



*Is Student-to-Student  
Interaction in Distance  
Education Classes on the  
Minds of Our Students?  
A Comparison of  
Undergraduate and Graduate  
Students*



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# Dedication

- This presentation is dedicated to Sir Francis Bacon who admonished us to “**Question All Previous Accepted Knowledge.**”
  - Bacon is also known as the father of empiricism or the scientific method

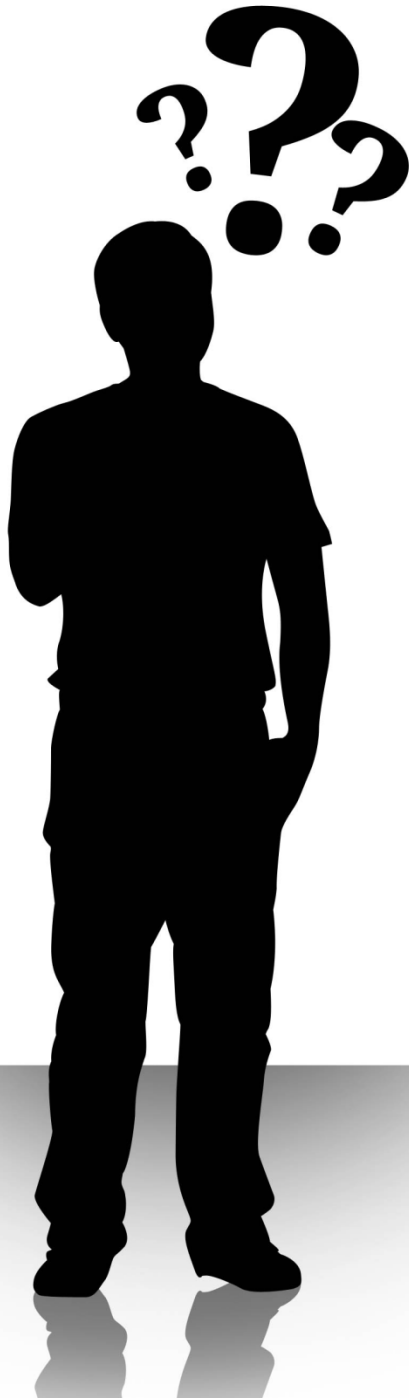




# Is This Really True?



- “...student-to-student exchange is a critical part of a quality online class...” (Stanley, 2013, p. 1)
- “...interaction [is] an essential element to student learning and to the overall success and effectiveness of distance education” (Sher, 2009, p. 103)
- “One of the recurrent themes in the literature is the effectiveness of using collaborative activities, group discussions, and other forms of student-student interaction” (Dixson, 2010, p. 2)

