

# Recent Research on the SUNY Learning Network

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Longitudinal data, narrative results, and  
a foray into the issue of neo-millennials

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# Overview

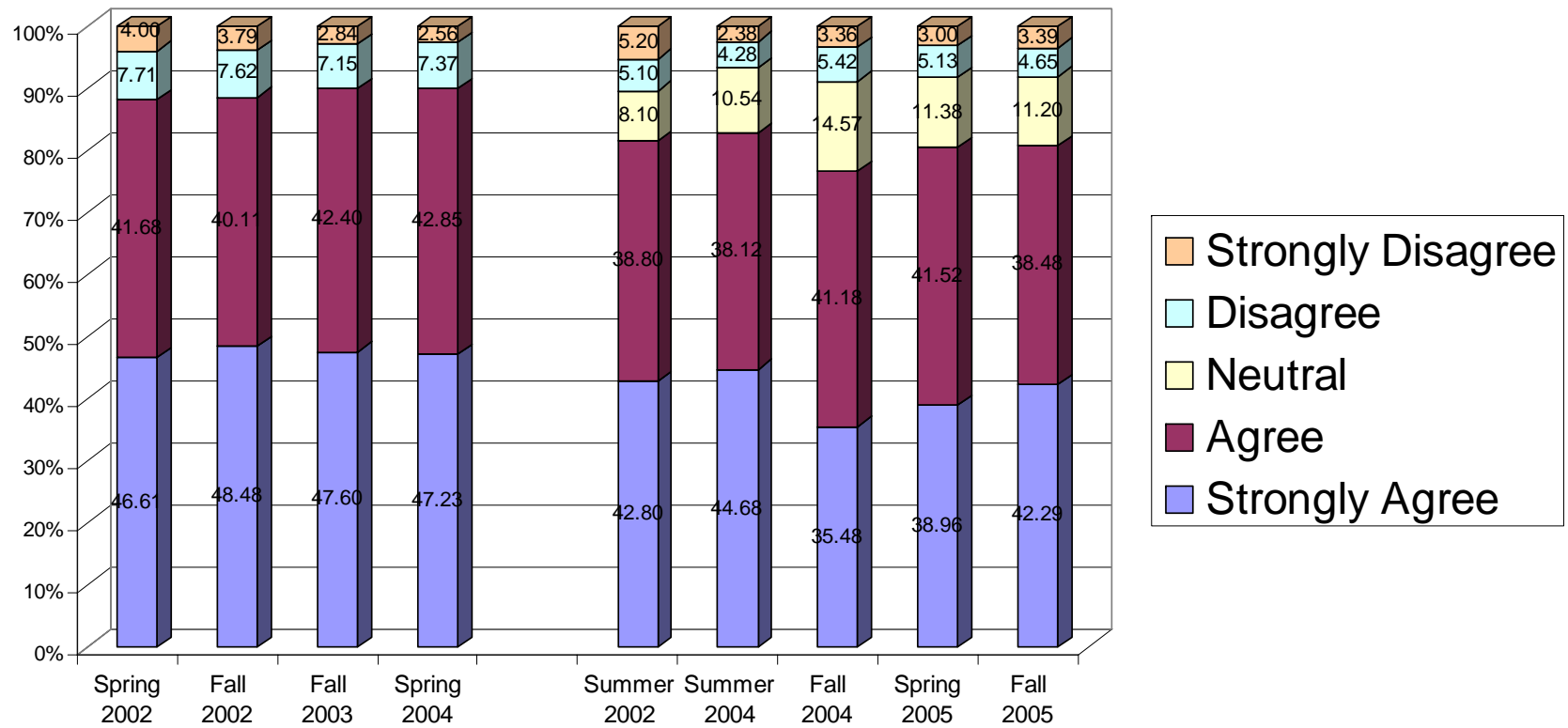
- SLN student survey results past 3-4 years
- SLN narrative results
- Other recent research that offers guidance
- SLN data on neo-millennials/online learning
- Conclusions - recommendations

## What would you do if this course was not offered online?

	Frequency	Percent	Cumulative Percent
Take the same course in the classroom at my current college	1576	38.8	38.8
Take the same course in a classroom at a different college	258	6.4	45.2
Take the same course online at a different college	1163	28.7	73.9
I would not take the course	1060	26.1	100

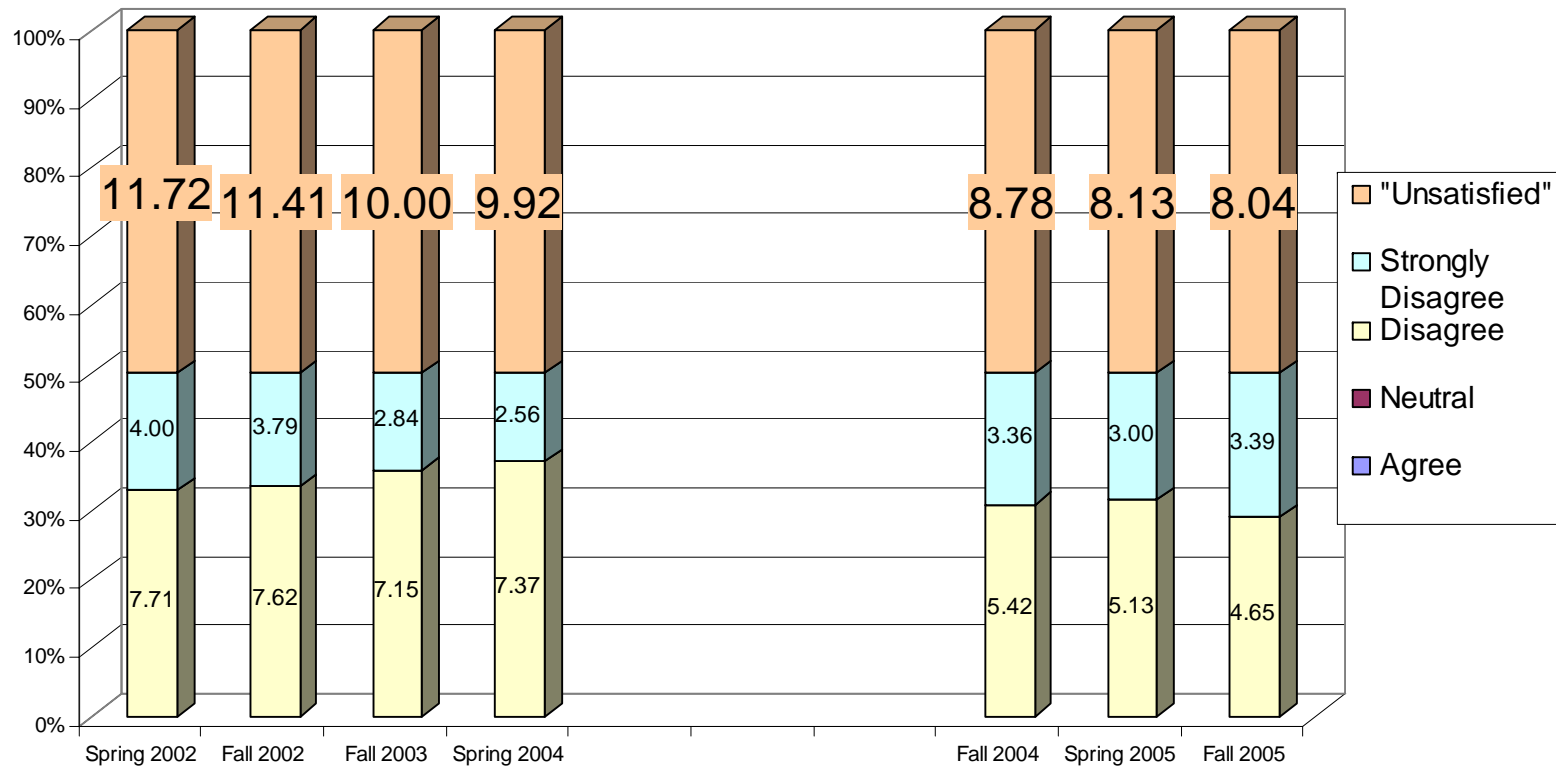
# Trends in SLN Student Satisfaction

"Overall, I was very satisfied with this course"



