Organizing Content

There are many different ways to organize your instruction. There is some level of ‘art’ associated with finding better ways to structure content - in this way, instructional design is not just a science, there is also an art to it. This is sometimes called ‘the art of flow’, referring to the appreciation of how to structure content such that it flows well.

When putting content into "lessons", I try to make sure I have **a balance of conceptual material with practice skills**, so I'm not overloading students with memorization early on in the course. One thing to consider in your course organization is cognitive load - "because short-term memory is limited, learning experiences should be designed to reduce working memory ‘load’ in order to promote schema acquisition" (Heick, T., 2020, May 4).

When designing courses, in addition to the ordering of content, we also need to consider how content is presented and how to address learner motivation.

Regardless of which method you use to organize your course content, you should consider:

- When is the better time to introduce repeated tasks?
- When is special equipment or other limited resources needed?
- When is there a risk of the learner becoming bored?

Once you have an overall sense of structure for your course, you need to go through all the performance and learning objectives for our course to ensure they are associated with specific lessons.

In this chapter will we explore sequencing, clusting, and conceptual frameworks as ways to organize content, Merrill's First Principles and Gagné's Nine Events of Instructionas a way to organize a lesson and Keller's ARCS to improve learner motivation.

Sequencing

Sequencing involves organizing your learning objectives in a sequential manner based upon when the learner needs to know or do something. Depending on your topic, your goal analysis may have outlined a procedural sequence for your material. When determining the sequence for your content, there are many things you should consider including your learner analysis, any specific tools needed for a lesson, level of prior knowledge, and the topic itself.

In addition to a procedural order, there are other ways you can sequence content:

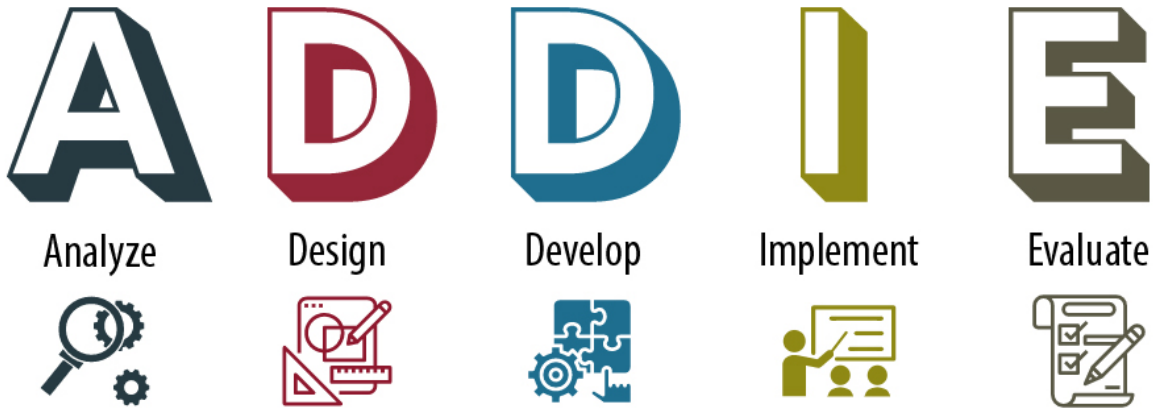
- easy to hard
- simple to complex
- specific to general (or general to specific)
- concrete to abstract (or abstract to concrete although the former generally works better)
- known to unknown