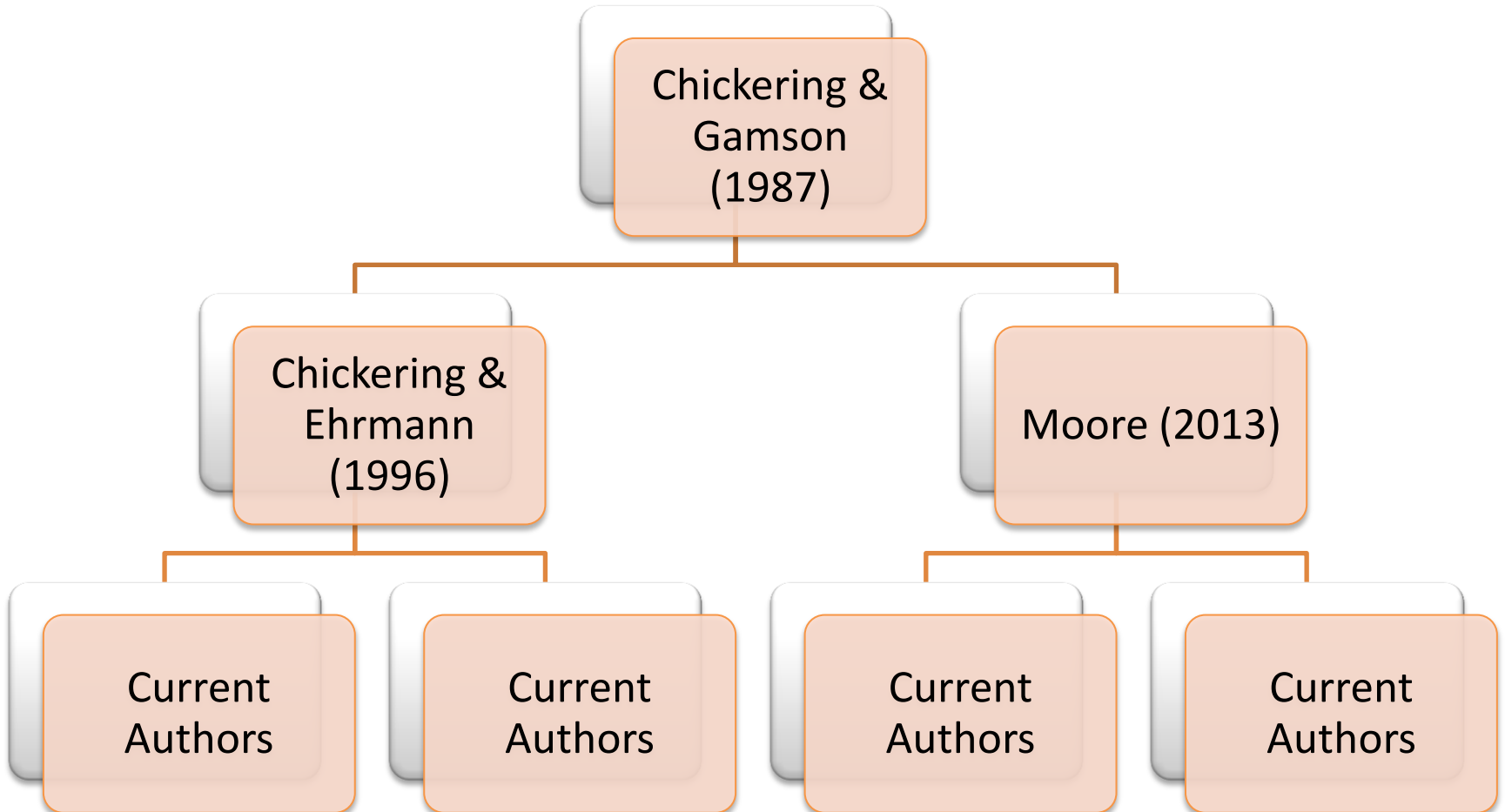


- What is the basis for the recommendation that student-to-student interaction is important in distance education classes?





# The Source!!





# Chickering and Gamson (1987)



- Identified 7 Principles of Effective Teaching for undergraduate education
  - frequent and open communication between faculty members and students
  - **promotion of collaborative student efforts**
  - incorporation of active learning
  - prompt feedback
  - efficient use of time
  - establishing high expectations
  - celebrating differences in student learning
- According to Google Scholar this one article has been cited 4,469 times



# Chickering & Gamson (1987)



- The seven principles were developed from research on face-to-face undergraduate classes taught during the 1960s, 70s and 80s
- Their seminal efforts were supported by the Johnson Foundation and the American Association for Higher Education
- The seven principles have been promoted and adopted at many universities

# Chickering and Ehrmann (1996)



- Revisited the 7 Principles to show how technology could be used to accomplish them
  - Many universities adopted the work of Chickering and colleagues as “The Gospel”
  - This article has been cited 1,382 times





# But Are the Principles Applicable in 2015?



- The students of that era were different from the students of today
- Distance education classes are different than face-to-face classes
- Technology has changed



# Conventional Wisdom

The conventional wisdom is often wrong.

