

Perceptions, Utilization, and Training of Graduate Student Teaching Assistants in Introductory Soil Science Courses

Greg D. Pillar¹, Keith Karnok¹, Steve J. Thien²

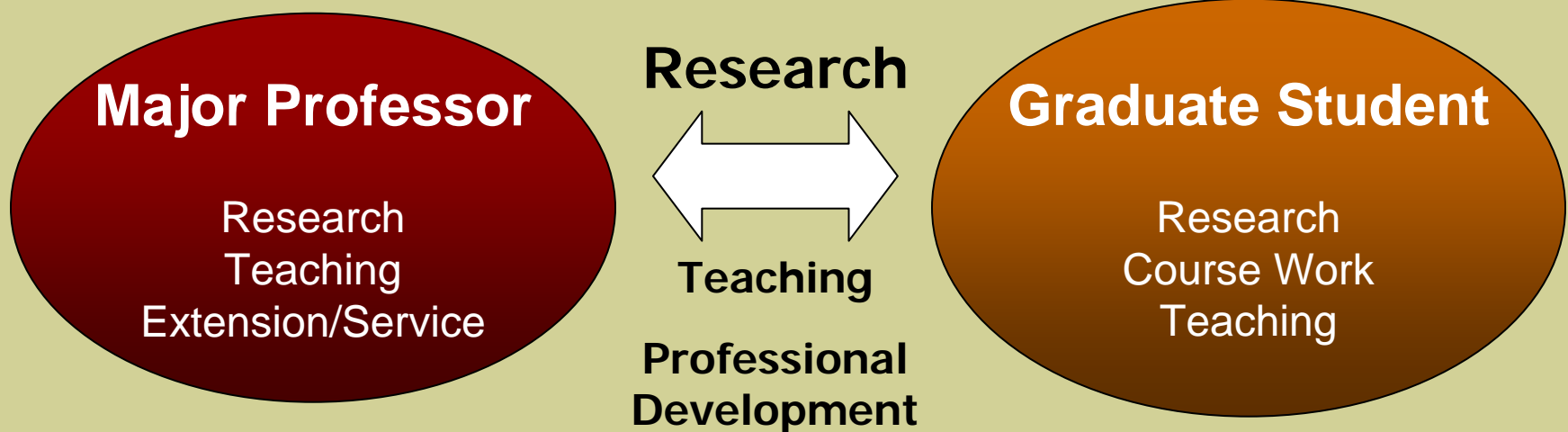
¹Department of Crop and Soil Sciences, University of Georgia

²Department of Agronomy, Kansas State University



Introduction

- Graduate education "model"



The **H**istoric **E**scape From **T**eaching

T.H.E.F.T

Profscam: Professors and the demise of higher education.
(C.J. Sykes, 1988)

Nerad et al. (2004)
Nyquist et al. (2004)
Campbell et al. (2005)

Introduction **Methods** **Results** **Summary** **Conclusion**

Introduction

-Traditional "model" is no longer valid

- Smaller academic job market
(www.carnegiefoundation.org)

4-yr University (Research, Ph.D)

282

4-yr University (Teaching/Research, M.S.)

690

4-yr College (Teaching, B.S.)

735

2-yr Community College (Teaching, Assoc.)

1702

2160

Gold et al. (2001)

Adams (2002)

Campbell et al. (2005)

Introduction

- Traditional “model” is no longer valid
 - Smaller academic job market
(www.carnegiefoundation.org)
 - Graduate students are seeking jobs with diverse needs – needs that are not being met
(professional ethics/skills, teaching)
 - 71% desire to teach in higher education
[*n*=1440 (PhD), Anderson & Swazey, 1998]
 - 45% felt they did not receive adequate training before entering the classroom
[*n*=32,000 (PhD), Fagen & Suedkamp-Wells, 2004]

Gold et al. (2001)
Adams (2002)
Campbell et al. (2005)

Introduction

Integrity in the College Curriculum: A report to the Academic Community

Association of American Colleges and Universities (AAC&U, 1985)

“ If the professional preparation of doctors were as minimal as that of college teachers.....

....the United States would have more funeral directors than lawyers”



Introduction

- Goal

Characterize the teaching experience of graduate students in soil science.

