Robert (Bob) Leahy

CTE-438/638 Course Construction in Career and Technical Education

Assignment #1 Curriculum Philosophy and Model

1. Philosophy

What is the nature of the learner?

From my own prior learning and experience I find that students come with their own unique set of prior knowledge, learning styles, skills, and experiences. One size does not fit all. In my particular case, I work with adult learners. In the 1970s, Malcom Knowles identified the six principles of adult learning:

- Adults are internally motivated and self-directed
- Adults bring life experiences and knowledge to learning experiences
- Adults are goal oriented
- Adults are relevancy oriented
- Adults are practical
- Adult learners like to be respected (Knowles, 1989)

I keep these principles in mind when I teach adult learners.

What is the role of the instructor?

In previous graduate-level coursework (in education) over the past 10 years, I was exposed to the changes in the philosophy or methods of teaching that have been around for centuries. Many learning theorists believe that instructors need to be a "guide on the side" (a facilitator and coach with student active participation) rather than a "sage on the stage" (a lecturer with passive learning students). This is what I have personally found to be effective in my learning, and has become my style of instructing over time.

Even the US Army, of which I have retired from (for the second time) in 2009 has recently adopted this teaching method by shifting "their traditional lecture styled teaching method to a facilitator approach designed to incorporate students' knowledge, skills, and experiences" (Eugene, 2013).

How do you determine what is taught is the truth?

I believe in research and multiple thoughts, theories, ideas, etc. I don't blindly think there's only "one right" answer or view. Sure there is only one correct answer for 2+2 (at least no one has shown otherwise), but many subjects and topics can have different or opposing views, theories or conclusions. Some questions can have more than one correct answer (or truth). What we as educators need to make clear to students that there could be more than one right answer.

What I would also add is that what is taught needs to reflect what is going on in the "real world", especially in the area of CTE. This is where our business and industry partners are very valuable. Too many times in the past I have personally experienced a disconnection between what was taught in academia with what was happening in the careers or fields outside of it. In these cases, academia's "truth" wasn't the same as the industrial/corporate world's truth.

What is the purpose of schooling/training?

Doing some quick research, I Googled "What is the purpose of schooling" to see what would come up. I found the following information at the first link displayed <u>What is the purpose of school?</u>:

> …we typically find the following elements listed as major purposes of K-12 schools in the United States:
>
> • Civic development
> • Emotional development
> • Cognitive development
> • Vocational development
> • Social development

They all might not apply to a particular institution or system, but I believe these five bullet points describe the purposes of schooling/training.

2. Relationship of Philosophy to Content Area

In the past, I have revealed that my background, education, careers and experiences are quite eclectic. That too is true of my philosophy of education and learners. In the various assessments I have completed, I tend to strongly identify with several aspects of the various categories.

Of the two most recent educational philosophies self-assessments I have completed, the first indicated I mostly relate to cognitivism and constructivism, with perennialism and essentialism being a near-tie for the least. In the self-assessment for CTE 638, experimentalist came out first with realist a close second. Idealist and perennialist were tied for third, and essentialist came in last. However the difference, score-wise, between each category was small.

So if you really get down to it, mine is a smorgasbord of philosophies. Which particular philosophy, and the specific trait(s) or characteristic(s) of that philosophy, I use depends on the subject or context of what I am teaching, or may be teaching in the future.

For example, in Community Emergency Response Team (CERT) training, there is a section under *Unit 5 – Light Search & Rescue Operations* ("Community Emergency Response Team Basic Training Instructor Guide," 2012) for cribbing (a crib is a wooden framework used for supporting or strengthening when moving and stabilizing debris until a rescue is complete). In this case "drill and factual knowledge", a characteristic of perennialist, is the most effective way of teaching this subject, and is required to be taught this way in the program. However in *Unit 7 – Disaster Psychology* (the psychological impact of a disaster on rescuers and victims and how to provide psychological first aid), this is not the way to effectively teach or guide the students.

If you ask me which educational philosophy I support or identify with, my answer would be "it depends."

3. Curriculum Model

Curriculum development is a comprehensive, ongoing, cyclical process. It is designed to create new content not been previously taught (e.g., new technology, programs, fields of study), update or revise current programs (e.g., incorporate changes due to emerging technologies), or present content to students in a new format with new activities or methods (e.g., online/e-learning). It is a process that determines the needs of a group of learners, identifies and/or develops objectives to address those needs, determines an appropriate syllabus, course structure, teaching methods, and materials.

I am both a technical writer and instructional designer. Technical writing and instructional design share many of the same processes and skillsets. They both entail effective communication and the skills and challenges are complementary. In both cases I follow cyclical processes (methods) for developing my various products (see Figure 1 - Technical Writing and ADDIE Instructional Design Processes).

