

Measuring Critical Thinking Student Learning Outcomes

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LONE STAR STATE OF MIND:
SHINING A LIGHT ON SERVICE



2015 Texas A&M AgriLife
Conference

Student Learning Outcomes

When writing Learning Outcomes, the focus must be on the students and what they will think, know, *do*, or value as a result of participation in the educational environment.

Specific

Measurable

Attainable

Results-focused

Time-focused

Cognitive Learning

<p>Knowledge - to recall or remember facts without necessarily understanding them</p>	<p>articulate, define, indicate, name, order, recognize, relate, recall, reproduce, list, tell, describe, identify, show, label, tabulate, quote</p>
<p>Comprehensive - to understand and interpret learned information</p>	<p>classify, describe, discuss, explain, express, interpret, contrast, associate, differentiate, extend, translate, review, suggest, restate</p>
<p>Application - to put ideas and concepts to work in solving problems</p>	<p>apply, compute, give examples, investigate, experiment, solve, choose, predict, translate, employ, operate, practice, schedule</p>
<p>Analysis - to break information into its components to see interrelationships</p>	<p>analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, distinguish, examine, investigate, interpret</p>
<p>Synthesis - to use creativity to compose and design something original</p>	<p>arrange, assemble, collect, compose, construct, create, design, formulate, manage, organize, plan, prepare, propose, set up</p>
<p>Evaluation - to judge the value of information based on established criteria</p>	<p>appraise, assess, defend, judge, predict, rate, support, evaluate, recommend, convince, conclude, compare, summarize</p>

Affective Learning

appreciate, accept, attempt, challenge, defend, dispute, join, judge, praise, question, share, support

Developing Rubrics

Rubrics

- Disaggregate student learning
- Categorize performance levels
- Define learning outcomes
- Define success

Applying Rubrics to Student Work

- For Outcomes Assessment
 - Rubrics addressing one outcome
 - Rubrics addressing multiple outcomes
- For Grading
 - Address applicable outcomes
 - Sum of criteria = grade

AAC&U VALUE Rubrics

- **Intellectual and Practical Skills**
- Inquiry and analysis
- Critical thinking
- Creative thinking
- Written communication
- Oral communication
- Reading
- Quantitative literacy
- Information literacy
- Teamwork
- Problem solving
- **Personal and Social Responsibility**
- Civic knowledge and engagement—local and global
- Intercultural knowledge and competence
- Ethical reasoning
- Foundations and skills for lifelong learning
- Global Learning
- **Integrative and Applied Learning**
- Integrative and applied learning

Embedding Rubrics in Grading

Assignment Instructions

1) The Jewish women have taken off the veil because when their lives began to become intermingled with the surrounding cultures, the external pressures forced them to take them off.
2) The Christian women took off the veil also because of outside influences. However, there are some denominations that still require it.
3) The Muslim women still wear the veil for the most part because it says in the Quran that is essential for modesty.

Assignment Details

GRADE
Last Graded Attempt /10

Attempt
7/28/14 8:27 PM /10

GRADE BY RUBRIC

[WEB ASSIGNMENT RUBRIC](#) Used for Grading

Show Descriptions Show Feedback

FORMATTING & GRAMMAR --

- Developing 0 (0%) points
- Sufficient 1 (10%) points
- Proficient 2 (20%) points

CLARITY --

- Developing 0 (0%) points
- Sufficient 1 (10%) points
- Proficient 2 (20%) points

CRITICAL THINKING --

- Developing 1 (10%) points
- Sufficient 2 (20%) points
- Proficient 3 (30%) points

SOCIAL RESPONSIBILITY --

- Developing 1 (10%) points
- Sufficient 2 (20%) points
- Proficient 3 (30%) points

Raw Total: 0.00 (of 10.0)
Change the number of points out of 10.0 to:

Feedback:

Embedding Rubrics in Grading

Rubric Detail

You can interact with a rubric to grade in **Grid View** or **List View**. [More Help](#)

Name: **Web Assignment Rubric**

Exit

Save

Grid View

List View

	Developing	Sufficient	Proficient
Formatting & Grammar	<input type="radio"/> Points: 0 (0%)	<input type="radio"/> Points: 1 (10%)	<input type="radio"/> Points: 2 (20%)
Clarity	<input type="radio"/> Points: 0 (0%)	<input type="radio"/> Points: 1 (10%)	<input type="radio"/> Points: 2 (20%)
Critical Thinking	<input type="radio"/> Points: 1 (10%)	<input type="radio"/> Points: 2 (20%)	<input type="radio"/> Points: 3 (30%)
Social Responsibility	<input type="radio"/> Points: 1 (10%)	<input type="radio"/> Points: 2 (20%)	<input type="radio"/> Points: 3 (30%)

Raw Total: 0.00 (of 10.0)

Change the number of points out of 10.0 to:

Feedback

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Establishing Targets

- What does success look like?
- Examples
 - “80% of students will score a 2.5 out of 3 on the grading rubric.”
 - “85% of students will score a 2 out of 3 on each criteria of the rubric.”
 - Etc.

Example Results

Outcome	Developing	Sufficient	Proficient
Explanation of Issues	47%	23%	30%
Evidence	23%	57%	20%
Influence of Context	31%	60%	9%
Conclusions	81%	18%	1%

Where are the weaker spots?

Where are students doing well?

Is there an issue with my pedagogy?

Is there an issue with my assignment instructions?

Analyzing the Results

Questions to ask:

- Did the students meet the target?
- Was there a particular criteria of the rubric where they underperformed?
- Where in my course was that concept covered?

Improving Curriculum and Pedagogy

- How can I further reinforce that concept?
- What will I change the next time I teach this course?

This is the continuous improvement process!

Discussion



Contact

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TEXAS A&M
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- **Mr. Brandon Busted, Gallup, Inc.**

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