

Daemen College Student-Faculty Interdisciplinary Research Think Tank Project Update
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Title: Longitudinal Study of Students' Reflective Judgment in Four Degree Programs With the Steps for Better Thinking Model: Third-Year Results

INTRODUCTION

This study presents three years' data from a longitudinal study of reflective judgment in college students, using the Steps for Better Thinking model developed by Lynch and Wolcott (Lynch, 1996; Wolcott & Lynch, 1997 and 2001.) Steps for Better Thinking (SBT) is based on the Reflective Judgment Model of King and Kitchener (1994) and Fischer's Skill Theory (1980).

SBT advances the assessment of reflective judgment by providing a flexible assessment rubric that can be applied to teaching and research. It is less costly in time and training than the Reflective Judgment Interview, and is adaptable to any issue involving open-ended problems (also known as "unstructured," "ill-structured," or "ill-formed") : those that have no certain correct answer. SBT also provides a framework for design of educational materials and tasks that can stimulate higher levels of reflective judgment in students (Wolcott, 2000, Lynch & Wolcott, 2001.)

This study is following students through four different programs during their courses of study at a medium-sized, multipurpose college: two clinical programs, Physician Assistant Studies and Physical Therapy; Psychology and a fourth group of History/Government and other liberal arts majors. The clinical programs involve one year (PA) or two years (PT) of study beyond the bachelor's degree, permitting assessment of students' development through the post-baccalaureate level.

Questions addressed in this study include: Does the development of reflective judgment show different trajectories among students in different fields of study? Within a field of study, do students progress differently in reflective judgment when analyzing issues closely related to their fields of study as compared to general social issues? We propose that course work in a student's major field will provide contextual support (Kitchener, Lynch, Fischer & Wood, 1993) resulting in a higher level of thinking on specialized topics.

Each year, students read and respond in a short essay to a scenario that discusses various sides of a contemporary issue: genetically modified food, same-sex marriage, oil drilling in the Arctic National Wildlife Refuge, and withholding feeding for a person in a Persistent Vegetative State. The scenarios include standard reflective judgment prompts such as, "How sure are you that your opinion is right? If experts disagree, does that mean that one is right and one is wrong? What would lead you to change your opinion about this issue?" (King & Kitchener, 1994, p. 122)

The rubric assesses the students' recognition of uncertainties in these issues, their use of multiple sources of information, their consideration of alternate points of view, and their articulation of what kinds of further information should be applied to the question.

Additionally, students are asked to provide copies of essays written in college courses: general education courses in the first two years, and course work in the students' major fields as well as in upper-level general education courses. In the clinical programs, faculty will construct assignments for the study that assess the development of clinical judgment and ethical issues in health care.

RESULTS

As predicted, students generally make progress in skills with regard to open-ended questions, but their progress is slow. For first year responses, Skill Pattern 0.0 was typical, with a mean of .43. Second

year responses of all second-year participants had a mean Skill Pattern of 1.1. Third-year data are available for 16 students (others are in progress or have left the study); for this group, year 1 ratings were .75, year 2, 1.38, and year 3, 2.06; $F=52.08$, $p<.0001$. Further analyses will examine the effect of attrition from the college, comparisons of students who persisted in their original majors and those who changed majors, and ratings of course essays compared to essays written for the study.

These interim results are similar to those of other longitudinal studies of college students (King & Kitchener 1994; Wolcott & Lynch, 1997), though the incidence of Skill Pattern 3 was higher than expected. For students with three years' data, all showed an increase over the three years, though three had higher Year 2 than Year 3 scores. It is possible that the different stories may evoke responses at different skill levels; a study comparing responses to parts of stories for a separate sample of first-year students

Previous research with Steps to Better Thinking suggests that college professors, who typically function at the 3 and 4 levels, often assume that their students are thinking at a similar level. Like other approaches to post-formal thought, SBT research finds that students are more likely to progress when tasks are designed above, but not too far above, their current skill patterns. (Wolcott, 2000)

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