Engageology Consulting

Perspective: Teachable Moments

Adult Learning and Instructional Design

Viewpoints Agenda

- Instructional Design
- Five Adult Learning Principles & Application
- Systematic Instructional Design Application

Instructional Design – Three Foundations

- Behaviorism: Based on observable changes in behavior. Behaviorism focuses on a new behavioral pattern being repeated until it becomes automatic.

- Cognitivism: Based on the thought process behind the behavior. Changes in behavior are observed, and used as indicator's as to what is happening inside the learner's mind.

- Constructivism: Based on the premise that we all construct our own perspective of the world, through individual experiences and schema. Constructivism focuses on preparing the learner to problem solve in ambiguous situations.

History of Instructional Design - Connectionism

Thorndike (1874-1949)

- Animal research before human psychology research
- Set out to apply “the methods of exact science” to educational problems by emphasizing “accurate quantitative treatment of information.”
- His Connectionism Theory stated that learning was the formation of a connection between stimulus and response
- The “law of effect” stated that when a connection between a stimulus and response is positively rewarded it will be strengthened and when it is negatively rewarded it will be weakened.
- Thorndike’s laws were all based on s-r hypothesis. He believed a neural bond would be established between the stimulus and response when the response was positive.

Learning takes place when the bonds are formed into patterns of behavior.

History of Instructional Design - Behaviorism

MANY CREDIT WATSON WITH THE TERM “BEHAVIORISM”

Watson (1878-1958)

- First American psychologist to use Pavlov’s ideas with humans
- Believed humans are born with a few reflexes and the emotional reactions of love and rage. All other behavior is established through stimulus-response associations through conditioning
- While his methods were questioned working with children and classic conditioning, he did demonstrate the role of conditioning in the development of emotional responses to certain stimuli
- This is the foundation of behaviorism and behavioral marketing
- Then came Skinner and behavioral shaping and reinforcement schedules – and then eventually came Principles of Adult Learning

Five Adult Learning Principles & Application

Five Adult Learning Principles & Application

1 Adults have a need to know why they should learn something.

Adults spend a considerable amount of time and energy exploring what the benefits are of them learning something and the costs of them not learning something before they are willing to invest time in learning it. It is seldom convincing for them to be told by someone (even the boss) that it would be good for them.

Learning/Training should be based on valid needs of the intended audience. All information provided about the training, including lesson plans, should include reasons for learning.

The benefits of learning should be clearly shown. Activities should be based around real work experiences – challenges and opportunities.

Five Adult Learning Principles & Application

2 Adults have a deep need to be self-directing.

- The psychological definition of "adult" is one who has achieved a self-concept of being in charge of his or her own life, of being responsible for making his or her own decisions and living with the consequences.
- Adults develop a deep need to be seen by others as being capable of taking responsibility for themselves. Too often as trainers we design training situations that place adults back in their childhood where they are told what where and when and how to learn.
- Self-directed is not the same as self-paced. Self-paced means that the learner is only in charge of when to experience what the trainer has produced. Self-directed learning puts the learner in charge of much more.

Incorporate "search and discovery" into the learning/training for experienced learners.

Five Adult Learning Principles & Application

3 Adults have a greater volume and different quality of experience than youth.

- Adults bring into the learning situation a background of experience that is a rich resource. Adults have a broader base of experience on which to attach new ideas and skills and give them richer meaning.
- The more explicit these relationships (between the old and the new) are made - through discussion and reflection - the deeper and more permanent the learning will be. Experience is to adults, the chief source of self-identity.
- If adults' experience is not made use of in a training experience, adults may see it as a rejection of themselves.

Design training activities that reflect the actual work learners perform. Provide activities that permit learners to compare the theoretical aspects of the training with their experiences.

Five Adult Learning Principles & Application

4 Adults become ready to learn when they experience in their life situations a "need to know" or be able to do in order to perform more effectively and satisfyingly.

Some of the greatest goofs of training have occurred as a result of forcing people into training activities before they perceived a need for them. Adults again must see a need for training before learning will take place.

Provide learning/training, as close to the time it is needed as possible. Don't do an information dump on learners, calling it training, and tell learners they need to know the information for future use.

Five Adult Learning Principles & Application

5 Adults enter into a learning experience with a task-centered (or problem-centered or life-centered) orientation to learning.

- Youth (conditioned by schools) have a subject-centered orientation to learning where they focus on learning content to pass a test.
- Adults by virtue of life and work experiences develop a task-centered or problem-centered orientation to learning. If training is developed around problem solving, then adults will learn content with the intention of using it.

