

Relationship Between Graduate Student Status and Quality of Graduate Education

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Introduction

- Increasingly competitive environment to offer quality educational experience
- Student satisfaction important to institutional success
- Key factors: quality education, better facilities, and adequate student support
- Attract new students and retain enrolled students

Part-Time Student Characteristics

- Different commitments: work, study, family etc.
- Tend to be older than full-time students
- Program completion time longer
- Minimal face-to-face contact

Significance of the Study

- Incorporates student status to assess educational quality and program satisfaction
- Offers some insight to part-time students' perceived learning experience, collegiality in departments, and adequacy of support

Purpose & Hypotheses

Purpose:

Examine the relationship between graduate student status with quality of graduate education (their learning ability, collegiality in departments, and adequacy of student support).

Hypotheses:

No significant difference* between part-time and full-time graduate students' perceived learning ability, collegiality in departments, adequacy of student support and satisfaction with program.

*Assumption: Equal Variance; $H_0: \mu_{\text{Part-time}} = \mu_{\text{Full-time}}$

Survey Instrument

Learning Ability (14 Variables)

- Work-related Tasks
- Key Concepts
- Design Research
- Describe Disciplines
- Interpersonal Skills
- Mobilize Capacities
- Clear Writing
- Explain Ideas
- Interpret Knowledge
- Critique Ideas
- Propose Ideas
- Demonstrate Respect
- Ethical Principles
- Serve & Engage

Collegiality in Departments (8 Variables)

- Common Goals Valued
- Respect Diversity
- Display Trust
- Listen Differing Opinions
- Celebrate Successes
- Care Other's Welfare
- Respect Other's Interests
- Assist One Another

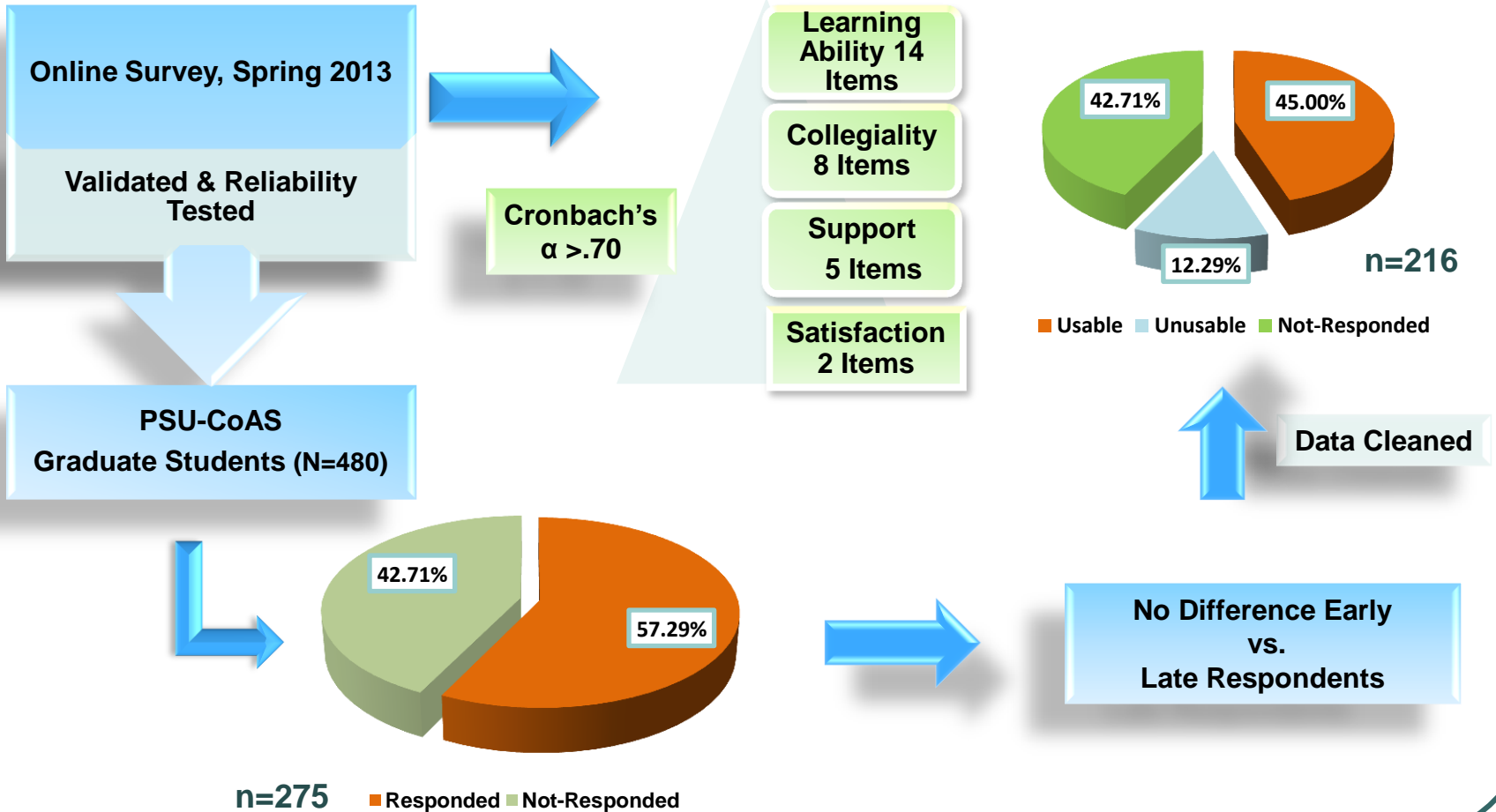
Student Support (5 Variables)

- Breadth of Curriculum
- Availability Course Offerings
- Faculty Advising
- Faculty Mentoring
- Access to Confidante

