Curriculum Models
Models suggest a representation of certain of a theory. They aid in bringing a theory to reality.

Models?
Not in this class . . .

Models -- They are . . .
- Miniature representations
- Summarize data or phenomena
- Act as an aid to comprehension
Types of Model -- A variety of forms

- **Physical or working model** -- 3 dimensional representations
- **Concept or verbal model** -- a verbalized concept or metaphor imposed on a fact or events to help in comprehension:
  - The 'systems' approach
  - The 'factory' model
- **Mathematical model** -- Complex facts reduced to the regularity of mathematical expressions
  - Ohm’s law
  - $E = mc^2$

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- **Graphic Model** -- More common -- drawings or diagrams that attempt to visually describe components and relationships of facts and events.

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**Models . . . In curriculum**

- Help us interpret theory into practice.
- They reduce the bewildering complexity of curriculum theories
  - Can be used as tools with which to think about curriculum
  - Help us understand the components, their relationships, the processes of development, and interpretation
The Dynamics of Curriculum and Instruction Systems – Johnson’s Model

The Foundation and Nature of the Curriculum: An Eclectic Model – Zais Model

Instructional Systems Model
Merrill’s Pebble in the Pond Model for Training Development

Select Authentic Problem
Progression
Analysis
Strategy
Design

Produce materials for field or distance

Kolb’s View of “Pure” Experiential Learning

Concrete experience [1]
Testing in new situations [4]
Forming abstract concepts [3]
Observation and reflection [2]

Sample Model - Taba

- Diagnosing Needs
- Formulating Objective
- Selecting Content
- Organizing Content
- Selecting Learning Experiences
- Organizing Learning Experiences
- Evaluating
- Checking for Balance and Sequence
Ritz Model

3 Major Parts

- Curriculum Foundations
- Curriculum Content
- Curriculum Evaluation

Curriculum Foundations

- Definition of Program Area
- Rationale for the Study of the Program Area
- Content Source
- Content Structure
- Program Aim
- Program Goals
Curriculum Foundations
Definition of Program Area
• An explicit definition of the subject that the curriculum will developed.
• Defines topic; does not say how long, or other things;
• Production Technology - The application of knowledge and production systems used to convert resources into structures and industrial or consumer goods.

Rationale for the Study of the Program Area
• A written narrative explaining "why" it is important to teach this course.
• Outline points and then develop the narrative.
  – i.e., Gain an understanding of contemporary industry,
• Develop techniques in problem solving,
• Know technologies that are being used in business and industry, etc.

Content Source
• Philosophical focus about where knowledge for the curriculum is derived.
  – Job skills
  – Technological society
  – Industrial processes
  – Citizenship
  – Leisure activities
Content Structure

• Displays how the content derived from the knowledge base might be arranged for program and curricular unit development.
  – A graphic representation.
  – Usually shows how the main units, or topics, develop to form the curriculum.

Program Aim

• Describes the expected outcome of having studied the content prescribed through the curriculum.

• Assist . . .

Program Goals

• Long range outcomes that reflect the direction in which the curriculum should work.
Summary: Curriculum Models

• Can be used as tools with which to think about curriculum
• Help us understand the components, their relationships, the processes of development, and interpretation

Let's take a Break!

Curriculum Design

The arrangement of curriculum elements into a substantive entity.
Basic curriculum components:

- Aim, goals, and objectives
- Subject matter
- Learning activities and experiences
- Evaluation

Basic Curriculum Components

- Emphasis on different components shape the design of the curriculum.

- Taba believes that most curriculum lack balance because:
  - the components are poorly defined, or
  - they not considered within a theoretical framework

- When a curriculum is planned, those who construct the curriculum may place differing emphases on these components parts.
  - Usually more emphasis is placed on the subject matter.

