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E learning architecture  
Instructional Design

Design | Approaches | Models

# Interactive Design

|  |  |  |
| --- | --- | --- |
| Discovery | Drag & Drop | 2D / 3D Animations |
| Multiple Choice Questions | Click to Lean |  |

# ELearning Course Architecture

## Gain Attention

This could be done a number of ways. Creative graphics, using people they may know, certification.

## Set Direction

## Learning Model

PEET

* Present
* Presentation / Sequences
* Expert Views
* Guided Stories

#### Exemplify

Show best practices in action.

#### Explore

* Goal based scenarios to explore learning topics
* Try it, learn it.
* Full Branching
* Change the Story

#### Test

##### Check Questions

Check the questions or interactive scenarios after the event.

##### Check Knowledge

After the event, check the knowledge and retention.

##### On the Job Assessment

On the job assessment of actual tasks. Level 3 evaluation.

# How to Change Behavior and Attitude?

* Goal based scenarios
* Summarize
* Next Steps

# Learning Models

## Information

* Process Flow
* Topic Categories
* Search and Find
* E-magazines

## Knowledge and Skills

* + Present
    - Expert Views
    - Guided Stories
  + Exemplify and Explore
    - Best Practices
    - Ask the Expert
    - Multiple Viewpoints
    - See it
    - Analyze it
    - Plan it
    - Do it
    - Review it
  + Test

## Behavior & Attitude change

* + Scenario Based
    - Try it, learn it
    - Full branching
    - Limited level simulation
    - Change the story

## Differentiated Learning

* Different paths that can be on.
  + Gifted path
  + Remedial path
* No adapting

## Personalized Learning

* Rules Based.
* Decision Tree.
  + Big diagnostic test. Says what you will need to change and improve.
* Not adaptive. Does not improve or change as the information is presented.

## Adaptive Learning

* Takes into account
  + Psychometrics
  + Data Models
  + Algorithms
* Continues to adapt in real time. Change and improve over time for each student.
  + Student
  + All Students
  + Tries to improve the learning experience for everyone.

# Mastery Based Learning

Progression is based on the successful completion of various task rather than seat time. Measure outcomes versus punching the clock. Example: students who learn a concept can then move onto another.

Key Features

* Curriculum design hinges on assessments
* Assessments may take any form as long as they determine proficiency
* Graduation of the next grade/level/topic is contingent upon the successful completion of prerequisite assessment.
* Curriculum is committed to the success of all students. Students are not allowed to give up.

Example: Student must receive 90% or better to receive mastery on a benchmark test. Blended learning can achieve this. Important for making people feel successful.

Success is accomplished by:

* Reviews
* Assessments
* Demonstration of mastery
* Feedback is delivered quickly
* Feedback in bit sized pieces
* Competency learning system (student keeps working on the concept until they master it).
* Providing feedback is not itself useful
* Providing feedback, explain why they were right or wrong, and then allow students to work on the problem until they are right and master the concept.
* Blended learning is vital because it allows teachers to provide meaningful and actionable feedback.
* Example used by Coursera. Students are allowed to make multiple attempts on a single quiz. Randomization shows different order of questions. Quizzes can be taken more than once. Many students take it until they get 100%.

Mastery Learning Techniques.

* Chose the topic/module that you want to be a master of (this will likely be found in the course syllabus).
* Write down explicit learning objectives. If these are provided to you by the instructor, re-write them in your own words. If they’re not provided to you by the instructor, consider discussing and honing your learning objectives with your fellow students on the discussion forums or in your study group.
* Practice, practice, practice! Take and re-take the quizzes available to you, look for extra-practice problems, create practice problems with your study group, etc. Think carefully through each attempt so that you’re getting the most out of your practice.
* Benchmark: figure out if you’ve mastered the material by your performance on the quiz and your ability to address each of the learning objectives. Work with your study group to test each other and give each other feedback.
* Celebrate! Now that you’re a master of the material, you have built a solid foundation for moving on to the next topic.