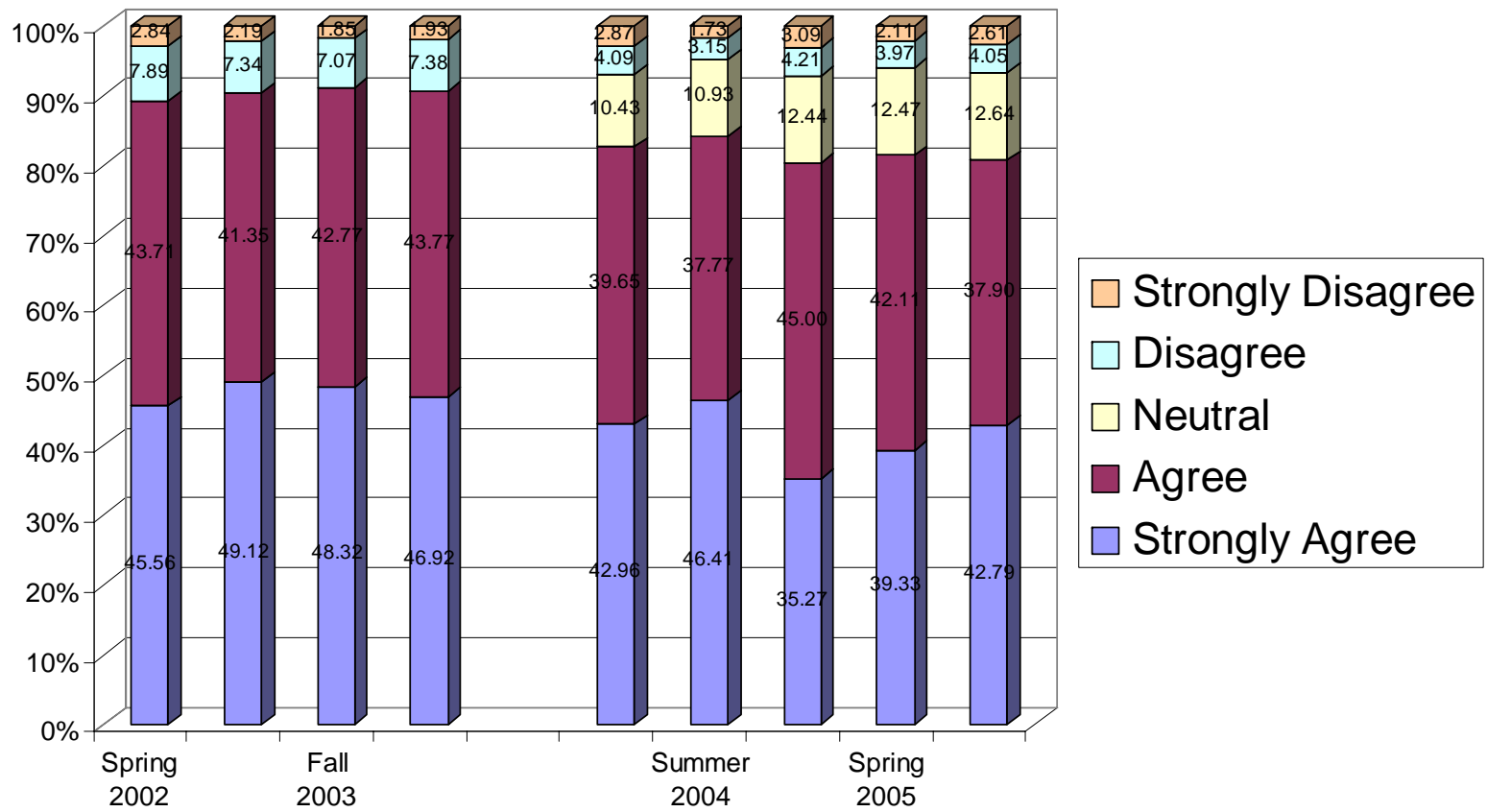
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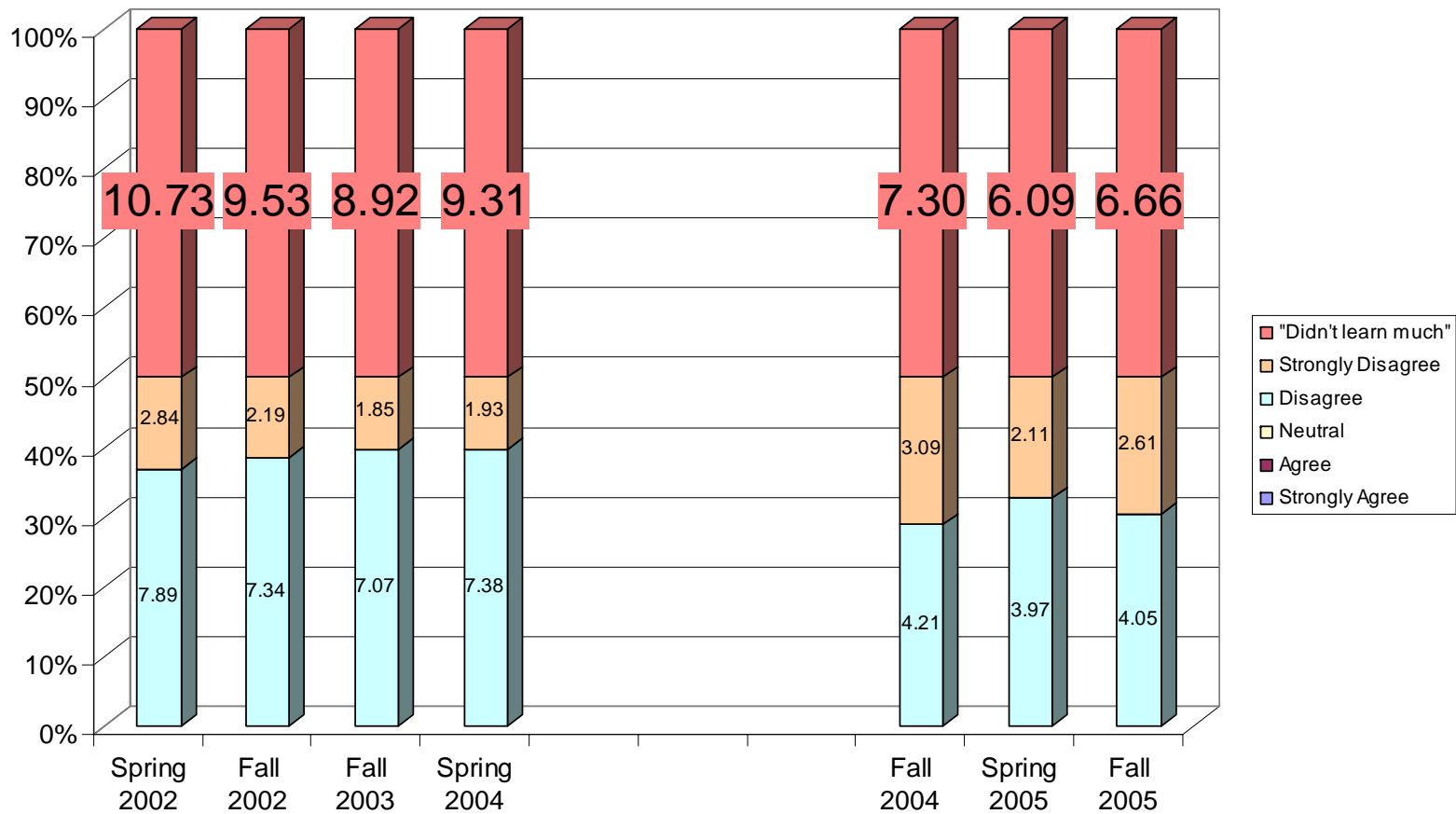
# Trends in SLN Reported Learning

Overall, I learned a great deal in this course



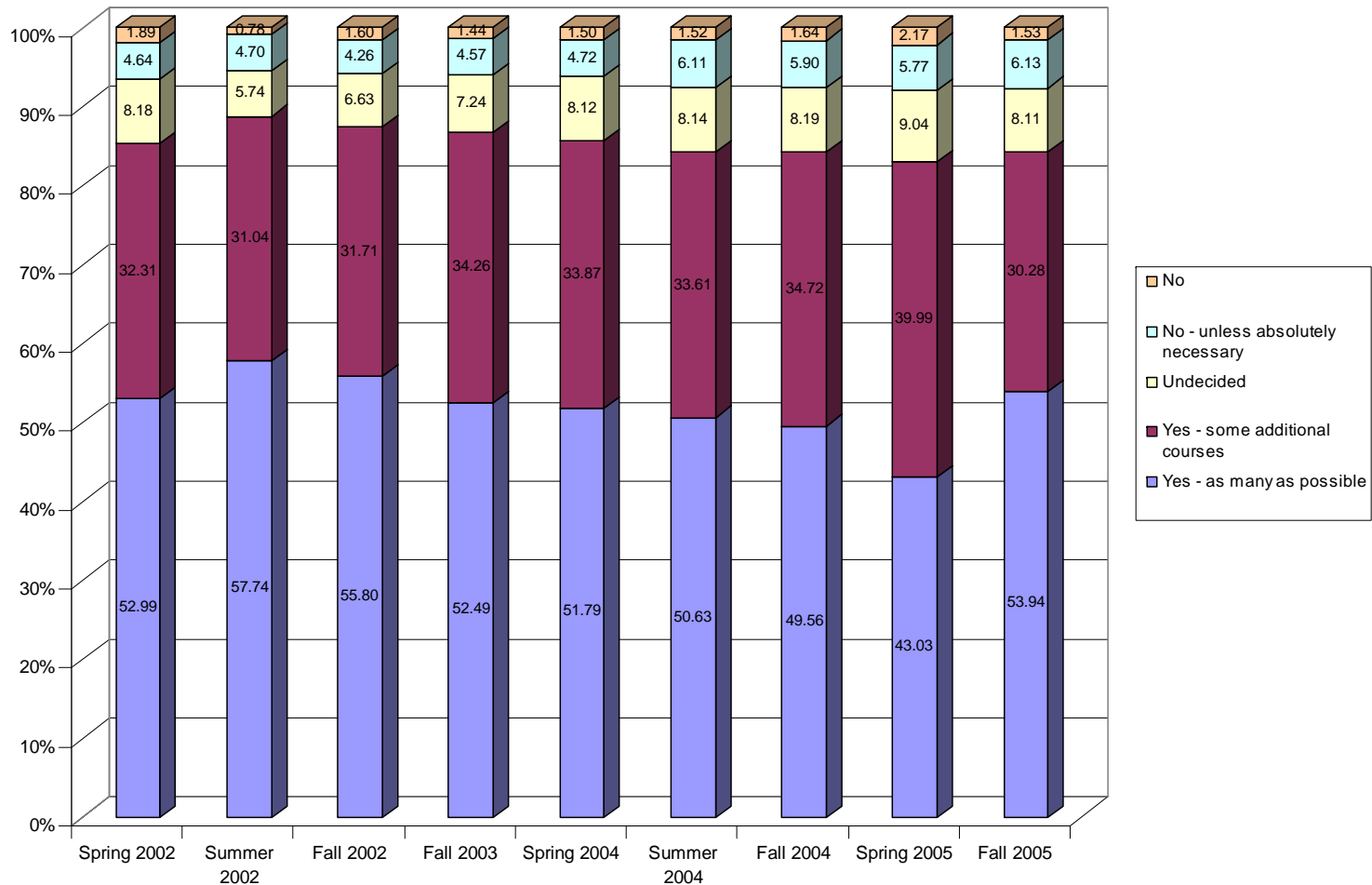
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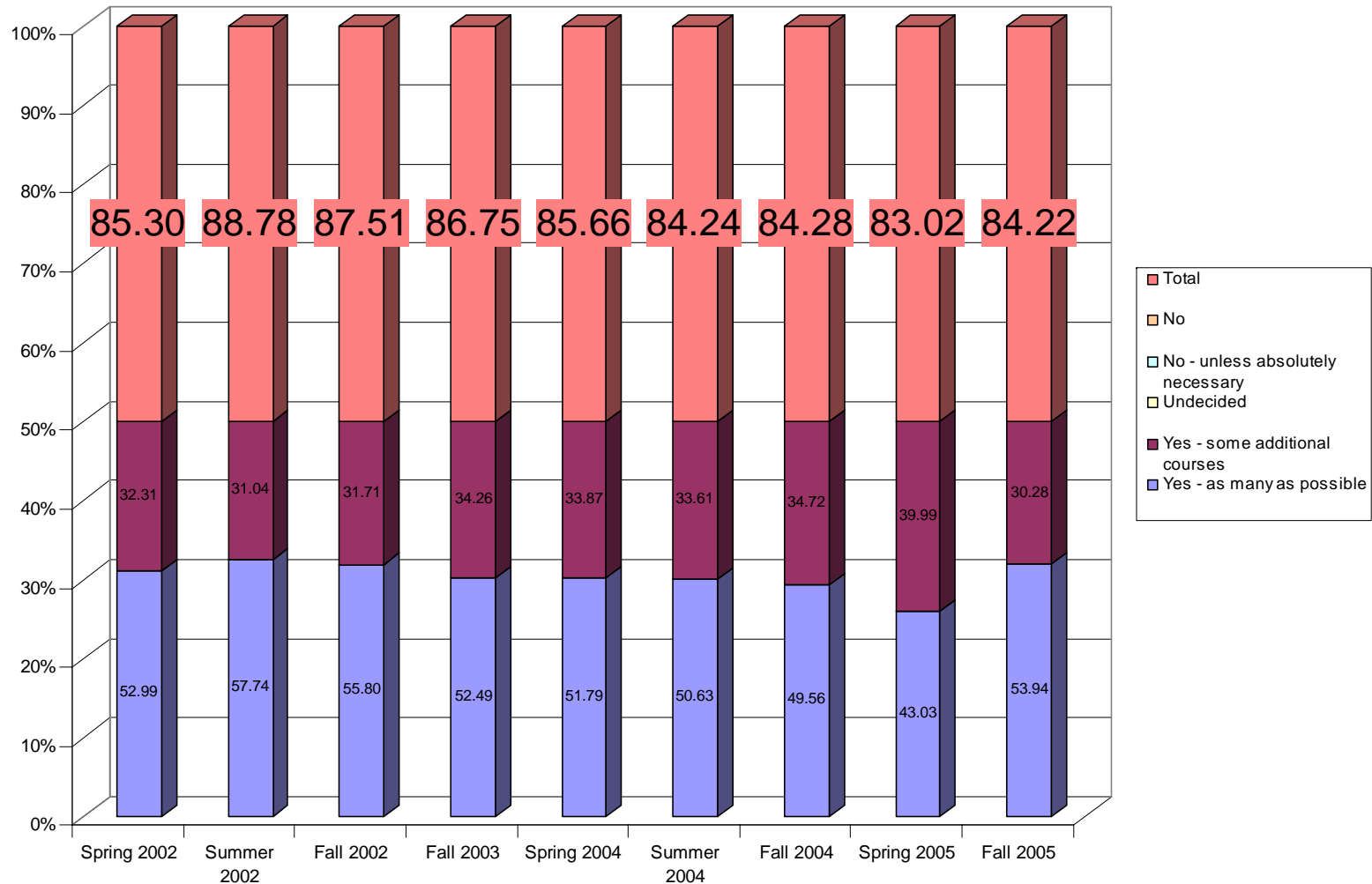
# Take more online courses?