- Sometimes current “fashion” exerts a disproportionate influence on a curriculum.
  - i.e., TQM, customer service, SOL’s, basics, etc.
Sources of Curriculum Design

- Science as Source
- Society as Source
- Eternal and Devine Sources
- Knowledge as a Source
- The Learner as a Source

Science as a Source

- Provides meaning for the curriculum design.
- Only those items that can be observed and quantified should be included.
- Problem-solving should have the prime position in the curriculum, i.e., stress on thinking.
- Procedural knowledge or knowledge of process.
- The curriculum teaches rational processes for dealing with reality.

Society as a Source

- Curriculum is an agent of society.
- Curriculum designed to serve the broad social interests of society, as well as the local community.
- Support is shown for society as a curriculum source -- the universe is becoming, rather than existing for our detached scientific viewing.
- Society shows where to modify the curriculum.
External and Divine Sources

- Curriculum design intended to perpetuate society.
- It should pass society’s values and peoples’ personal morality.
- Often based on some divine will; eternal truth expressed in interpretations of the Bible/Koran/Torah.
- Today these are reflected through the curriculum designer’s values and personal morality.

Knowledge as a Source

- One of the prime sources of curriculum.
- Disciplined knowledge has a particular structure and a particular method(s) used to extend its boundaries.
- Disciplined vs Interdisciplinary Knowledge
  - Disciplined – unique
  - Interdisciplinary – a mix

The Learner as a Source

- Curriculum is derived from what we know about the learner.
- We draw much from the psychological foundations.
- Based on cognitive research.
- Emphasizes "learning by doing".
Dimensions of Curricula

- Scope
- Integration
- Sequence
- Continuity
- Articulation
- Balance

Scope

- Breadth
- Content, topics, and learning experiences

Integration

- Linking all the knowledge and experience within the curriculum.
- Assists in making meaning for the learner.
Sequence
• Ordering of knowledge
• Vertical relationships, i.e.,
  • Simple to complex
  • Prerequisite
  • Whole to Part
  • Part to Whole
  • Chronological

Continuity
• Recurring and continuing opportunity to practice skill development.

Articulation
• Interrelatedness of various aspects of the curriculum.
  – Lost knowledge* - taught but not related to other learning or lessons.
Balance

- Appropriate weight is given to each aspect of the design.

Summary

- Curriculum design should possess internal consistency -
  - Cohesiveness
  - Coherence

Instructional Systems Design (ISD)

- Premise is that training is most effective when the learners are provided a specific statement of what they must do and how their performance will be evaluated.
- Instruction is then developed to teach learners through either hands-on or performance-based instruction.
- It is assumed that a trainee can be taught to perform to a specified level or standard if the instruction is presented on small enough segments, is interactive, and is performance oriented.

  - American Society for Training and Development. March 1988, Issue 803
Instructional Systems Design Model (ISD)

ISD - Analysis
- Gathers information to determine:
  - Is there a need for training -- a problem.
  - Is training the organizational response to the problem.
  - What the training should accomplish -- Goals.
  - Population description of those needing training.
  - Resources available and Constraints.
  - What are the tasks that need to be learned.

ISD - Design
- The developer/designer:
  - Selects and writes specific learning objectives.
  - Develops test items.
  - Establish design structure and sequence.
ISD - Development
• The developer prepares training program -
  • Training materials prepared that support objectives.
  • Media selected -- appropriate to objectives.
  • Evaluation plan is prepared.
  • Documentation instruments prepared for use in tracking participants progress.
  • Course management plan prepared.

ISD - Implementation
• Actual instruction carried out -
  • Management Plan implemented.
  • Classes held.
  • Evaluation Plan implemented.

ISD - Evaluation
• Evaluation of training program
  • Internal Evaluation carried out (course efficiency).
  • External Evaluation carried out (course effectiveness)
  • Data used to improve/revise training course.
Competency-Based Education Model

• A system of education designed to develop prespecified, role relevant competence in those who are to be products of the system.
  • Writing Competency-Based Frameworks, VCRC

CBE Components (Typical)

• Duty Area
• Task/Competency
• Performance Objectives (conditions, performance and standard)
• Performance Measures
• Enabling Objectives
• Instructional Activities
• Resources

• Duty Area
  • Represents a category of job responsibilities, a grouping of similar tasks, i.e., baking in catering course.

