Instructional Design Considerations
For Distance Education Programs

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Introduction

As I became involved in the design of distance education programs, I was challenged with the idea that development of a listing of the many variables that should be considered for the effective design of a distance education program might be possible. My vision was of a "menu" that had a couple of columns that listed a variety of sets of alternative instructional options. And, of course, I assumed that once such a listing was developed, it would then be an easy matter to merely make a decision for each set of options on the list and – *zoom* – you would have a fully designed and well operating distance education program. On a few occasions I even went about creating such a list, adding more and more items as I would contemplate a specific distance education design I was working on. Each time, however, I found that as the listing progressed and more items were added to it, the list became more and more complex. And as the complexity became great, I would set aside the list, deciding that I had not yet happened upon the correct set of options for it.

At some point I began to realize that my thinking was extremely naive. I was misguided by a vision that I could control the technology of distance education, so every conceivable learner and instructional situation could be accommodated. I began to realize that although the technology had a limited number of options to consider and could be categorized and organized, the learner variables were boundless. In order for such lists to be effective, I would have to be able to identify all possible learner variables that could ever be encountered in a distance education program and then match them to instructional options for each. *Whoa!* That large an effort would border on insanity. Thus, I gave up my attempts at creating such a list. I moved away from any attempt that would be seen as reductionistic.
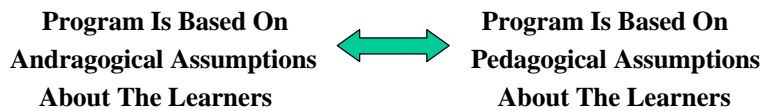
Once I admitted to myself that the task of creating a comprehensive menu of distance education options was impossible because of the complexity of the learner, I was able to settle on a much more reasonable approach. I identified a set of five major design considerations that must be considered during the development of a distance education program. I viewed these as guideposts rather than neatly defined specific instructions. These five design considerations are all under the control of the teacher or instructional designer and can be manipulated in one way or another – hopefully to better accommodate both the focus of the instruction and the uniqueness of each learner. I limited myself to broadly defining each design consideration rather than once again getting caught in the trap of attempting to identify all of the possible learner variations that could affect each consideration.

Design Consideration 1
Assumptions About the Learner

Probably the most significant of the five design considerations are the assumptions we hold about

the learners who are involved with our distance education program – the feelings we hold about the people we are teaching. Demonstrated in so many different ways, the assumptions that we have about the learners color everything we do. Our selection of language, the immediacy of our responses, our willingness to accept answers that are different from our own, and our responsiveness to the requests of the learners send very clear and strong messages to the learners. We must clearly think through what our assumptions are and make sure we operate in a manner consistent with them. And, if we feel that our assumptions don't support the sort of distance education learning environment that we would like, we must then go about changing how we feel about the learners: change our assumptions.

Andragogy-Pedagogy Continuum

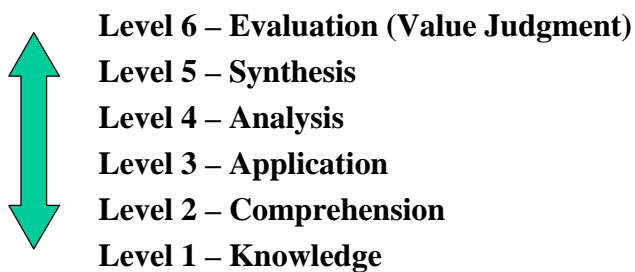| Program Is Based On Andragogical Assumptions About The Learners | ⟷ | Program Is Based On Pedagogical Assumptions About The Learners |

Chapter Seven presents the concept of "andragogy" as established and clarified by both Eduard Lindeman (1926) and Malcolm Knowles (1984). This idea, a continuum of views that goes from seeing learners as very self-directing to seeing learners as being very dependent, helps identify the types of assumptions that we hold about our learners, and our assumptions dictate how we operate as distance educators. And, of course, our assumptions come through so clearly to our learners. If we assume that our program is focused on highly self-directed learners, rather than dependent learners, we are leaning more toward an andragogical set of learner assumptions and away from pedagogical learner assumptions. Other indications of having andragogical assumptions are when we assume that the learner is self-motivated from within (rather than externally controlled), has rich experiences in life that form the basis for further learning (rather than having no important experiences to build upon), has an orientation toward learning that is life-centered (rather than subject-centered), and the uniqueness among learners increases as learners age (rather than assuming all learners continue through life with the same needs and aspirations).

The first design consideration then is to decide where our distance education program will be located on the andragogy-pedagogy continuum. *What are the assumptions we hold about the learners and how will our distance education program demonstrate those assumptions in a consistent and clear manner?*

Design Consideration 2
Cognitive Domain

Assuming that our distance education program is focused primarily on the teaching of cognitive material, rather than affective or psychomotor material, the next concern we must have is the level of the cognitive domain at which we would like our program to be anchored.

Bloom's (1956) Taxonomy of the Cognitive Domain

Level 6 – Evaluation (Value Judgment)
Level 5 – Synthesis
Level 4 – Analysis
Level 3 – Application
Level 2 – Comprehension
Level 1 – Knowledge

A program at Level 1, the knowledge level, would be focused primarily on the presentation of information, whereas a program at Level 3 would be concerned with helping the learner apply the information that is presented. Programs at the highest three levels would make significant use of dialogue between and among learners as well as between the instructor and the learners. At the highest three levels the distance education teacher is the one responsible for encouraging that dialogue. And it's important to remember that each level of the cognitive domain is hierarchical, so that in order to operate at Level 4 the learners must have already mastered the three lower levels.