## Consider Taking Other Online Course in the Future



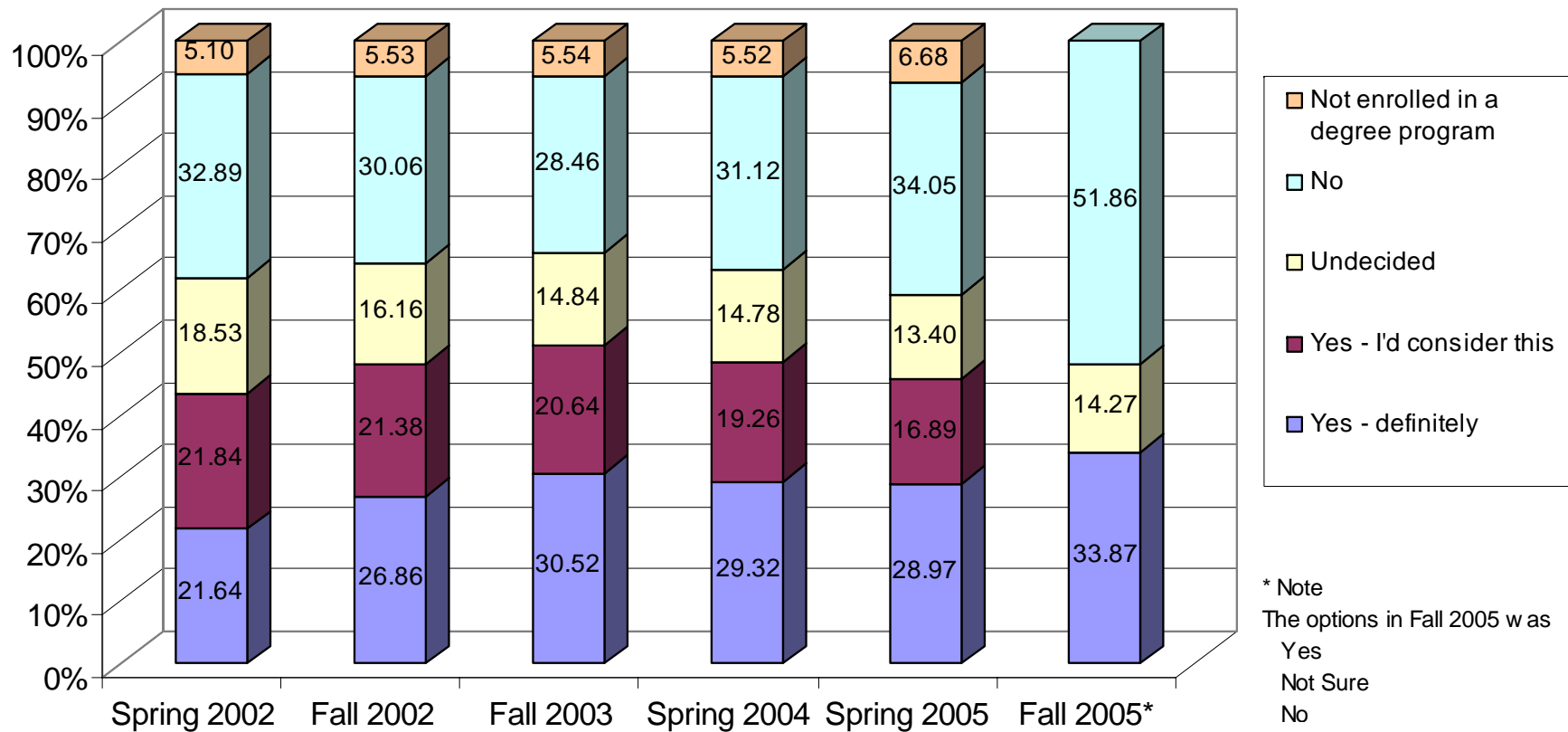
# Take more online courses?

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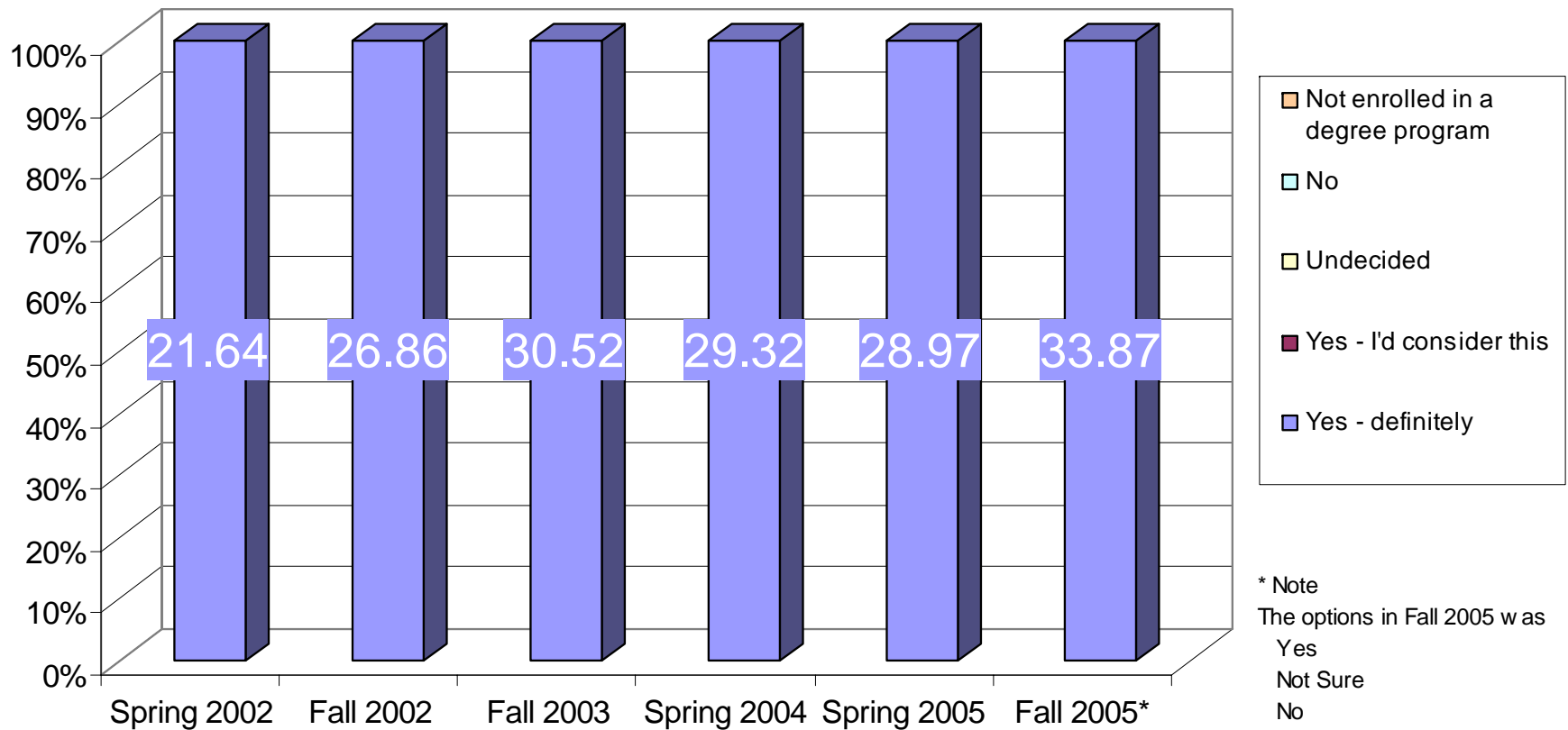
# Take entire degree online?

