CORE CONCEPTS FOR DEVELOPING A CURRICULUM

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Disclosures

- None of the lecturers have any financial disclosures or conflicts of interest.

Agenda

- Introductions/Agenda/Objectives
  - Large Group Didactic
    - Curriculum Design 101 Part 1
  - Think/Pair/Share
  - Large Group Didactic
    - Curriculum Design 101 Part 2
  - Think/Pair/Share
  - Reflection/Questions

Learning Objectives

- Upon completion of this interactive lecture, you will be able to…
  - Describe the GNOMES framework of curriculum development
  - Recognize the tools available to evaluate and assess your curriculum
  - Construct a curriculum on your own for all levels of trainees
  - Identify avenues to disseminate and share your curriculum in a scholarly way

Why me?

- ACGME milestones and requirements
- LCME requirements
- Residents as Teachers, Students as Teachers, Faculty as Teachers??
- Educational Specialists
- Site Visits
- XYZ plans

Curriculum Design 101: GNOMES

- Goals
- Needs Assessment
- Objectives
- Methods
- Evaluation
- Scholarship

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Curriculum Design 101 — Topic and Audience

**GOALS**

**Definition**
- The purpose toward which an endeavor is directed.
- The result or achievement toward which effort is directed; aim; end
- The overarching context of your curriculum
- Conveys how it will advance the literature

**Focus:**
- A goal focuses on what the **LEARNER** will experience, rather than what the **INSTRUCTOR** will share or do.
- Goals and Objectives are often confused with each other but what sets them apart is the **time frame, attributes** they’re set for and the **effect** they inflict.

**Basic Example:**
- The goal of this curriculum is for the trainee to acquire the necessary skills to improve their oral presentation quality, diagnostic accuracy, clinical decision-making, and ultimately patient care delivery.
Curriculum Design 101—

Needs Assessment

- Informal
  - Verbal Request
- Formal
  - Surveys
  - Self Assessments
  - Direct Observation
- Preliminary Data
  - 360 evaluations
  - ITE/USMLE scores
  - Oral presentation quality data

CRS Outcome Problem Representation Diagnostic accuracy Constructing a Therapeutic Plan Oral presentations

- Need already identified?
- Need still to be determined?
- Formal needs assessment? Justification?
- Informal needs assessment? Justification?
- What baseline data do I need or have?

Curriculum Design 101—

Needs Assessment

Make sure to ask yourself: What else do I NEED (or need to do) to accomplish this project?

- Collaborators?
  - Who’s do you need on YOUR team? Who is your champion? Experts?
- Resources?
  - IRB approval? Funding?
- Skills? Faculty Development?
  - Training? Education Experts? Curriculum Design Courses?

Curriculum Design 101—

Needs Assessment

Objectives

Learner-centered
Measurable
Bloom’s Taxonomy (Handout)

- Questions to ask before writing:
  - Who is the activity intended for specifically?
  - What exactly is it that you want the learner to be able to do as a result?

- Always begin your objective writing with
  - “The purpose of this activity is to…”
  - “The intended outcome will be…”

- Common Pitfalls
  - not using measurable action verbs and not listing the degree required for mastery (how many, etc)
Curriculum Design 101 -- OBJECTIVES

Examples:
- Upon completion of the Clinical Reasoning Skills Curriculum learning module, the trainee will be able to:
  - Arrange (1) a patient case presentation using the PBAR (Problem representation, Background, Analysis, Recommendations) method

Comparing Goals and Objectives

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad Statements</td>
<td>Specific</td>
</tr>
<tr>
<td>General Intentions</td>
<td>Precise</td>
</tr>
<tr>
<td>Intangible</td>
<td>Tangible</td>
</tr>
<tr>
<td>Abstract</td>
<td>Concrete</td>
</tr>
<tr>
<td>Generally hard to measure</td>
<td>Measurable</td>
</tr>
</tbody>
</table>

Small Group Session
Think/Pair/Share
OBJECTIVES SECTION ONLY

Goals, Needs and Objectives

Take 5 minutes and work with the person to your right to create your Objectives using the Bloom’s handout.

Curriculum Design 101 -- OBJECTIVES

Examples:
- Upon completion of the Clinical Reasoning Skills Curriculum learning module, the trainee will be able to:
  - Arrange (1) a patient case presentation using the PBAR (Problem representation, Background, Analysis, Recommendations) method
Curriculum Design 101--OBJECTIVES

Examples:

- Upon completion of the Clinical Reasoning Skills Curriculum learning module, the trainee will be able to:
  - Arrange (1) a patient case presentation using the PBAR (Problem representation, Background, Analysis, Recommendations) method
  - Distinguish (2) the key features of a patient history and apply (3) abstract qualifiers to compose an accurate problem representation
  - Selects (4) and Support/Defend (5) an accurate patient assessment and differential diagnosis
  - Construct and Formulate (6) an evidence-based, therapeutic plan
  - Objectively demonstrate (3) improved clinical reasoning skills based on standardized checklist and previous knowledge

Curriculum Design 101 Part 2: GNOMES

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Curriculum Design 101--Methods

- Experimental vs. Observational
- Quantitative vs. Qualitative

But if I can do it, I can teach it.....

Curriculum Design 101--Methods

- Bedside Teaching
- Small-Group Activity
- Large Group Didactics
- Web-based Learning
- Reading Assignments
- Trainees as Teachers

Bedside Teaching
Large Group Didactic

Small Group Activity

Web-Based Learning

Curriculum Design 101--Methods

Curriculum Design 101--Evaluation

Curriculum Design 101--Evaluation

- Reaction
Curriculum Design 101--Evaluation
- Learning
  - Attitudes
  - Skills
  - Knowledge

Curriculum Design 101--Evaluation
- Behavior

Curriculum Design 101--Evaluation
- Patient Care

Curriculum Design 101--Scholarship
- IRB
  - Most educational projects are EXEMPT
  - http://research.uthscsa.edu/irb/index.shtml
  - IRBMAIL@uthscsa.edu
- Dissemination/Share
- Publication

“If you build a curriculum using a scholarly approach, and you share your work, your curriculum can become Scholarship.”
—Virginia Neibuhr and Donna D’Alessandro

Small Group Session II
Think/Pair/Share

METHODS, EVALUATION, SCHOLARSHIP SECTIONS
Take Home What You Learned

- Prior to developing a new curriculum a problem statement should be defined.
- Educational goals are general statements of intent and purpose.
- After educational goals are written, a needs assessment should be completed with the use of formal, informal or preliminary data.
- A needs assessment should also include the identification of collaborators, resources and skills needed to execute the new curriculum.
- Educational objectives are specific, measurable and precise.
- Bloom’s Taxonomy is a valid and reliable source for writing educational learning objectives.
- The cognitive domain is most frequently used in developing educational objectives.

References and Resources


Take Home What You Learned

- Using the “Curriculum Design 101” worksheet, develop and implement a curriculum.
- Evaluate your newly developed curriculum using Kirkpatrick’s Outcomes.
- Share your curriculum with others by disseminating your work via poster presentations, workshops, journal articles publications, or MedEd Portal.

Questions??