Establishing an appropriate cognitive level for the design of the distance education program, that is, one that meets both the needs of the learners and the instructor, is the second design consideration. ***At what cognitive level will our program operate?***

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Design Consideration 3
Learner Interaction

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The third design consideration is concerned with the type and level of interaction that is present in the distance education program. Viable interaction among the learners and between the instructor and the learners is an essential element in ameliorating the vacuum that is often created because of the inability to operate in a face-to-face manner. Without interaction the distance education program runs the risk of becoming nothing more than a set of one-way lectures that may or may not have meaning for the learners.

As teachers or designers, therefore, we must clarify, both to ourselves and the learners, the level of interaction that we are expecting within the distance education program and some of the strategies we will be using to help promote and encourage this interaction. By openly sharing this concern with the learners, there is a much greater chance that we will be able to achieve the level of interaction that we desire.

Some ways to promote learner interaction include:

- Provide meaningful feedback, both public (directed to all learners) and private (directed to only a single learner), that encourages response. This response might be in the form of emails, mailed letters, recorded comments, or telephone calls.
- Use open-ended questions that encourage a variety of answers from the different perspectives of different learners.
- Acknowledge and encourage views from learners that are different from your own views.
- Use an online discussion board or bulletin board.
- Share responsibility with learners for some aspects of the distance education course.
- Use a collaborative approach to teaching that encourages learners to work together in small groups.
- Develop a set of written signs or signals that you and the learners can use to denote

emotions (HI = laugh, LOL = laughing out loud, etc.).
- Respond in short sentences (and encourage learners to do the same) so many people can easily join an online discussion.
- Allow ample time for everyone to reflect on their ideas before (and after) sharing them.
- When operating in synchronous mode, establish a rotation (and stick to it), so everyone has a chance to share.
- Allow learners to share the leadership role (i.e. take turns) in guiding discussion or dialogue.
- Encourage learners to ask questions, so you aren't the only one asking.
- Redirect questions to others in the group. Although you may have good answers to the questions, establish a model that values the redirecting of questions, so others have a chance to have input.

Establishing interaction and then maintaining that interaction is the third design consideration for an effective distance education program. ***What will we include in the design of our distance education program that will encourage learner interaction?***

Design Consideration 4
Location and/or Time of Instruction

The advent of the worldwide web has created a strong foundation for asynchronous distance education. Learners and teacher need not be located at the same place or available at the same time to evolve into an effective learning community. Similarly, the use of pre-recorded audio CDs and/or video DVDs can further support an asynchronous mode of operation.

Synchronous learning opportunities, however, can still be a powerful format for distance education. In synchronous distance education formats learners can be challenged with real-time demands for immediate responses, problem solving, and reflection.

	Same Time	**Convenient Time**
Same Location	*Face-to-Face*	*Replicable Learning Environments*
Convenient Location	*Synchronous Distance Education*	*Asynchronous Distance Education*

Strong distance education programs can be built upon the creative combination of both synchronous and asynchronous learning environments. And, of course, an occasional face-to-face opportunity, if available, can help bridge any problems that may arise because of the distance

that separates the learners. *How will we integrate a concern for synchronous, asynchronous, and face-to-face education to make our distance education program a success?*

Design Consideration 5
Technology/Media

And finally, the fifth design consideration for a viable distance education program is the meaningful selection and use of appropriate technology or media. Although many distance educators begin their design with decisions about the technology or media that will be used, I have saved this consideration for last. The reason that technology or media is often the very first design consideration is that it is very often a given. It is the technology or media that is available, and we are expected to use it.

If you find yourself in such a situation, don't dismay. One very obvious way to compensate is to bring together a number of different technologies or media, instead of just using a single one. Be sure to use the one that you are expected to use, but in addition add other media to enrich the learning. So, if a web-based distance education program is where you are heading, try including a conference telephone call at the beginning to help each learner establish his or her identity with the group. Or, send out a short DVD of yourself, introducing the program, so each learner gets to know a bit more about who you are, what you look like, and some of your ideas. In addition to a discussion board, be sure to send frequent emails to each of the learners, encouraging his or her continued participation.

Here are a number of technologies or media that you may want to consider as part of your distance education program:

- Correspondence – emailed or mailed materials and communications.
- Audio CDs or Cassette Tapes – recorded presentations, lectures, or guided visits.
- DVDs, Video Tapes – PowerPoint presentations, demonstrations, lectures.
- Computer-Delivered Instruction – compact disk-based information and resource materials, programmed instruction.
- Telephone – interactive conference calls, one-on-one reinforcement or feedback.
- Radio Broadcast – local listening groups, individually delivered instruction.
- Television Broadcast – one-way communication, two-way interactive TV (CODEC).
- Internet – email, listserv, or discussion board.
- Web-Available Resources – websites and web pages with relevant content.
- Educational/Instructional Web page – programmed instruction, topically focused material, units or lessons from other sources.

Be careful in your selection of technology for the delivery of your distance education program. Make sure that both you and the learners will be able to easily master the technology, so it moves to the background, thereby allowing the content of the instruction to be the primary focus. Help ensure the success of your program by using a variety of media that can effectively reinforce content and also serve to back-up systems that may not function well when needed. ***What technology or media will we select for our distance education program?***

References

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