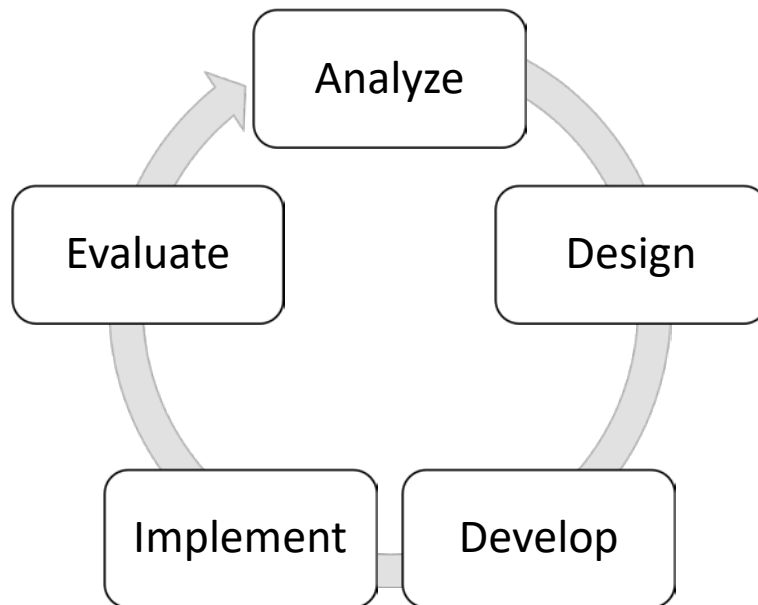


5 Steps to Creating Quality Educational Programs

Lessons from the Field of Instructional Design

Today's presentation and handout found online at <http://bit.ly/5StepsVLA2019>



ADDIE: A 5-Step Instructional Design Model

Analyze

Who are the learners? What is the need? What are the constraints?

One way to accomplish a **Needs Assessment** is through the use of a **Competency Model**, a list of knowledge, skills, and abilities someone must have to accomplish a job. Create a **survey**, conduct an **interview** or **focus group**, **observe**, **test**, or **analyze existing documents** to identify gaps between what your learners already know and what they should know.

How might you discover or confirm the learning needs of your learners?

Design

What are the learning objectives? What content should I include? What will be the format? What strategies will support the learning?

Useful Learning Objectives guide you in what to include (and what to leave out) and also how to evaluate the learning that happens. Mager suggests writing objectives that include an **audience** (i.e. who will be learning), an observable **behavior** that will indicate learning, **conditions** under which the learner will perform that behavior (i.e. during the workshop; at the front desk), and the **degree** to which you'd like the learner to perform (i.e. at least 2; within 5 minutes; without any mistakes). That's ABCD to make it easy to remember.

What is a learning objective for your program? Does it include A, B, C, and D?

Learn more: Mager, R. F. (1984). *Preparing instructional objectives: A critical tool in the development of effective instruction* (Rev. 2nd ed.), Belmont, CA: Lake Publishing.

Develop

How does the content all fit together? What graphics and visual design will support the learning? How can I avoid cognitive overload?

Mayer's 12 Principles of Multimedia Learning offers tips for combining words and images to best support learners—and ways to avoid overloading your learners.

1. **Coherence Principle** – People learn better when extraneous materials are excluded.
2. **Signaling Principle** – People learn better when you use cues that highlight the organization of the essential material.
3. **Redundancy Principle** – People learn better from graphics and narration than from graphics, narration, and printed text.
4. **Spatial Contiguity Principle** – People learn better when you present corresponding words and pictures near rather than far from each other on the page or screen.
5. **Temporal Contiguity Principle** – People learn better when you present corresponding words and pictures simultaneously rather than successively.
6. **Segmenting Principle** – People learn better when you present a multimedia message in user-paced segments rather than as a continuous unit.
7. **Pre-training Principle** – People learn more deeply from a multimedia message when they know the names and characteristics of the main concepts.
8. **Modality Principle** – People learn more deeply from pictures and spoken words than from pictures and printed words.
9. **Multimedia Principle** – People learn better from words and pictures than from words alone.
10. **Personalization Principle** – People learn better from multimedia presentations when you use conversational language (rather than formal).
11. **Voice Principle** – People learn better when narration is spoken in a human voice rather than a machine voice.
12. **Image Principle** – People do not necessarily learn better when the speaker's image is on the screen.

Learn more: Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge, England: Cambridge UP.

Implement

Do I need to train the trainers? Can I test the program before final release? Do I have all materials on hand?

Evaluate

Did the program run as planned? What resources did I use? How many people participated? How can I measure each of the learning objectives?

Kirkpatrick's 4 Levels of Evaluation will push you to evaluate your program on more than one level.

1. Reaction: Did they like it?
2. Learning: Did they learn?
3. Behavior: Did they change their behavior?
4. Results: How did the organization benefit?

Learn more: Kirkpatrick, J. D. & Kirkpatrick, W. K. (2016) *Kirkpatrick's four levels of training evaluation*. Alexandria, VA: Association of Talent Development.

Bonus Tool for Design

Robert Gagné proposed that teachers and trainers can design instruction in a sequence of **9 Events** to best support the learners' ability to transfer new content into long-term learning.

1. Gain attention
2. Inform learners of objectives
3. Stimulate recall of prior learning
4. Present the content
5. Provide learning guidance
6. Elicit performance
7. Provide feedback
8. Assess performance
9. Enhance retention and transfer to the job

Learn more: Gagné, R. M. (1985). *The conditions of learning and theory of instruction*. Fort Worth: Holt, Rinehart and Winston.