

Assessment Analysis for Category #5 in General Education
History and the Social and Behavioral Sciences

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Methodology: We requested that professors who had classes in Category 5: History and Social and Behavioral Sciences send us representative assignments for all students whose Tech ID's end in 4. We received over 200 assignments and randomly selected 50 to evaluate. Each paper was evaluated by two evaluators according to 23 items (numbered 0 to 22) derived from the description of the learning outcomes for Category 5. These items were scored on a 5 point scale according to the level of mastery.

Very inadequate = 1
Inadequate = 2
Satisfactory = 3
Good = 4
Outstanding = 5

We scored the items stringently, so the numerical and % scores should not be compared with letter grades. A rough guideline would be to consider the 4-3-2-1's as A-B-C-D and the 5 as completely outstanding, A+ work. We will use the terms and not "grades" when we discuss the scores.

If the assignment did not ask for the student to perform a given item, that item was checked NA for not applicable. In that way the students were not held accountable for material they were not asked to answer or activities they were not asked to perform.

Process Outcomes and Analysis:

After being scored, 32 assignments remained in the sample for analysis, resulting in a total of 63 scores. When we checked inter-rater correspondence, papers with more than 15% points of difference were not included in the analysis. 17 papers were eliminated. One paper could not be scored because of the absence of a key. One paper had only one rater. Column and row totals and averages were calculated.

There were a total of 898 NA's: an average of 14.3 per paper, with a range of 2-20 and a mode of 15. So we might say that the average class assignment covered approximately 1/3 of the 23 items into which we divided the category 5 learning objectives.

The assignments sent in varied greatly. Some were papers on assigned topics, some were multiple choice examinations. Some professors submitted packets including every assignment. One department had a set of multiple choice tests explicitly designed to cover every outcome in the general education category for that course. We salute those professors and departments who took the time to send in materials and especially those who so obviously cared about the assessment process.

Although we trained on the rubrics, we obviously should have understood them better so that we would not have had to eliminate 17 papers. Alternately we could have had an outside third reader to resolve the differences. When we analyze the results later, other problems with the rubrics will be addressed.

A certain number of NA's is probably to be expected if you are only using one assignment per student. To use full packets of assignments for every student would have been prohibitively time consuming unless more faculty are assigned to do the assessment. However, faculty should be aware that if they only use multiple choice tests and those tests have not been carefully thought out to test for the category outcomes, their materials may not indicate that the students have learned the outcomes. In the next stages of general education assessment, their courses may not be judged to meet the outcomes unless they modify their examinations. Likewise a well designed paper topic can give a student the opportunity to show what they know and can do whereas another topic may not. One department took the time to create a standardized series of multiple-choice exams that covered every criteria. Which is to say, better assignment design will lead to better assessment results.

Analysis based on the scoring of each item only.

Scores ranged from 2.176 at the low end to 3.44 at the high end. The median was 3.083, and the average was 2.996. In other words, most questions received a satisfactory ranking for student learning outcome. If the average grade for gen ed courses in this category is a C, one would expect to find that sort of spread, median and average in an outside assessment for learning. In fact, one has to ask if by using a 5 point ranking system, it is not inevitable that the median grade is close to 3.

The three highest scores were for questions:

- 8. Identify cultural processes across a historical period - 3.44
- 9. Identify cultural and historical processes – 3.367
- 2. Employ the behavioral method – 3.353

The three lowest scores and the only scores below satisfactory were for questions:

- 19. Identify multiple solutions for contemporary issues – 2.5
- 4. Employ method/data of the quantitative method – 2.409
- 17. Identify one solution for a contemporary social issue – 2.176

It seems clear that students can discern social and historical process. It more interesting that they have learned the behavioral method since that is a more discipline specific question. One might not be surprised that the quantitative method (statistics) is weak, but why can't students identify single or multiple solutions for contemporary social issues. In some ways, this section raises more questions than it resolves.

Analysis based on the Not Applicable data.

