Competency-Based Education and Assessment Model: Teaching, Learning, Assessment, and Feedback

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1

The new *Essentials* offer an opportunity to transform nursing education!

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2

Benefits of CBE Approach

Learner centered

Improves quality of learning

Expands access for non-traditional students

Improves workforce readiness

Clarity around competencies

Connect with student centered missions

Competencies are not fixed entities- change over time and contexts

All students benefitted equally from engagement in CBE

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How CBE Influenced Practice

Communicating for better care

Scientific inquiry and problem-solving skills for effective practice

Critical thinking and evidence-based practice

Professionalism
- Leadership and advocacy
- Entrepreneurship and business management

Ash, Palermo, & Gallegos (2019)

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The Domains, Competencies, and Sub-Competencies will require new ways to teach and assess learning.

Learning Outcomes for this Presentation

Identify the components of an explicitly stated learning outcome

Articulate strategies for creating learning experiences that are experiential

Examine principles for creating competency-based performance assessments

Develop strategies for providing quality feedback

A brief history of competency-based education at Alverno College

Education goes beyond knowing to being able to do what one knows!

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Competency-Based Education: Connecting Student Learning Outcomes to Teaching, Assessment, and Curriculum

Outcomes
- Identify pertinent institutional outcomes
- Identify program outcomes
- Create course outcomes

Teaching
- Plan course teaching and learning activities
- Incorporate opportunities for practice and feedback

Assessment
- Design formative and summative performance assessments that include public criteria to judge student achievement
- Develop student self assessment prompts
- Plan feedback strategies
- Design course and program evaluation

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The *Essentials: Core Competencies for Professional Nursing Education* can provide the framework for creating...or revising the existing...outcomes in your curriculum.

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Characteristics of Learner-Centered Behavioral Outcomes

Involve the whole person

Are teachable

Can be assessed (behavioral, measurable)

Transfer across settings

Are continually evaluated and redefined

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How do the *Essentials'* competencies align with any existing outcomes?

- **Alverno UG Program Outcome**: Applies leadership concepts and skills grounded in professional standards to support innovation and adaptation in evolving healthcare systems.
- *Essentials:* Domain 10: Personal, Professional, and Leadership Development, Domain 7: Systems-Based Practice
- **Competence:** 10.3 Develop capacity for leadership, 7.1 Apply knowledge of systems to work effectively across the continuum of care

- **Alverno Graduate Program Outcome**: Skillfully engage in collaborative and trans-disciplinary leadership to (re)construct strategies for innovative and transformative change in complex healthcare settings
- *Essentials:* Domain 10 Personal, Professional, and Leadership Development, Domain 7: Systems-Based Practice
- **Competence:** 10.3 Develop capacity for leadership, 7.3 Optimize system effectiveness through application of innovation and evidence-based practice

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Creating Course Outcomes: Questions to Ask

What do you want you students to know and be able to do by the end of your course?

What competencies do students need to demonstrate in the course/at the end of the course?

What are the key concepts and disciplinary frameworks to be learned in the course?

How is student performance evaluated with regard to both knowledge and application in this course?

Why should a student not graduate without having had your course?

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Next – How can we take outcomes and turn them into experiential learning experiences and observable assessments?

13

Active Learning

Involves making an action out of knowledge—using knowledge to reflect, analyze, judge, resolve, discover, interact, and create.

Requires clear information regarding what is to be learned, including guided practice in using that information to achieve a competency.

Requires regular assessment of progress towards mastery of the competency.

Requires frequent feedback on successes and areas needing development.

Students must learn how to assess their own performances to develop the skill of continual self-reflection in their own practice.

- *(Essentials,* pp. 4, 5)

14

Strategies: Cognitive, Affective, Psychomotor

Role playing
Modeling
Computer assisted learning programs
Games
Story telling
Debate
Concept mapping

Immersion
Practicum
Producing an artwork
Writing a poem
Making a video
Designing a graphic

Explanation
Description
Lecture
One to one discussion
Answering questions
Demonstration
Discovery
Problem solving
Case study
Group discussion

High and low fidelity simulation
Clinical experiences
Practice synthesis experience

Practice
Printed audio visuals
Simulate a Committee meeting
Interview
Reading
Writing book, essay, article, your own eulogy
Experiment
Listening and responding: TED talk, music
Student choice of any mode

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15

Undergraduate Level Example

Course: Nursing Practice with Healthy Populations (Community health theory course and clinical practicum in settings such as subsidized housing for the elderly, churches, schools)

One Course Outcome: Use appropriate developmental theories and frameworks to inform and tailor teaching to healthy populations.