Design so that learners are solving problems or are performing tasks as close to those encountered back on the job as possible. When large amounts of information support the problem solving activities, present this information as reference material.

Systematic Instructional Design Application

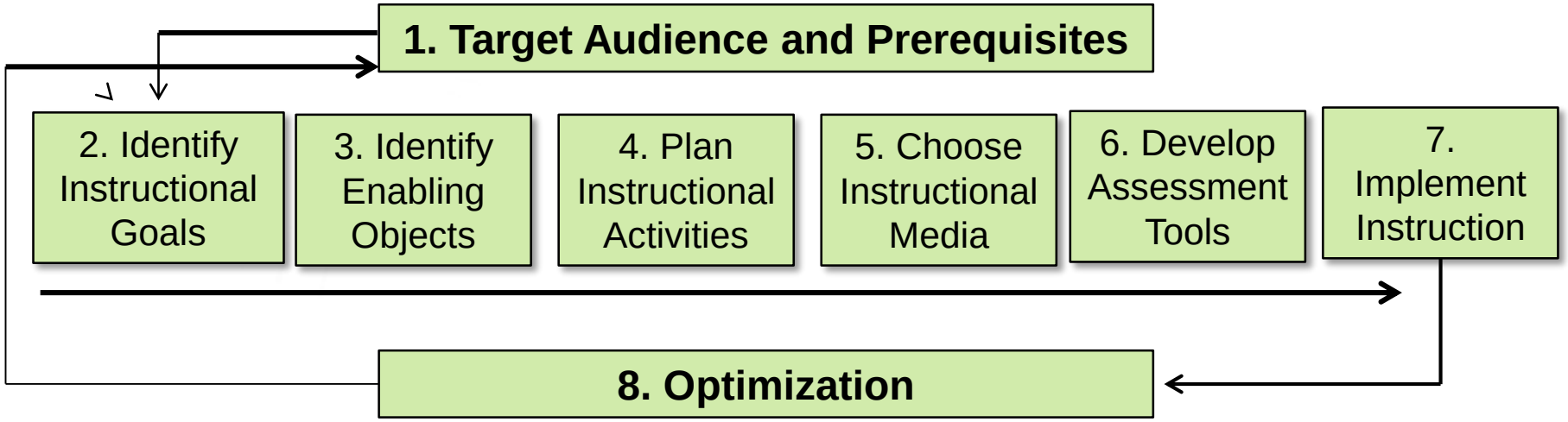
Learning Theory vs. Instructional Design Theory

- Learning Theory is the study of ***how people learn.***
- Instructional Design Theory is the study of **how to best design instruction so that learning will take place**. Instructional Design Theory, then, is drawn from Learning Theory.
- Two broad fields of Learning Theory are behaviorist and cognitivist.
- The two broad fields of Instructional Design Theory are directed instruction (instructional systems) and constructivist.
- Directed instruction are drawn from Behaviorist Learning Theory, while constructivist approaches are drawn from Cognitivist Learning Theory.

Instructional Systematic Design

Big Picture 8 Step Model

Instructional Systematic Design



All of these steps should be considered in Representative Training and Customer/Physician Learning Programs

Instructional Systematic Design - Audience

Step 1 – Target Audience and Prerequisites

- Understanding participant background of experience, attitudes, abilities, needs, motivation and knowledge
- Understanding target audience leads to prerequisites identification and program development, or even modification of goals
- Least common denominator of audience OR
- Tiered learning/training based on a competency scale
- Developing content against “common” vs. “scale”

Instructional Systematic Design - Audience

Step 1 example using mature migraine Rx

- Physician eLearning to overcome “all triptans are the same” required a deeper understanding of what was behind the attitude
- More importantly, understanding attitudes, knowledge base and behaviors of different physicians – Neuros and non-Neuros as two main audience segments
- Then further segmenting those two physician types by loyalists, switchers and non-believers of triptans to present the science and relevant patient case study eLearning modules to influence prescribing behaviors
    - Scale of patient case study against sub-segments – varying the depth of content, patient case type, and key programmed learning questions for insight mining, retention and behavior change
- Resulted in “relevant” learning goals by audience segment for understanding patient diagnosis and management in a choose your own path eLearning series based on different migraine sufferer types

Instructional Systematic Design - Goals

Step 2 – Identify Instructional Goals

- Goals are general statements of what you would like for participants to be able to do when they complete your program/module(s)
- A goal may be: Training/eLearning participants are able to: *"solve two basic objection handling issues with customers that reoccur in customer X interaction"*
- A goal that probably no one would achieve might be: "*Participants will be able to demonstrate their knowledge of how the US Congress operates"*