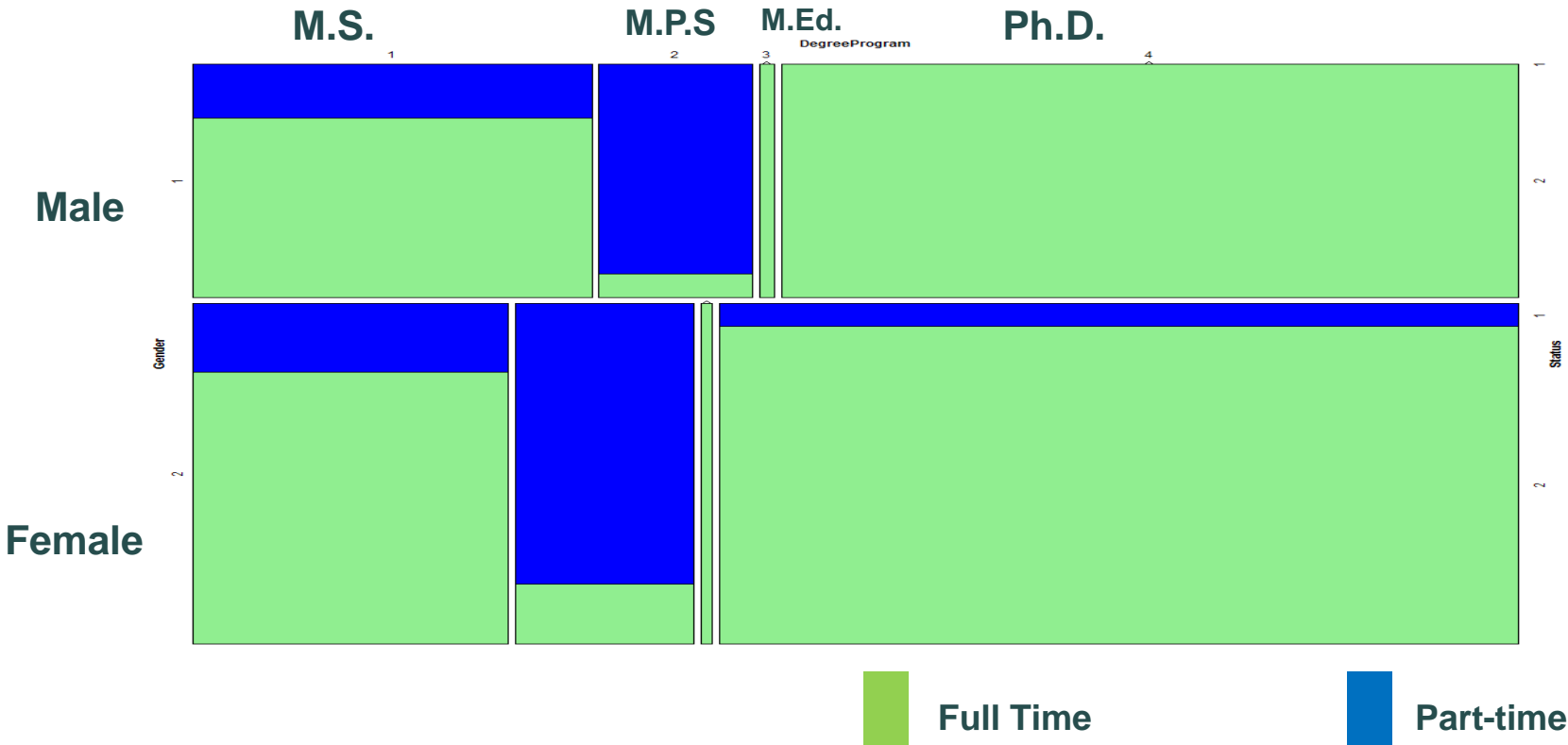
Student Satisfaction (2 Variables)

- Likelihood of Student choosing Same Program
- Likelihood of Student Recommending same Programs to Others