Teaching/Learning Strategies:

Faculty presentation on known health risks in elderly populations

Faculty presentation and student worksheets on assessing health literacy and learning needs

Faculty presentation and student practice on developing an age-appropriate teaching plan using evidence-based teaching principles

Teaching/Learning Strategies cont'd: Small groups assigned to create and implement practice teaching plans to the class (teach first-graders how to make a peanut butter and jelly sandwich, teach teenagers how to change a tire, teach a group of senior citizens how to take a photo on a smart phone) Faculty and peer feedback given.

Domains:

1: Knowledge for Nursing Practice,

2: Person-Centered Care,

3: Population Health

6: Interprofessional Partnerships

Competencies: 1.2: Apply theory and research-based knowledge from nursing, the arts, humanities, and other sciences, 2.2: Communicate effectively with individuals, 2.3: Integrate assessment skills in practice, 2.4: Diagnose actual or potential health problems and needs, 2.5: Develop a plan of care, 3.1: Manage population health, etc. .

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16

Assessment OF, FOR, and AS Learning
(Stiggins, 2005)

Assessment-OF-Learning: Standards-based measurement for accountability, certification, progression

Assessment-FOR-Learning: Diagnostic measurement to provide developmental feedback to learner and teacher

Assessment-AS-Learning: Metacognitive process whereby self assessment, peer feedback, and instructor feedback are used to help students set and monitor progress toward learning goals

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Comparative Learning Assessment Practices

	Content Framework	Competency/Outcomes Framework
Why assess?	To give a grade	To assist the student To advance the students To adjust the program or course To allow students to extend & deepen learning
What is assessed?	Knowledge	Integrated work projects
What is the standard?	100% or top students	Clearly identified qualitative criteria
Who assesses?	The instructor	Students, peers, instructors, other stakeholders
Who sets the standard?	Instructors and test developers	Students, peers, instructors, other stakeholders
Who knows what will be expected?	Instructors and test developers	It is public knowledge
How assessed?	Quiz or objective test	Exhibits, presentations, projects, portfolios….
When assessed?	Weekly, midterm, final	Continuously and summatively
Where assessed?	Classroom (Stiehl, 2008)	Wherever work is demonstrated

Framework for Designing a Competency-Based Assessment

Identify	Identify relevant course outcomes
Design	Design developmentally appropriate performance assessment instrument/process and create criteria
Design	Design self assessment prompt (a self assessment is not necessary for every assessment)
Determine	Determine who will judge the performance
Determine	Determine the feedback process
Create	Create process for evaluation of the instrument and the learning patterns

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19

Assessment Design

A. Identify the assessment context or situation
B. Identify a mode for student response
C. Create the assessment prompt and instructions

Examples of Modes of Performance Assessment

WRITTEN	Essay, report, case study, in-basket, literary work, letter, progress notes, journals
ORAL	Individual presentation, group presentation, discussion, interview, debate
VISUAL	Digital film, photograph, poster, digital presentation (PowerPoint)
INTEGRATED	Clinical assessment, exhibit, research project, psychomotor skill
PROCESS	Portfolio, journal, records of observed behaviors, self assessment

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20

Review Your Design

How close is the assessment to what the students will actually do when they complete the program?

Is the assessment clearly related to the outcomes and competencies?

Does the assessment fit the level of the student?

Does the assessment elicit the most advanced performance of which each student is capable?

