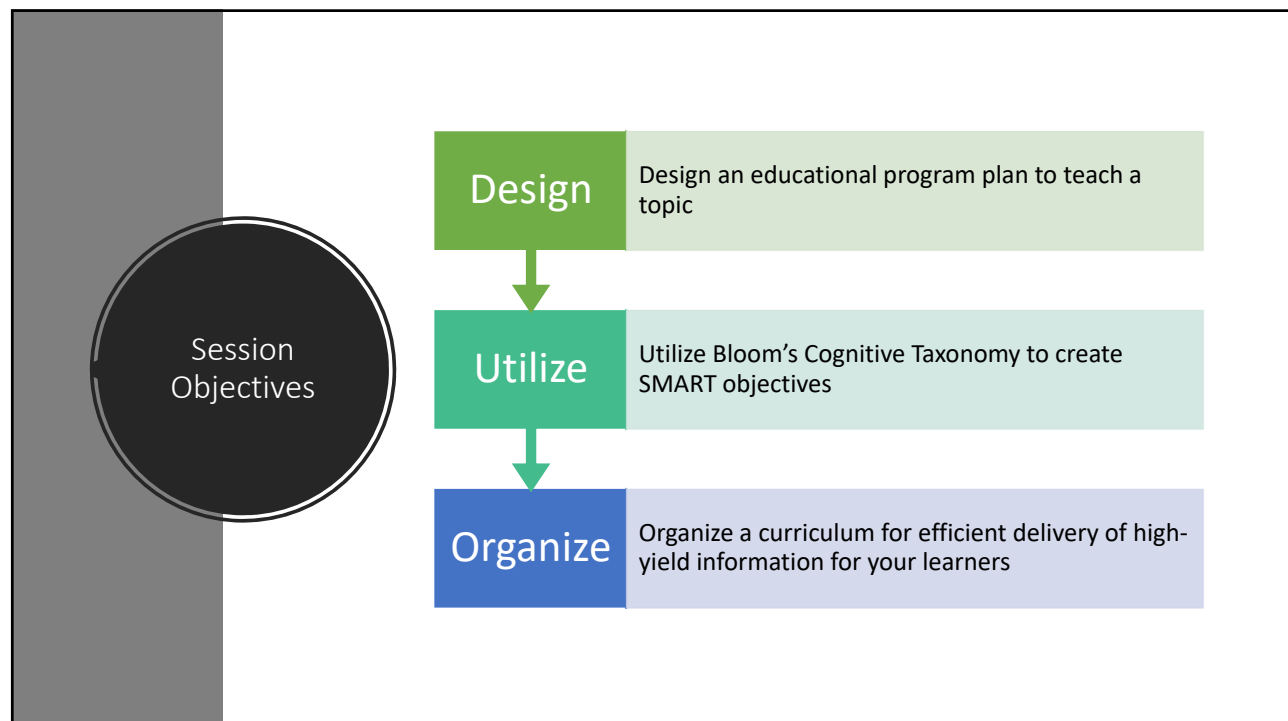


Educational Program Planning: How To Effectively Deliver Information To Your Learners

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To Accomplish A Complicated Task, You Must Have A Plan



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Taken from Educational Program Plan Workbook
University of North Carolina at Chapel Hill
Faculty Development Fellowship

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I. Assess Learner Needs



What are the standards that we want our learners to reach?



How do we know if our learners are meeting those standards?



What data sources do we have?



Do data sources reveal a gap in what our learners **SHOULD** be learning and what they are **ACTUALLY** learning?




List gaps you think are high priorities



For each gap, list evidence that the gap exists

I. Assess Learner Needs

Learning Gap	Evidence that gap exists





II. Determine Scope and Focus

- 1. Familiarize yourself with learning programs and standards
 - All programs are accountable to many sets of standards
 - Departmental
 - Institutional
 - National
 - Many standards are mandated by outside forces
 - We are responsible for maintaining and enforcing those standards applicable to us
 - Standards provide a framework for identifying an educational need within our program

II. Determine Scope and Focus

- 1. Familiarize yourself with learning programs and standards
 - Examples of standards
 - Departmental
 - Mission statements
 - Clinic dress code
 - Procedure credentialing
 - Institutional
 - Documentation rules/timing
 - Leave/vacation policies
 - Moonlighting
 - National
 - RRC Requirements
 - ACGME Core Competencies
 - Board Eligibility Rules







II. Determine Scope and Focus

- 1. Familiarize yourself with learning programs and standards
 - Questions to ask in developing statements of desired learning outcomes
 - What kind of doctor will the program produce?
 - What competencies will program participants possess?
 - What basic skills will these doctors have?
 - Will they have training in health promotion?
 - Will they have the competencies necessary to carry out research?
 - Will they be committed to certain ethical principles?