- Objectives

Determine how graduate student teaching assistants:

- **are being utilized by departments/universities**
- **are being trained to handle their teaching responsibilities**
- **perceive and value their teaching experience**



Methods and Materials

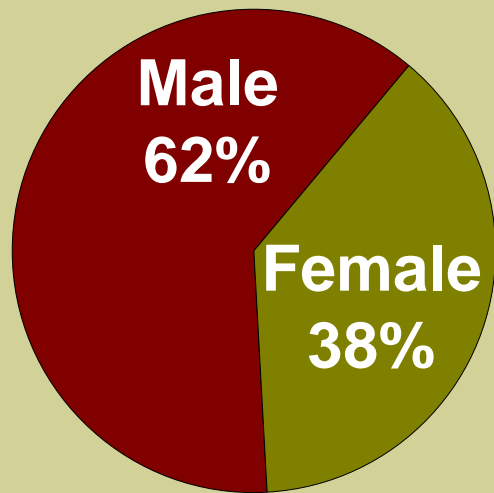
Survey (Fall of 2005)

- Conducted online (3rd party website)
 - 42 questions (15 – 20 minutes)
 - multiple choice, likert scale, short answer
- Contacted professors of soil science courses (email)
 - 52 universities: 6 – did not use GTA's
 - instructions forwarded on to students (3 reminders)
 - responses from 78 individuals (40 universities)
- Statistical analysis
 - abundances, means, range, standard deviation