## Planning to Complete the Entire Degree Online



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# Narrative Data

We asked students several open ended questions – one of which was:

“What has been the most significant impact of the availability of online courses on your life?”

“Convenience and flexibility”

In the service of what?

# Narrative Data

Responses fall into several themes -

Online learning supports inter-related and critical life **transitions** from:

- School to work
- Work to school
- Work to family
- Home to the “outside world”
- A difficult “status quo” to greater hope and opportunity

# Status Quo to Hope

“(Online courses) have changed my life. I never thought of college as a possibility for me because of my work and family obligations.”

# Status Quo to Hope

“I have a seven month old baby and limited income. I can not afford to pay someone else to watch him while i go to school. In addition, i live very far from campus.”

# Home to the Outside World

“Since I have Chronic Lyme disease and am housebound the online courses give me the ability to do my schoolwork anytime of the day that I am feeling well enough to do so.”

# Home (back) to Work

“I am able to complete my program at the same time my youngest goes to school. This allows me to return to the work force quickly and be able to achieve my goals for life. It also gives my children a great start at life by enabling me to be a stay at home mom.”

# Home (back) to School

“I can finally work on my degree again. I have three teenagers and I haven't been able to do so till now.”

## Work (back to) to family

“It has given me as a divorced mother, working full time, the ability to pursue a college degree while not giving up anything in regards to my children or my senior citizen parents. They have always been and continue to be my priority. Online fits into my life. The only thing that suffers is my sleep.”

## Work (back to) to family

“That I can get a quality education from a college like SUNY without a cheesy University of Phoenix degree. I can also support myself and my family while I attend.”

# Other Recent Research

Lessons we have learned...lessons we  
may need to learn...

# Conventional Wisdom

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## Lessons we have learned about “distance educations” :

- No significant difference between f2f and “distance” education (Russell, 1999) 355 studies
- Implication: No worries – online and F2F are “the same” in terms of satisfaction and learning

# How to go beyond NSD?

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Evidence from 4 new meta-analyses

If:

- Two-way interaction = better results for DL v f2f
- High instructor involvement = better results for DL v f2f
- Combined synch and asynch interaction = better results for DL v f2f
- It is recent research - after 1998 studies begin to favor DL – changing technology (interactive OLL)?

# Implications

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Going beyond No Significant Difference...

- It's all about the *interaction...*

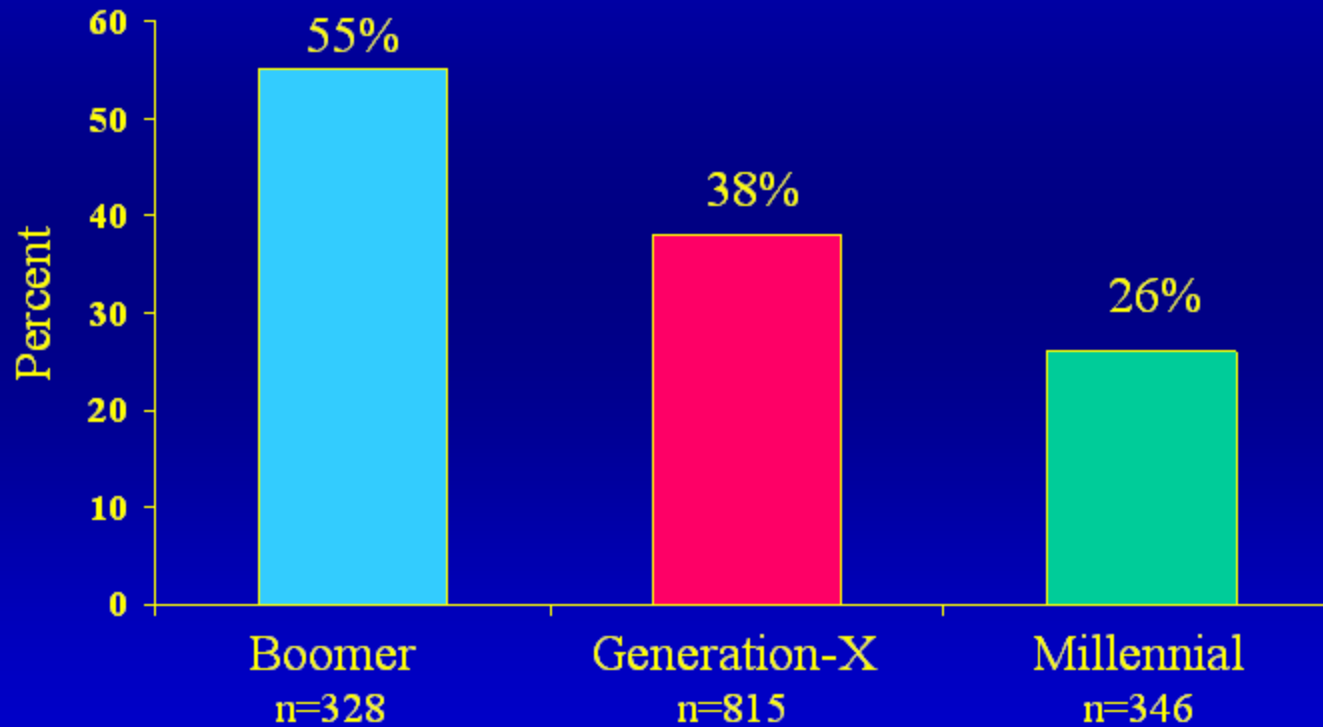
Lesson we need to learn?

# Results related to age

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- Research on the generations done at UCF and elsewhere
- EDUCAUSE - new book – free and downloadable – “Educating the Net Generation...”
- Quick hide: The neo-Millennials are coming!

# Students who were very satisfied by generation



# Evidence from SUNY

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- Other data on the issue of age and online student satisfaction –
- N = 24,231
- 40 colleges in SUNY – 2yr, 4yr, Grads
- Similar to UCF results...

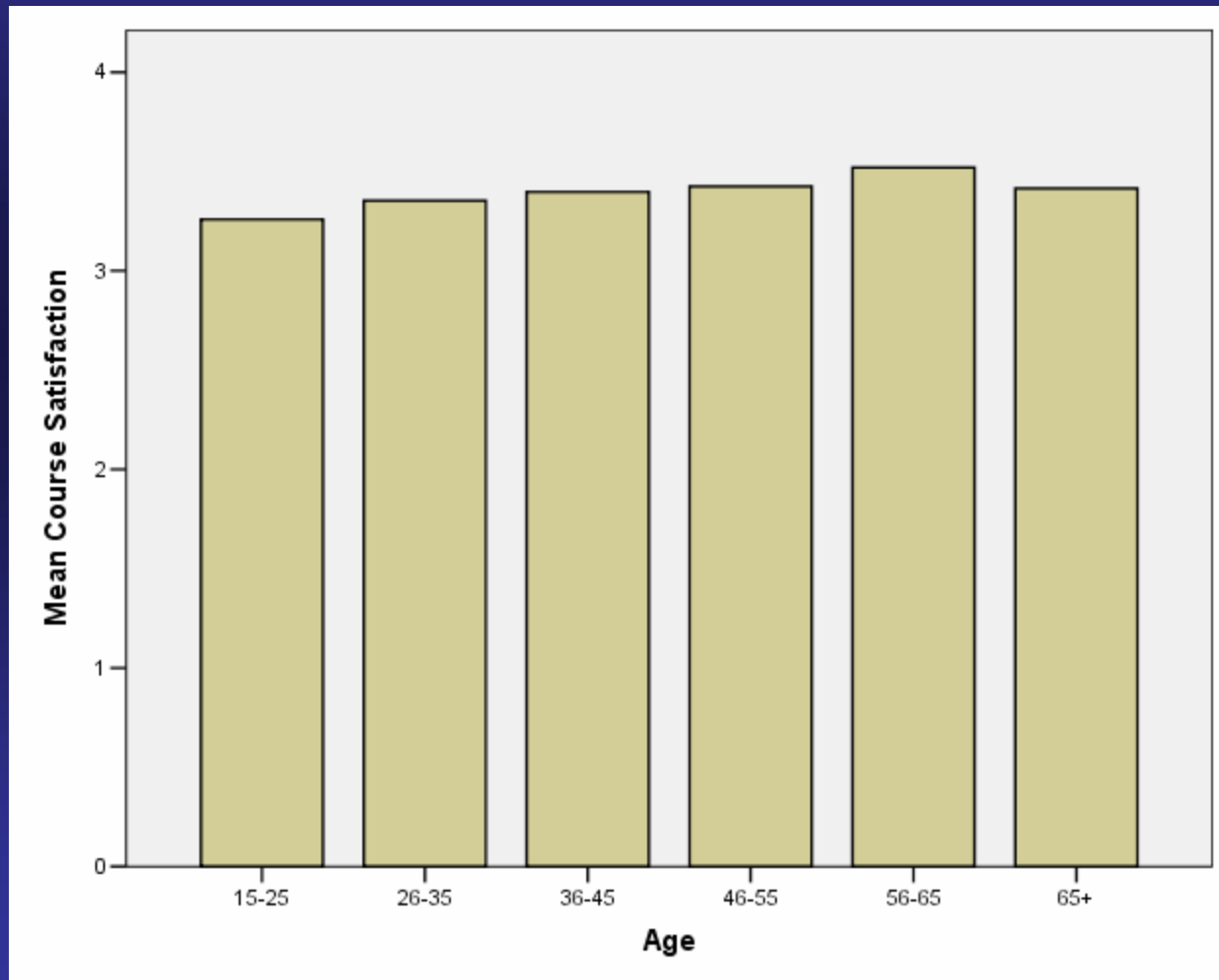
# Satisfaction with OL Courses

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# Satisfaction by age

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## Implications of research on satisfaction by age

