

Is there a Successful ID Model? A Practitioner's Perspective on Working with Models in Designing e-Learning Environments



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This presentation is intended at sharing my experiences in learning design with the larger elearning community that is actively involved in exploring and using new technologies for educational purposes. It seeks to put forward the premise that successful elearning environments are created using eclectic instructional design principles. Hence, there cannot be a single universal model that could be followed for designing and developing all types of instruction. This calls for a study of various models so that we can evolve a set of principles that can guide in designing effective elearning.

Introduction

Instructional Design is a disciplined approach towards achieving learner-centric goals by making learning more effective and empowering. Design interventions bridge the gap between technology and human experience. Systematic efforts at design not only simplify the content, it makes it easy and engaging to learn, thereby enhancing the learning experience. An instructional designer designs *learnsapes* by formulating and implementing appropriate learning strategies.

Making design decisions

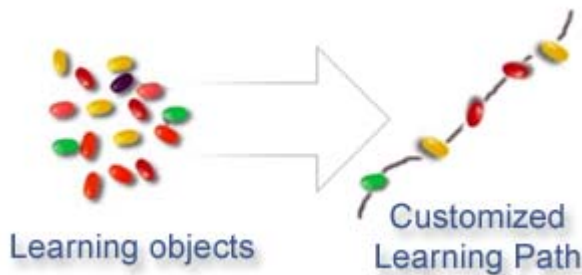
I would like to begin with three exemplary scenarios that depict different contexts in which we make design decisions. All these cases illustrate typical traits of an organizational elearning initiative such as dynamic nature of product, constant change of Subject Matter Experts (SMEs) and limited number of dedicated resources for these projects.

Scenario 1:



In this case there was a requirement to convert a variety of ILT (Instructor Led Training) material into elearning. This task included repurposing of several types of training materials that were used across the organization. A great deal of time was spent on structuring, sequencing and prioritising our activities to meet the needs of learners spread across various locations. The outcome was in the form of successful deployment of several elearning courses dealing with concepts, processes and technologies relevant to the organizations.

Scenario 2:



Here, the challenge was two-fold. A decision was taken in the organization to build a repository of Learning Objects, and at the same time, evolve a process where the objects could be updated as and when there are changes in the product functions and features.

We had to build learning objects that could form a repository of learning resources. These were neatly chunked bytes of

learning intended to impart topic-wise learning. Being standalone, they could also be reused in different courses for different learner profiles. There were certain limitations that made us look for workarounds as we did not have a full-fledged LCMS and limited set of authoring tools. It was like having a common pool of learning resources. We can find similar examples in corporate training and formal education setting where teachers and trainers themselves build these objects using basic authoring tools or a fully functional LCMS.

Scenario 3:



We are currently exploring tools and technologies that can help us in evolving the right blend using different media elements. These could be learning events where part of the course could be delivered in face-to-face mode or we can use virtual learning environment. The learners can acquire the pre-requisite knowledge on their own using self-study material. Moreover, as our content is bound to change frequently, we need to update it immediately. As there is very little time between development and delivery we are exploring rapid development tools. The learner profiles who would be gaining from this approach include sales and marketing personnel, consultants and industry opinion leaders and other stakeholders like customers, partners and resellers.

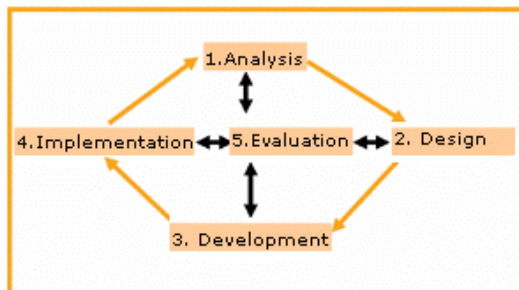
Now, looking back I wonder; did we really follow any model to accomplish these projects? Perhaps not direct application of theory to practice, but for the most part we were guided by the past experience of the team members in handling similar projects.

The same could be true of teachers who embark on design activities for repurposing their classroom materials, textbooks and other presentation to develop effective elearning modules for their institutions. They either learn design theory or rely on their experience and learning from similar projects. A case in point could be the Management and Engineering Online courses developed by the University faculty.

I generally base all my design decisions on three important variables: the context, the content and the learners. This helps me in putting together all the pieces of the puzzle and viewing the whole picture. It also gives me scope to study the dependencies between these variables and strive for a balance in the form of sound instructional strategies that can optimise *learnability* of the content. Though, eventually, I may realize that I was subconsciously following a model or a framework as a point of reference. It helped me in planning, scheduling and organizing my activities, evolve a process and eventually validate the deliverables against the benchmarks.

Instructional Design Models

One of the most popular models in Instructional Design is the ADDIE model. This is an acronym for **Analyse, Design, Develop, Implement and Evaluate**. This is an iterative instructional design process, where the results of formative evaluation of each phase may lead you back to the previous phase. The outcome of one phase is the starting point (input) for the next phase. This model is quite similar to the software development models and other program design models.