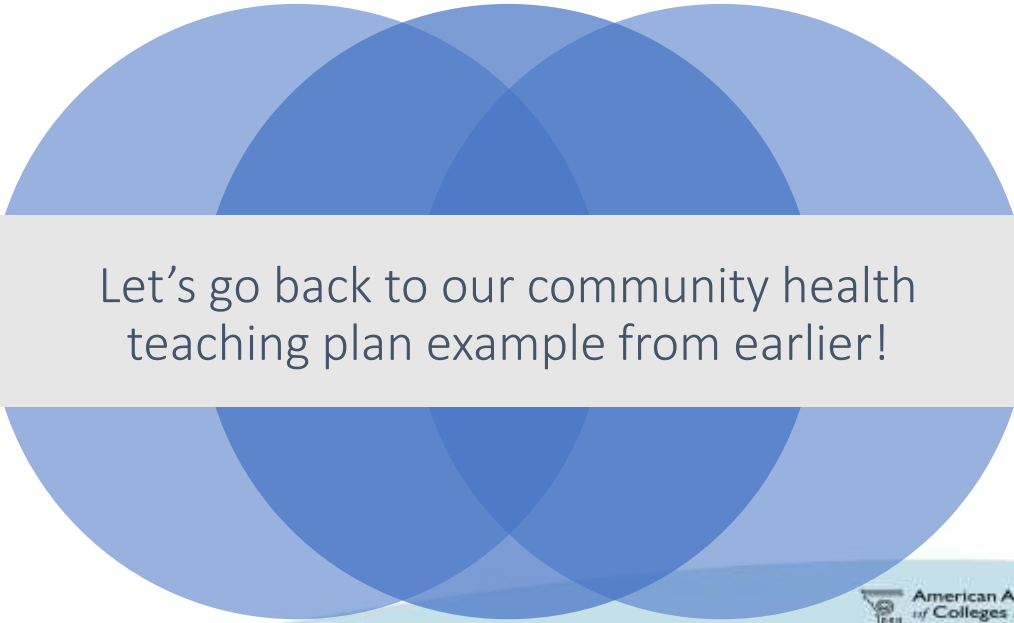Does it include directions distinguished from criteria?

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Definition of Criteria

- Criteria are qualitative indicators of an integration of competence and knowledge as seen in performance.
- Criteria result from breaking open an outcome into specific components.
- Criteria need to be specific enough for a student at a given level to understand and use, without being so specific that the performance is limited to following directions.
- Criteria must include qualitative dimensions of performance.

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Let's go back to our community health teaching plan example from earlier!

Teaching Assessment

Introduction:

As a professional nurse, educating your clients is an integral part of your role. According to *The Essentials of Baccalaureate Education for Professional Nursing Practice*, a major component of a nurse's role is that of a care provider. A large part of providing care is educating patients so that they can be active participants in making their own health care decisions. As a nurse, you will be creating teaching plans in varied formats based on the needs, policies, and procedures of the given institutions and populations you work with. All semester you have been practicing your teaching skills, and this assessment is the culmination of that work. The focus of the assessment is on the independent preparation and implementation of a health related teaching project for an audience to be selected by the student and the instructor. This will require effective integration of speaking, reading, listening, and writing. You will use professional social interaction strategies to interact and negotiate with the agency representative. Faculty and at least one peer will provide feedback, and you will be completing a self assessment of the teaching project.

Assessment Outcomes

1. Identify the learning need of the client (individual, family, or **group**) using the dimensions of wellness. **(Domain: 3 Population Health, Competence: 3.1 Manage population health, Sub-competence: 3.1c Assess the priorities of the community and/or the affected clinical population)**

2. Collaborate as a member of the health care team. **(Domain: 6 Interprofessional Partnerships, Competence 6.1: Communicates in a manner that facilitates a partnership approach to quality care delivery, Sub-competence: 6.1b Use various communication tools and techniques effectively)**

3. Use the principles of teaching/learning within an analytic framework to develop a teaching plan to address the learning need of the client. **(Domain: 3 Population Health, Competence: 3.1 Manage population health, Sub-competence: 3.1f Develop an action plan to meet an identified need(s), including evaluation methods)**

4. Effectively implement and evaluate the teaching plan with the selected client. **(Same as #3 plus - Domain: 2 Person-Centered Care, Competences: 2.5 Demonstrate accountability for care delivery & 2.7 Evaluate outcomes of care, Sub-competences: 2.6a Implement individualized plan of care using established protocols & 2.7a Reassess the individual to evaluate health outcomes/goals)**

5. Integrate the abilities of communication, analysis, problem solving, valuing, social interaction, and use of technology into the teaching/learning experience. **WOW!!**

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Directions

PART I
Select and obtain instructor approval for a teaching opportunity in the community. Content of the project must be developed by the student; you cannot implement pre-developed teaching plans. The content must pertain to health promotion, risk reduction, and/or disease prevention with links to the dimensions of wellness and Healthy People 2020.