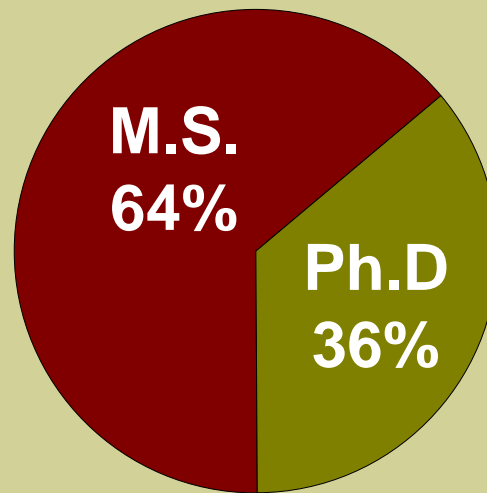


Results - Background

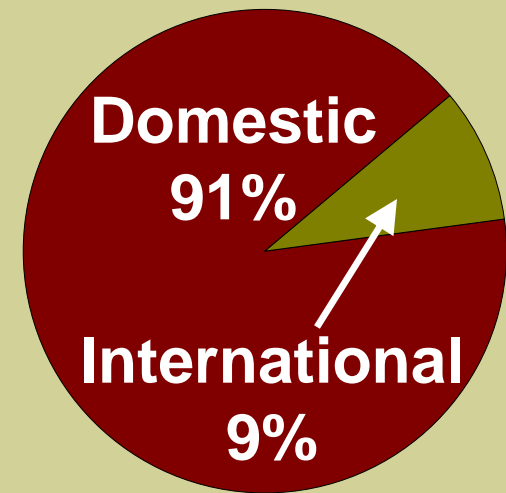
Gender



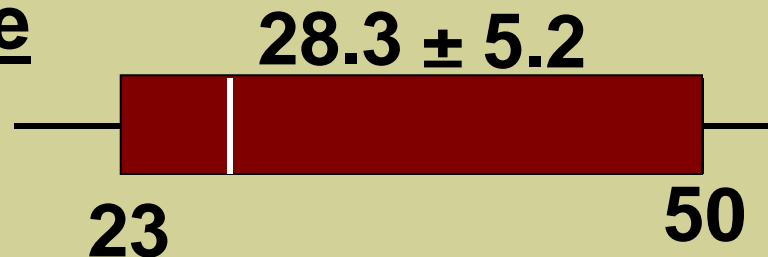
Degree



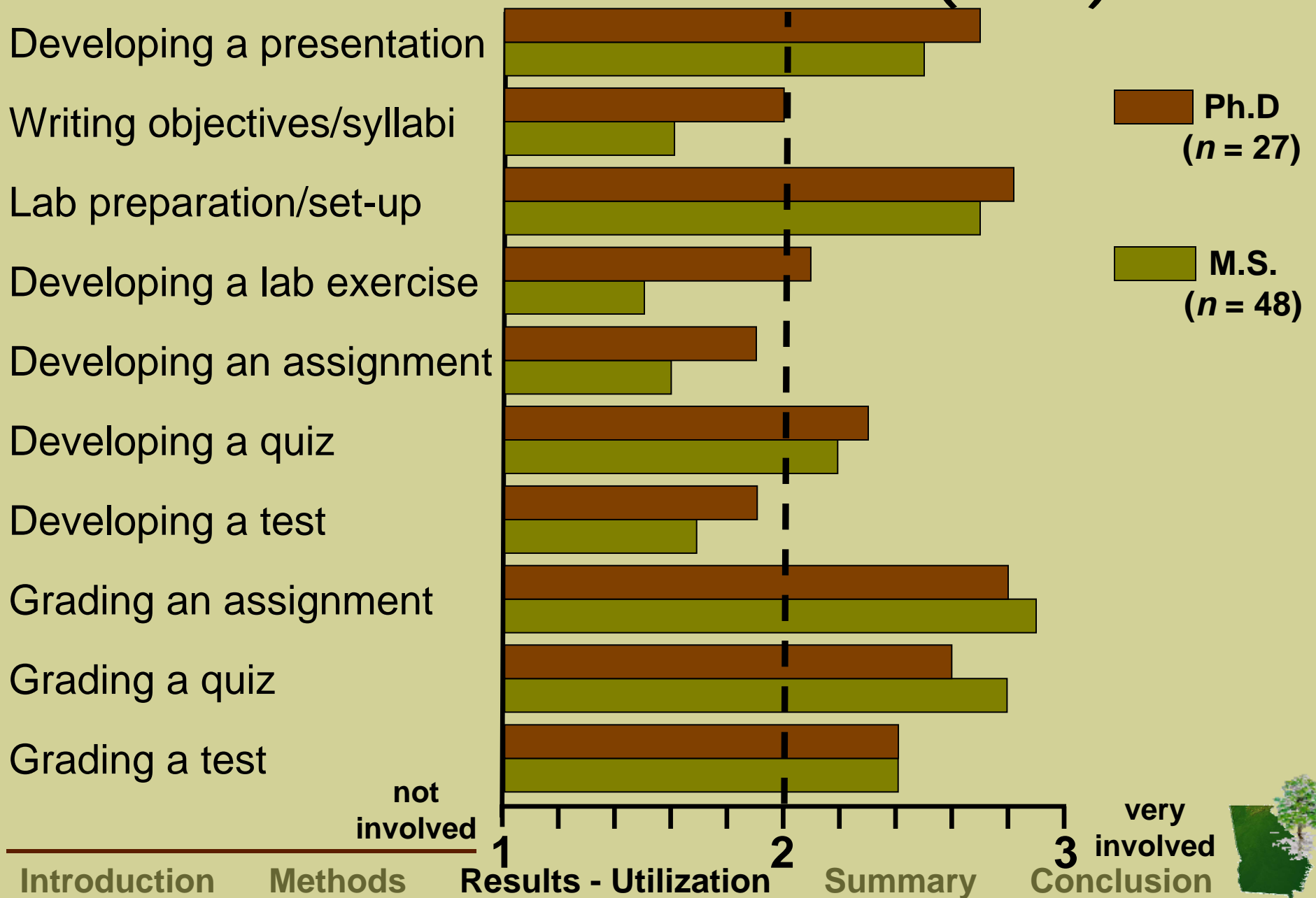
Citizenship