Analysis, the first phase of this model seeks to answer the 'What' aspects of learning. I

prefer to use the term 'pre-design' to describe this phase. During this phase we define the problem, identify the learning issues and knowledge gaps that indicate key areas for learner improvement. We identify the causes, work out probable solution; this is more like a research phase and it involves stages like needs analysis, task analysis, context analysis and so on. It is quite similar to the requirements gathering phase of program development where we are trying to understand the big picture of where the program fits in, what problems it can solve.

The output of Analysis phase helps us in developing a strategy for learning. The **Design** phase seeks answers to various 'How' aspects of the course. The instructional strategy thus evolved, provides a detailed outline of how learning goals can be determined and accomplished effectively. Typically this phase involves detailed documentation of learner, content and context. A listing of objectives and selecting of delivery systems also forms a part of this stage. The process would be incomplete if we mention the structuring, chunking and sequencing activities carried out with the help of SMEs.

A more significant element at this stage is the strategy formulation for effective delivery of content. Here, we explore several options to enhance the instructional value of the content by creating prototypes and proof of concepts to showcase the execution of the strategy.

Next we move to the Development or the Production phase. In fact this is a very crucial stage that can affect the entire project schedule. It involves the actual production of modules, lessons, assessment, audio components, simulations, and all other assets that constitute the course material. It also includes post-production activities such as reviews and editorial tasks. This is the stage where team dynamics are operationalized. To a great extent, successful execution of learning strategy depends on implementing smart and lean ways of production. Storyboarding, production of visual elements, content review and testing and feedback incorporation are some of the crucial activities carried out at this stage.

Subsequently, we reach the next milestone—the actual release of the course to the real world. This is the **Implementation** stage where we launch the course and ensure that learning is convenient with tools like LMS. We also ensure that effective transfer of knowledge is happening from learning environment to the job.

Finally, we focus our efforts on determining the success of learning during the **Evaluation** phase. Using various tools and techniques we study learners' feedback on the course. Though formative evaluation runs throughout the design and development phases, here we also aim for a summative account of efficiency of instruction, assessment and delivery mechanism.

Why no single model can be recommended:

Models are based on learning theories and philosophical positions. Some of the popularly used models are: Dick and Carey Model, Gagne and Briggs Model, Kemp's model. Considerably, now we can see a perceptible shift from Behavioural principles to other theories such as Cognitivism, Constructivism and Andragogy. A pertinent question at this juncture: how does one mix and match and evolve an eclectic model? I would like to share a few observations in this context:

- You can choose and apply a model to your instructional situation, however, the real world does not fit into a linear model, and we need to formulate our questions differently, seek alternatives to explore and unravel new perspectives.
- Of course, models are helpful as planning devices and analytical tools. But, we need to remember the point that there is no simple right way! At the mention of a model, say ADDIE for instance, one might exclaim, "Oh ! I do that everyday!" but what is more important than following a model is our ability to customize it, connect to it and evolve new strategies that contributes to effective knowledge sharing and learning empowerment.

- Above all, let us not forget the fact that we carry with us tremendous amount of 'practical wisdom' that can lead to new models and theories. To value this knowledge we can systematically build our own repository of 'learnings' from projects and similar experience and share it while collaborating with others.

Each model is rooted in certain philosophy and psychology of learning. They are guided by precepts from learning theories such as Behaviourism, Cognitivism and Constructivism. These theories, in turn, have their manifestations when we 'apply' them in practice. Consider for instance a case where we are dealing with very practical content types such as software training or effective conflict resolution. In both these cases we would be following certain design guidelines applied from relevant models. It is needless to say that we will not be 'blindly' adhering to the steps involved in that particular model. We may combine whatever is relevant from the content and learner perspective. Certainly, a purely behaviourist approach would not give scope for including practical components in a creative way. This is because, here, learning is perceived as a set of behaviours which are predictable and therefore reliable. As we know a major limitation is the fact that learning cannot be predicted, controlled or demonstrated all the time. Perhaps, an assortment of principles from other theories such as cognitivism/constructivism helps us in building in the practical elements and interactivity as required to teach the content effectively. This makes our approach eclectic and more appropriate to fulfill the learning requirements.

To sum up:

We need to build practical theories and models by reflecting on our experiences and consciously pursuing a systems approach to design. As a systems thinker we are always trying to get the big picture and understand things in a broader perspective. Such an approach enables us to deliver the best learning solution to the intended audience. To conclude, such an effort calls for:

- Reflection on our activities, tasks by asking basic questions such as what, why, how etc.
- Systematically recording the self-observation remarks and sharing it with the team members
- Seeking patterns in these observations and making connections to understand the relationship between various components.