Instructional Systematic Design - Goals

Step 2 – Example of Rep Training Goals

- Goal 1: Rep participants will understand and retain the science of X
- Goal 2: Rep participants will effectively respond to key physician objection Y in live detailing of current non-prescribers
- Goal 3: Rep participants can effectively present head to head study Z to current non-prescribers

Instructional Systematic Design - Enabling

Step 3 – Identify Enabling Objectives

- Enabling objectives are specific statements of what participants will be able to do when they complete the learning or training module.
- They are stated internally and also externally within the learning or training module so participants understand the objectives of the learning/training session
- If students achieve all of the objectives, but have not reached their goals, then there is something wrong with the objectives. On the other hand, if students have not met all of their objectives, but have reached their goals, then some of the objectives were not necessary

Instructional Systematic Design - Enabling

Step 3 – Example OTC Oral Health Enabling Objectives for Reps

Upon completion of this course, you should be able to:

- Name the complete line of X oral health products
- Match the full line to their corresponding sales codes
- Explain the symptom relief provided by each active ingredient
- Explain the benefits of each product
- List the competing products
- Compare product form of the competition to X oral health product
- FAQs download on completion about X oral health product to overcome buyer objections tailored to responses

Instructional Systematic Design - Activities

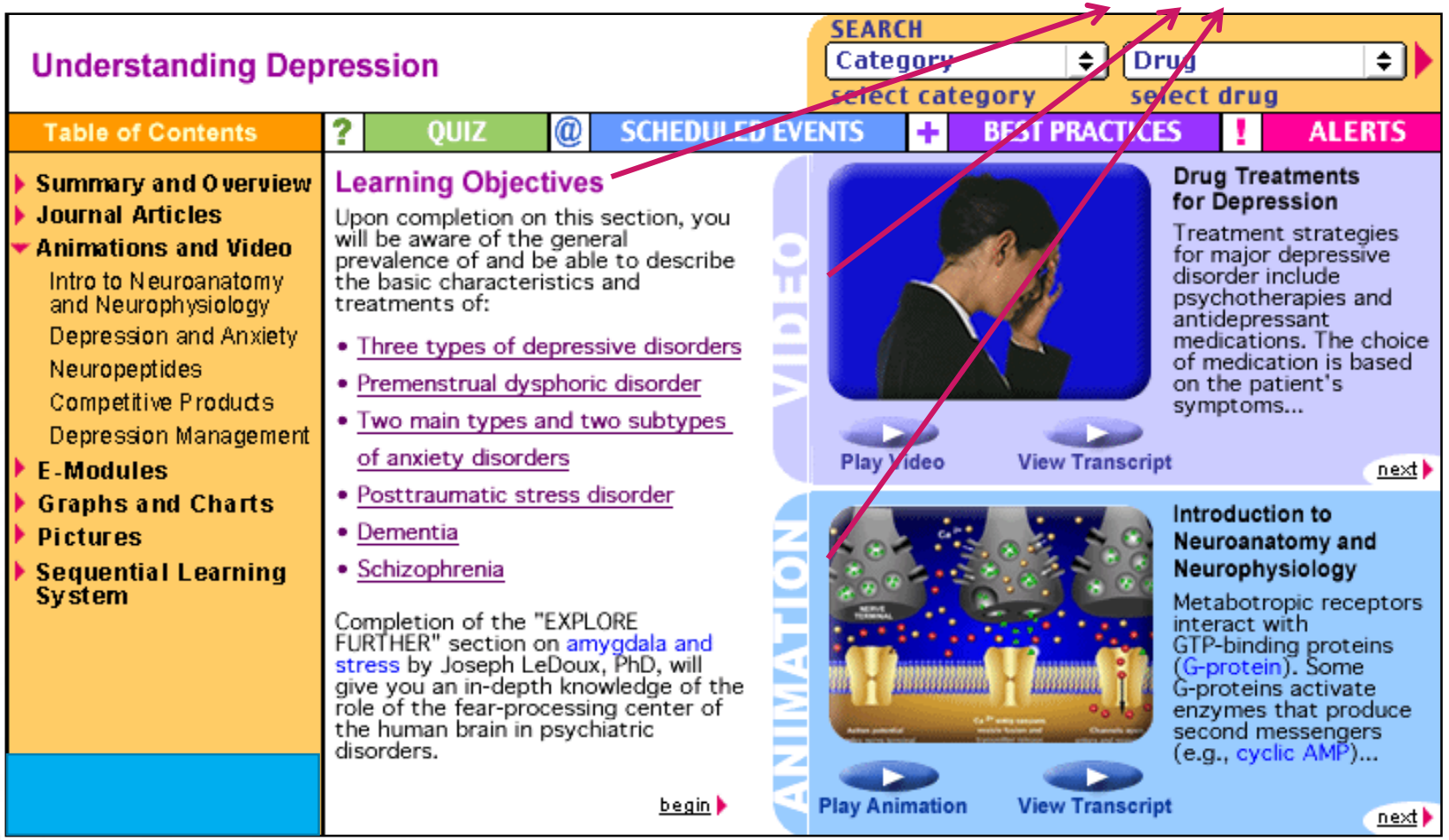
Step 4 – Instructional Activities

- Activities which help to meet the objectives and, eventually the goals.
- They may consist of reading, listening, virtual event participation, exploring specific Internet content, solving a case scenario, etc.

Instructional Systematic Design - Activities

Step 4 – Example –Rep Training Portal

Activities

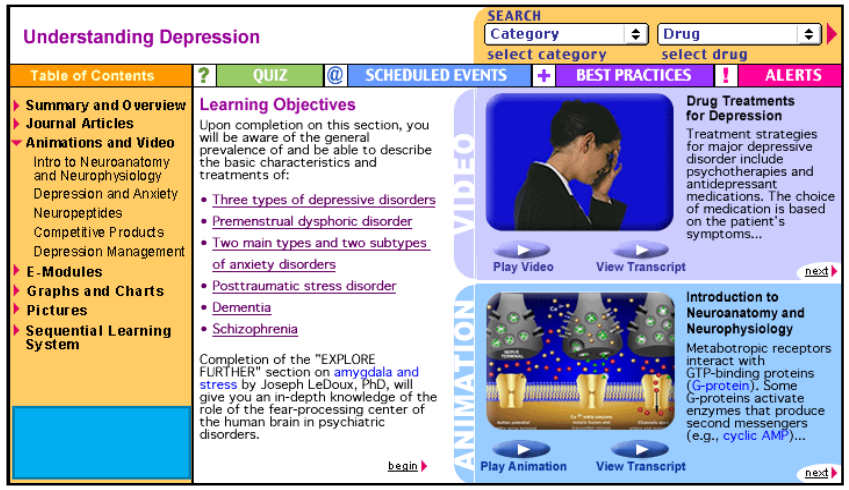


Example of a multitude of activities to activate effective ongoing depression learning for Reps

Instructional Systematic Design - Media

Step 5 – Instructional Media

- Instructional media may include:
  - Lecturing
  - Assignments
  - PowerPoint presentations
  - Internet interactions
  - Computer-assisted-instruction packages
  - eDetailing
  - Gaming/Game Challenges



Step 5: Example Step 4 applies here too