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- New research on “neo-millennials” (e.g. Dede, 2005)
- New learning styles? **Heightened expectations...**
- Based on emerging experiences in technology-mediated environments:
- [http://muve.gse.harvard.edu/muvees2003/animations/muvees\\_demo\\_1.ram](http://muve.gse.harvard.edu/muvees2003/animations/muvees_demo_1.ram)



What they want/need...immersive multimedia



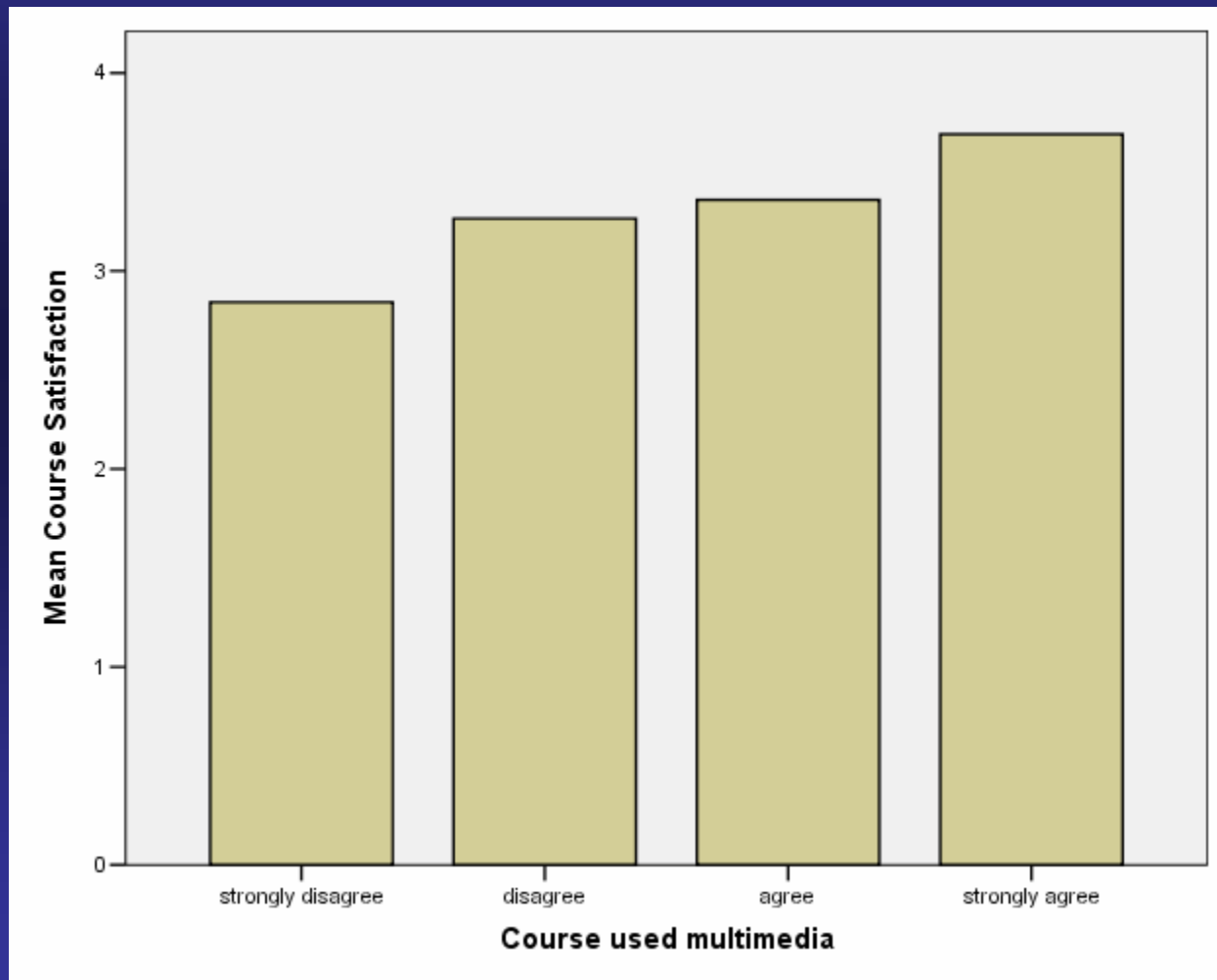
Evidence in support of *age* and  
*multimedia* effects on online student  
satisfaction and learning

# Evidence from SUNY studies

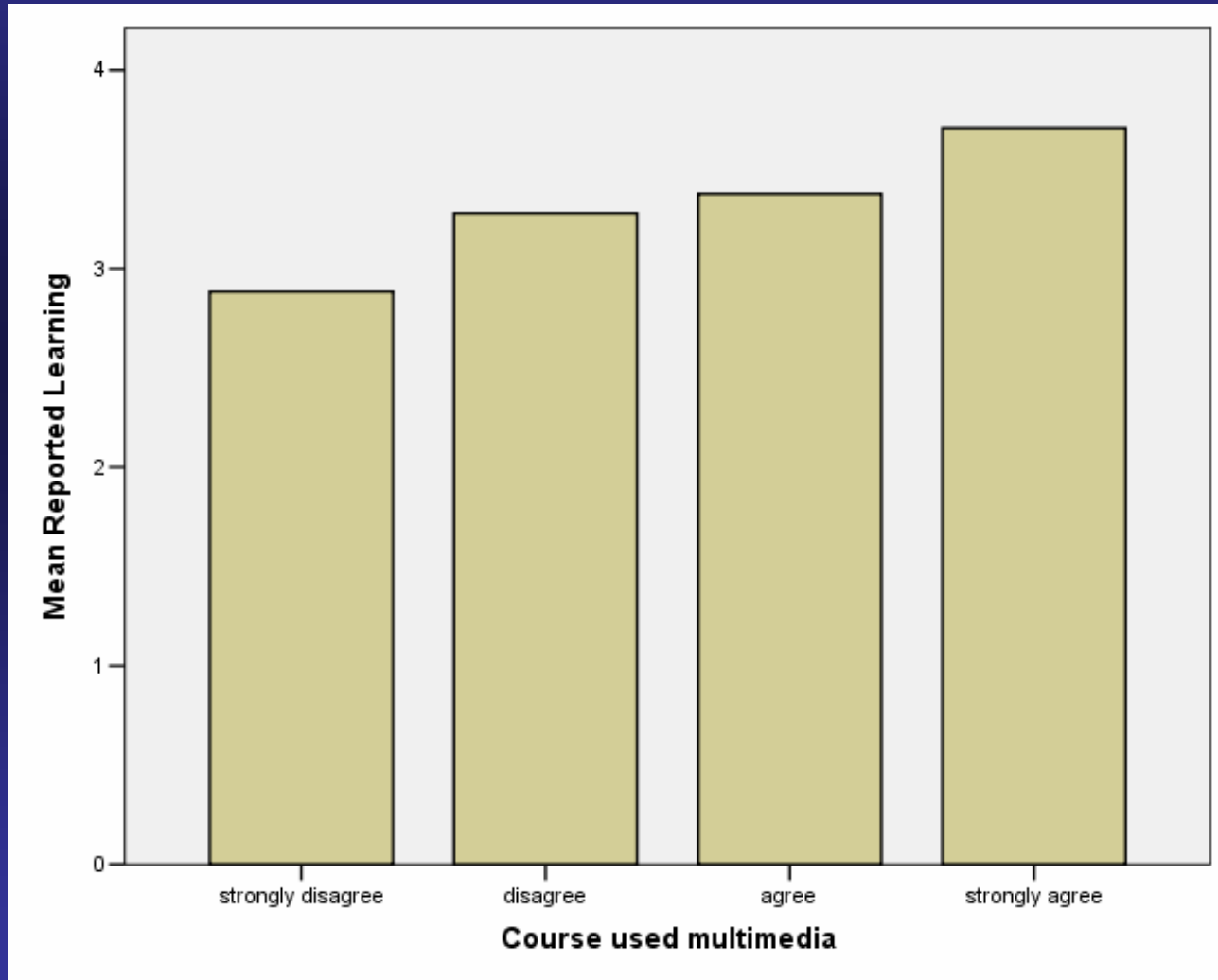
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- N = 24,231
- 40 colleges in SUNY –
- Community colleges
- Four year colleges
- Graduate schools