II. Determine Scope and Focus



- 2. Consider feasibility and urgency
 - Have I identified an important need?
 - Will addressing the need add significant value to our program and/or learning opportunities?
 - What resources do I have at my disposal to address the educational need?
 - Human resources
 - Equipment
 - Space requirements



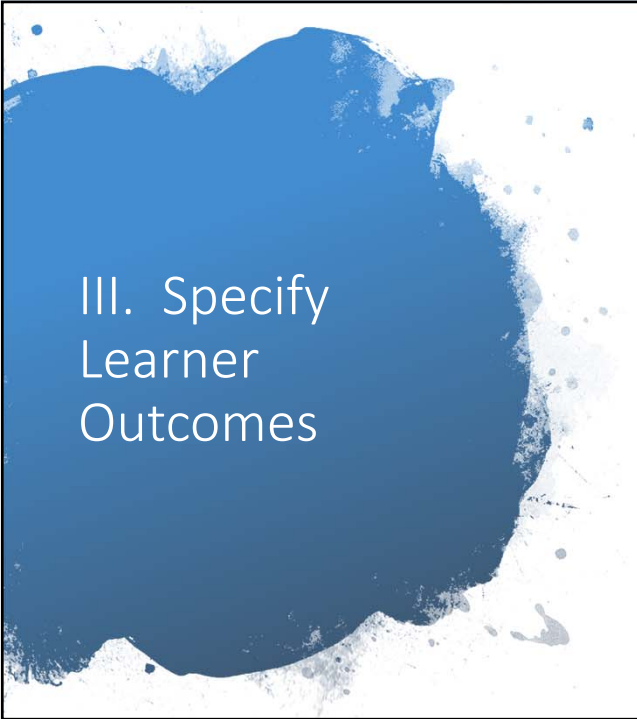
III. Specify Learner Outcomes

- Learner outcome statements describe what learners will know and be able to do as a result of the educational program
- Limit the number of outcomes to three to five
- Well-written outcome statements are **SMART**
 - Specific
 - Measurable
 - Achievable
 - Research-based
 - Time-sensitive



III. Specify Learner Outcomes

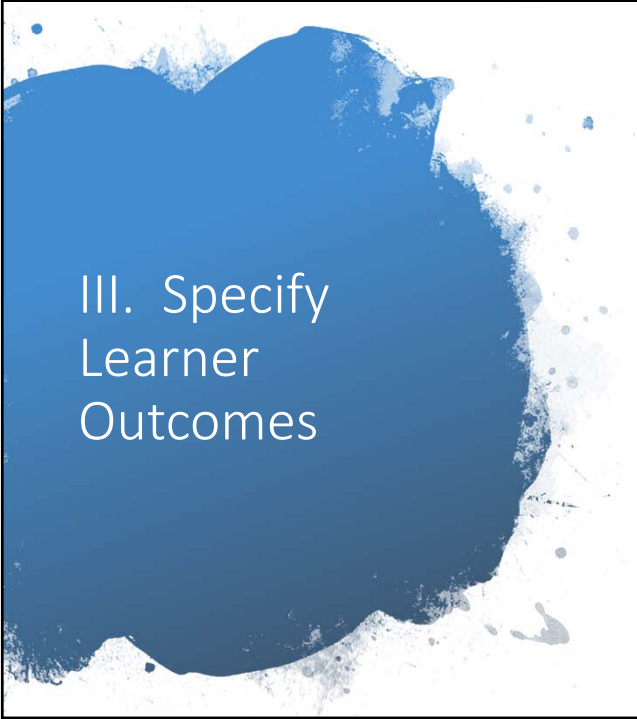
- **Specific**
 - What do we want to change?
 - Who are our learners?