- What is important is to discover which media/medium helps most in meeting training/learning objectives, and they may not be the same for all participants (hence “choose your own path” modules).
- Instructional media that allows for simulated “real-world” application experience is effective for training – Example – Challenge case studies and challenge field interactions

Instructional Systematic Design - Assessment

Step 6 – Assessment Tools & Step 7 - Implementation

- Any effective instructional program has assessment tools designed to provide students with the opportunity to demonstrate:
  - Skills
  - Knowledge
  - Attitudes
  - Self-reported behavior intent – short term
  - Long-term self reported or observed behavioral change
- Implementation of assessment gives you the opportunity to assess the effectiveness of your plan of instruction

Instructional Systematic Design - Assessment

Step 6 & 7 – Example

- Assessment can include a screener quick survey prior to access for participation and post-participation assessment to monitor ABCs – Attitudes, Behaviors and Cognition
- Assessment can include programmed learning questions within presentation of content to gauge comprehension and this can be an engaging “interruptive” quick closed-end question bank (required or optional) or a challenge in the form of a simple game
- Assessment can include competency survey at the completion of a learning or training module (required or optional depending on goals and objectives)
- Assessment can include a follow-up survey against the three assessments above to compare competency and application outside of learning on an individual or aggregate basis over time

Instructional Systematic Design - Optimization

Step 8 – Optimization

- Any learning program should be subject to optimization
- It should be a learning experience for trainers - to optimize future programs
  - Usually actual learning goals for a course or training module(s) are not modified, but the objectives may not actually help meet the goals, or activities may not be helping to meet the objectives
  - Explore the medium: it may not be the most efficient means of delivery
  - The assessment may not actually provide the opportunities to demonstrate meeting objectives
  - The 8 steps improve over time and having experience with it, and can result in more effective instruction for brands and audience participants with optimization
- **Result:** Post assessment recommendations for future training and learning program optimization

Teachable Moments – Let's Engage

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