# Satisfaction by “course used multimedia” (more is better...)

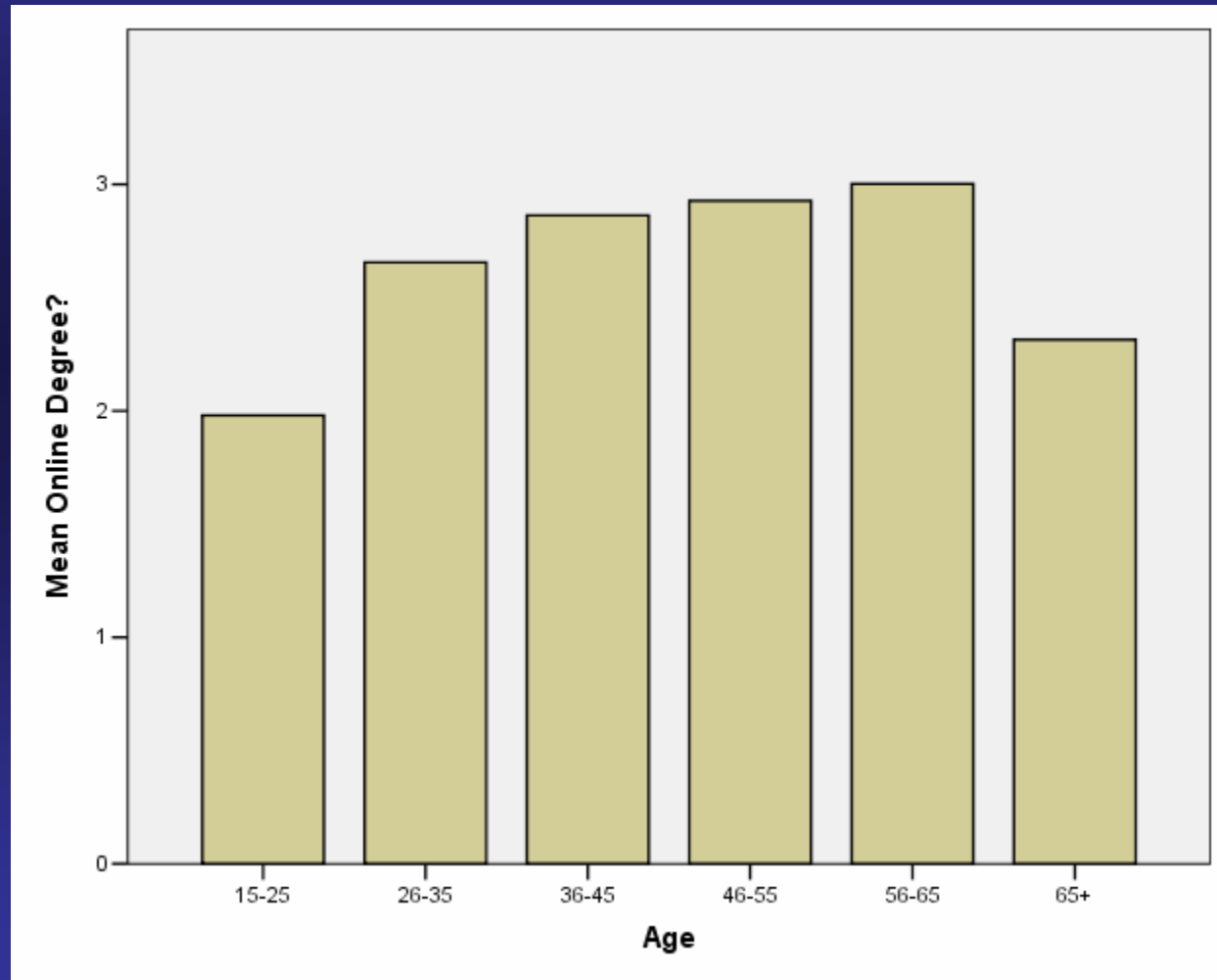


# Reported learning by “course used multimedia” (more is better...)



# Complete your entire degree online? by age

(Millenials don't want what we are offering?)



## Implications: net generation

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- Professional development for faculty
  - Co-design learning experiences w/ students
  - Co-instruction – student knowledge sharing as major source of content and pedagogy
  - Active learning – case-based participatory simulations
  - New kinds of assessments

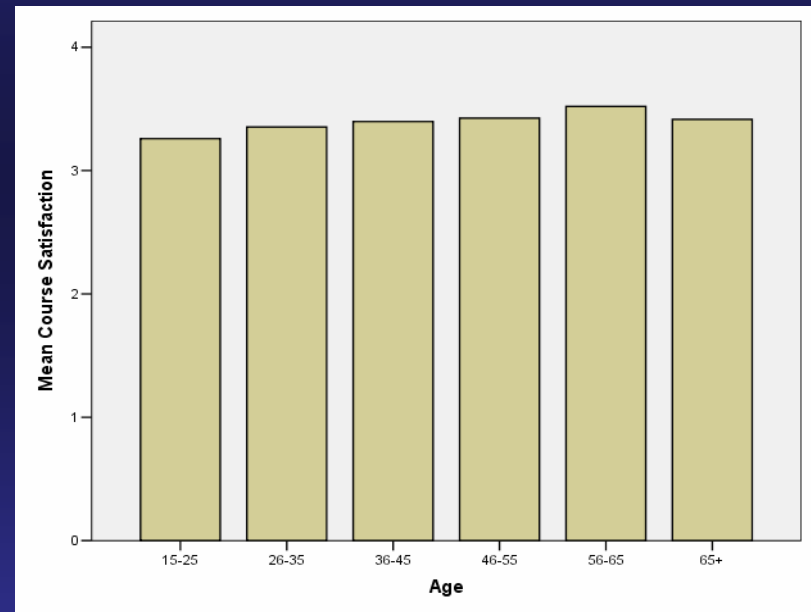
# But how well does age correlate with satisfaction for *online* students?

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**Correlations** with student satisfaction in online courses and (n=24,231):

## Weak correlations:

Gender	(r=.08)
<b>Age</b>	<b>(r=-.09)</b>
Employment	(r=.08)
Distance	(r=-.08)
Computer Skills	(r=.03)



## It's the interaction...

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### Strong correlations:

Quality of interaction with the instructor

S-( $r=.70$ )      RL-( $r=.64$ )

Amount of interaction with the instructor

S-( $r=.65$ )      RL-( $r=.63$ )

Instructor clearly communicated how to succeed

S-( $r=.63$ )      RL-( $r=.59$ )

Quality of feedback

S-( $r=.62$ )      RL-( $r=.58$ )

Prompt feedback

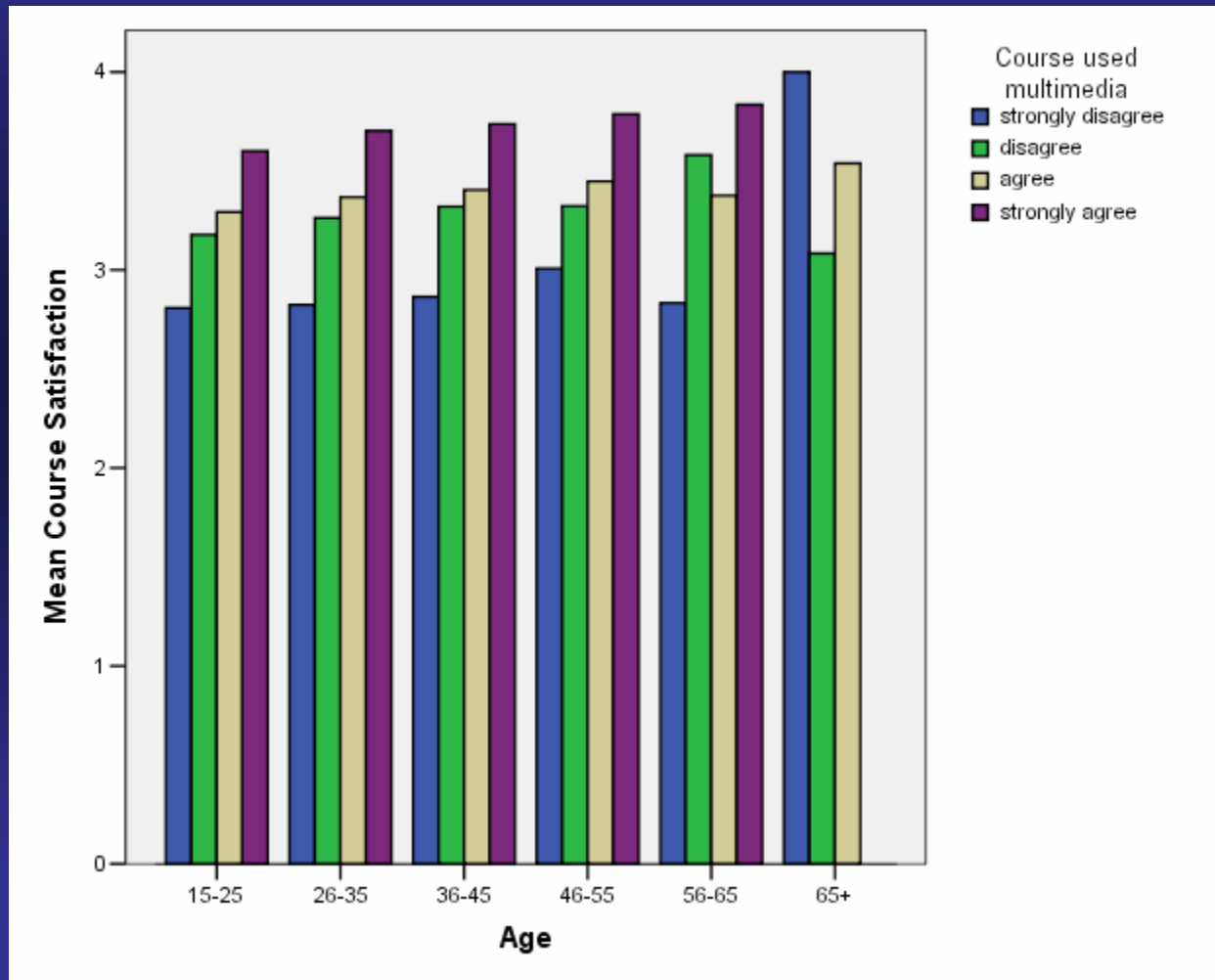
S-( $r=.61$ )      RL-( $r=.54$ )