III. Specify Learner Outcomes

- **Measurable**

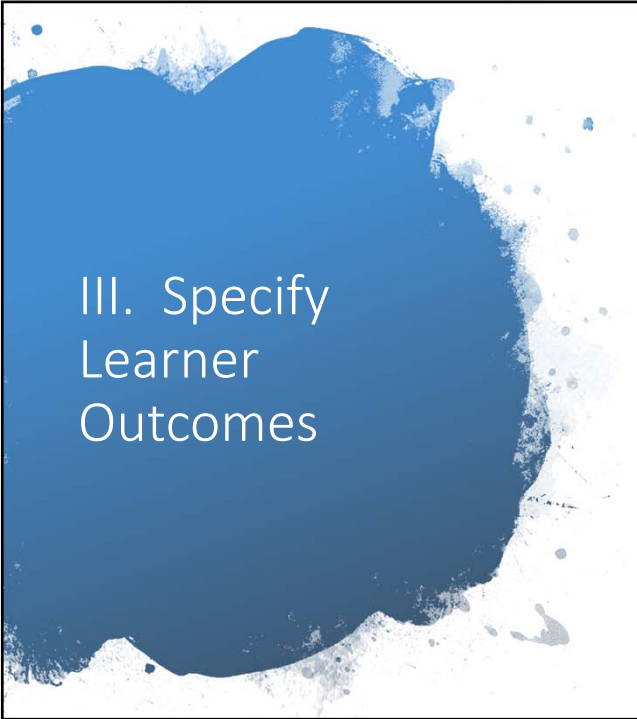
- How much change do we expect to measure in their learning?
- Use terms that signify measurable change: Outcome verbs
 - Bloom's Cognitive Taxonomy
 - Describe, Demonstrate, Complete, Implement, Devise, Identify
- Avoid unmeasurable verbs
 - ~~Understand~~



III. Specify Learner Outcomes

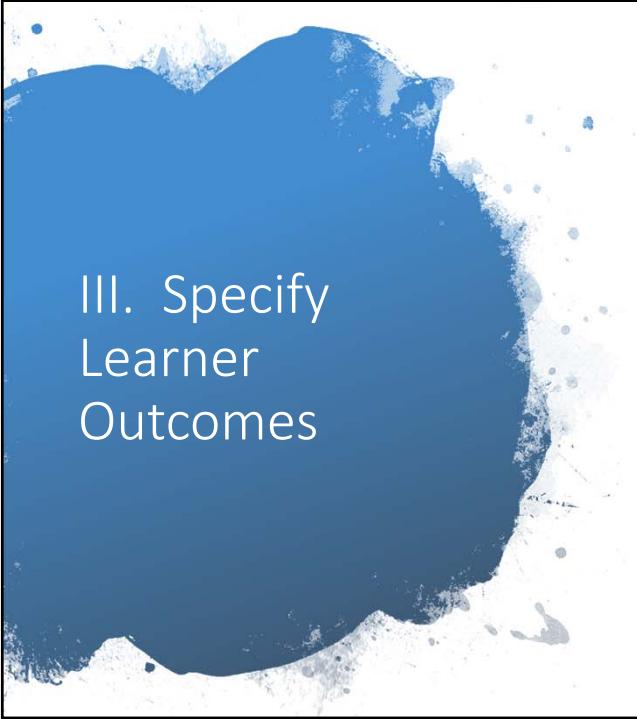
- **Achievable**

- Attainable with current baseline knowledge?
- Attainable within the allotted amount of time?



III. Specify Learner Outcomes

- **Research-based**
 - Evidence-based medicine
 - Refer to applicable standards and expectations



III. Specify Learner Outcomes

- **Time Sensitive**
 - By when do we expect to document this amount of change?
 - Appropriate for the complexity of the learning activity

III. Select and Organize Program Content

- Work backwards from your outcome statements
- What content will learners need to know to meet outcomes?
 - Declarative (information-based) knowledge
 - Procedural skills
- Decide the best order in which to have learners encounter these areas
 - Begin with a foundation of prerequisite knowledge
 - Move from simple to complex
 - Proceed from familiar to unfamiliar
 - Begin with an area most likely to arouse interest or establish relevance



III. Select and Organize Program Content

- 1. Plan instructional strategies and media
 - Adult learning theory (androgogy)
 - Media can be slides, readings, games, hands-on simulation, real-life patient encounters, etc.

III. Select and Organize Program Content

- 2. Design assessments
 - Pre-test, post-test
 - Checklists for procedures
 - Established certifications (national, local)



III. Select and Organize Program Content

- 3. If planning a longitudinal curriculum, specify timeline
 - Indicate which steps of program should be completed by specific times
 - Establish expected time to attainment of goal

IV. Evaluate and Modify Plan Accordingly



What worked?



What didn't work?



Was goal achieved?



Ongoing—are standards changing?

Educational Program Plan for No-scalpel Vasectomy Training at UFP

The Inspiration

- Large number of vasectomies (50 per year)
- Partnership with Knox County Health Department
- Good support/respect from urology department/residency
- No graduating resident has continued to perform vasectomies in practice in the last 5 years
- Graduates feel that they are not adequately prepared to perform vasectomies
- Obvious gaps in the learning experience

Assess Learner Needs

Learning Gap	Evidence that this gap exists
Insecurity about administering conscious sedation for no-scalpel vasectomy procedure	-No formal training for understanding the medications used for sedation in no-scalpel vasectomy procedure
Residents do not show proficiency in performing the procedure	-No formal pre-procedure assessment, didactic or simulation is done -By observation during the procedure and by resident self-reporting
Residents do not perform sufficient numbers of the procedure to certify ability to perform the procedure independently	-Resident procedure numbers are inadequate -Resident self-reporting of insecurity with performing the procedure -Many procedures performed in our clinic have no learner present with the attending

Teaching The Procedure



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Determine Scope and Focus

- A. Identify and describe applicable learning standards
- No standard number is set for number of procedures
 - Must demonstrate proficiency
 - Individual institutions may require specific numbers to grant privileges

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Determine Scope and Focus

- B. Assess feasibility and urgency and resources required
- Adequate numbers of patients
 - Need for increasing skills desiring to perform the procedure
 - Educational resources are available
 - Resident schedule must give flexibility to allow participation in procedure

Specify Learner Outcomes (SMART Outcomes)

1. By the end of residency, residents will perform the appropriate history and identify the physical exam findings pertinent to the pre-operative consultation for no-scalpel vasectomy, recognizing normal and abnormal anatomy and identifying appropriate candidates for the no-scalpel vasectomy procedure. This will be measured by completion of 100% of questions and physical exam points on the vasectomy pre-operative evaluation form and by discussing all risks and benefits on the vasectomy informed consent form on at least five patients during observed pre-operative evaluations.

Specify Learner Outcomes (SMART Outcomes)

2. By the end of the second year of residency, residents will complete the module for conscious sedation through UT Medical Center. Additionally, to feel more comfortable with conscious sedation for no-scalpel vasectomy, residents will prove proficiency in conscious sedation and local anesthesia for vasectomy by scoring 100% on a test over medications used, dosage, monitoring, contraindications, side effects and administration of the medications in the setting of the procedure.

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Specify Learner Outcomes (SMART Outcomes)

3. After teaching sessions and before performing the procedure on patients, residents will take a test over the steps, potential complications, contraindications and risks of the procedure and will achieve a score of 90% or higher.

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Specify Learner Outcomes (SMART Outcomes)

4. By the end of residency, residents will be proficient in the no-scalpel vasectomy technique. Proficiency in the procedure will be determined by participation in and performing the procedure under the guidance of the preceptor until 100% of steps are done appropriately without intervention by the preceptor on at least ten patients. To document competency, the preceptor will fill out a checklist of the steps in the procedure on each observed vasectomy performed by the resident.

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Specify Learner Outcomes (SMART Outcomes)

5. Residents will also demonstrate knowledge of appropriate follow-up instructions by discussing the instructions with the patient and caregiver. Proficiency will be determined by completing all points on the follow-up checklist on each patient.

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Design Assessments

- Conscious Sedation For No-scalpel Vasectomy Quiz
- Vasectomy Consult Encounter Form
- No-scalpel Vasectomy Procedure Quiz (From Kopp)
- No-Scalpel Vasectomy Procedure Checklist
- Post-operative and Follow-up Instructions Checklist

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Plan Instructional Strategies And Media

- Residents will attend a didactic session on no-scalpel vasectomy indications, risks, technique, and follow-up.
- Residents will read a guide to the no-scalpel vasectomy procedure. (Barone)
- Residents will watch an instructional video on Procedures Consult.
- Residents will learn the process of finding appropriate anatomical landmarks on a simulation model with the guidance of the preceptor.
- Residents will assist in the procedure on at least five patients prior to observed performance.
- Residents will be observed as they perform the procedure on at least ten patients

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Select And Organize Program Content

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
PGY1		Didactic Session (18-month cycle); View Video from Procedures Consult										
PGY2	Practice Identifying Landmarks on Detailed Simulation Model	Read Guide to Procedure and Watch Video from Procedures Consult	Begin Observed Preoperative Consults and Exams	Begin Observing and Assisting with No-scalpel Vasectomy				Didactic Session (18-month cycle); View Video from Procedures Consult			Assessment: No-scalpel Vasectomy Procedure Quiz	Sedation Module Complete
PGY3	Assessment: Conscious Sedation for No-scalpel Vasectomy	Begin Observed Vasectomy Procedures									Review of Procedure by Faculty and Plan for Performing in Practice	Certification in No-scalpel Vasectomy Procedure

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Evaluate And Modify Plan Accordingly

- Survey graduates of our program who have received certification to perform the procedure
- Determine how many are still performing the procedure in private practice
- Assess for any reasons for not continuing to perform the procedure
- Address the issues that led to the decision not to continue to perform no-scalpel vasectomy in practice.

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Blooms Taxonomy

- Taxonomy = Classification
- Method of addressing different levels of thinking and learning
- Identifies three domains
 - Cognitive
 - Affective
 - Psychomotor



Uses of Blooms Taxonomy



Write and revise learning objectives



Plan curriculum



Identify simple to most difficult skills



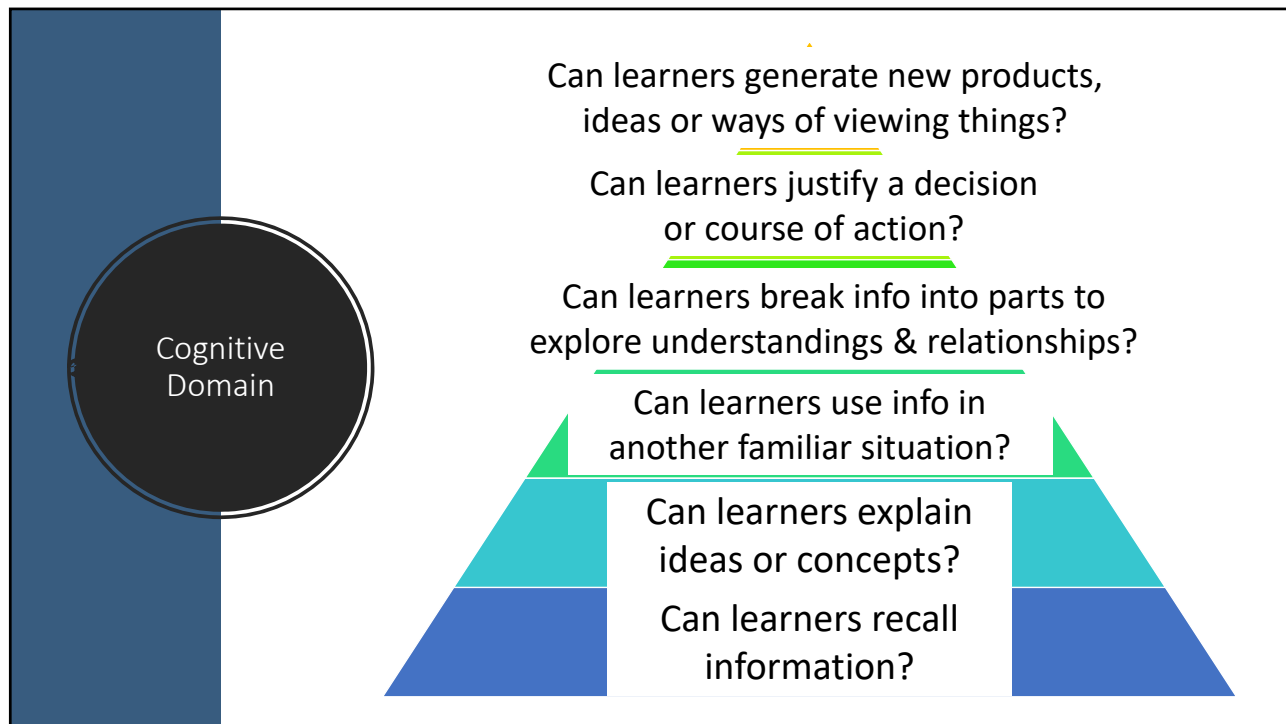
Effectively align objectives to assessment techniques and standards