Methodology



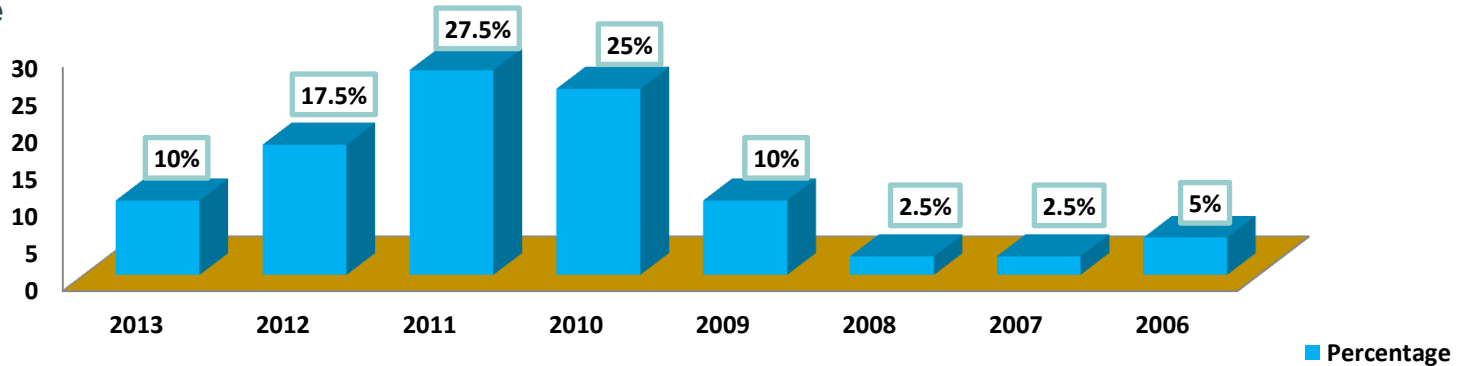
Demographic Mosaic Plot



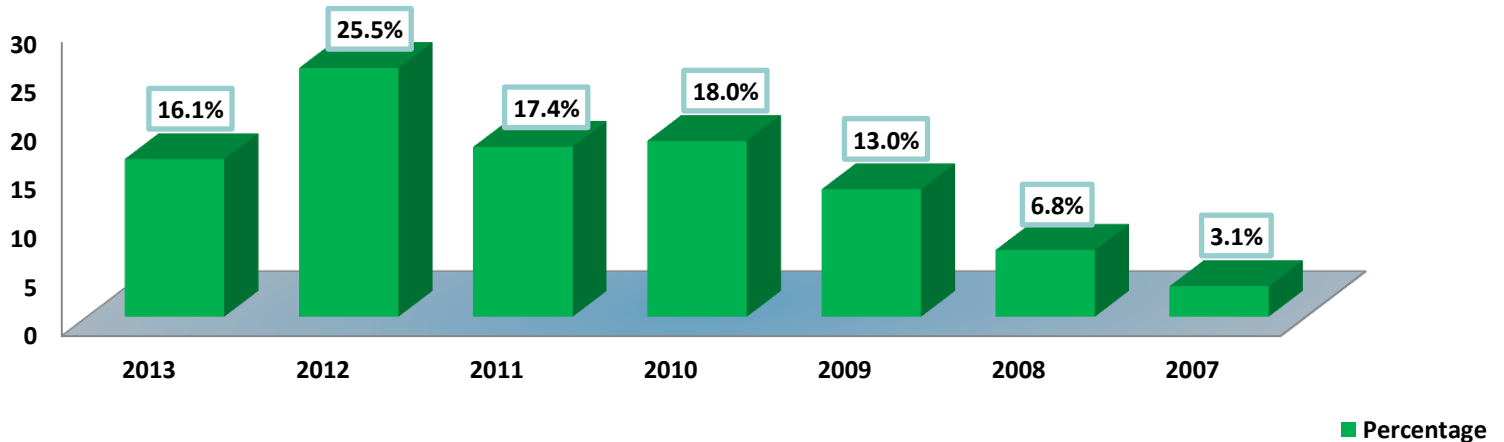
Program Start Year

Part-Time & Full-Time Students

Part-time
(n=40)

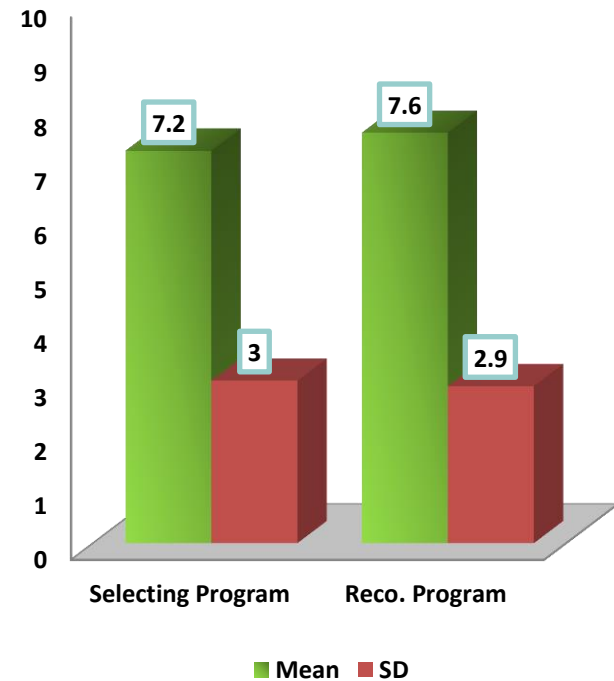
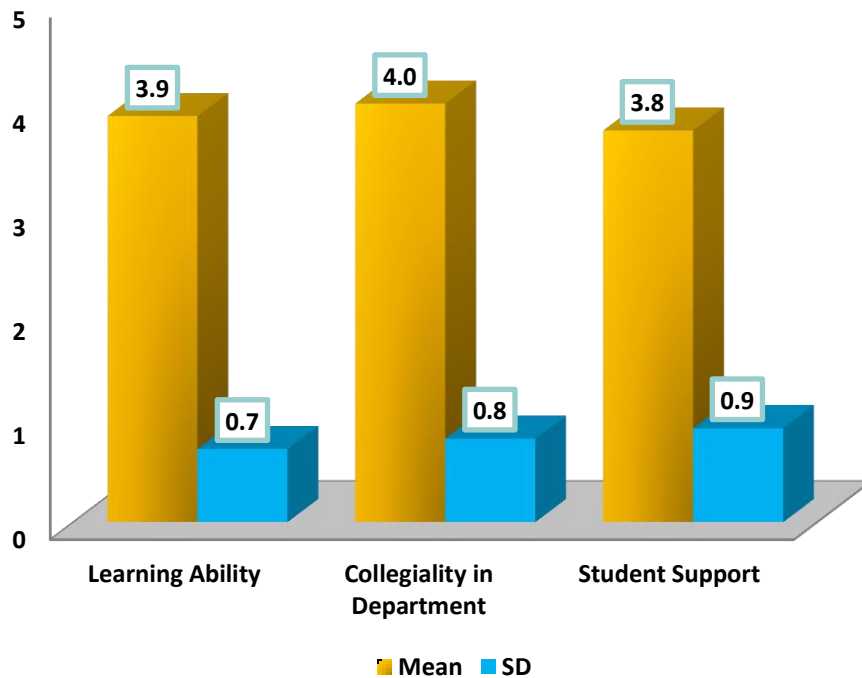


Full Time
(n=161)



