Using a Theoretical Matrix of Culturally Relevant Assessment to Promote Equity

Harriet Hobbs, Director of Assessment Systems & University Accreditation
Karen Singer-Freeman, Director of Academic Planning & Assessment
Christine Robinson, Executive Director

University of North Carolina at Charlotte
Office of Assessment & Accreditation

SACSCOC 2018 Designee
Overview

- Learning Outcomes
- Purpose
- Culturally Relevant Theoretical Model
- Process
- Assignment Types and Results
Learning Outcomes

- Identify assignment types that may produce equity gaps
- Understand the process and replicate this work on your campus
Purpose

- UNCC System Goals
  - Reduce equity gaps in undergraduate degree completions for particular groups
- “A Vision for Equity” (AAC&U)
  - Case studies on reducing equity gaps
    - Data disaggregation at the course level
- Equity and Assessment: Moving towards Culturally Responsive Assessment (NILOA)
  - Culturally responsive assessment and pedagogy can reduce equity gaps
Activity

1) Please pick up the paper on your seat and circle the items that would generally describe this sort of assignment.

2) Compare your assignment and responses with the person next to you

3) Total the number of odd items and the number of even items you selected

4) Discuss – What do you think these questions are trying to measure?
The Measure

**Utility Value**
(Chronbach’s Alpha = .90)

- Result in something I will discuss with others.
- Help me understand myself better.
- Improve my understanding.
- Provide me with experience that will be professionally useful.
- Have personal value.

**Inclusive Content**
(Chronbach’s Alpha = .93)

- Allow me to express my learning in my own words.
- Make me feel confident I can succeed.
- Include examples and materials that are familiar to me.
- Measure my true understanding.
- Allow me to relate class materials to my own experiences.
- Include clear instructions.
Culturally Relevant Assessment
Culturally Relevant Assessment
Singer-Freeman, Hobbs, & Robinson, 2019

- Inclusive content
  - Culturally inclusive
  - Aligned with teaching and SLOs
  - Clear instructions
    - Limits effects of prior knowledge and privilege
  - Scaffolding
    - Builds on prior knowledge and creates opportunities for early success
- Inclusive environment — avoid stereotype threat
- High utility value
  - Work has meaning beyond the academic context
# Theoretical Analysis of Assignment Types

## Risk Levels

**Low Risk**
- Reflective writing

**Moderate Risk**
- Inclusive projects
- Writing in discipline

**High Risk**
- Multiple-choice tests
- Formal Essays
- Homework
- Open-ended tests

## Utility Value

<table>
<thead>
<tr>
<th>High Utility Value</th>
<th>Low Utility Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Inclusive Content</td>
<td>Reflective Writing</td>
</tr>
<tr>
<td>Low Inclusive Content</td>
<td>Writing in Discipline</td>
</tr>
</tbody>
</table>
Research Confirmation of Theoretical Model

- Analyzed
- Theater Appreciation, Child Development, Experimental Psychology, and Sociology of Health and Illness
- Frequent equity gaps only in formal essays, tests, and homework

<table>
<thead>
<tr>
<th>High Inclusive Content</th>
<th>Reflective Writing ✓</th>
<th>Low Inclusive Content</th>
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<tbody>
<tr>
<td>High/Moderate Utility Value</td>
<td></td>
<td>Low /Moderate Utility Value</td>
</tr>
<tr>
<td>Inclusive Writing Projects ✓</td>
<td>Formal Essays ✓ Tests ✓ Homework ✓</td>
<td></td>
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</tbody>
</table>
Process
Our Process

- Obtained a list of 88 classes with DFW rates of over 30%
- Reviewed 36 classes
  - Identified 9 that included different forms of assessment and reported grades through LMS
  - The majority of classes we rejected only included testing
- Of the 9 classes with differentiated assignments
  - 100% includes Exams and Quizzes (Tests)
  - Formal essays and Writing in the Discipline (Papers)
  - 2 Projects and 1 Oral presentation (Projects)
  - Frequent low-stake assignments (Homework)
How to Disaggregate Data

• Download grades, assignment descriptions, and syllabi for desired course from LMS
  • Consider merging data from multiple semesters if enrollments are low

• Decide whether to include or exclude
  • Missing assignments
  • Completion-based grades

• Aggregate grades for equivalent assignments

• Convert points to percentages

• Merge file with demographic data from Institutional Research
Classes

- Pre-Calculus MATH 1103
- Organic Chemistry Lab CHEM 2131L
- Introduction to Communication Theory COMM 2100
- Network Theory ENGR 2112
- Principles of Accounting ACCT 2122 (flipped)
- Physiological Psychology PSYC 3113
- Design and Implementation ITCS 3112
- Sociology of Health & Illness SOC 4120
- Conservation Biology BIOL 4244
URM Results

Points Separating non-URM from URM students

- Tests
- Papers
- Projects
- Homework
- Final Grade

MATH  CHEM  COMM  ENGR  ACCT  PSYC  ITCS  SOC  BIOL
Transfer Student Results

Points Separating Native from Transfer Students

Tests | Papers | Projects | Homework | Final Grade
---|---|---|---|---
MATH | CHEM | COMM | ENGR | ACCT | PSYC | ITCS | SOC | BIOL
Summary

Presence of Equity Gaps

• Tests
  • Low stakes or high stakes
  • Multiple choice or open ended
  • Open-book and Online

• Low-Stakes Homework, Writing, and Projects

• Formal Writing

Absence of Equity Gaps

• Writing
  • Writing in the discipline
  • Reflective writing
  • Inclusive projects

• Oral Report
• Group Project
Application

• Use assignments that are high in inclusive content and utility value
• Boost these characteristics in other assignment types
  • Utility Value – explain the academic, professional, and personal value
  • Inclusive content
    • Include accessible materials
    • Limit reliance on material you haven’t taught
      • Use rubrics to focus grading
      • Have students provide feedback on test questions
      • Include clear and explicit instructions
      • Utilize scaffolding with links to just-in-time information
  • Create inclusive environment through online, open book tests
Contact Information

University of North Carolina at Charlotte
Harriet Hobbs, hhobbs2@uncc.edu
Karen Singer-Freeman, ksingerf@uncc.edu
Christine Robinson, crobi112@uncc.edu