Instructional Design has many definitions. Although each model is different, they all incorporate student centered components that aim to create an effective learning environment. Mastery of skills and the ability to apply the learning are key goals of each.
INSTRUCTIONAL DESIGN DEFINED

Instructional design, sometimes referred to as instructional systems design, is a term that, as I have found in my research, has many definitions. Instructional design can be defined as “the philosophy, methodology, and approach used to deliver information. Some courseware aspects include question strategy, level of interaction, reinforcement, and branching complexity.”

Another resource defined it as “the analysis of learning needs and systematic development of instruction. Instructional designers often use Instructional technology as a method for developing instruction. Instructional design models typically specify a method, that if followed will facilitate the transfer of knowledge, skills and attitude to the recipient or acquirer of the instruction.” Additionally, instructional design models “typically specify a method, that if followed will facilitate the transfer of knowledge, skills and attitude to the recipient or acquirer of the instruction.” Based upon my own personal experiences, I would define instructional design as the use of available data, both qualitative and quantitative, to develop a process for facilitating student acquisition of skills and information. This process should include methods for helping students acquire, apply, and transfer the knowledge to other tasks. Furthermore, methods for assessment and feedback should be determined prior to the implementation of the unit of instruction. All available media should be considered and written into the design as well. Instructional design models share similar attributes, but can be categorized as either a part of Constructivism Models, Prescriptive Models, or Cognitivism Models.

CONSTRUCTIVIST MODELS

Constructivism focuses “on how learners construct their own understanding.” Within the Constructivist model are 4 instructional designs. They include Discovery Learning, Inquiry Teaching, Problem Based Learning, the Project Method, and Observational (Social) Learning. All of these models are student centered at their core.

Specifically, Discovery Learning involves students as active participants and provides them with a variety of learning opportunities. Discovery learning is based on three main ideas including: student exploration and participation in problem solving in an effort to apply knowledge to other problems, student decision making regarding activities they will undertake based on interest, and student involvement in activities that help them build on their prior knowledge.

This instructional model is built around a student centered environment in which students are active participants and not passive receivers of information. Through this model students are able to apply the knowledge to more than just the current unit of learning. In addition, the importance is placed on learning a process rather than content. Failure is seen as a learning
opportunity and not a stopping place. For this reason, feedback is a must. If all parts of the instructional model are followed, it is believed that the understanding by the student is deeper and therefore able to be applied to future tasks.

**PRESCRIPTIVE MODELS**

“Prescriptive models provide guidelines or frameworks to organize and structure the process of creating instructional activities.”⁵ These aim to meet students where they are and individualize the learning to meet needs determined through careful evaluation and analysis of the learner. Prescriptive Models include the ADDIE model, ASSURE model, the Dick and Carey Model, and the Robert Gagne Model. Of these models the ASSURE Model catches my attention as a very practical model that can be easily implemented with effective outcomes.

The ASSURE Model is a six phase instructional design model. As with the ADDIE model, its name is also derived from the essential phases of the model. The six phases include Analyzing the Learner, Stating the Objective, Selecting Methods, Media, and Materials, Utilizing Media and Materials, Requiring Learner Participation, and Evaluate and Revise. A brief description of the steps follows:

- **Analyze the Learning**- Identify prerequisite skills and knowledge of the learner and their learning styles
- **State the objective**- This is a student centered objective that takes into account the audience characteristics, the desired behaviors, the conditions under which the learner will perform the task and the degree to which they will demonstrate mastery
- **Select Methods, Media, and Materials**- Decisions are made to determine what things will be used to meet the desired objectives
- **Utilize Media and Materials**- Plan how the materials will be used to effectively present the desired information to the learner
- **Require Learner Participation**- A description of how the learner will be actively involved
- **Evaluate and Revise**- A description of what assessment instruments will be used to assess the learning. Revise the instruction as the assessment dictates
COGNITIVISM MODELS

Cognition is defined as the act or process of knowing. As a result Cognitivism instructional models emphasize the internal processes and connections that take place during learning that help learners to attach new information to prior knowledge in order for it to transfer to long term memory. Advance organizers, the Cone of Experience, Information Processing and Concept Mapping are all Cognitivism Models for instructional design. Of these four, Advanced Organizers and Concept Mapping have both been an integral part of my personal instructional strategies.