Figure 1 - Technical Writing and ADDIE Instructional Design Processes

In the case of instructional design, I use the ADDIE process (Analyze, Design, Develop, Implement, and Evaluate). You may notice that I call ADDIE a process rather than a model. There is good reason. If you Google "ADDIE model", you will see approximately 1.48 million results. Michael Molenda, a professor of instructional systems technology at Indiana University, was often asked "What is the original source for the ADDIE Model?" One reason for such a request was for an authoritative source to cite in papers. After much research Molenda discovered there is no original or authoritative source to be found. In an article titled *In Search of the Elusive ADDIE Model*, Molenda states:

> I am satisfied at this point to conclude that the ADDIE Model is merely a colloquial term used to describe a systematic approach to instructional development, virtually synonymous with instructional systems development (ISD) (Molenda, 2003).

Because of my familiarity of ADDIE, I feel a modified version of that process, as it relates to curriculum design, is appropriate. This is especially true if I were to develop the curriculum as well as develop the courses within that curriculum.

Currently I am not employed or associated with a traditional educational institution. My teaching and design/development of courses is as a volunteer for the agency in my community responsible for emergency management and emergency preparedness. Much of the training and education for the members of this agency (mostly volunteers) is developed, directed or administered at the federal level (Federal Emergency Management Agency – FEMA) or state level (Illinois Emergency Management Agency – IEMA). We are allowed to seek other avenues for relevant training including developing in-house. This affords me the opportunity to choose a curriculum development model or process of my choosing. My choice is a modified version of the ADDIE process for curriculum design.
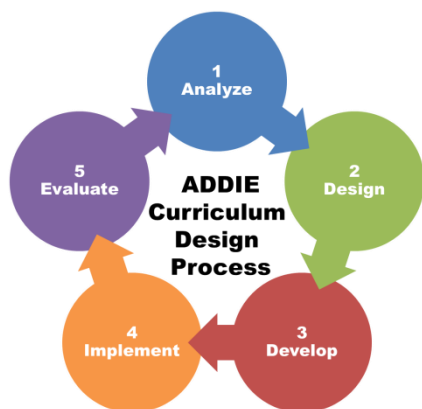
4. Visual Representation

Figure 2 - ADDIE Curriculum Design Process

5. Narrative on Model

The process I see myself using is a modified version of ADDIE with parts of other curriculum design models included. Figure 2 - ADDIE Curriculum Design Process, above, is explained in more detail:

NOTE: This is a work in progress.

1. Analyze

Identify areas requiring or needing training taking into account views of the subject matter experts, the target audience, and the ultimate objectives and goals of the training. Questions and considerations in the analyze phase can include:

- Identifying the learning problem:
    - What problem(s) need(s) to be addressed?
    - What knowledge and skill deficiencies currently exist?
- Considering learner characteristics and the nature of the task:
    - Who is the target audience?
    - What is the current knowledge of the target audience (minimum/maximum)?
    - What are the target audiences' characteristics?
    - What are the target audiences' special needs?
- Identifying the overall goals and objectives of the curriculum. What are the desired learning outcomes in terms of knowledge, skills, attitudes, behavior etc.?
- Considering the learning environment:
    - What are the instructional setting/delivery options (e.g., classroom, e-Learning, blended, etc.) available?
    - What is the timeline for project completion?
- Other considerations:
    - Review published competencies for subject areas to verify that existing courses are appropriate and meet professional standards.
    - Review existing departmental courses and standards.
    - Review the institution's mission and level of expectations in relation to national/regional accrediting agencies.
    - Literature review of best practices.
    - Survey of regional and national programs.
    - Focus groups or surveys of stakeholders:

- Students
- Faculty Members
- Department Heads
- Administrators
- Community/Industry Partners
- Subject Matter Experts (SMEs)

- Formative evaluations (evaluate goal specification, prepare, collect data, analyze data, revise, and recycle).

2. Design

The Design phase is the systematic process of research, planning, identifying and specifying the curriculum objectives. The actual courses needed to satisfy the curriculum are identified.

- Determine number and types of courses needed to address curriculum and subject matter:
  - Specify terminal learning objective(s) for each course
  - Determine number of, and identify, SMEs, instructional designers (IDs) or instructors to evaluate existing courses and/or develop new courses for the curriculum
- Determine student prerequisites and assessment methods to ensure student prerequisites.
- Determine number of faculty needed to teach or facilitate courses once developed.
- Formative evaluations (evaluate goal specification, prepare, collect data, analyze data, revise, and recycle).

3. Develop

In the Develop phase actual production of the materials for the overall curriculum that were researched, planned and identified in the Design phase are established. At this time the individual courses, which are part of the curriculum, need to go through their process for creation or procurement.

- Select the course delivery method (e.g., classroom, e-Learning, blended, etc.).
- Using the ADDIE process for instructional design; produce, update, or procure content and learning materials for each of the individual courses for the curriculum:
  - Course Content
  - Program Materials

- o Instructional Aids
- o Job Aids
- o Instructional Courseware
- o Trainer Guides
- o Learner Guides
- o Textbook(s)
- Develop marketing materials for program:
  - o Narratives for website.
  - o Narratives for course catalog/course descriptions.
  - o Announcements to community/industry partners.
  - o Bulletins.
  - o Etc.
- Formative evaluations (evaluate goal specification, prepare, collect data, analyze data, revise, and recycle).