One thing we do know is that students can't demonstrate competency if they are not asked to by the faculty. The Non Applicable data allow us to see what was asked the most often and the least often. So let's look at what faculty asked. The top ten questions asked were questions:

0. Knowledge/use of facts – 87%
6. Identify Social Institutions – 77%
12. Identify at least one social/historical theory – 65%
7. Identify one Historical Period – 52%
5. Refer to/Cite literature – 49%
9. Identify cultural and historical processes across a period – 48%
18. Identify multiple explanations for contemporary issues – 48%
7. Identify cultural process across a period – 40%
13. Identify more than one theory or process – 38%
14. Discuss, analyze, generate a theory – 36%

Clearly faculty were asking for the simplest levels of knowledge (Identification) which is to be expected, but are they also asking for analysis as in Question 14? This may be an area needing improvement. The five least asked questions were:

17. Identify one solution for a contemporary issue.
21. Discuss explanation(s) for contemporary social issues(s).
11. Analyze social processes across historical periods.
22. Argue for explanations of contemporary social issue(s).
20. Develop solutions(s) for contemporary issues(s).

All these questions require higher order thinking and four of the five come from Criteria #4. Develop, learn and communicate alternative explanations/or solutions for contemporary social issues. When we set up the current General Education Program, we required that all the courses in a Category at least touch on all the criteria, though we recognized that some courses especially in the categories requiring more than one course (Categories 3, 5 and 6) would do less in some criteria and more in others. What we may have learned from this assessment is that all of us need to do a little more in Criteria #4. Given the interests of the faculty and the students in the College of Social and Behavioral Sciences, this problem could easily be remedied by the creation of appropriate research and writing assignments that the students would enjoy doing and the faculty would enjoy reviewing.

To discern what most students know if they are asked, each question was given two rankings, one for how often it was asked and once for its score. These rankings were added together to create the following top ten list.

0. Knowledge of facts.(3.3)
9. Identify cultural and historical processes.(3.3)

8. Identify cultural processes across a period.(3.4)
7. Identify one historical period.(3,1)
6. Identify social institutions. (3.1)
19. Discuss, analyze and generate theory.(3.1)
1. Employ the behavioral method.(3.3)
10. Analyze social and historical periods. (3.1)
15. Discuss and analyze more than one theory.(3.2)
18. Identify multiple explanations for contemporary issue(s).(3.0)

This list may reflect best what faculty ask and what students have learned. Our students are learning facts. Most know cultural and historical processes and institutions. They can identify a process across a period or what an historian would call “change through time.” They can analyze social and historical periods and they can identify multiple explanations for contemporary social issues. When asked they can employ the behavioral method.

Analysis of results in general:

What this assessment did not tell us is how well the students can do. From this methodology we can only discern averages on each question ranked. We do not find the overall score of each piece of student work or even each student. That is appropriate because we are trying to assess student learning of the category and not the individual student. However since our criteria were ranked in the order of difficulty and the questions within each criteria are ranked by order of difficulty. We can say that the students are good at the basic level of identification and analysis of knowledge in Criteria 2: Examine social institutions and processes across historical periods and cultures. They are less well prepared in Criteria 1: Employ (learn) methods & data of historians and social scientists except for behavioral science. They can identify theories (Criteria 3), but are weaker at analyzing or creating them. They were rarely asked to Develop/learn and communicate alternative explanation or solutions for contemporary social issues.

An assessment is only as good as the materials provided. If all the faculty sent an assignment which reflected the student’s ability to analyze and create, then we could assess that ability. If faculty increase the difficulty of their assignments to include more analysis and theory, the ability of the students to achieve in these areas will probably go up. If they choose these assignments to hand in for assessment, the ratings for student’s ability to handle theories would be reflected better in the assessment. Although one would initially think that this would require a writing assignment, it should be noted that one department did an excellent job of incorporating all the criteria into a well designed multiple-choice tests which demonstrates that a multiple choice test can require analysis and methodology, and an organized department can develop an excellent assessment instrument for a basic course taught by a variety of faculty.

Suggestions: For Future Assessments:

We were probably unnecessarily complex in our design of the assessment. We either needed rankings for the questions or questions ranked for complexity of thinking but not both. The complexity also made it harder to standardize with each other. Next time, third readers should be used whenever there is significant disagreement between readers. We could have used one more reader to be the organizer and third reader.