Minimizing Bias in Coding
IUPUI Assessment Institute 2019

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Outline of Workshop

Introduction
- Overview of Issue of Bias
- Theoretical Frameworks Applied to Examples
- Discussion of Other Strategies and Implications

Session Outcomes

As a result of this session, participants will be able to:

- Recognize situations in which coding may be subject to bias;
- Distinguish between structure as evidence of skills vs. content as influenced by perspective when scoring;
- Identify multiple strategies for minimizing bias and further implications of this work.

Why important now?

- Climate of tension in higher education
- Loss of confidence in higher education
- Student diversity continues to increase
- Equity/inclusivity in assessment has not been a priority

Why should we care?

Bias can lead to:

- inequitable grading
- lack of validity in assessment
- misguided direction of research

Issue of Bias

- Confirmation bias
- Relevant to assessing cognitive skills such as critical thinking and problem solving
- When coding/scoring/assessing student work
- Due to perspective expressed by the student
- Reducing bias → culturally responsive assessment (Montenegro & Jankowski, Jan. 2017)

Theoretical Frameworks

- Cognitive Structures in Developmental Theories
- Argument Structures

Cognitive Structures in Developmental Theories

- Shared underlying structure → stages
  - Intellectual development (Perry, 1968/1970; Baxter Magolda, 1992; King & Kitchener, 1994)
  - Moral development (Kohlberg, 1964)
  - Intercultural sensitivity (Bennett, 1993)
- Developmental process is content-free

Problem-Solving Analysis Protocol (P-SAP):

- Assesses application of content knowledge to "real world" problems
- Based on Eyler and Giles' (1999) work on cognitive outcomes of service-learning
- Issues adapted to fit course or program content
- Responses coded from simple, limited perspective to more complex analysis

Available at http://departments.central.edu/psychology/faculty/psap/

Application of Cognitive Structures in Developmental Theories to Examples A & B

Example A

When considering withdrawing or withholding life-sustaining treatment, the pros and cons should be deliberated by the patient, family, and healthcare professionals involved. The dilemma can also be looked at from different theoretical viewpoints to see all of the different perspectives relevant to the case. Because withdrawing and withholding life-sustaining treatment is an ethical dilemma, conflicting ethical principles and alternatives are examined, before making a decision. The nurse also needs to be cognizant of his or her own personal beliefs and position regarding the dilemma, before being able to professionally and objectively advocate for patients' wishes. All of these aspects of the dilemma are equally important, when deciding whether treatment should be withdrawn or withheld. A patient or family member that does not fully examine all facets of withdrawing or withholding care, could make an irreversible and regretful decision.

Example B

In my opinion, medical futility is the most humane thing to do for someone that is terminally ill or in a vegetative state. I never understood why some people fight so hard for them to stay alive. When you really think about it, they are not alive. They are not living. When they cannot go have fun, do what they want, when they want, they are not living with much quality of life. They are just living in body, but not soul. I do think of the religious aspect, but at the same time we have to let them go and be with God. Keeping patients on Earth with medical technology just so we can have them is not fair to them. God does things on purpose. If they are meant to die then, we have to let them, it is selfish to make them stay.

Argument Structures

- The "they say / I say" framework identifies argument structures that help students enter the world of academic discourse through their writing (Graff & Birkenstein, 2014)

- Represents internal cognitive structure for effective argumentation and development of critical thinking

- Structure can be identified regardless of content

Introducing an Ongoing Debate
(Graff & Birkenstein, 2014)

- In discussion of X, one controversial issue has been _____. On the one hand, _____ argues _____. One the other hand, _____ contends _____. Others even maintain _____. My own view is _____.

- When it comes to the topic of _____, most of us will readily agree that _____. Where this agreement usually ends, however, is on the question of _____. Whereas some are convinced that _____, others maintain that _____.

Application of Argument Structures to Examples A & B

Example A

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Example B

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What other strategies might you use to minimize bias and move toward more culturally responsive assessment?

Discussion of Implications

- Engage students more actively
  - Share frameworks and questions
  - Tailor problems for analysis
  - Provide choices
- Use in faculty development (especially before scoring sessions)
- Welcome all voices into the academy
- Research on culturally responsive assessment approaches
- What else?

References

See handout for reference list.

For More Information...

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For P-SAP, go to website:

http://departments.central.edu/

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Issue: There are no agreed-upon guidelines on when to withhold life-sustaining treatment.

Example A

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Example B

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