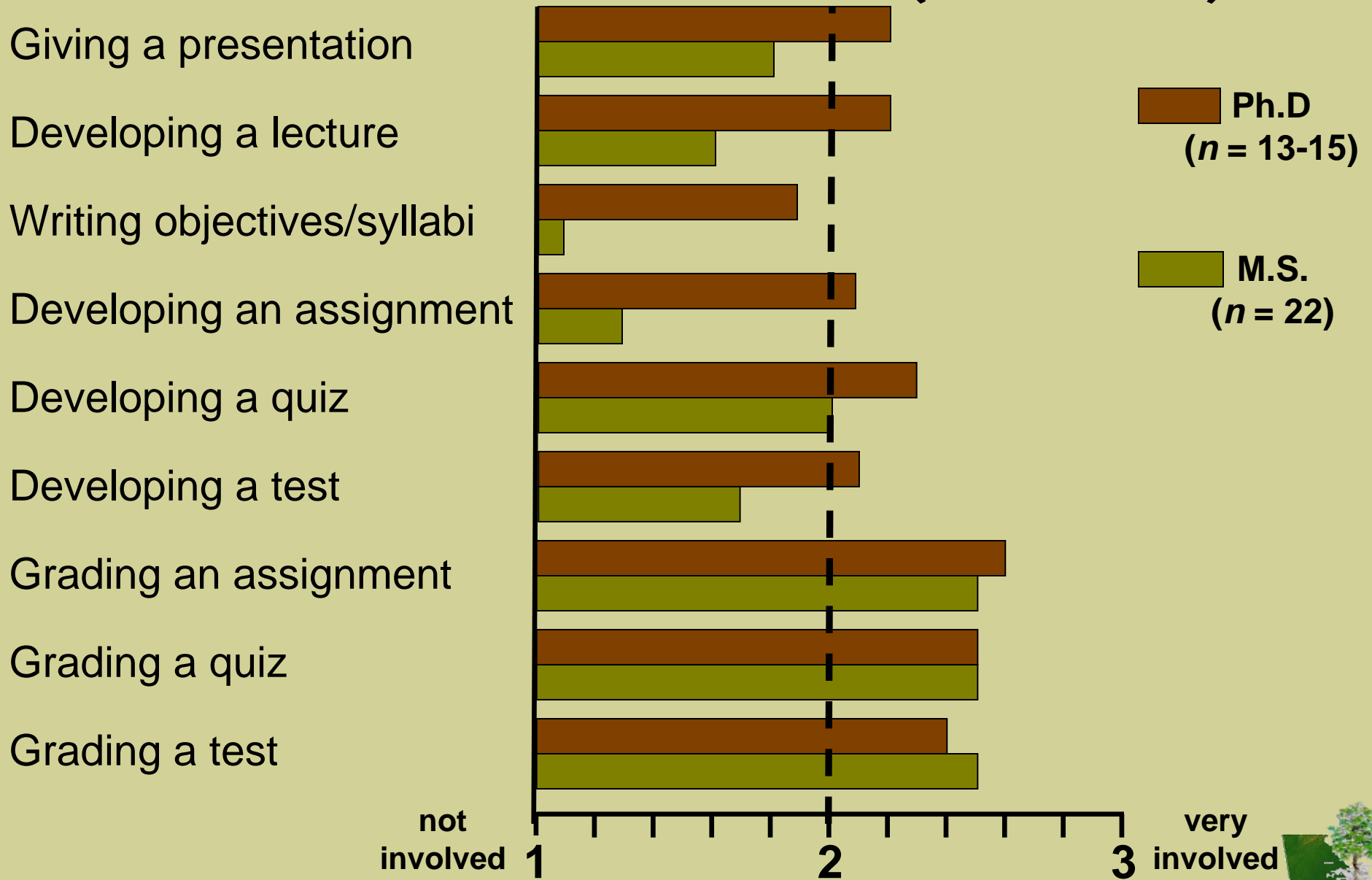
Age



Results – Utilization (Lab)



Results – Utilization (Lecture)



Results - Training

Did you receive formal training in teaching **before** or **during** your TA experience?