*Steven D. Levitt*

meetville.com

"Conventional wisdom"  
is an oxymoron.

- Definition: the body of ideas or explanations generally accepted as true by the public or by experts in a field. Such ideas or explanations, though widely held, are unexamined.
  - From Wikipedia



# NACTA - 2014



## Montana State University

- A paper presented at this conference found distance education graduate students at North Carolina State University taking courses in Agricultural and Extension Education **DID NOT VALUE** or **DESIRE** student-to-student interaction in DE classes
- Do undergraduate students have the same views??





# An Idea

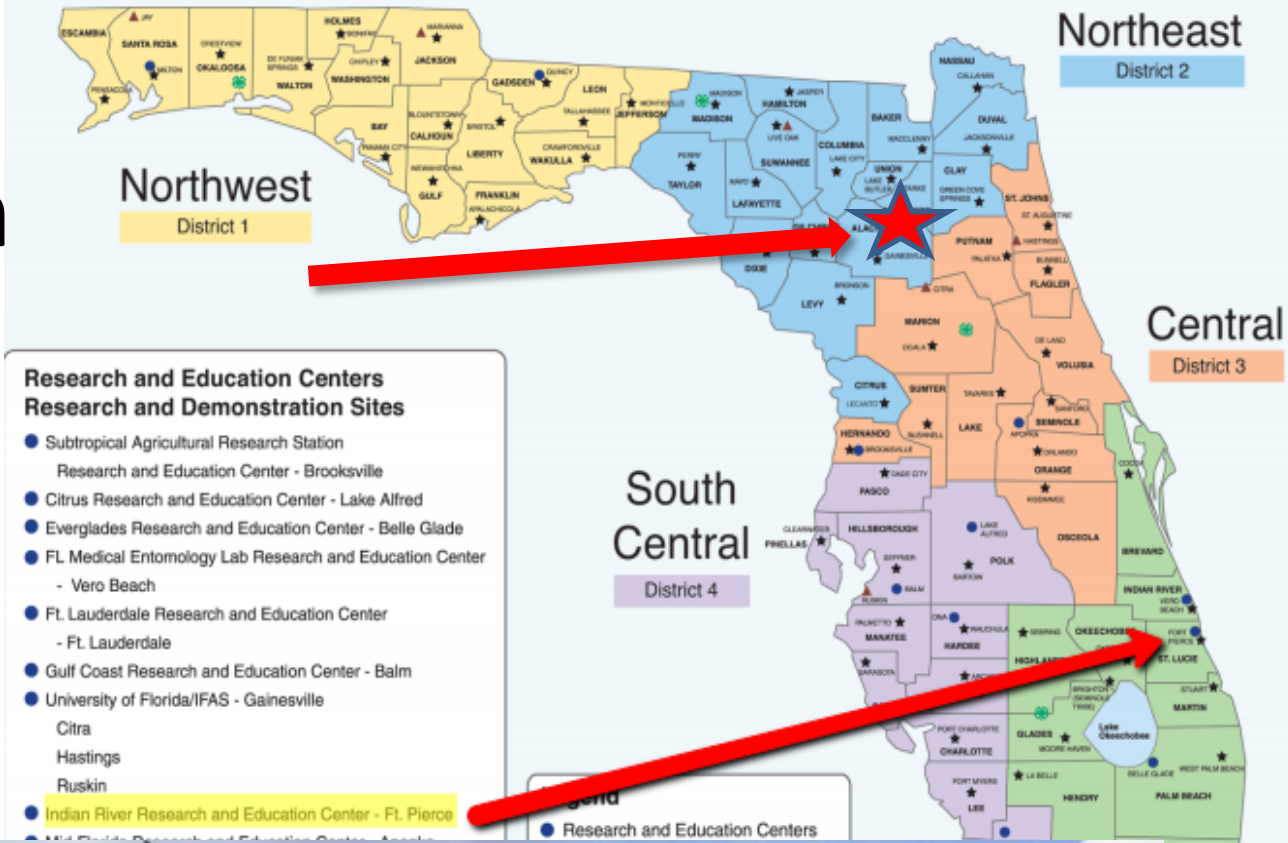


- Replicate study with undergraduate students in agricultural classes to see if they desire student-to-student interaction in their distance education classes