Part-Time Graduate Students

n=42

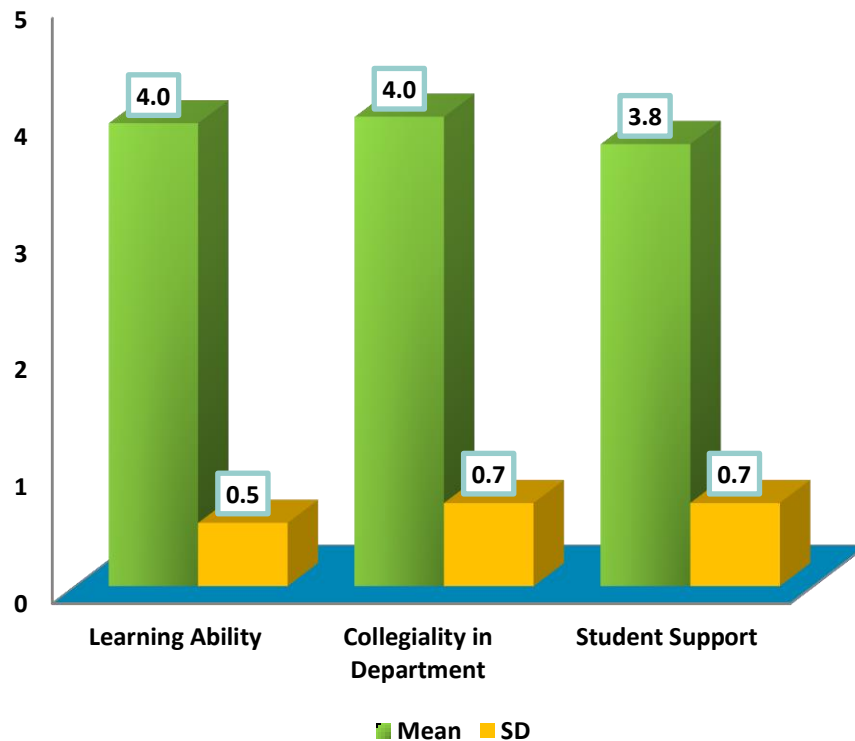


Likert-type Scales; Range "1" SD to "5" SA

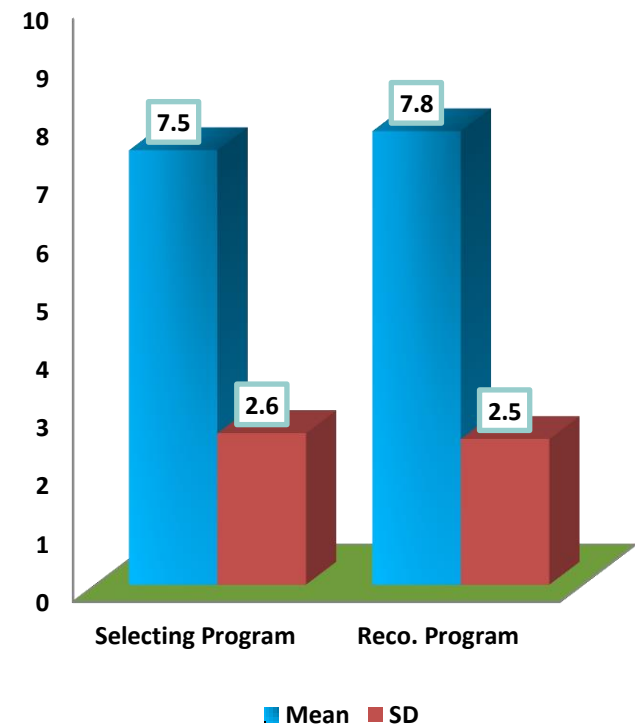
Scale-- Range "1" Very Unlikely to "10" Very Likely

Full-Time Graduate Students

n=174



Likert-type Scales; Range "1" SD to "5" SA

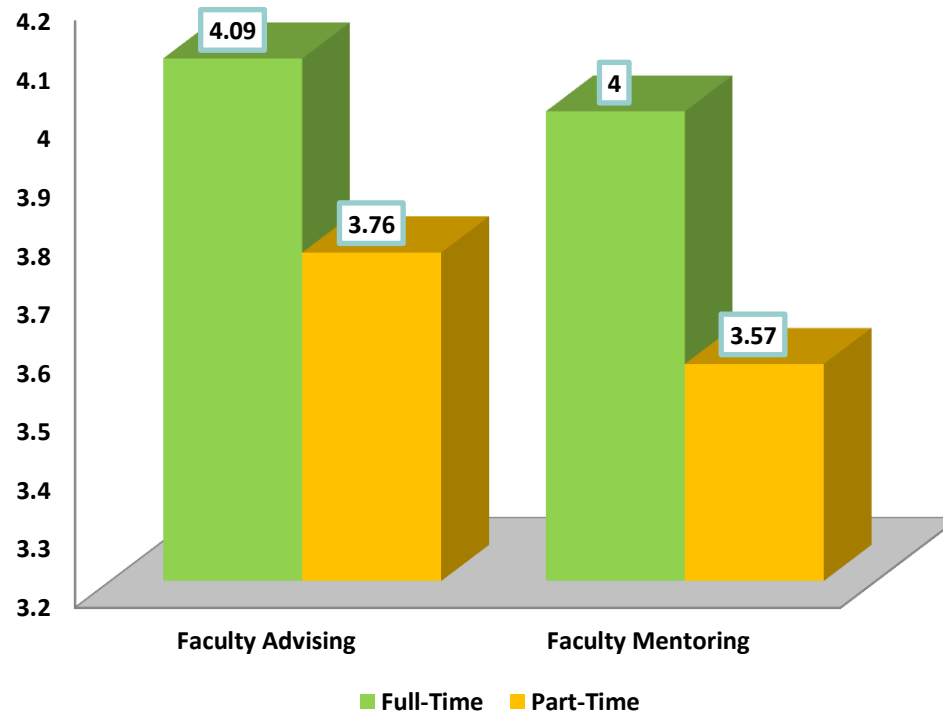


Scale-- Range "1" Very Unlikely to "10" Very Likely

Results: Part-Time vs. Full-Time

- No significant difference in learning ability
($t = -.59$; $p = .29$)
- No significant difference in collegiality
($t = .06$; $p = .14$)
- Significant difference in student support
($t = -.14$; $p = .01$)
- Significant difference in student satisfaction
($t = -.49$; $p = .07$)

Student Support Part-Time vs. Full-Time



Faculty Advising ($t = -1.9$, $p = .031$)

Faculty Mentoring ($t = -2.25$, $p = .007$)

Conclusions

- Overall, students are satisfied with the quality of education and adequacy of support
- Part-time students reported less adequacy of faculty advising and faculty mentoring
- Part-time students less satisfied
 - Can not perceive or enjoy opportunity fullest extent
 - Actual job requirement vs. course content
 - Huge opportunity cost

(Maro-Egido & Panades, 2008)

Recommendations

- Improve student support in terms of faculty advising and faculty-mentoring
- Identify and address other support needs
- Emphasis on part-time students in program quality assessments
- Identify additional variables to indicate part-time student satisfaction

Thank you !

Question???