Clustering

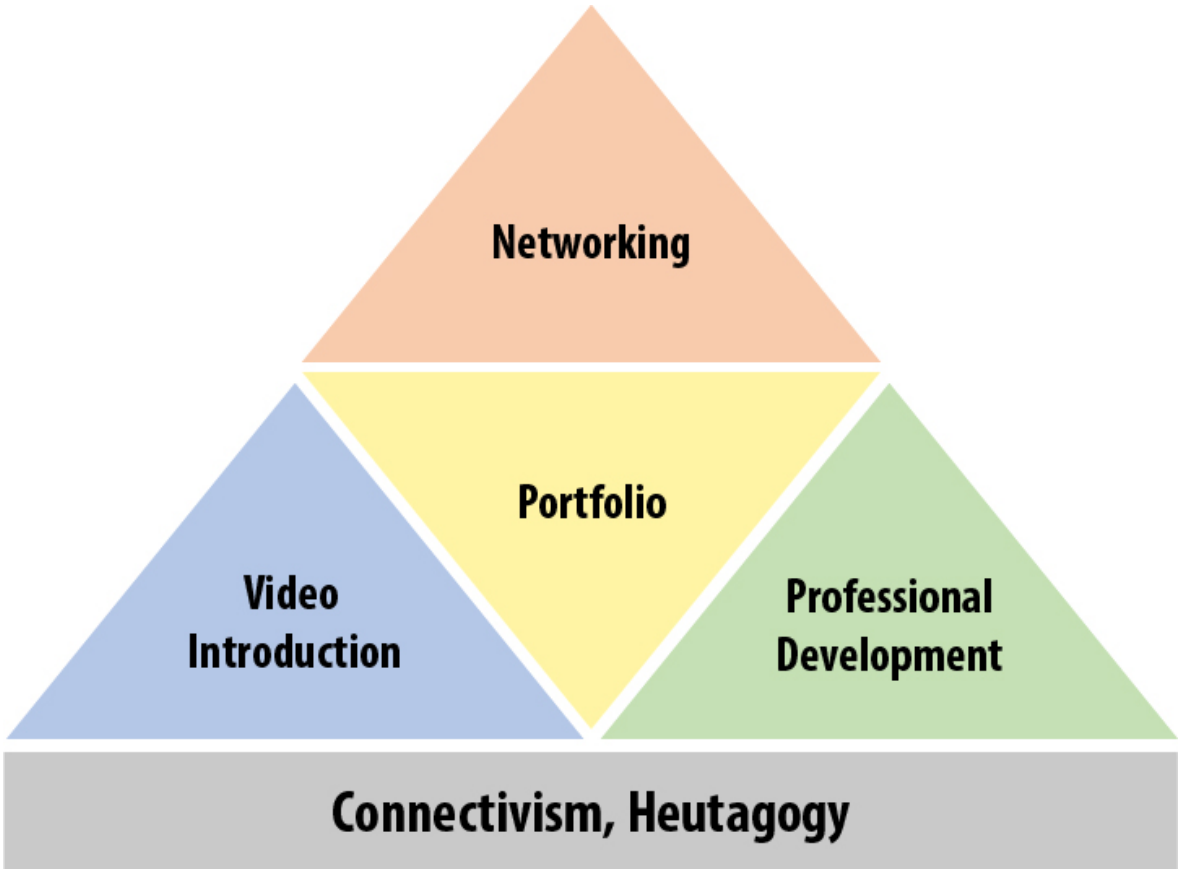
Clustering involves breaking up learning into manageable sizes. Research shows that retention is improved when information is presented in **groupings of 7 plus or minus 2**. Ever wonder why phone numbers are given in groups of three and four digits? This is because it is easier for us to remember numbers when they are chunked into smaller groupings. This also applies to learning content. Try to keep your groupings of learning objectives to between 5 and 9 (7 plus or minus 2) for each lesson. Personally, I like to use 5 or 6.

Conceptual Frameworks

Conceptual frameworks are visual representations of the structure of your course. I like to use conceptual frameworks to provide a roadmap to students, so they know where they are within the course. In my Foundations course, I use ADDIE as a conceptual framework, as I have done in this book.



Here is another example of a conceptual framework that I use:



Creating a Lesson

Merrill's First Principles of Instruction

Merrill studied a bunch of different instructional strategies and identified five principles which are called Merrill's First Principles of Instruction. They help us create effective learning designs. The principles are:

- ***Problem-Centered****: Learning is promoted when learners acquire skill in the context of real-world problems.*
- ***Activation****: Learning is promoted when learners activate existing knowledge and skill as a foundation for new skills.*
- ***Demonstration****: Learning is promoted when learners observe a demonstration of the skill to be learned.*
- ***Application****: Learning is promoted when learners apply their newly acquired skill to solve problems.*
- ***Integration****: Learning is promoted when learners reflect on, discuss, and defend their newly acquired skill.*

~ Merrill, M.D. (2012, p.21). First principles of instruction. Center for Creative Leadership.

For a short overview, check out this video from Frank Thomas.

Gagné's Nine Events of Instruction

Gangé defined nine events that outline the conditions necessary for learning to take place. In essence, he provides a roadmap for creating a lesson.

The conditions are:

1. Gain Attention
2. State objectives
3. Stimulate recall
4. Present content
5. Provide guidance
6. Elicit performance
7. Provide feedback
8. Assess performance
9. Enhance transfer

For more information, check out this video by Devlin Peck.

Learner Motivation - Keller's ARCS

In addition to the logical flow of information, you also need to consider the ways learner motivation impacts the instruction. There are several theories to help us build learner motivation into our instructional designs. One such theory is Keller's ARCS.

Keller's ARCS is a process that stands for Attention, Relevance, Confidence, and Satisfaction. You first gain attention, then point out relevance. As student learn you help to build their confidence in the topic, and then finally you reinforce learning with rewards. This is a process you can build into your lessons or designs in order to foster motivation.

For more information, check out this video by Kevin Thorn