S = Satisfaction

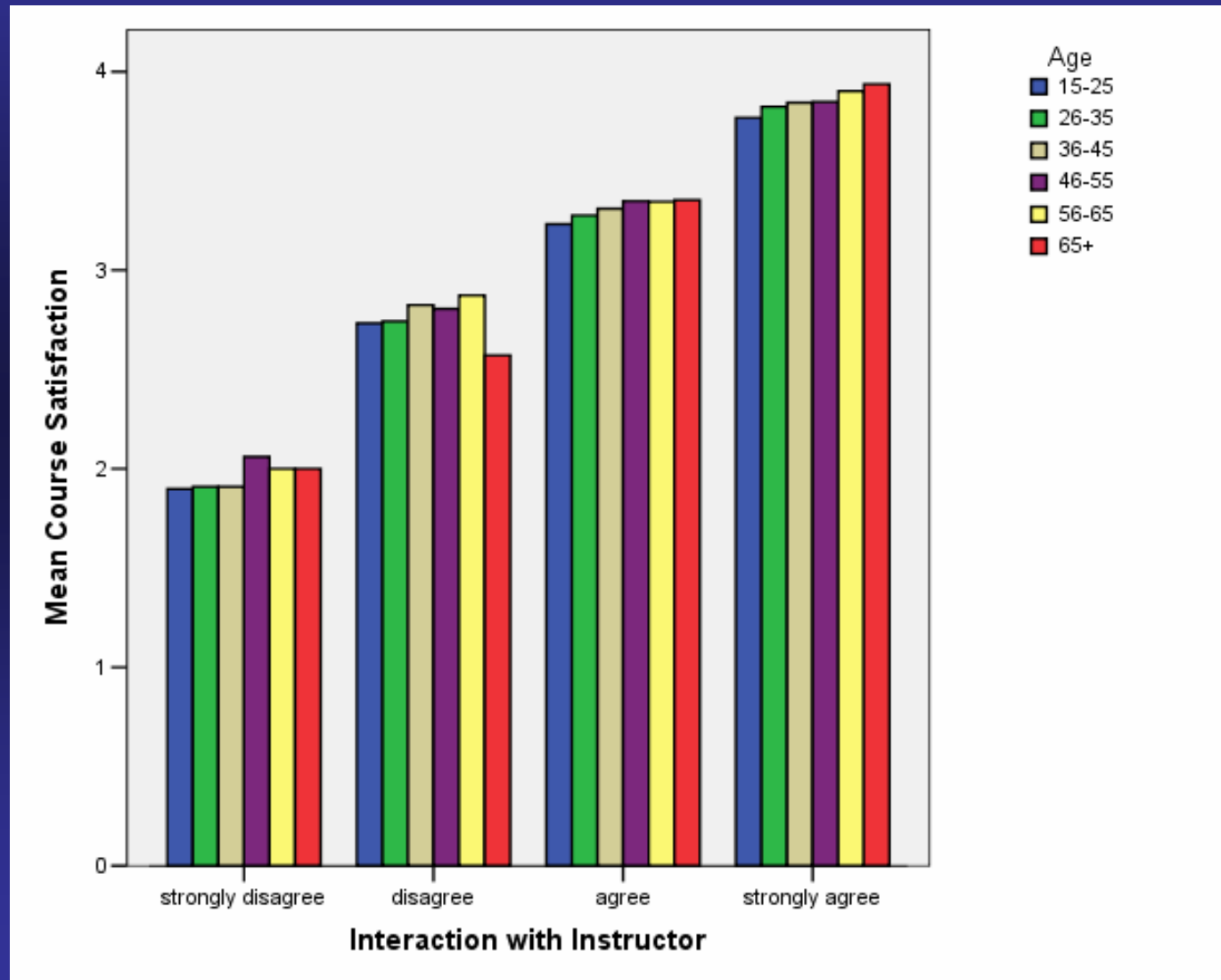
RL = Reported Learning

# Everyone likes multimedia, not just millennials

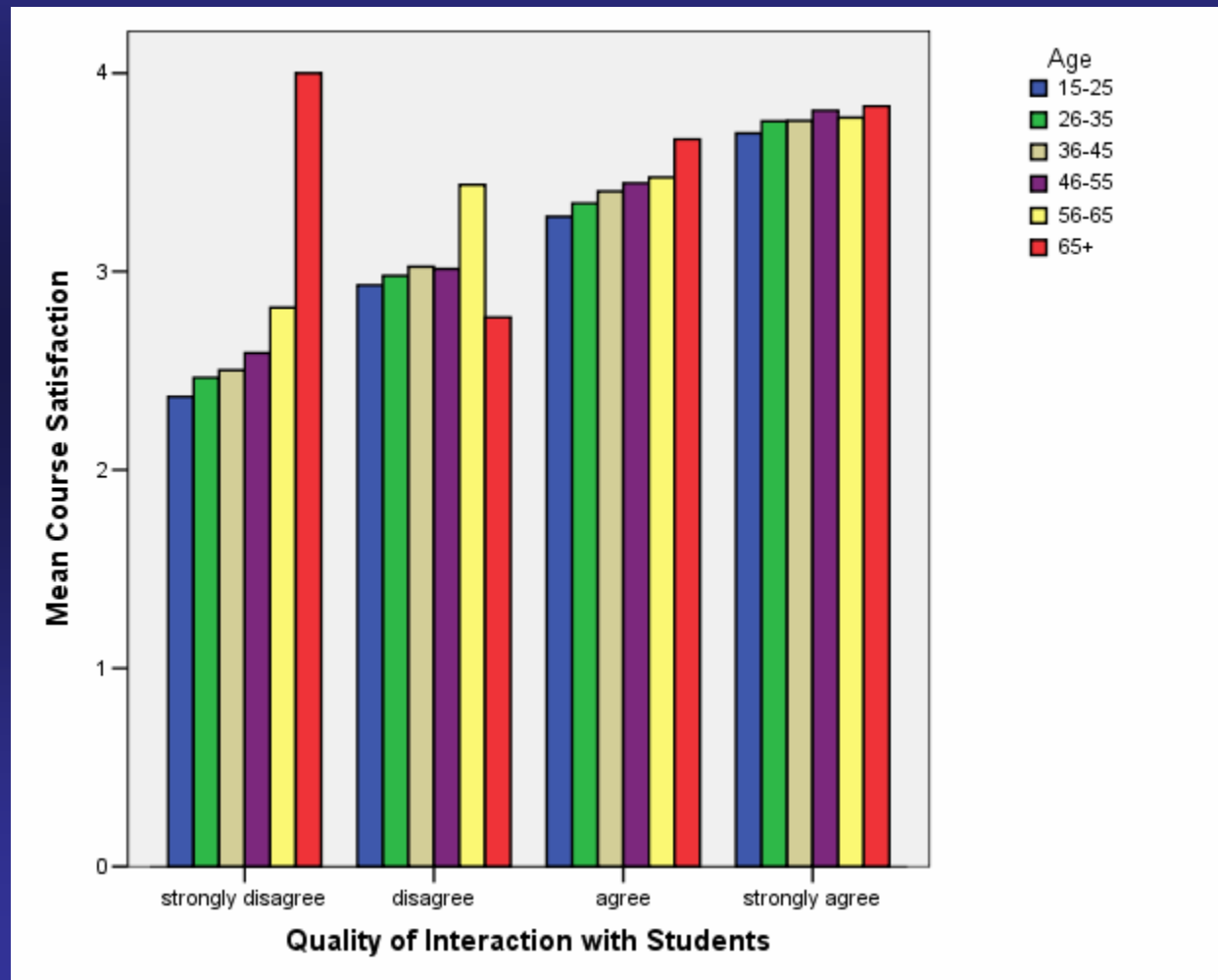
(but MM is not a strong correlate of student satisfaction)