Predictors of Graduate Program Satisfaction: An Empirical Study

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Introduction

- Students' satisfaction is a sign of educational excellence and performance
- Important for recruiting and retaining students
- Assessment of quality and satisfaction: Crucial for graduate schools
- Implications for both educational institutions and students
- Educational quality and quality of support positively influence students' satisfaction

Introduction

- Determining factors for students' level of satisfaction:

Garcial-Aracil, (2009)

- Course Content
- Student Contact
- Learning Facilities
- Teaching Facilities
- Quality of Teaching

Ilias, Hasan, Rahman, and Yasoa (2008)

- Perceptions on Learning
- Perceptions Teaching
- Support Facilities
- Learning Environment

Barrick, Easterly and Rieger (2011)

- Faculty-Student
Relationship

Significance of this Study

- Limited empirical evidence linking student learning ability, student support, collegiality and students' satisfaction
- An attempt to identify factors to explain graduate students' levels of satisfaction

Purpose & Objectives

Purpose: Examine the relationship between student satisfaction with graduate programs and their learning ability, collegiality in departments, and adequacy of student support

Objectives:

- Determine students' learning ability, collegiality in departments, and adequacy of student support in CoAS
- Validate variables representing learning ability, collegiality, and student support
- Examine the relationship of graduate program satisfaction with learning ability, collegiality, and adequacy of support

Theoretical Framework

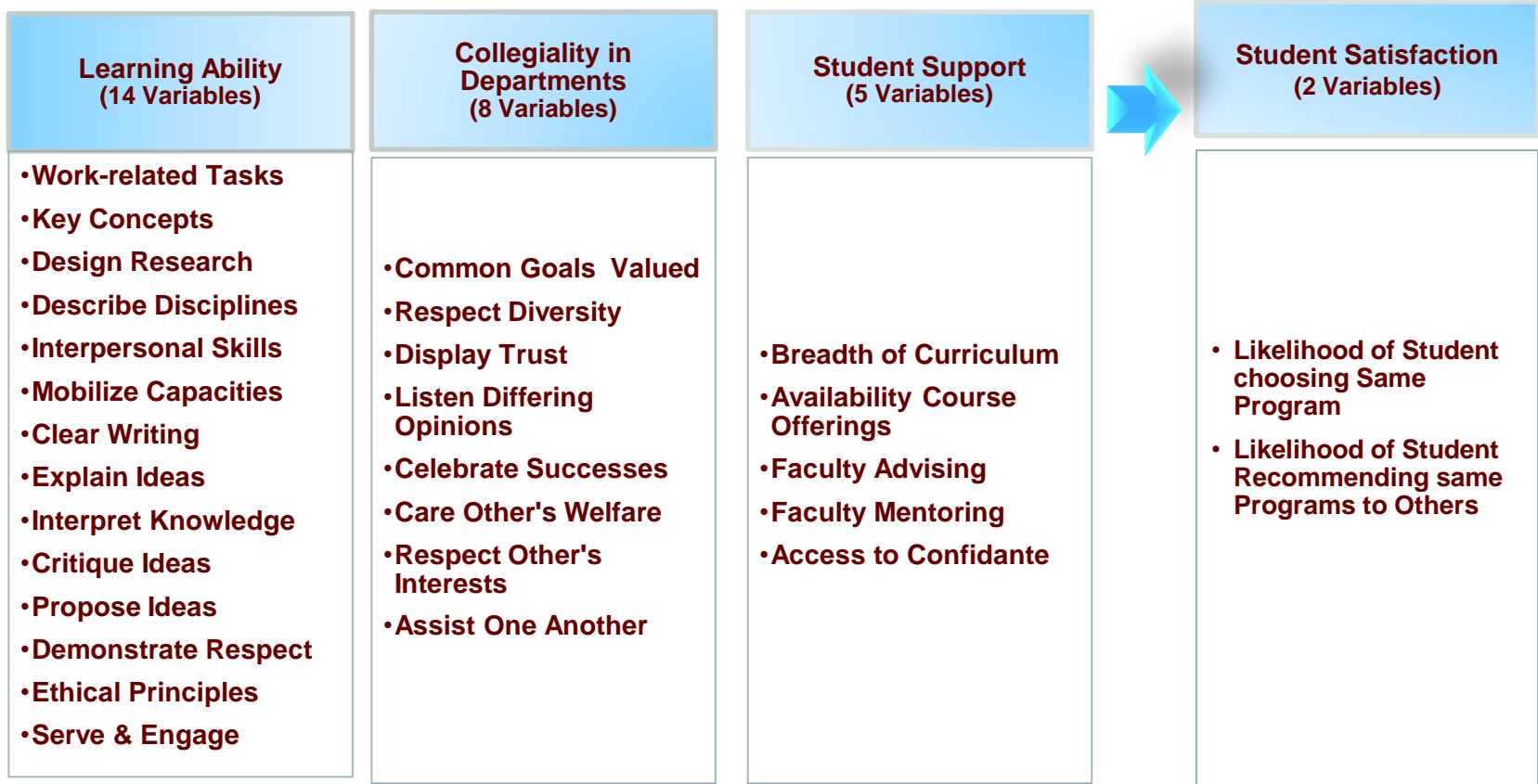
Wilkins and Melodena (2013)

“Student satisfaction is not determined solely by the students’ teaching and learning experiences, but rather by their overall experiences as a customer of a particular institution” (P. 45)

- Service Marketing Literature
 - Universities in the business of offering educational experience
 - Students as customers and higher education as service
 - Superiority or inferiority of quality of service: Determinant of Satisfaction

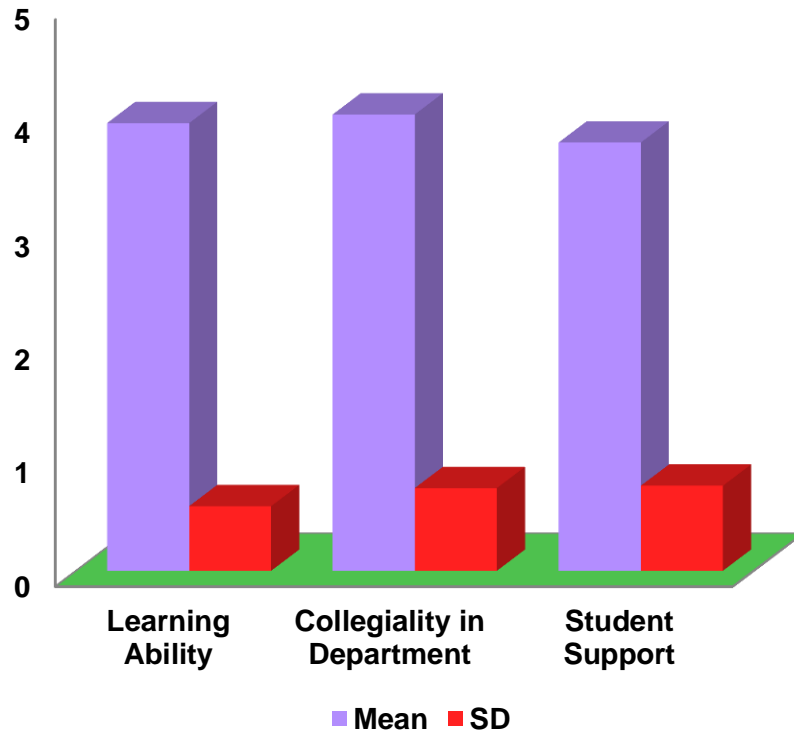
Hypotheses

f (Learning Ability, Collegiality, Student Support) = Satisfaction



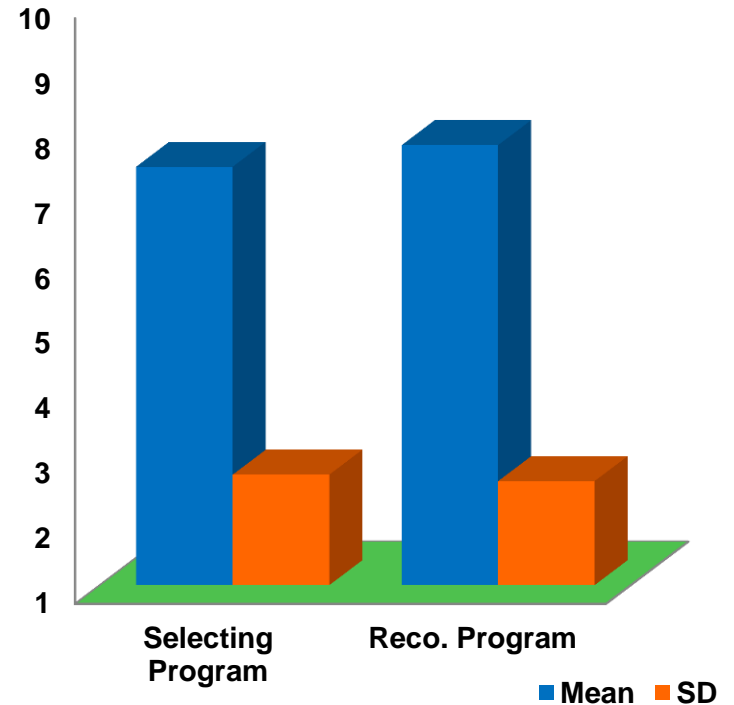
Descriptive Analysis

Factors Determining Satisfaction



Likert-type Scales; Range "1" SD to "5" SA

Satisfaction Indicators



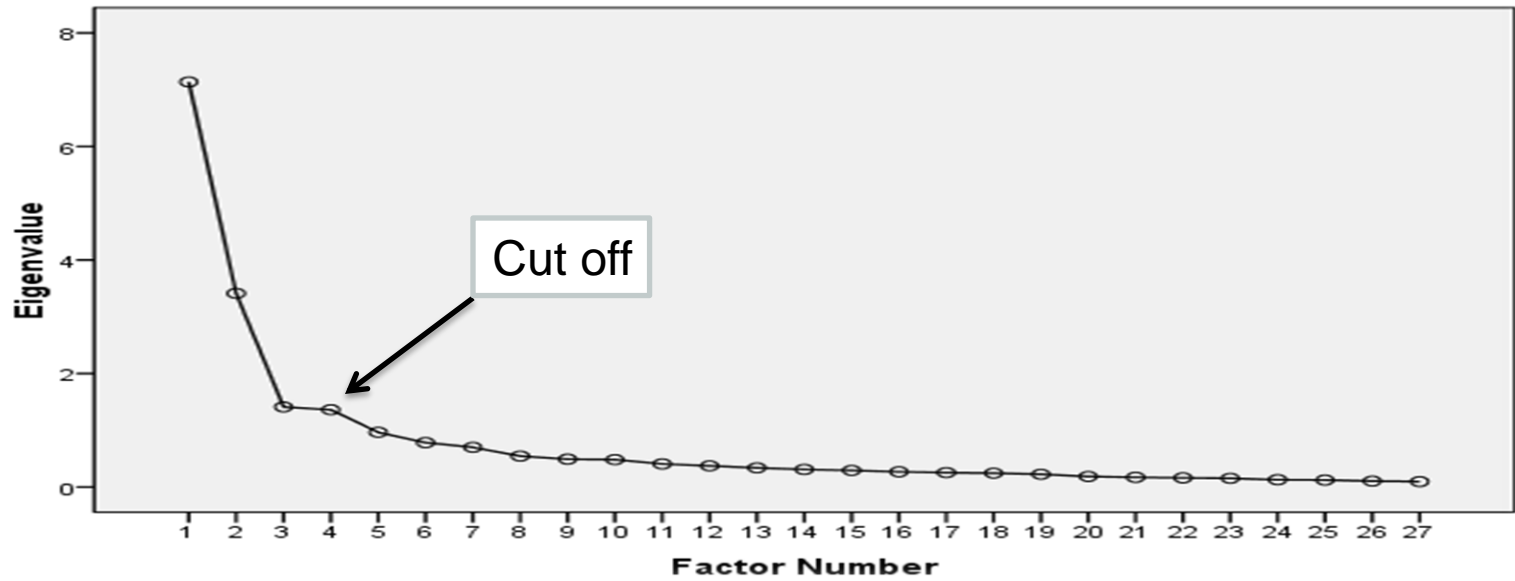
Scale-- Range "1" Very Unlikely to "10" Very Likely