• Task or Competency
  • Describes a measurable item of knowledge, skill, or behavior related to the occupational area, i.e., ordering staples in a baking unit.
• **Performance Objectives**
  • Explains what the student must do to demonstrate that he or she has mastered this task/competency.
  • Tells the student
    • under what conditions the performance will take place
    • exactly what performance is required
    • how well the student must perform as a minimum standard.

• **Performance Measures**
  • Tells how the student performance will be assessed.

• **Enabling Objectives**
  • Offers suggested steps leading to mastery of the performance objective, including
    • subskills
    • related skills
    • supporting concepts
    • related knowledge
    • theory behind a psychomotor skill
    • reinforcement of prior learning
    • parts of the performance required

• **Instructional Activities**
  • Presents suggested assignments contributing to the student’s mastery, including such activities as -
    • group projects
    • individual projects
    • written work
    • oral work
    • critical thinking activities
    • demonstrations/simulations
    • audiovisual presentations
    • projects
    • experiments
• References/Resources
  • Lists a variety of aids for teaching the task/competency
    • audiovisuals
    • printed materials

Selection of a Model for OTED 785
• All use Foundations as specified by Ritz Model (due July 2)
• Select Model for Remainder of Curriculum (due July 23)
  • Ritz Model
  • ISD Model (Design Component)
  • CBE Model

Assignment for next meeting . . .
• No Class Next week -- Holiday
• Annotation 3 (Green) is due on June 4
• Curriculum Proposal due on June 4th
• Read Chapters 1 and 2 in your text
  – Be prepared to discuss questions 5, 6, and 7 on page 22.
  – Be prepared to discuss questions 3, 4, and 6 on page 42.
  – Be sure to read the chapters before considering the questions.
Coming Up!

• Proposals for OTED 785 and 885

• Must be turned in on June 4th.

OTED 785 Curriculum Proposal

• **Phase 1:** Develop a curriculum proposal for occupational education or training instruction that solves a community need or organizational need in your selected field or interest (10%).
  
  – Explain the need for this curriculum or training program/course is needed in the schools or organization.
  
  – Explain the problem that this curriculum or training program/course is expected to solve.
  
  – Explain what the projected goal or purpose of the curriculum or training program/course is.

  – Outline the content you think this course should include.
  
  – Describe who the likely learner population is likely to be (psychographics and demographics).
  
  – Identify the resource you will have to design and develop this curriculum or training program/course.
  
  – List the constraints you may face and how you plan to overcome them in designing and developing this curriculum or training program/course.

Due to be handed in no later than June 4
OTED 885 Proposal
Part 1 or Phase 1:

• Analyze (evaluate) an organization’s total curriculum of occupational offerings (catalog of courses) and develop a list of courses that you think will need to be added, changed, or deleted.

• Write a short rationale why you think the course may be a candidate for being added, modified, or deleted.

OTED 885 Proposal --Should include:

• A description of the course, workshop, or program

• Explain what the projected goal or purpose of the curriculum or training program/course is.

• Outline the content you think this course should include.

• Describe who the likely learner population is likely to be.

OTED 885 -- Take Care

• I expect you to look at the whole catalog of HRD or CTE courses within the organization, not just a selection.
  – This should be a significant effort for an organization that has a catalog of at least 15-20 courses.
  – For a school division with a comprehensive CTE program.
  – In large school divisions that have significant CTE programs, the project may be confined to one program area such as Technology Education, Trade and Industry, or Business and Marketing.
Proposals are due:

- June the 4th!
  - At your site.
- Hard copies required except for video stream students who may email them in.
- The rest of you send them through ODU mail.

Carefully check your work!

- Read your work over to yourself before turning it in.
- Have a friend who is a good writer/editor review it before turning it in.
- Include the “I have read and had this final copy edited for grammar and spelling” statement with your paper.

I should not be your editor!

Enough said!

Let’s go home . . .