The purpose of an advanced organizer is to help the learner connect what they already know to what will be learned. In addition they help to promote retention of the new information. Advanced organizers help the learner to graphically organize new, incoming material. By organizing the information, the level of understanding and recall is improved. This is a deductive method which means that the student is given the rule that is followed-up with examples. This instructional design model helps the students’ minds to store the presented information in an orderly fashion that can later be used as additional scaffolding for new information.

Concept mapping uses the graphical tool of diagramming to show relationships. It traditionally uses boxes or circles that contain important ideas of the topic and then connects them with labeled arrows. This technique helps the learner to visualize the information. It is actually a way to “chunk” information as long as the amount of information is limited in its size.

These have both been included because they share many qualities and desired outcomes. They both aim to help the learner to organize the information graphically in order to aid in retention and thorough understanding. However, Advanced Organizers are often used at the beginning of the unit of learning to activate prior knowledge and then throughout the learning to connect the new information. Concept maps can be used in many phases of the instruction. Often concepts maps are used to help summarize information or organize it upon completion of the presentation by the facilitator. Both Advanced Organizers and Concept maps can be used to aid in the Information Processing instructional design model by helping to “chunk” information. Graphic organizers usually reduce the information presented into small bits that are easily managed. Sometimes teachers use the graphic to present information and sometimes the learner is given the task or using the graphic to organize what they have been taught.
APPLICATION- VALUE- PARTICIPATION

Each of the instructional design models has value in effectively planning relevant and rigorous units for students. In evaluating each for a model on which to base my planning efforts, I always come back to Prescriptive Models, specifically the ASSURE model. After researching and reviewing the information about instructional design strategies within the Prescriptive Model, I find that they share many characteristics. Each starts with a knowledge of the learners which includes their prior knowledge base of the subject at hand. This is followed by careful planning which begins with very specific objectives for student learning. Evaluation is inherently important in each model and is used throughout the design of instruction as a method for identifying and making needed revisions. My school system uses SEATS as a comprehensive lesson planning tool. The acronym stands for Standard, Essential Question, Activator, Teaching, and finally Summarizing. While this is a model for individual lessons and units, I think it is very closely related to the ASSURE model for instructional design. Both of them place an emphasis on planning with very specific goals in mind that are centered on the needs of the learners. Formative evaluation is also essential in both as a method for continuous self-evaluation, revision, and improvement. What I especially like in the ASSURE model is the phase which requires learner participation. When I can keep my students actively involved in the learning, I can observe that not only is their level of interest increased, but so is their level of understanding and mastery.

Within the ASSURE model, I would incorporate Advanced Organizers and Concept Mapping. I have always used these and believe that they are both beneficial in helping students to physically organize information in a manner that will help to transfer the information to long-term memory. Advanced Organizers and Concept Mapping are easily integrated into the ASSURE design process and are actions that encourage learner participation which is one of the six steps inherent in this model.

Using an instructional design model helps to give the instructor focus when planning for effective instruction. Just as planning and preparation are necessary to effectively facilitate a classroom that is conducive to learning, a plan is needed when undertaking the process of designing the instruction. In addition, by becoming familiar with the various design models, educators can make informed decisions about what will work best for their particular group of students after the student group has been evaluated and performance levels and abilities have been determined. I believe it is important that educators not become tied to one instructional design model. Often we find ourselves doing what we have always done because it worked for one group so it must work for all. We have to push ourselves to constantly evaluate where our students are and find the method that works best for them.
I have always enjoyed working behind the scenes to find new and innovative ways to reach students. I believe that before we can hope to truly impart knowledge to our students we have to catch their attention, pique their curiosity, and make them want to know more. Good instructional design can be the tool to do all three. It is my hope that I can become more involved in instructional design on a broader level than just within my classroom. The instructional design that I may be involved with today may look very different than what I had envisioned when my teaching career started 17 years ago. It is entirely possible that my instructional design will come in the form of online education which was barely a thought when I first began. Regardless of the platform that my instructional design uses, I will work to stay abreast of current innovations in learning theory so that I can better meet the needs of the students in my charge. To this end, I believe it is necessary to work closely with other educators who are knowledgeable in the field. We all have different, valuable experiences to bring to the table that can help us to design instruction that can impact students’ lives.
REFERENCES:


