

Standard Based Education - Competency Based



Richard Beebe MS RN NRP
Special Thanks to Terri DeVito PhD EMT-P

Objectives

1. Discuss the Difference Between Traditional and Progressive Education
2. Discuss What is a Standard and a Standard based Education
3. Discuss Assessment of SBE
4. Discuss Lesson Plans

Traditional Approach



What we had

- DOT National Standard Curriculum
- All levels of EMT Provider
 - Prescribed content curriculum
 - Lesson plans
 - Classroom activities
 - Hourly recommendations
 - Final assessment measures



Traditional versus standards-based Education Planning

- Traditional lesson planning
 - What content will I teach?
 - How will I teach it?
 - What materials will I need?
 - What assignment will I give the students?
 - What activities will I do in class?
 - What homework will I assign?
 - How will I test whether or not they learned it?
 - How will I grade it?
 - What is the next unit?

Developed by the SBE Design Team, Northern Colorado ROCES, through a Partnership Goals 2000 Grant



So What's Different?

No curriculum !

- Practice guidelines - Scope of Practice
- Publisher resources
- Define entry level
 - Competencies
 - Clinical behaviors
 - Judgments

Traditional versus Standards-based Education Planning

Standards-based education approach

- What is the content standard [competency]?
- How will students show what they know and can do?
- What essential learning components do students need?
- What teaching strategies work best?

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Traditional versus Standards-based Education Planning

Standards-based education approach
(continued)

- Are students developing knowledge and skills aligned to the standard?
- What are the outcome measures?
- What should be refined, revised, or retaught?
- Is change needed?

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What is a Standard?

- Standards are the CENTER PIECE of a Strong Academic Program!



Standards in Education

- Levels of quality or achievement
 - Advanced
 - Proficient
- Measure achievement
 - Benchmarks
 - Formative
 - Summative
- Define body of knowledge? YES!
- Identify competencies
- ASSESS! ASSESS! ASSESS!

What is SBE ?

- Focuses on outcomes of learning
 - What an EMT is expected to do, rather than what an EMT is expected to learn

What is SBE?

- Begins with end in mind
 - What is the EMT expected to do?



**National Registry of
Emergency Medical Technicians®**
THE NATION'S EMS CERTIFICATION™

Why Standard Based Education?

- Differentiate outcome from process
- Performance expectations
- Assessment model of patient care
- Model based on Scope of Practice
- Assists in developing teaching and learning activities

Competencies (KAS)

- Competencies consist of a combination of **knowledge, skills, and abilities** that are necessary in order to perform a major task or function.



Competencies

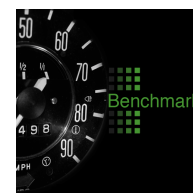
- Cognitive knowledge
 - Immediately useful skills
- Concrete abilities
 - Performance based
 - Observable
 - Measurable

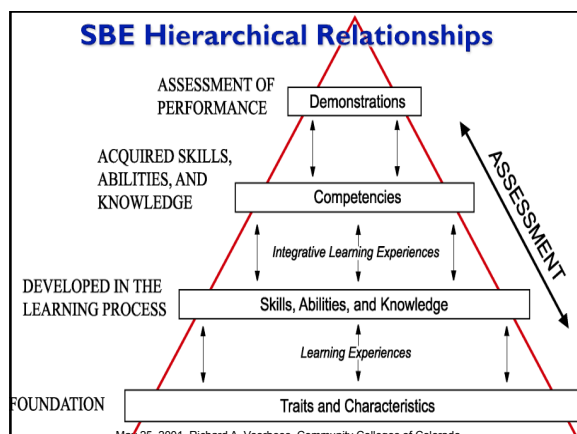
SBE Approach

1. Determine required competencies
2. Specify course/unit learning objectives
3. Identify learning outcomes
4. Design instructional activities and criteria to assess learning outcomes
5. Develop process whereby trainees can demonstrate mastery of the competencies

Competency Measures in Teaching aka BENCHMARKS

- Formative/Summative Assessment
- Discussions or Oral Boards
- Scenario presentations or Simulations
- Multi media Exercises
- Simulated labs
- Observations
- **Clinical practicum**





EMT Level Standard

■ EMT

- Applies fundamental knowledge of the EMS system, Safety/well being of the EMT, medical/legal and ethical issues to the provision of emergency care



Task Analysis Activity

- Reflect on competency
 - Analyze
 - Break down in discrete units
- Create performance description
 - Steps needed to complete task
- Determine critical elements
- Determine cut marker/score
- Analyze outcome

Educators should be skilled in

- Choosing assessment methods
- Developing assessment methods
- Administering, scoring, interpreting tests
- Using assessment results to make decisions
- Developing valid grading measures
- Communicating assessment results
- Recognizing illegal, unethical, inappropriate tests

Standards for Teacher Competence in Assessment of Students, 2008

Developing Assessments

- **Competency**
 - What is being measured
- **Context**
 - How and where does it apply
- **Method**
 - What is appropriate method to use?



Developing Assessments

- **Interpretation**
 - What do the results tell us?
- **End results**
 - Is change needed?



Assessment & Evaluation

- Key Points
 - Must be ethical and legal
 - Must plan carefully
 - Measure what you say you are going to measure
 - Assess at the right level in the right context
 - Ensure a valid and reliable test
 - Let students know the expectations up front

Cognitive Perspective



- Reliability
- Validity
- Unbiased
- Fair
- Students preparation
- Need for Disability Accommodation

Psychomotor Perspective

- Skills
- Scenario
- Lab performance
- Skill performance
- Field/clinical skills



Affective Perspective

- Attitudes and values
- How do you do it?

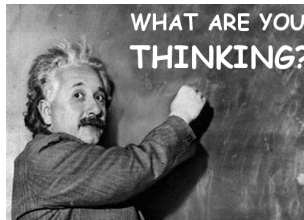


Assessment is not Static

- Complexity and depth of assessment changes
 - Throughout the semester
 - Throughout the program
 - Depending on purpose and context
- One size does NOT fit all
 - One assessment is unlikely to define a student's performance

Instructor needs to ask.....

- How can I gauge what they are really learning along the way to the final exam?



The mediocre teacher tells.
The good teacher explains.
The superior teacher demonstrates.
The great teacher inspires.

-William Arthur Ward

Learner-Centered Teaching

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Traditional Education

- Educator-centered
 - Lecture and textbook
 - Student role
 - Instructor role
 - Classroom atmosphere
 - Learning domains
 - Content delivery



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Teaching "Syndromes"

- Success in Teaching attributed to covering *all the content!*

Hang-On-We're-Gonna-Make-It Syndrome !



Teaching "Syndromes"

- We don't slow down because we can't go back:
- **You-Should-Have-Gotten-That-Earlier Syndrome!**



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Teaching "Syndromes"

- Always build upon existing knowledge

What-Do-You-Mean-You-Don't-Remember Syndrome !



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Learner-Centered Teaching

- The learner is an active participant
- Students are viewed as companions
- Attention is on:
 - Previous knowledge
 - the What
 - the How
 - the Conditions

FLIPPED CLASSROOM ?

Learner Centered Teaching

- Context:
 - Learning tasks should have real world applications
- Construction:
 - Learners link their own experience with new learning materials
- Collaboration:
 - Learners develop, test, and evaluate their ideas with peers
- Conversation:
 - In groups, learners plan, collaborate, and make sense of new learning

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Phases of Classroom Implementation

- Phase I: Planning
 - Choose a class
 - Focus on an “assessable question” about student learning
 - Design a project to answer the “assessable question”

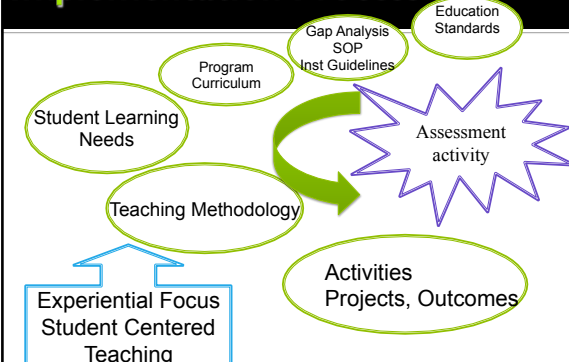
Phases of Classroom Implementation

- Phase II: Execution
 - Teach the “target lesson” related to the question
 - Assess learning by collecting feedback on the assessable question
 - Analyze the feedback – turn the data into usable information

Phases of Classroom Implementation

- Phase III: Evaluation
 - Interpret the results
 - Formulate a response to improve learning
 - Communicate to results to students
 - Evaluate the project’s effect(s) on teaching & learning
 - Design a follow-up project

Implementation Process



Lesson plan Template

- 1. Objectives
- 2. Elaboration/outline
- 3. Behavior/psychomotor skills
- 4. Class activities
- 5. Student outcome measures
- 6. Revisions

Microsoft Template

- Lesson Title
- [Subject]
- [Grade Level]
- [Class Dates]
- **Objectives**
- **Activities**
- **Adaptations**
- **Evaluation**
- **Materials**
- **Other Resources**
- **Overview**

OB Lesson Plan

1. Objectives: At the completion of this module the student will:

- Identify pertinent anatomy to the obstetric patient
- Discuss physiological changes that occur with pregnancy
- Discuss assessment of the pregnant patient
- Discuss Stages of labor
- Discuss true versus false labor
- Braxton Hicks
- Discuss Vaginal bleeding
- Discuss management of excessive vaginal bleeding

OB Lesson Plan

2. Elaboration/outline

- Anatomy & Physiology
- Physiological changes
- Stages of labor
- Patient assessment
- Assessment of Labor
- Vaginal bleeding
- Delivery process
- Patient Management
- Mother
- Newborn

OB Lesson Plan cont'd

3. Behavior/Psychomotor Skills

- Patient assessment
 - Laboring patient
 - Post delivery
 - New born
 - Vaginal Bleeding
- Airway management
- Vital signs

4. Class Activities

- Interactive lecture
- Scenario based discussion
- Lab practice w/ delivery manikin

OB Lesson Plan cont'd

5. Student outcome assessment measures

- Quizzes/exam questions
- Class discussion participation
- Practical exam
 - Laboring mom w/ excessive vaginal bleeding
 - Laboring mom with normal delivery

6. Revision

At the end

- Evaluate yourself and ask
 - Do my students understand what I expect them to know?
 - Does the content and teaching methods I am using match and work with the stated objectives and standard?
 - Do my quizzes, exams, psychomotor skill evaluations, clinical assessment tools provide a means to measure the objectives and standard?

At the end

- If you answered **yes** to all - you are good to go
- If you answered **no** to any of those questions something needs to be fixed. Either
 - Fix, add or delete
 - Change the content or methods
 - Modify the evaluation tools

Does this look familiar??



The bottom line Approach

- Start with the standard
- Identify measurable learning outcomes
- Approach from “students’ perspective”
- Develop approach to lesson/class
- Measure outcomes
- Adapt change as needed

Conclusion

- It is a process
- It will take time
- Keep sight of the goal
- Take the time
- Start where you plan to end
- Think like an assessor
- Remember the student-centered approach

Good News!!



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Resources

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- Affective Evaluation: ACGME Outcome Project
 - <http://www.acgme.org/outcome/assess/assHome.asp>
- National Guidelines for Educating EMS Instructors
 - <http://www.nhtsa.gov/people/injury/ems/Instructor/TableofContents.htm>
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Questions?