# UF/NCSU Collaboration

## IRREC: “South” District 5





# An Idea



- Study focused on University of Florida undergraduates in Fall 2014 and Spring 2015
- Used the NCSU “Student Interaction Preference Assessment”







# The University of Florida Study




- **Fall 2014**


 AEB 3133 Principles of  
Agribusiness  
Management (N=128)

 AEB 3341 Selling  
Strategically (N=125)

 Responses: 225 (89%)

- **Spring 2015**

 AEB 3133 Principles of  
Agribusiness  
Management (N=132)

 AEB 3341 Selling  
Strategically (N=94)

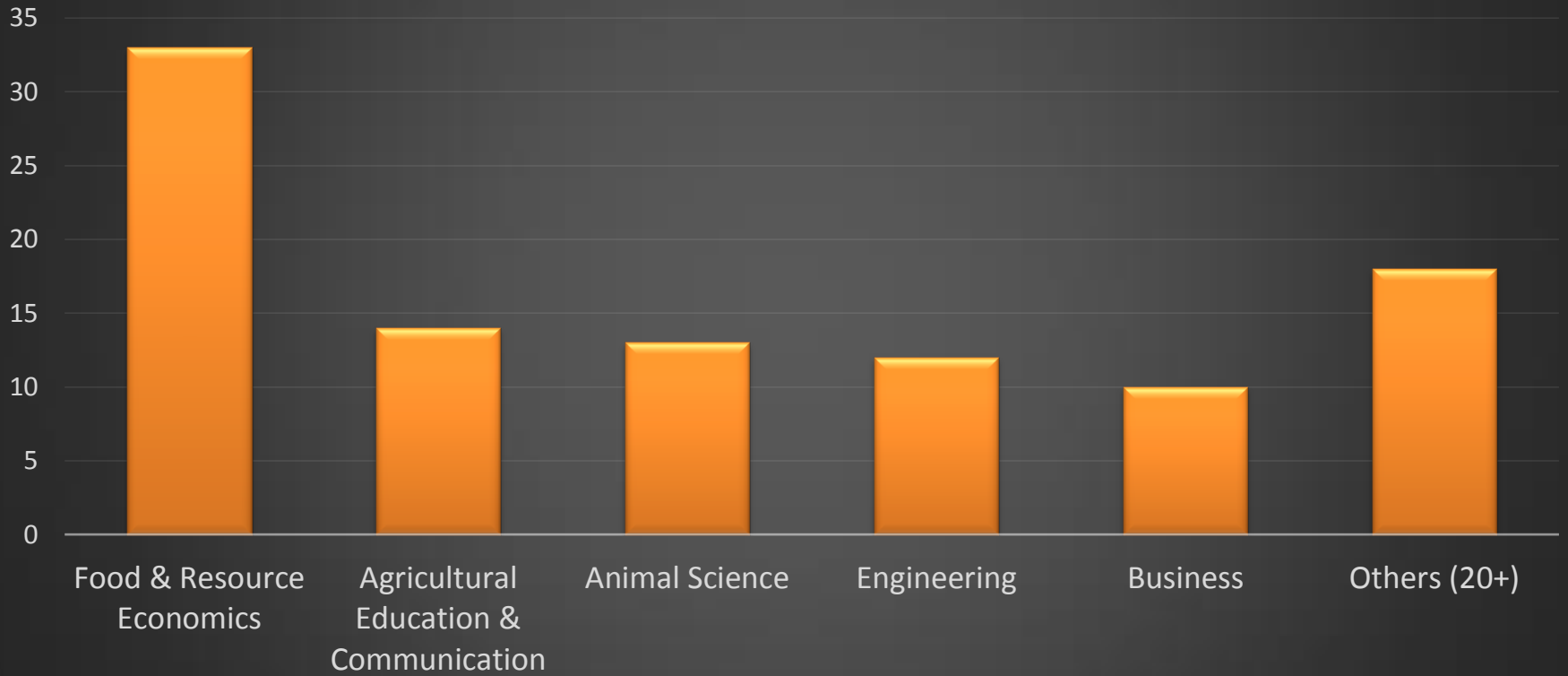
 Responses: 179 (79%)