Of **all** students surveyed

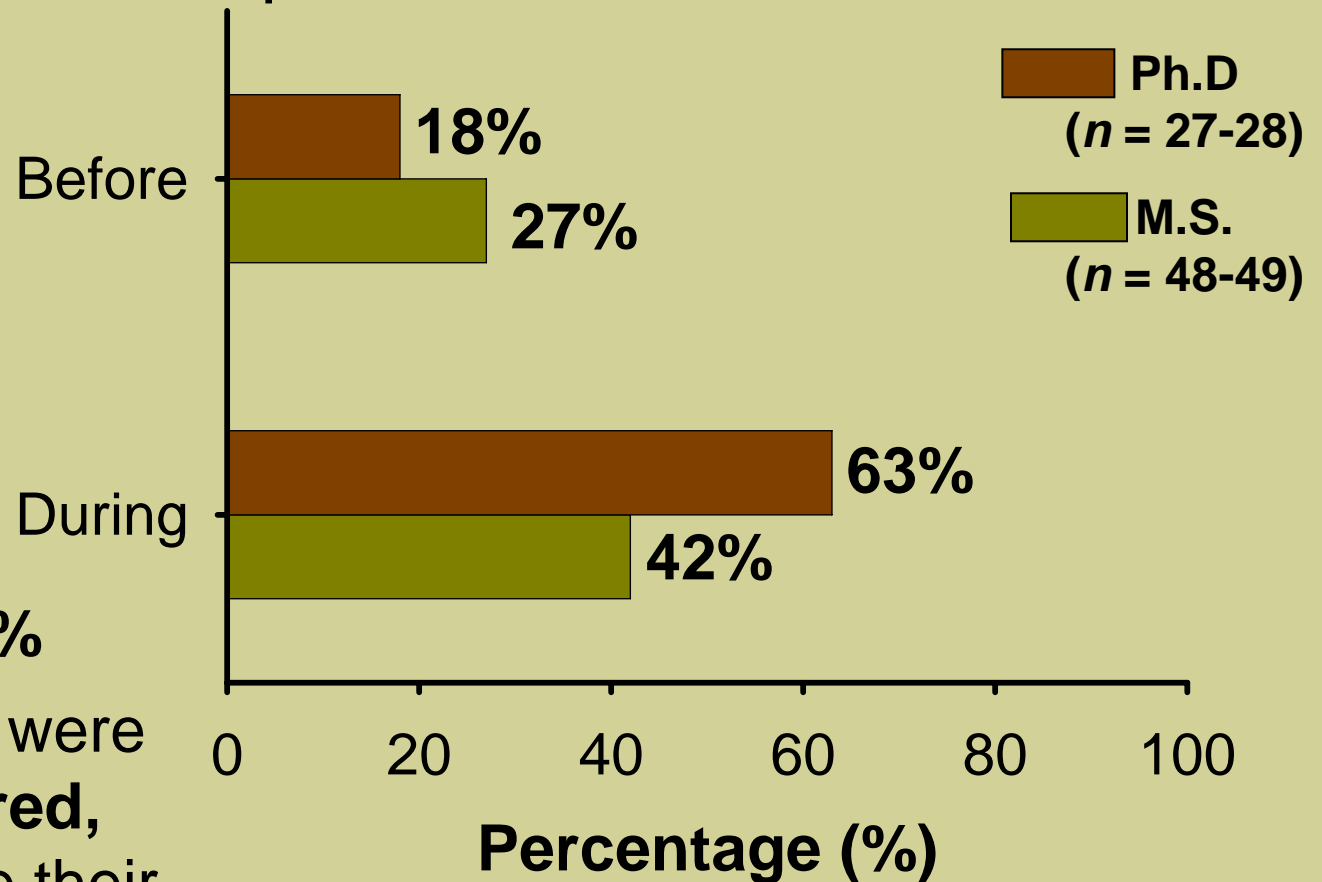
45%

received **NO** training

yet, of the 45%

86%

felt they were **prepared**, to handle their teaching responsibilities



Results - Training

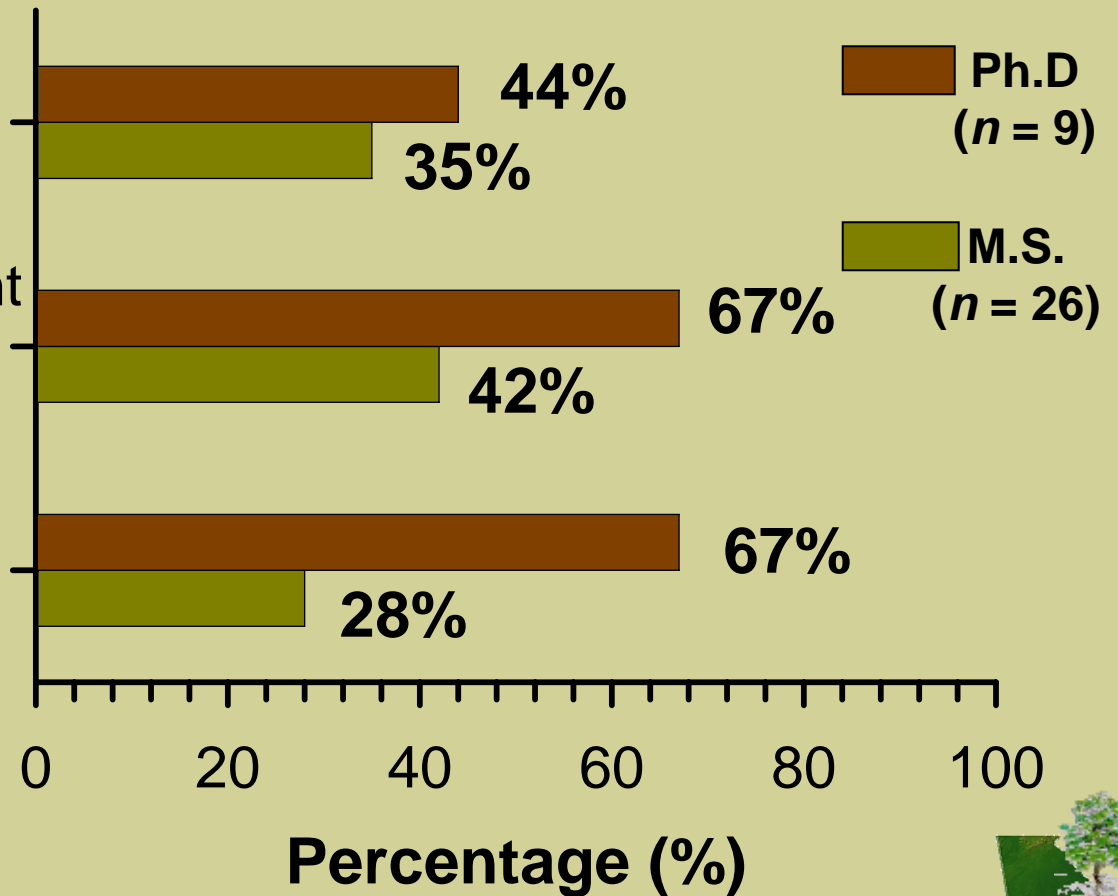
Of the **45%** who have received **no** training:

Have you:

sought training on teaching techniques from faculty

had another graduate student or faculty member observe your teaching

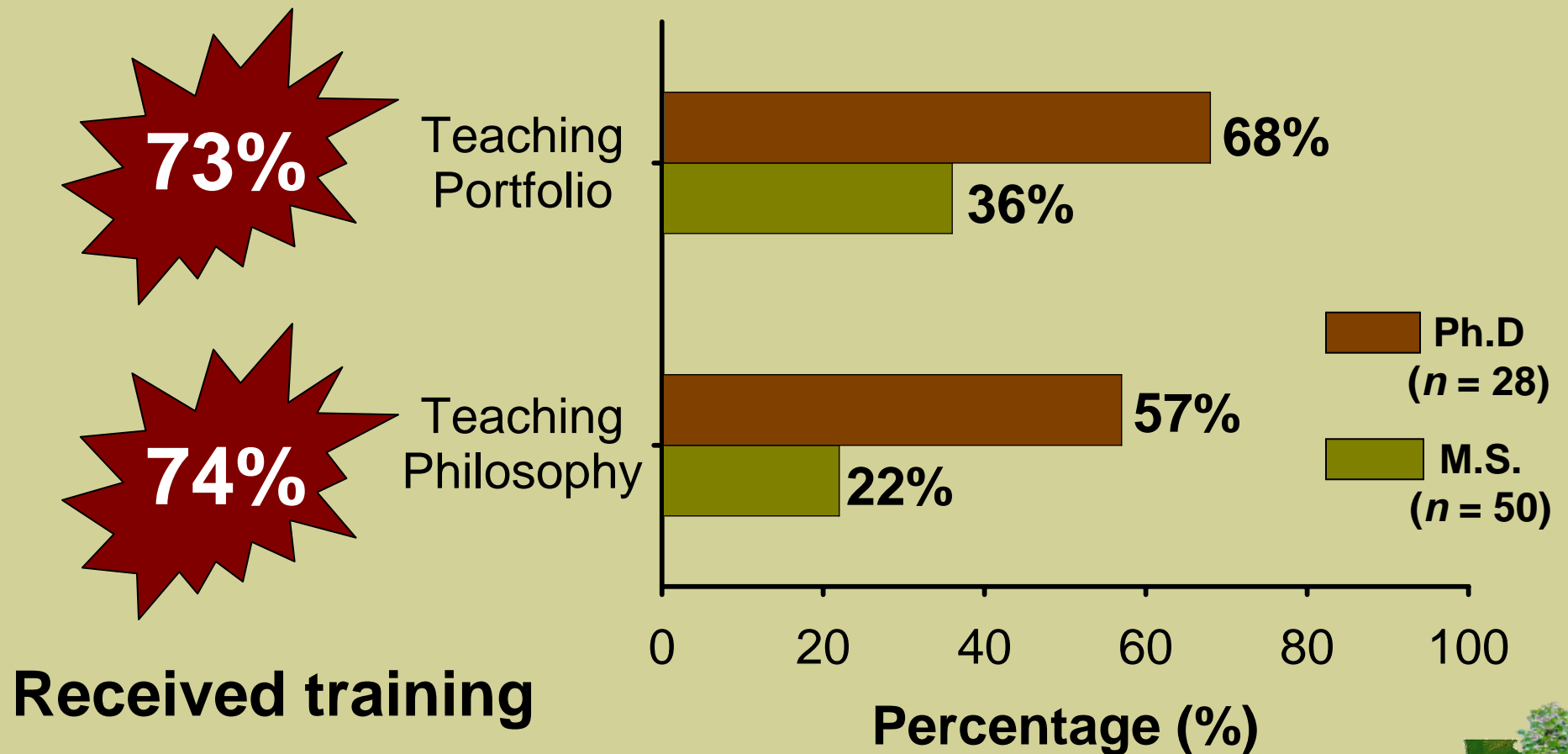
read books/journal articles on teaching/learning



