Gender-Based Achievement Gaps In Upper-Level Math and Science Classes at Trinity College:

Patterns and Perceptions

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Education 400
Fall 2006
Research Question

- Do gender-based achievement gaps exist in upper-level math and science classes at Trinity College?

- If so, is there a common thread that exists in the patterns and perceptions between males and females to explain this gender gap?
Defining Terms

- Achievement Gaps
- Enrollment Gaps
- Attitudinal Differences
- Perceptions of Occupational Attainment
Significance

- Importance of taking a closer look at gender-based achievement gaps at Trinity College
  - Lack of research and lack of findings

- Today’s society driven by math and science

- Gender-based achievement gaps in other facets of education
Gender-based achievement gaps do exist in upper-level math and science classes at Trinity College.

May be seen through taking a closer look at patterns in enrollment gaps and attitudinal differences between men and women.

Gender-based achievement gaps may affect perceptions in occupational attainment.


Three Qualitative Research Methods:

1.) Interviews
   - 2 female math majors, 2 female science majors
   - 3 male math majors, 2 male science majors
   - 2 female non-math or science majors, 2 male non-math or science majors

2.) Field notes from “Women In Trinity Classrooms” discussion

3.) Statistical data
**Analysis of Interviews**

**Enrollment Difference**

10/31/06

“I would never take a math or science class at Trinity. I have always done poor in math and therefore, would never feel inclined to take a class here. Same thing for science, I have taken one science class here (Forensic Chemistry) and just knew that it was never going to be my thing. Besides, I knew coming to Trinity that I was purposely not ever going to take math or science classes here… that was one of my reasons for coming here in the first place.”

**Attitudinal Differences**

11/15/06

“I was always pretty decent at both in high school but I don’t want to be a scientist and I don’t want to be a mathematician either. I do a lot of math and take math classes because I’m an Econ. Major, but I think that if I were to take science classes here I would be ok…especially physics because that’s really math-based”

**Perceptions of Occupational Attainment**

“I’m an engineer, so I really hope to get an engineering job… but it’s hard”

“Of course I’m going to be an engineer because I didn’t work this hard for nothing!”
Conclusions

- Gender-based achievement gaps in upper-level math and science classes suggest that females are at a disadvantage compared to their male counterparts.
Limitations

- Enrollment gaps, attitudinal differences and perceptions of occupational attainment – *not the only explanations*

- Would like to have interviewed more people

- Would like to have done a survey