# The Students



Majors (Percents)



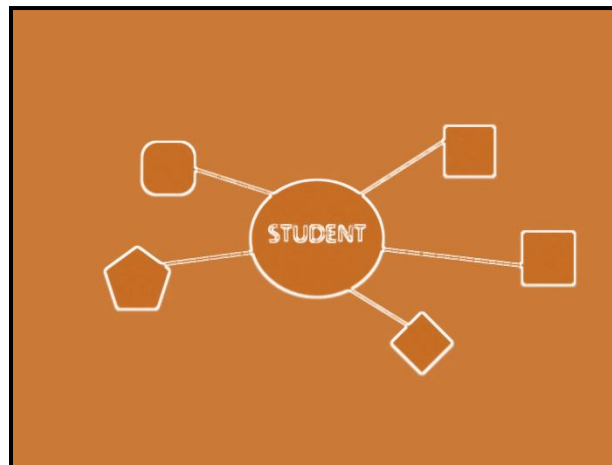




# The Research Questions



- What are the expectations of undergraduate students regarding student-to-student interaction in distance education classes?
- How do undergraduate student views compare with those of graduate students?





# The Instrument

- 18 Likert-type items: 12 positive, 6 negative

– Strongly Agree = 5



– Agree = 4

– Neither Agree or Disagree = 3

– Disagree = 2

– Strongly Disagree = 1



3.5

2.5





- Instrument Reliability - .90 Fall, .93 Spring







# Expectations of Distance Education Students Regarding Student-to-Student Interaction in Distance Education Classes



Statements	UF Undergrads Fall 2014 n=225 $\bar{x}$ (s)	UF Undergrads Spring 2015 n=178 $\bar{x}$ (s)	NCSU Grads F 2013 n=135 $\bar{x}$ (s)
1. I think student-to-student interaction should be a high priority for a distance education class. 	3.06 (1.09)	3.08 (1.16)	2.96 (1.00)
2. I like the chance to read and comment on my classmates' discussion board posts. 	3.05 (1.05)	3.03 (1.01)	3.05 (1.07)







# Expectations Continues....

Statements	UF Undergrads Fall 2014 n=225 $\bar{x}$ (s)	UF Undergrads Spring 2015 n=178 $\bar{x}$ (s)	NCSU Grads F 2013 n=135 $\bar{x}$ (s)
3. Interaction with other students enhances my learning of the content. 	3.02 (1.14)	3.07 (1.10)	3.13 (1.04)
4. I care about other students in my DE courses. 	3.02 (1.05)	3.04 (0.92)	3.19 (0.83)
5. I feel I learn more in a course when I have the opportunity to engage with my peers. 	3.02 (1.09)	2.88 (1.01)	3.22 (1.02)
6. <i>I have better things to do with my time than spending it interacting with other students in the class.</i> 	2.84 (0.99)	2.87 (0.98)	3.01 (1.00)