The first portion of the project focuses on the assessment of learning needs of the client and the development of the teaching plan. This must be submitted to your instructor at least two weeks prior to the actual presentation, and it must include computer-generated media and a copy of the handouts for the learners. You will receive forms and criteria sheets, which will assist you in completing your plan.

PART II
The second part of the project is the actual presentation. At least one peer and your instructor will evaluate your presentation based on Alverno's speaking/media criteria and the teaching presentation criteria for this project.

PART III
The last part of the project is your self evaluation of your teaching plan and presentation. Analyze the effectiveness of your teaching plan based on your teacher and learner outcomes and in terms of teaching/learning theory. Provide behavioral data to support your analysis. You must also submit a completed peer evaluation using the provided criteria.

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Presentation Criteria

1. Purpose and format of learning activity is identified. **Evidence:**
2. Methods used are appropriate to the learning situation. **Evidence:**
3. Methods used are appropriate to the developmental age of the participants. **Evidence:**
4. Materials used have relationship to the objectives and audience. **Evidence:**
5. Provisions are made for variance in abilities of the audience. **Evidence:**
6. Learners are aware of expected outcomes. **Evidence:**
7. Learners are actively involved in learning experience. **Evidence:**
8. Evaluation process is clearly identified. **Evidence:**
9. Learners are involved in evaluative process. **Evidence:**

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27

Plan for Self Assessment

Self Assessment: The ability of a student to deepen his/her learning by observing, analyzing, and judging their performance on the basis of criteria and determining how to improve it.

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28

A student's thoughts.....

"You're expected to develop your own criteria and assess for yourself whatever your own criteria are, within the framework of the class. I think that when you're out in the workplace and nobody hands you a list and says, "Here's what you're supposed to be doing," you know what your own criteria are within whatever the workplace is and you can say, "Yes, I do this well." You make your own list. You make your own criteria. You assess from there."

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29

Self Assessment Prompts for Teaching Project

What did you do particularly well in this teaching performance based on your objectives, and how might you improve your performance?

Provide one example for how you effectively applied theory in this project.

What was particularly effective for engaging your audience and what would you change?

Provide one example of how you used your integrated communication ability well.

What are your next steps for developing your professional teaching role as a nurse?

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30

Giving Competency-Based Feedback

Feedback tells students how well they are doing from a perspective outside themselves. It raises questions that enable them to critique and further develop their ideas. Therefore, we consider feedback essential for students' improvement of their thinking and learning. By reinforcing students' understanding of what they know and can do, it can motivate them to change and replace vague hope with realistic goal setting.

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Purposes of Feedback

Describe and judge performance in relation to criteria to help the students better understand and analyze their performance based on criteria

Document distinctive performances

Diagnose and prescribe

Motivate students

Plan for future performance

Warn students

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Feedback example: Teaching Medication Safety to Senior Citizens

In your teaching presentation, you described the learning outcomes for the audience and explained why medication safety is important. You went through the four steps in your safety checklist (taking as prescribed, storage, side effects and interactions, and keeping a med list) and gave examples to illustrate each. The information was appropriate for the topic and the audience. Your teaching aids were eye-catching, colorful, but the writing was a bit small to be seen by the audience. Your individual handouts for the participants incorporated health literacy principles. For future presentations, I encourage you to read less and speak to your audience using more facial expressions and gestures. Your hangman game quiz at the end to assess learning was fun and effective!

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Student's thoughts on feedback:

"I think it's helpful because it's individualized as you get your strengths and weaknesses. Also, it unmasks the goals of what you're doing instead of just - splat, a letter grade, and you get some kind of explanation, some kind of idea of what you're supposed to be doing, and what you're doing well."

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Finally….gather data for evaluation and quality improvement purposes.

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? Questions? Comments?

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