacher and learner and among learners
- An atmosphere needs to be created where there is respect for decisions made by adult learners
- Learning content must be well planned and sequenced
- Learning by doing must be part of the learning process
- Adults should learn something or about something that can be applied or used immediately. This is known as the Immediacy of the learning.

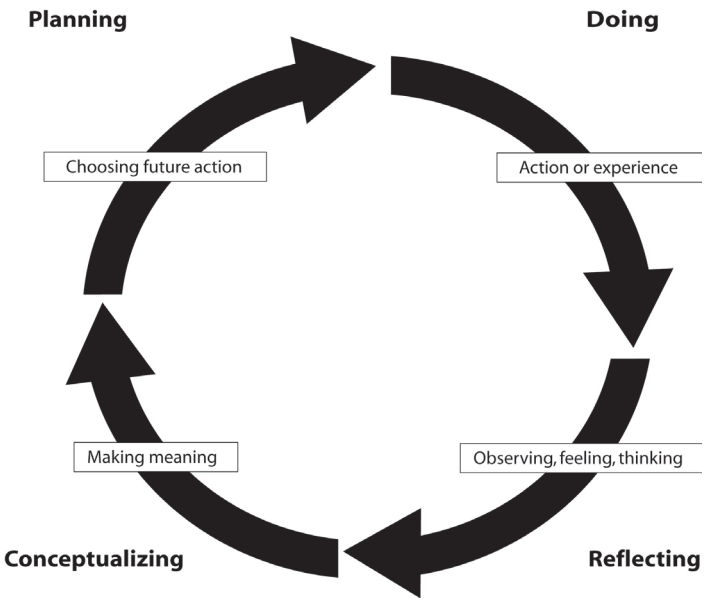
The Learning Cycle and applications in learning design

"Learning, whether individual or group, occurs in cycles" (Allee, 1997). Originally developed by David Kolb (Kolb, 1984) and later adapted by other researchers in efforts to understand how people learn, the learning cycle (see Figure 2) describes a learning process as a four stage cycle involving a series of experiments: Doing (action or experience) – Reflecting (observing, feeling, thinking) – Conceptualizing (making meaning) – Planning (choosing future action).

Doing refers to action or experience, which provides a basis or reference for learning. Reflecting is making observations about the action or experience, such as debriefing or after action review. Conceptualizing is making interpretation of experience, and creating concepts and even mental models to explain it. Planning is making plans by adjusting behavior for future

actions or experiments. The whole cycle will repeat as learning continues. However, learning does not actually take place in a linear manner.

Figure 2: The Learning Cycle



Source: (Allee, 1997, p90)

In learning design, both the Experiential Learning and Action Learning models try to ensure that learners (both individuals and groups) go through a complete learning cycle. This helps the learning facilitator cope with diversified learning styles[1] of participants.

The "Experiential Learning Model" was suggested in the GDLN Toolkit, in which the role of the facilitator is to engage learners in a four step process corresponding to the learning cycle:

Step 1: There is an experience (or "sense of urgency")

Step 2: The facilitator then engages the learners in reflecting on the experience.

Step 3: The facilitator then asks the learners to consider what the experience means and to draw a conclusion from the experience.

1 Kolb's experiential learning theory sets out four distinct learning styles (or preferences) of individual learner, i.e., diverging, assimilating, converging, and accommodating.

Step 4: And finally, the facilitator asks the learners to become involved in an application or practice activity, which draws their attention to how the learning applies to a "real-world" situation.

The World Bank Institute promotes action learning which focuses on finding solutions to problems especially in industry, involving adults and follows a cycle very similar to the experiential learning cycle described above. Action learning is built around six distinct interactive components that see a group of adults focus on a particular problem to find a solution that is put into action. The six components (Marquardt 1999) are:

1. A problem (real business topics and challenges)
2. The group (intact teams and/or stakeholders)
3. The questioning and reflection process (a learning process should be started)
4. The commitment to taking action (goals/outcomes are described, a decision on an action plan documented, a follow-up plan put in place, and feedback provided)
5. The commitment to learning (in the best case scenario the transfer of learning from the group to the organization is an explicit goal but the goal can be implicit/tacit)
6. The facilitator (external to the group but supports the group in order to meet goals)

According to Marguardt (1999, p. 36-37), the action learning process results in powerful, significant, and transformative learning because it inherently embodies a number of key learning principles:

- Learning is increased when we are asked questions (or ask ourselves questions).
- Learning intensifies when we reflect on what we did in the experience
- Group responsibility for the task empowers the members and enhances learning
- By working cooperatively with others on real issues, the group can move to a higher level of learning relative to application, synthesis, and evaluation.
- People learn more when they do something, and they learn more as they feel more responsible for their task.
- Action learning is built on the entire learning cycle: learning and creating knowledge through concrete experience, observing and identifying the problem, reflecting on this experience, experimenting, analyzing and forming generalizations from experiments, planning solutions, testing the implications of the generalizations in new experiences, and beginning the process again.

Application in development learning

Every learning theory model, and there are many, has its view of how best to foster learning. There are movements or developments that have arisen from the major learning theories described above. These include experiential learning, action learning and active learning to name but a few. Because of the uniqueness of learning situations and the diversity of learners, the designer needs to creatively apply learning theory to the situation. For example when the objective is to disseminate or transfer information and/or knowledge the cognitive approach may

be appropriate. When the objective is behavioral change the behavioral model, perhaps combined with the cognitive model, may promise the best results. When, as is often the case, there is no "right answer" from experts, people need to learn from their own and others' experience the constructivist approach may be indicated.

Source: Working Paper on "Effective Blended Learning for Development" by Charles Maguire and Jiping Zhang, forthcoming.