Note: Negative Statements are in italics and were reverse coded







# Expectations Continues....

Statements	UF Undergrads Fall 2014 n=225 $\bar{x}$ (s)	UF Undergrads Spring 2015 n=178 $\bar{x}$ (s)	NCSU Grads F 2013 n=135 $\bar{x}$ (s)
11. I enjoy participating in on-line forums, bulletin boards, Google hangouts, Skype and other such approaches that promote student-to-student interaction. 	2.63 (1.17)	2.54 (1.15)	2.64 (1.10)
12. It is important for me to feel connected to others in my DE courses. 	2.68 (1.12)	2.60 (1.00)	2.58 (0.89)
13. I desire a substantial amount of student-to-student interaction in my DE courses. 	2.52 (1.04)	2.38 (1.03)	2.22 (0.87)
14. The relationships I have established with other DE students have continued after the class is over. 	2.16 (1.19)	2.25 (1.12)	2.07 (0.99)



# Expectations Continues....

Statements	UF Undergrads Fall 2014 n=225 $\bar{x}$ (s)	UF Undergrads Spring 2015 n=178 $\bar{x}$ (s)	NCSU Grads F 2013 n=135 $\bar{x}$ (s)
15. <i>I prefer to work alone on assignments.</i> 	2.13 (1.05)	2.22 (0.88)	2.10 (10.91)
16. <i>I am more concerned about course content than participating in a classroom community.</i> 	2.18 (0.90)	2.16 (0.82)	2.20 (1.01)
17. <i>I would prefer <u>not having</u> "group work" in distance education classes.</i> 	2.12 (1.07)	2.02 (1.00)	2.05 (1.07)
18. <i>I only participate in discussion board exchanges if they are a graded component of the course.</i> 	2.07 (0.95)	2.10 (0.89)	2.27 (0.96)

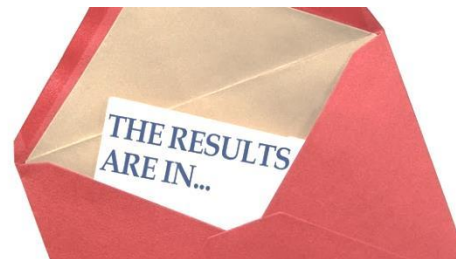
Note: Negative Statements are in italics and were reverse coded



# Expectations Grand Mean

- Neither Agree or Disagree = 3
- Disagree = 2

Statements	UF Undergrads Fall 2014 n=225 $\bar{x}$ (s)	UF Undergrads Spring 2015 n=178 $\bar{x}$ (s)	NCSU Grads F 2013 n=135 $\bar{x}$ (s)
<b>The Grand Mean</b>	2.66 (0.69)	2.63 (0.66)	2.66 (0.70)