PCA & PAF

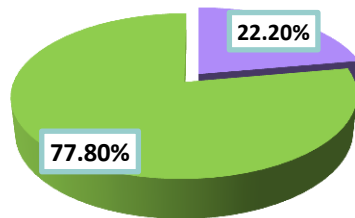
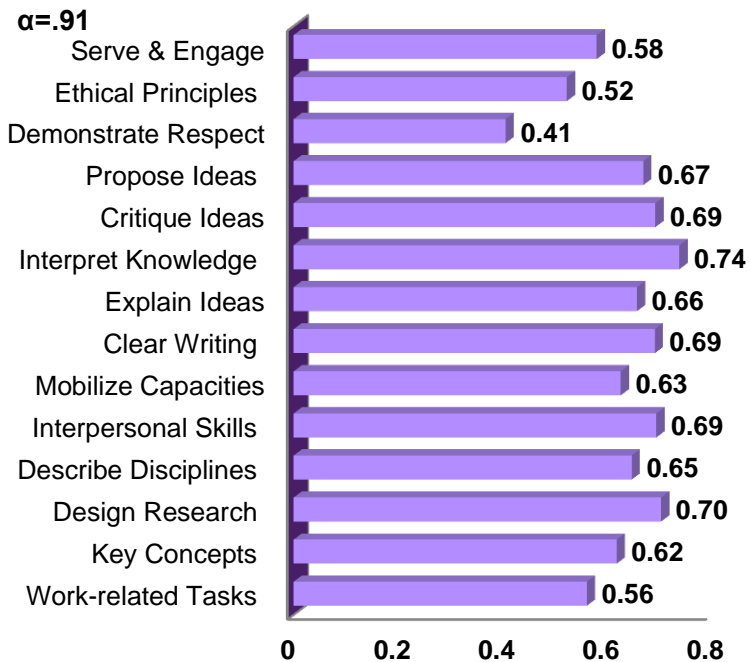
- Factor Analysis Suitability
 - Kaiser–Meyer–Olkin (.88)
 - Bartlett’s Test of Sphericity (χ^2 test $p < .001$)
- Inter-item correlation coefficients ($r > .30$)
- Principal Component Analysis
- Factor Extraction
 - Principal Axis Factoring
 - Varimax Rotation
- Factor scores- Regression Method

Scree Plot

Scree Plot

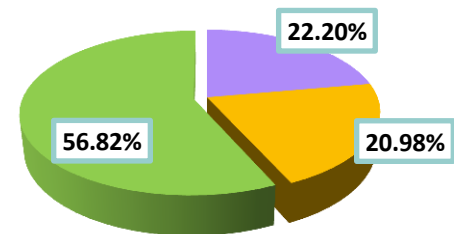
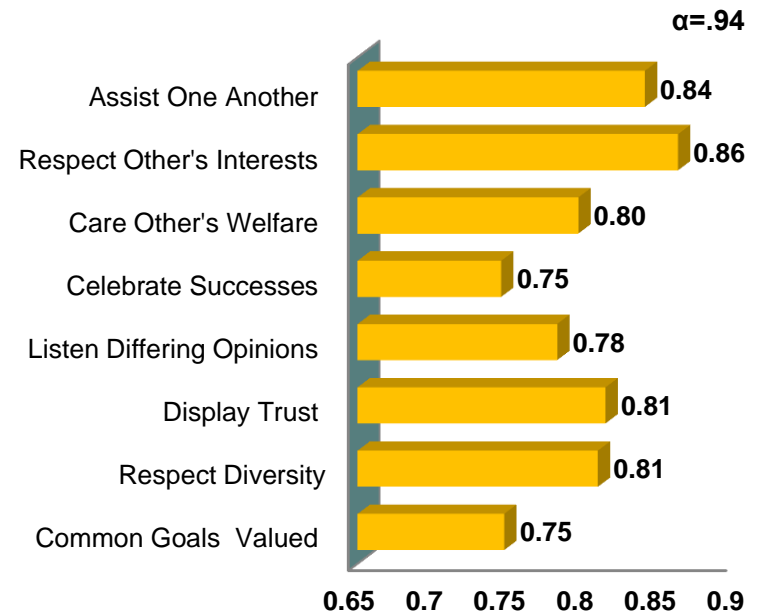


Factor 1 Loadings Learning Ability



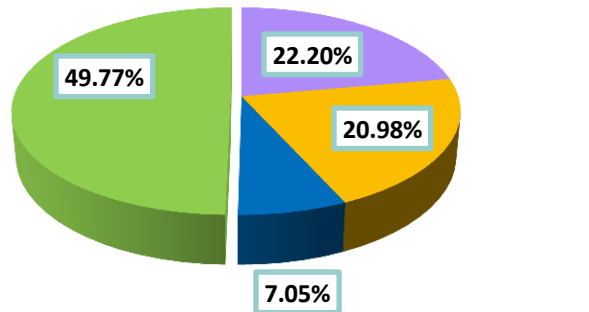
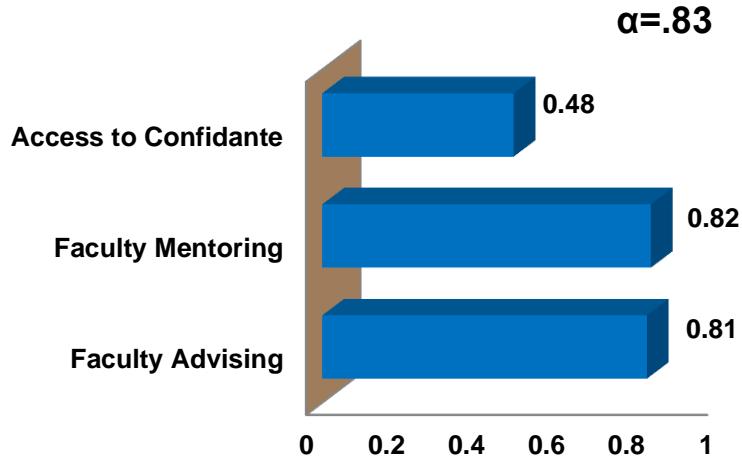
■ Variance Factor 1 ■ Variance Unexplained