4. Implement

In the Implement phase the developed curriculum and courses are actually put into action, and the final product, is presented to the target audience.

- Market program:
  - o Website.
  - o Course catalog.
  - o Community/Industry Partners.
  - o Other marketing avenues.
- Schedule program.
- Launch program.
- Formative evaluations (evaluate goal specification, prepare, collect data, analyze data, revise, and recycle).

5. Evaluate

The Evaluate phase is also a systemic process that considers feedback from the learners as well as the stakeholders and community/industry partners in regards to the curriculum and courses. It includes administering and collecting evaluations, reviewing the program data, preparing and reporting performance results.

- Determine the level of success by evaluating the needs for each individual objective.

- Of the courses and material presented:
    - What was most important to the learner?
    - What was least important to the learner?
- What, if anything, should be done differently?
- Summative evaluation (collect data after the project has been implemented to determine its effectiveness and whether or not it has satisfied the objectives).

6. Philosophy Preference Assessment

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Philosophy Preference Assessment

For each item below, respond according to the strength of your belief

Strong Agreement   5 ------- 4 ------- 3 ------- 2 ------ 1 Strong Disagreement

1. Ideal teachers are constant questioners. ___5____
2. Schools exist for social improvement. _____3__
3. Teaching should center on the inquiry technique. ___4__
4. Demonstration and recitation are essential components of learning. ___3__
5. Students should be permitted to determine their own rules in the educational process. __3____
6. Reality is spiritual and rational. ___3__
7. Curriculum should be based on the laws of natural science. ___4___
8. The teacher should be a strong authority figure in the classroom. __4___
9. The student is a receiver of knowledge. __5___
10. Ideal teachers interpret knowledge. __5___
11. Lecture-discussion is the most effective teaching technique. __3___
12. Institutions should seek avenues toward self-improvement in an orderly process. ___5___
13. Schools are obligated to teach moral truths. __5___
14. School programs should focus on social problems and issues. __4___
15. Institutions exist to preserve and strengthen spiritual and social values. __3___
16. Subjective opinion reveals truth. __2___
17. Teachers are seen as facilitators of learning. ___5__
18. Schools should be educational "smorgasbords." ___3__
19. Memorization is the key to process skills. __2___
20. Schools should focus on facts. __4___
21. Schools exist to foster the intellectual process. __5___
22. Schools foster an orderly means of change. __3___
23. There are essential skills everyone must learn. __5___
24. Teaching by subject area is the most effective approach. __3___
25. Students should play an active part in program design and evaluation. __5___

Philosophy Preference Assessment

26. A functioning member of society follows rules of conduct. __5___

27. Reality is rational. __3___

28. Schools should reflect the society they serve. ___4__

29. The teacher should set an example for the students. __5___

30. The most effective learning does not take place in a highly-structured, strictly disciplined environment. __2___

31. The curriculum should be based on unchanging spiritual truths. __1___

32. The most effective learning is non-structured. __1___

33. Truth is a constant expressed through ideas. ___3__

34. Drill and factual knowledge are important components in learning environments. ___3__

35. Societal consensus determines morality. ___4__

36. Knowledge is gained primarily through the senses. __3___

37. There are essential pieces of knowledge that everyone should know. __5___

38. The school exists to facilitate self-awareness. __3___

39. Change is an ever-present process. ___5__

40. Truths are best taught through the inquiry process. __4___

Philosophy Preference Assessment

Scoring Tips

1. Write your score beneath each item number in the chart below
2. For each set (for example, the eight Idealist questions) add the values of the answers given. In a single set of numbers, the total should fall between 8 (all ones) and 40 (all fives).
3. Divide the total score for each set by 5. Those will be your scores for each philosophical position.

Total/5 = Score

Idealist   9,   11,   19,   21,   24,   27,   29, 33
                 _5_   _3_   _2_   _5_   _3_   _3_   _5_ _3_ =   29_/5 = 5.8__

Realist   4,   7,   12, 20,   22,   23,   26, 28
                 _3_   _4_   _5_   _4_   _3_   _5_   _5_ _4_ =   33_/5 = 6.6__

Experimentalist   2,   3,   14, 17,   25,   35,   39, 40
                 _3_   _4_   _4_   _5_   _5_   _4_   _5_ _4_ =   35_/5 = 7.0__

Existentialist   1,   5,   16, 18,   30,   32,   36, 38
                 _5_   _3_   _2_   _3_   _2_   _1_   _3_ _3_ =   22_/5 = 4.4__

Perennialist   6,   8,   10, 13,   15,   31,   34, 37
                 _3_   _4_   _5_   _5_   _3_   _1_   _3_ _5_ =   29_/5 = 5.8__

- Adapted from Wiles, J. & Bondi, J. (1993). *Curriculum development: A guide to practice* (4th edition). New York: Merrill.

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7. References

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