# Item Response Comparison

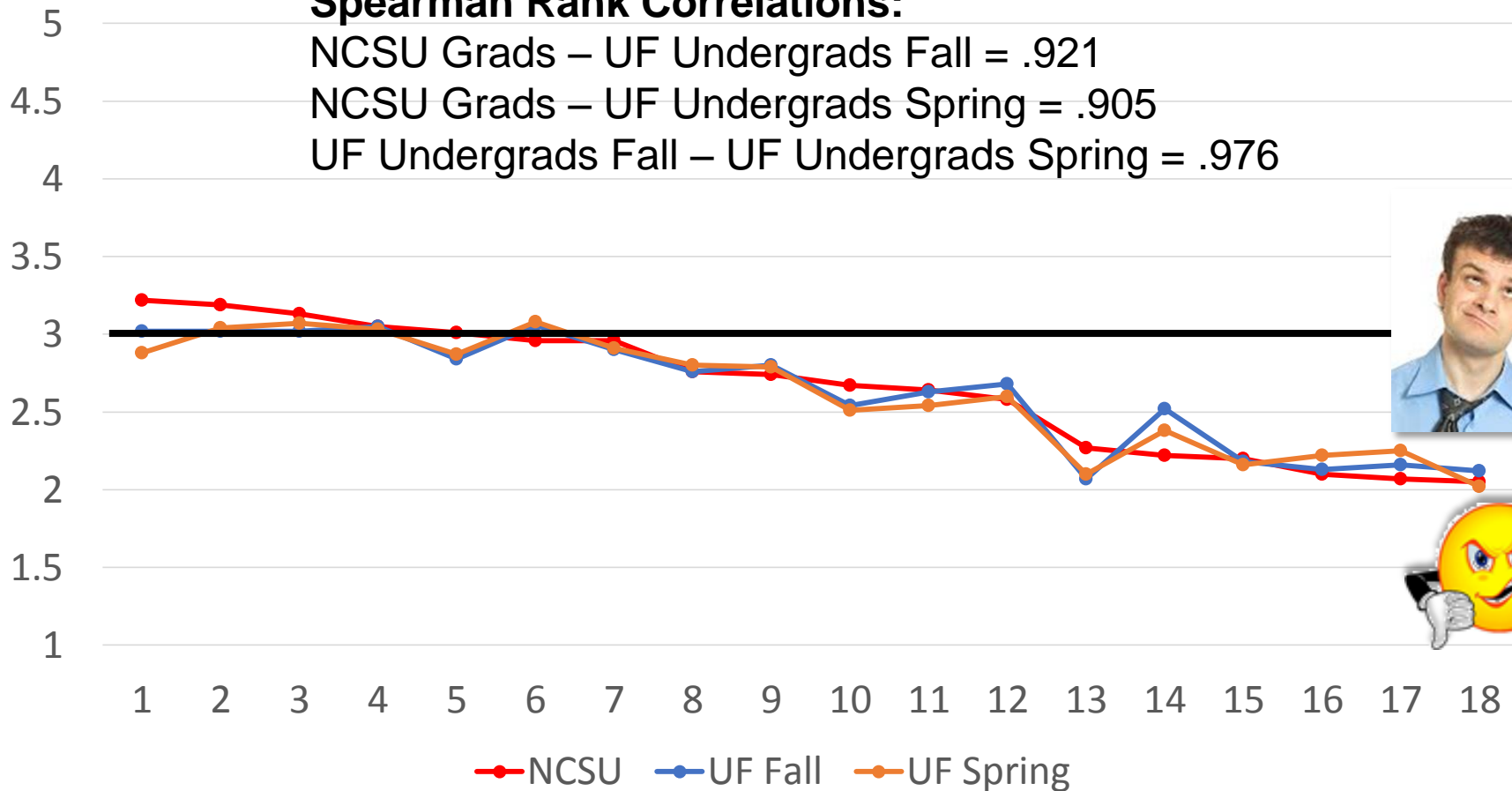


## Spearman Rank Correlations:

NCSU Grads – UF Undergrads Fall = .921

NCSU Grads – UF Undergrads Spring = .905

UF Undergrads Fall – UF Undergrads Spring = .976







# Summary of Findings

- University of Florida Undergraduate distance education students **DO NOT Value or Desire** student-to-student interaction in distance education classes!!
- NCSU Graduate Student study FINDINGS WERE **EXACTLY THE SAME!!**





# Conclusions

- In general, undergraduate and graduate students in College of Agriculture distance learning classes do not desire student-to-student interaction in their classes
- Even though some students tended to be positive about having student-to-student interaction, there were more students who didn't





# Recommendations for Practice



- Having extensive student-to-student interaction in undergraduate and graduate distance education classes **DOES NOT** need to be a high priority for the instructor





# Recommendations for Practice



- If an instructor chooses to incorporate student-to-student activities into a class, they should be voluntary
  - Students who do desire and benefit from student-to-student interaction should have the opportunity to engage in those activities
  - Students who do not want student-to-student interaction should not be forced to engage in those activities





# Recommendations for Additional Research



- This study did not look at student achievement
- Additional research should examine the student performance and comprehension in courses with a great deal of student-to-student interaction as compared to courses with minimal or no student-to-student interaction





# References

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