Results - Training

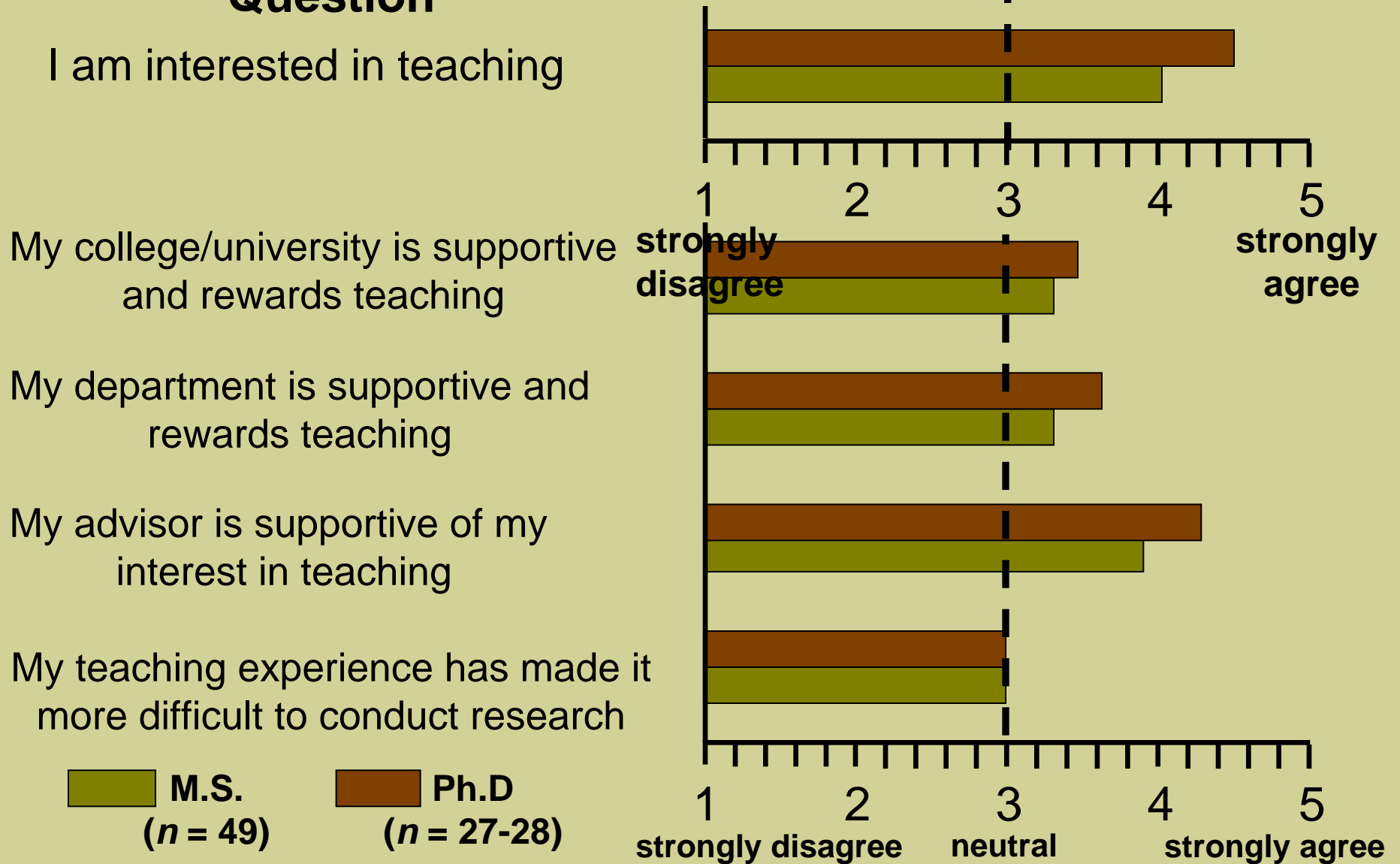
Do you have a teaching philosophy statement?

Do you have a teaching portfolio?