Incorporate knowledge to be learned and cognitive *process* to learn



Facilitate questioning





Remember

Retrieve pertinent facts from memory



Outcome verbs

Choose
Define
Describe
List
Recall



Instructional Strategy

Listing
Minute paper
Memorization

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Understand

Construct new meaning by mixing new material with existing ideas

Outcome Verbs

Demonstrate

Discuss

Interpret

Summarize

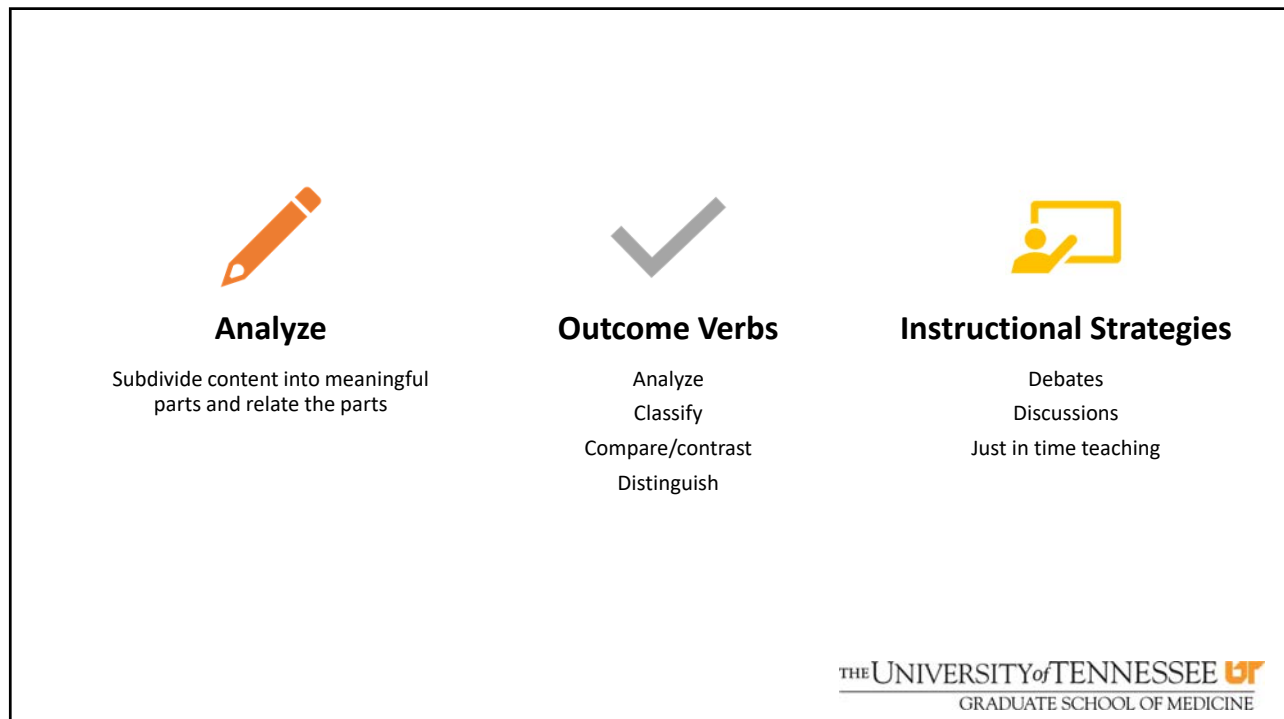
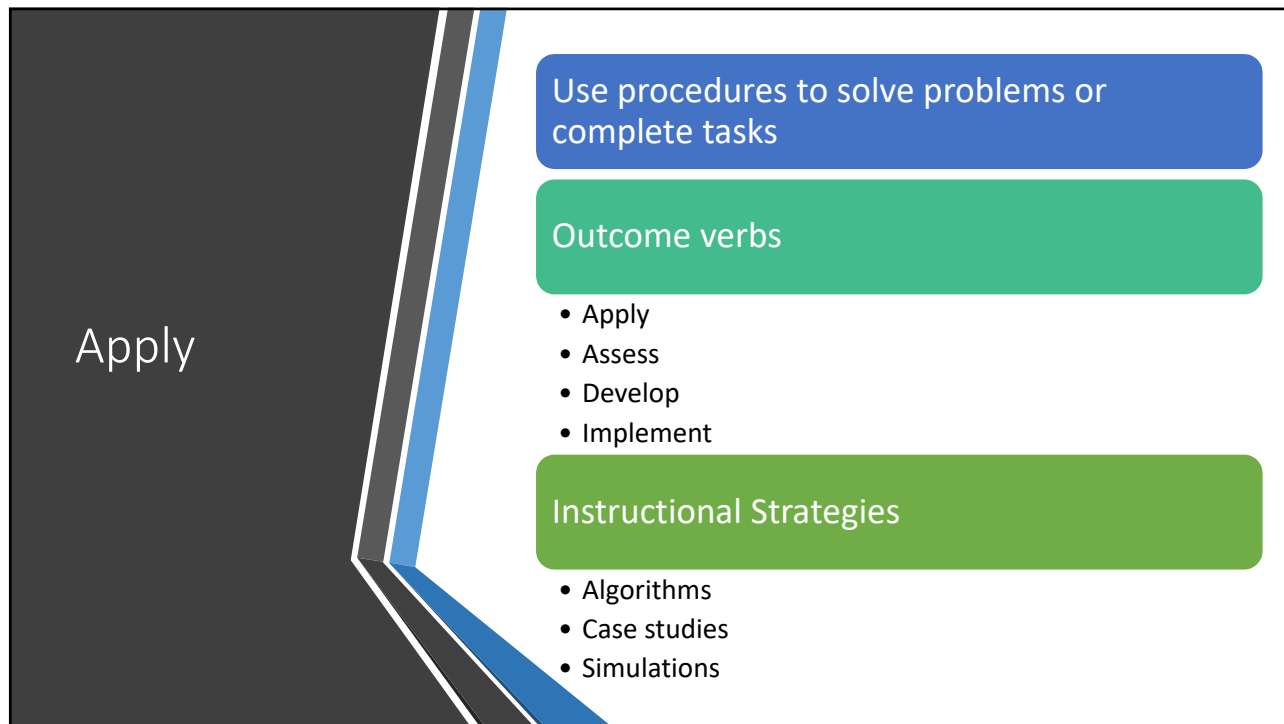
Instructional Strategies

