

Instructional Design.....Simply Put

Introduction

Regardless of the delivery media being used or the audience being targeted teaching or designing instruction should help the learner reach his/her destination by making learning an easy and interesting process. What goes into making learning easy and interesting? How do you ensure this when addressing different audience profiles? Or, how can one make learning interesting and easy regardless of the delivery media? This paper provides an overview to three essential components of any learning material and details how these components vary in their implementation depending upon the audience profile and delivery media.

Learning – A Journey

To identify the three essential components of learning, consider an analogy---let us think of learning as a journey. This means that as instructional designers, teachers, instructors and facilitators we need to consider three aspects while designing instruction---the mode in which the learner would travel (Instructional Theme), the milestones and breaks during the journey (Practice/Interactivity), and the final destination (Assessment).

The mode of travel – Instructional Theme

Just as there are three main modes of travel (land, water and air), let's identify three different "ways" of learning. These are:

- Passive Learning - Reading, Listening & Observing
- Active Learning - Learning by –the-way, through stories and games
- Active Learning – Learning-by-doing by performing experiments, solving problems or participating in role-plays

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Passive Learning - Learning By listening/reading

"Many instructional arrangements seem contrived, but there is nothing wrong with that. It is the teacher's function to contrive conditions under which students learn."---B.F.Skinner

Brushed off by the constructivists as "teacher-centered", the programmed instruction approach or expository teaching propounded by David Ausubel is definitely useful in certain situations. The approach typically works well for adult learners who are self-driven and when the material under study conveys information that learners need to know or understand. To overcome the inherent weaknesses of this approach, you can temper it with a variety of tools and techniques--**advanced organizers, comparative organizers, mnemonics, examples, analogies, visuals and interactions**, which ensure learner motivation and learner involvement.

Passive Learning - Learning By Observing

"It's not what is poured into a student that counts, but what is planted."---Linda Conway

Observational learning propounded by Albert Bandura, also called social learning theory, occurs when an observer's behavior changes after viewing the behavior of a model. An observer's behavior can be affected by the positive consequence (reinforcement) or negative consequence (punishment) of a model's behavior. This instructional theme is extremely useful in covering content in the soft-skill domain---content that involves developing specific attitudinal and behavioral skills.

Active Learning – “By The Way” (Through Stories)

"Thought flows in terms of stories - stories about events, stories about people, and stories about intentions and achievements. The best teachers are the best storytellers. We learn in the form of stories." ---Frank Smith

As per the story-telling approach propounded by Joseph Campbell, learning is situational. Therefore, using stories to teach and explain concepts engages and motivates the learner and helps the learner to link concepts and abstractions with reality. Though stories are typically linked with childhood learning, research shows that this technique also works well with adults --- this explains why many universities and adult learning programs use Case Studies as a means of learning.

Instructional Design.....Simply Put

Active Learning – “By The Way” (Through Games)

“Through games and plays, learning becomes child-like, and anxiety which may prevent learning, could be reduced. Learners become more receptive, and learning is fun under the playful and non stressful environment.”---Francis Huang

A human being’s natural motivation to play games can be used to engage learners in actively mastering several important cognitive and behavioral skills. When learners participate in a game, they feel comfortable, relaxed, completely involved and less anxious. This in turn helps in learning and remembering. Games as an instructional theme are particularly useful for developing self-control and social relationships, and problem-solving and reasoning skills.

Active Learning – “By Doing” (Participating In Role-Plays)

“Tell me and I forget. Show me and I remember. Involve me and I understand.”---A Chinese proverb

Learning through role-play can be considered a derivative of Kolb’s Experiential Learning. This instructional theme is useful to deliver instruction when the objective is to develop soft-skills---to help learners understand duties, responsibilities and functions involved in executing a specific role. Role-Play encourages critical thinking and creativity, and lets learners develop and practice behavioral skills in a relatively controlled setting.

Active Learning – “By Doing” (Problem-Solving)

“Every truth has four corners: as a teacher I give you one corner, and it is for you to find the other three.”---Confucius

Problem-based learning propounded by Howard Barrows calls for the posing of problems before offering the solution itself, thereby preparing learners to think critically and analytically. It helps learners to understand why they have to learn something and enables them connect the content under study with real life.

The problem-solving approach requires you to build problems into the learning material in the form of investigations, projects or real-life cases. The learners are expected to solve the problem---and in the process learn facts, understand concepts or get an insight into perspectives, viewpoints and schools of thought.

Instructional Design.....Simply Put

Active Learning – “By Doing” (Performing Experiments)

“One must learn by doing the thing, for though you think you know it, you have no certainty until you try.” ---Aristotle

Involving learners in practical activities or learning by doing as propounded by Phil Race suggests that learners learn better when they are provided with an opportunity to explore or apply their learning in real life. This approach is particularly useful while covering science school curricula for children and procedural content for adults---such as, learning to use new software, tool or equipment.

Which is the Best Approach or Theme?

There is no one best approach or theme---as you saw, there are only varied opinions and viewpoints. Each approach has associated consequences and trade offs involved. Your audience, the delivery media and the nature of the content should guide the approach or theme that you select. In addition, the key to good instructional design is to be aware of the consequences of selecting an approach---and customizing the approach to suit the audience profile and delivery media so as to reduce its negative consequences.

The Milestones – Practice or Interactions

Just like stops and milestones help a traveler take breaks and ascertain the distance he has traversed, instructional designers need to create some sort of stops and milestones too---this can be implemented in various ways, some of which are:

- Explicit Questions (Questions that call upon the learner to provide/input the answer)
- Reflective Questions (Questions that call upon the learner to think)
- Intellectual Discussions (Either with the facilitator/teacher or with peers)
- Activities (Performing a task/solving a problem)
- Exploration (Learning more on the topic under study)

Instructional Design.....Simply Put

The Destination - Assessment

The purpose of assessments in the learning process is to let the learner know that he/she has met the learning/performance objective. There are different ways in which you can implement assessments---your choice of the assessment strategy should be guided by the audience profile and the performance objective. Broadly speaking, assessments can be divided into two categories:

Assessing Knowledge and Understanding

- Objective (MC, MMC, FIB, T/F, Sequence – possible for all delivery media)
- Subjective (Assignments - for ILTs and blended learning⁴ solutions)
- Reflective (Questionnaire with ratings – possible for all delivery media)

Assessing the Application of Knowledge

- Performing in simulated settings (E-Learning)
- Performing in real settings – Project-based (for ILTs and blended learning solutions)

Two Final Words!!

One, variety is the spice of life---this adage is true for the learning process as well. So, whenever you design instruction ensure that you vary the elements of instruction to keep the learner engaged and engrossed. Two, the key to effective instruction is making things seem simple to the learner and not in making it complicated!!!