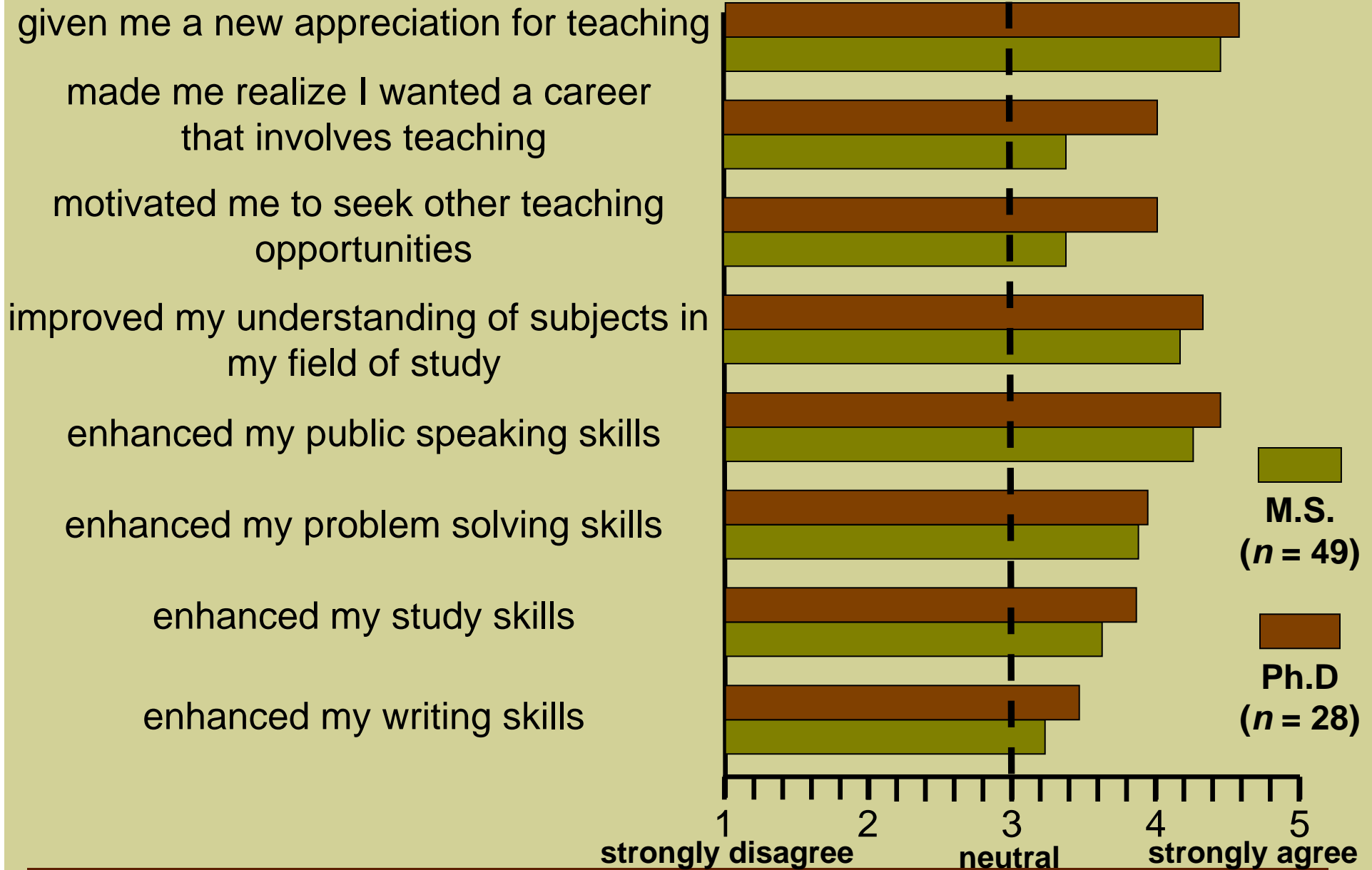


Results - Perceptions

Question



My teaching experience has:



Summary

- GTA Utilization

- lab set-up, grading, lab presentations
- Ph.D students are given greater responsibility

- GTA Training

- almost half received no training
- GTAs are motivated and eager to learn
- overall felt prepared for their responsibilities

- GTA Perceptions

- well rounded experience/education
- overall held positive views on their teaching experience



Conclusions

- Encourage students to seek additional opportunities to enhance their education
 - encourage and allow students to take on greater responsibility (i.e. preparing a lecture)
 - encourage and allow students to pursue academic interests outside of research
- Develop more programs/training at the department level
 - courses on teaching techniques
 - encourage more faculty/student mentoring
 - encourage more student/student mentoring (i.e. GTA mentor programs)



Questions ?



The University of Georgia Department of
Crop & Soil Sciences



K-STATE AGRONOMY

Centennial

1906

2006