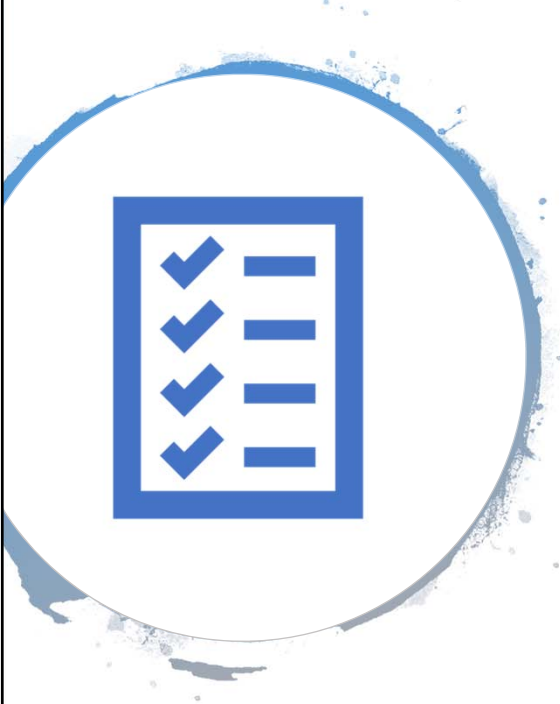
Muddiest Point

Peer-teaching


Connections & Concepts


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- Evaluate
 - Come to a conclusion about something based on standards/criteria
- Outcome Verbs
 - Assess
 - Compare and contrast
 - Evaluate
 - Justify
 - Prioritize
- Instructional Strategies
 - Critiquing literature
 - Debates
 - Decision making activities

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Create

Reorganize elements into a new pattern, structure, or purpose




Outcome Verbs

Collaborate
Design
Integrate
Formulate
Revise



Instructional Strategies

Role play
Challenging assumptions
Cooperative learning assignments

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Questioning



Lower level

Learner's preparation/comprehension
Learner's strengths & weaknesses
Review and/or summarize



Higher level

Complex application, analysis, evaluation or creation
Learners must think critically
Problem solving
Stimulate learner to seek information on their own

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Improving Thinking Quality

- Be explicit
- Share the strategy
- Provide opportunity for practice
- Model skills
- Turn questions into learning opportunities
- Be engaged/engaging
- Acknowledge good examples/ideas
- Learner self-assessment
- Consider diverse learning styles
- Give permission to not cover ALL the content