Factor 2 Loadings Departmental Collegiality



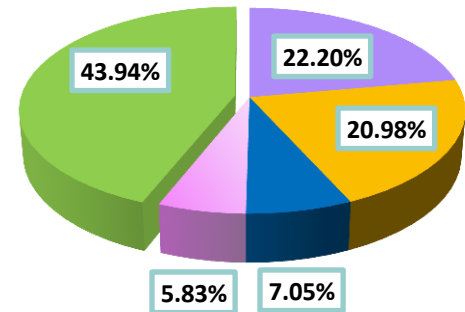
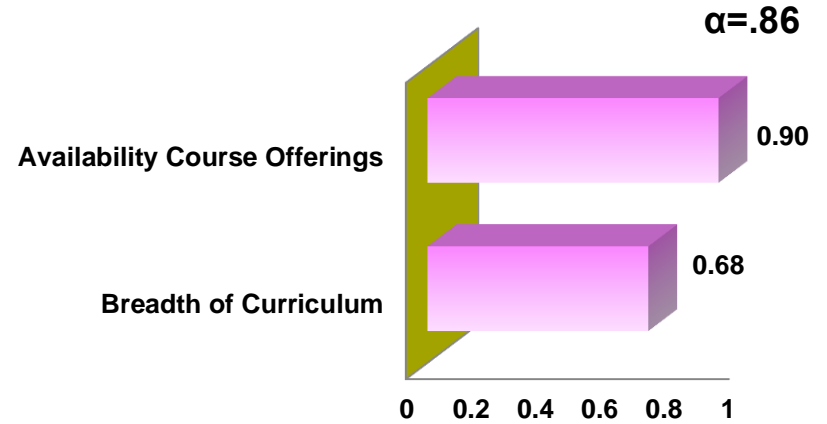
■ Variance Factor 1 ■ Variance Factor 2 ■ Variance Unexplained

Factor 3 Loadings Faculty-Student



■ Variance Factor 1 ■ Variance Factor 2
■ Variance Factor 3 ■ Variance Unexplained

Factor 4 Loadings Course & Curriculum



■ Variance Factor 1 ■ Variance Factor 2
■ Variance Factor 3 ■ Variance Factor 4
■ Variance Unexplained

Logistic Regression Design

$$Y_i \sim \text{Bin}(N, \pi)$$

Initial Dataset

$X_{1,1}$	$X_{1,2}$	$X_{1,27}$
.....
.....
$X_{220,1}$	$X_{220,2}$	$X_{220,27}$

PAF

Factor Scores

$F_{1,1}$	$F_{1,2}$	$F_{1,3}$	$F_{1,4}$
.....
.....
$F_{220,1}$	$F_{220,2}$	$F_{220,3}$	$F_{220,4}$

Less to Moderately

Logistic Model

Highly Satisfied

1	1	0
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	
8	8	1
9	9	
10	10	

Student Satisfaction

•Probability Predicted

•Estimated Probability Rounded & Models Accuracy Estimated

Predicting Student Choosing the Same Program

Single Factor Models

Factor	Model	Accuracy	NagelkerkeR ²
Learning Ability	$\log(\pi/1-\pi) = .71^{**} + .49^*$ (Factor 1 Scores)	67.7%	.06
Collegiality	$\log(\pi/1-\pi) = .70^{**} + .38^*$ (Factor 2 Scores)	66.4%	.04
Faculty Support	$\log(\pi/1-\pi) = .76^{**} + .86^{**}$ (Factor 3 Scores)	72.7%	.17
Support Courses	$\log(\pi/1-\pi) = .70^{**} + .39^*$ (Factor 4 Scores)	67.3%	.04

All Four Factors in Model

Variables	B	SE B	Odds Ratio
Intercept	.810 ^{**}	.165	2.249
Student learning	.529 [*]	.183	1.698
Collegiality in department	.372 [*]	.174	1.451
Support from faculty	.888 ^{**}	.180	2.430
Support with courses	.473 [*]	.182	1.604
Model Prediction Accuracy = 74.1% (95% CI :0.678, 0.797); Nagelkerke R Square was .287			

* $p < .05$, ** $p < .001$

Predicting Student Recommending the Same Program

Single Factor Models

Factor	Model	Accuracy	NagelkerkeR ²
Learning Ability	$\log(\pi/1-\pi) = .73^{**} + .48^*$ (Factor 1 Scores)	66.8%	.06
Collegiality	$\log(\pi/1-\pi) = .73^{**} + .53^*$ (Factor 2 Scores)	65.9%	.08
Faculty Support	$\log(\pi/1-\pi) = .77^{**} + .81^{**}$ (Factor 3 Scores)	70.5%	.15
Support Courses	$\log(\pi/1-\pi) = .76^{**} + .70^{**}$ (Factor 4 Scores)	68.2%	.12

All Four Factors in Model

Variables	B	SE B	Odds Ratio
Intercept	.907 ^{**}	.177	2.477
Student learning	.553 [*]	.191	1.738
Collegiality in department	.588 [*]	.184	1.801
Support from faculty	.901 ^{**}	.188	2.463
Support with courses	.884 ^{**}	.199	2.420

Model Prediction Accuracy = 77.3% (95% CI :0.713, 0.826); Nagelkerke R Square was .371

* $p < .05$, ** $p < .001$

Conclusions

- Variables for student support, measured two distinct factors:
 - 1) course and curriculum and 2) faculty-student relationships
- Learning ability, collegiality, and support with course and curriculum and from faculty significant predictors
- Students in a collegial environment, with high learning ability and adequate student support both in terms of courses and curriculum and faculty support are more likely to be satisfied

Recommendations

- CoAS
 - constantly examine the breadth of curriculum
 - enhance support -faculty advising and mentoring
- Prioritize student support with respect to courses and curriculum
- Similar studies should be replicated in other agricultural colleges
- Future studies - to identify other aspects of student satisfaction (personal expectations and attitude)

Thank you !

Question???