Family Medicine's Story



Prior Design

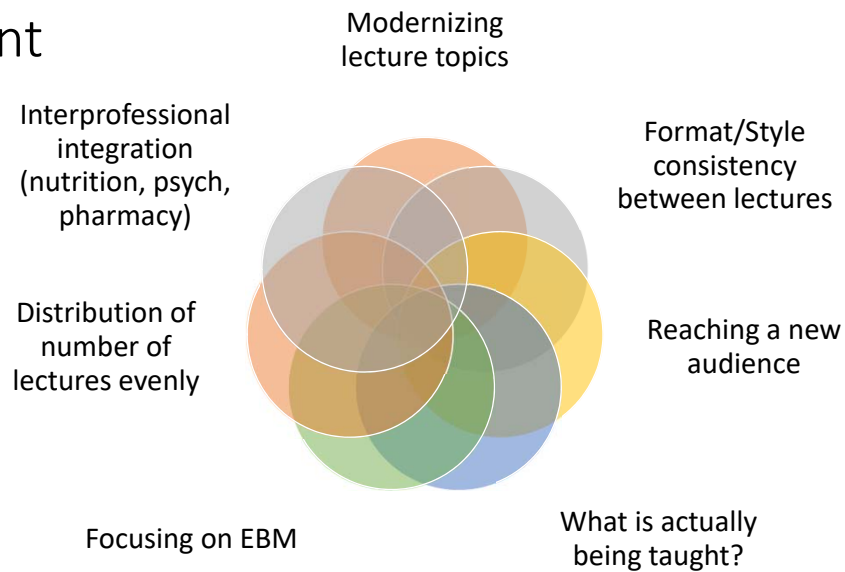
Curriculum

- Textbook chapters
- Niche faculty interests
- Clinically relevant updates
- Guest lectures

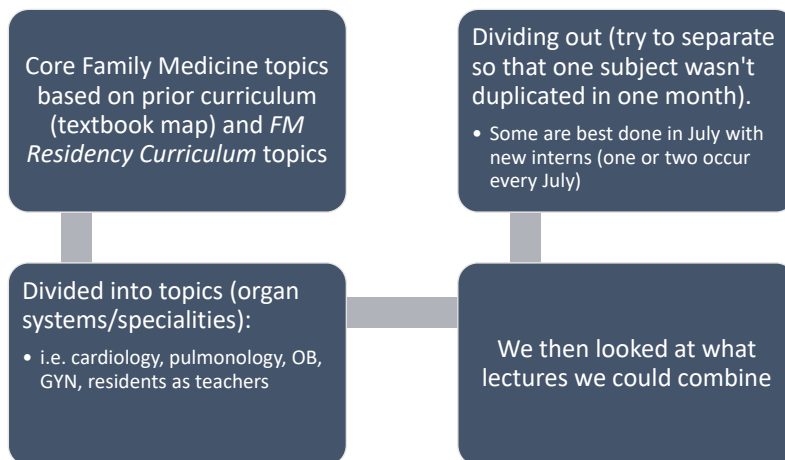
Scheduling

- Assigned by Chiefs, and then an administrative assistant who asked for volunteers from faculty
- Volunteers were usually those faculty who had lectured previously

Needs Assessment



Design process



Collaborative
team of 2-4
faculty

Creating Objectives

SMART objectives for each topic

Outpatient oriented

Specific enough to give direction,
but not to limit creativity

Renamed the talks

Provide an emphasis on this should
be something new or a new twist
on a tried and true lecture

Even lecture distribution

Create a Map

- Using Excel, created a spreadsheet that included:
 - Subject
 - Title
 - Presenter assigned
 - Date given (current, past, future cycles)
 - Objectives
 - Links to assigned readings



Successes

- Opened up time for other things
 - Resident wellness
 - Residents As Teachers curriculum
 - EBM Brown Bag
- Mostly positive feedback from residents
- Has freed up noon conference time
- Have not noticed a decrease in board scores!

What's next?

- Have yet to evaluate lectures... hopeful for integration of lecture evaluation in near future

Discussion

- Let's open the floor and discuss:
 - Ongoing curricular modification
 - Barriers to transition
 - Prior successes

Take 2
minutes...Think of an
upcoming lecture
or teaching
opportunity that
you are involved in.

Write it down!



Practice writing objectives



Consider level of blooms cognitive taxonomy



Write 2-3 objectives for your learners

Instructional Strategies

- What instructional strategy(ies) may be best to teach these objectives?
- Consider 1-2 strategies you may use.



Assessment

Consider some ways
you may assess if your
objectives were met.



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