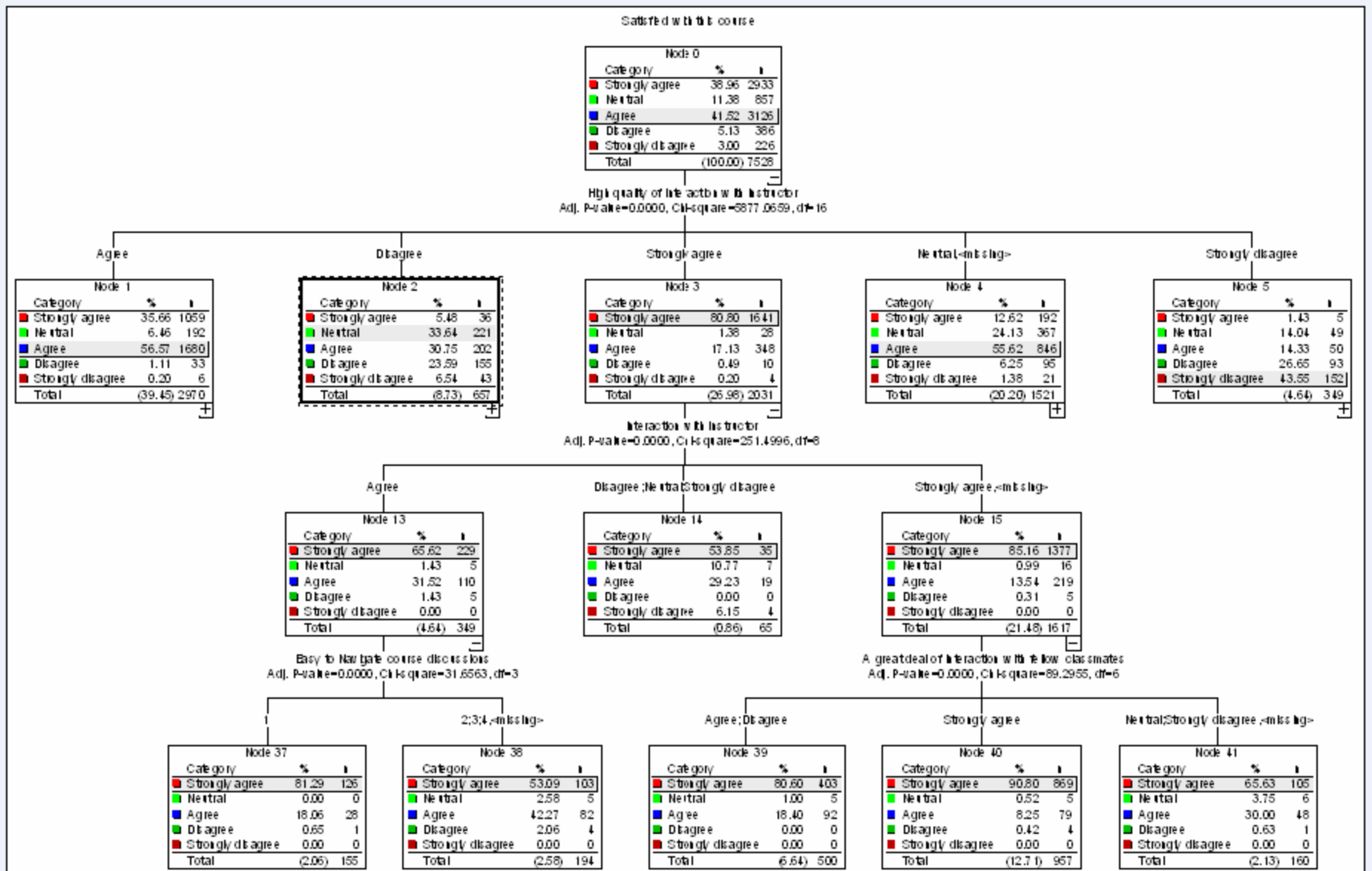


# Interaction with the instructor “matters” much more...for everyone...



Interaction with the classmates “matters” much more...for (almost) everyone...





Satisfied with this course

Node 0		
Category	%	n
Strongly agree	38.96	2933
Neutral	11.38	857
Agree	41.52	3126
Disagree	5.13	386
Strongly disagree	3.00	226
Total	(100.00)	7528

High quality of interaction with instructor

Adj. P-value=0.0000, Chi-Square=6877.0659, df=16

Strongly agree

Node 3		
Category	%	n
Strongly agree	80.80	1641
Neutral	1.38	28
Agree	17.13	348
Disagree	0.49	10
Strongly disagree	0.20	4
Total	(26.98)	2031

Interaction with instructor

Adj. P-value=0.0000, Chi-Square=2511.0065, df=8

Neutral-mid sig

Node 4		
Category	%	n
Strongly agree	12.62	192
Neutral	24.13	367
Agree	55.62	846
Disagree	6.25	95
Strongly disagree	1.38	21
Total	(20.20)	1521

Strongly disagree

Node 5		
Category	%	n
Strongly agree	1.43	5
Neutral	14.04	49
Agree	14.33	50
Disagree	26.65	93
Strongly disagree	43.55	152
Total	(4.64)	349

# Student Satisfaction/Engagement Predictors

Online students are most satisfied when they:

- are more active learners
- perceive advantages in the online learning environment
- have high levels of interaction and high quality interaction with the instructor
- have high levels of interaction and high quality interactions with their fellow students

## Implications: Faculty development – should stress good “teaching presence” - and reflective practice

- Interaction with the instructor
- Quality of interaction with the instructor
- Quality of feedback
- Prompt feedback
- Facilitating interaction with classmates
- Communicating clear expectations
- Encouraging active participation
- Low levels of technical difficulties

## Implications: LMS design – should stress convenient interaction (more)

- Easier interaction with the instructor
- More prompt feedback
- More convenient interaction with classmates
- Easier “Co-design of learning experiences w/ students”
- Easier “Co-instruction – student knowledge sharing as major source of content and pedagogy”

# Thank You!

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# Teaching Presence

- Instructional Design and Organization
- Facilitation of Discourse
- Direct Instruction

# Instructional Design and Org.

- Setting the curriculum
- Designing methods
- Establishing time parameters
- Utilizing the medium effectively
- Establishing netiquette

# Facilitating Discourse

- Identifying areas of agreement and disagreement
- Seeking to reach consensus/understanding
- Encouraging, acknowledging, and reinforcing student contributions
- Setting climate for learning
- Drawing in participants, prompting discussion
- Assessing the efficacy of the process

# Direct Instruction

- Presenting content and questions
- Focusing the discussion
- Summarizing the discussion
- Confirming understanding
- Diagnosing misperceptions
- Injecting knowledge from diverse sources
- Responding to technical concerns

# Instrument

- 60 item instrument
- Measuring levels of “teaching presence”
- IDO, FD, DI and impact on
- Rovai’s Classroom Community Index
  - Levels of connectedness between students and faculty, collaboration, perceived learning and satisfaction
- 2314 respondents – large sample

# Analysis

- Factor Analysis – do the Teaching Presence items “cohere” into factors?
  - Are we measuring what we think we are measuring?
- Regression Analysis – do the Teaching Presence “factors” predict Rovai’s Classroom Community Index scores?
  - Is instructor “teaching presence” a good predictor of students connectedness and learning – “Learning Community”?

# Some research results

Strong association between “teaching presence” and levels of satisfaction/community/learning

- Effective Instructional Design and Organization
- “Strong” Directed Facilitation of Discourse

Lead to better satisfaction, community, learning

- **Trained faculty get better results**

# Directed facilitation

When the professor:

- draws in participants
- creates an accepting climate for learning
- keeps students on track
- diagnoses misperceptions
- identifies areas of agreement and disagreement
- helps to resolve these by looking for areas of consensus
- reinforces student contributions
- injects their own knowledge
- confirms student understanding

Students are significantly more likely to report better “connectedness” and learning relative to courses where this does not occur as much

# Instructional design

## Instructional Design and Organization

When the professor clearly communicates:

- time parameters, due dates, and deadlines
- clear course goals, course topics
- instructions on how to effectively and appropriately participate

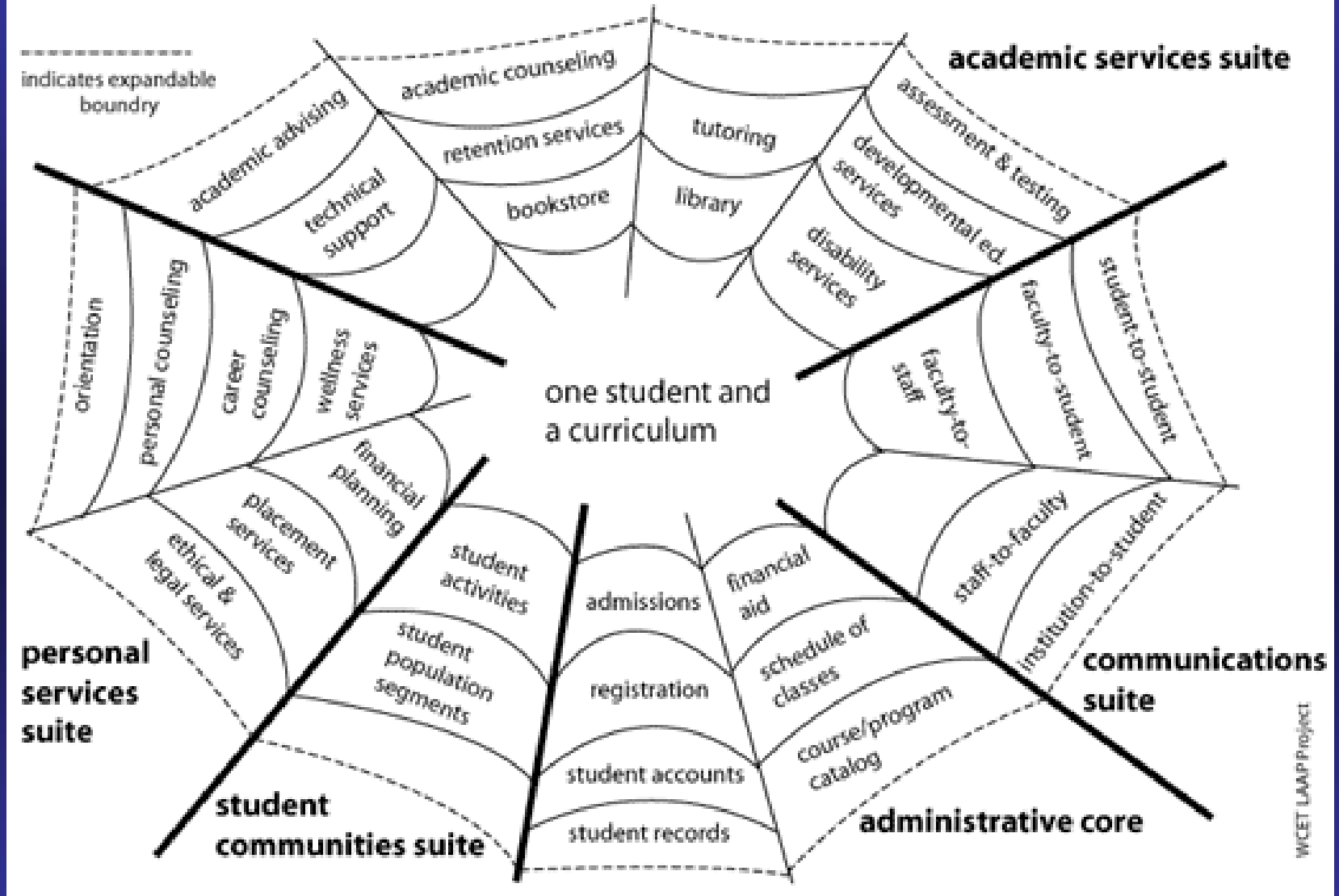
Students are also significantly more likely to report better “connectedness” and learning relative to courses where this does not occur as much

# So what?

Conclusion – we can promote online learning community by focusing on teaching presence -

Its not just what happens *in* the  
online classroom...

# Student Services for Online Learners



Source: "Beyond the Administrative Core: Creating Web-Based Student Services for Online Learners," Western Cooperative for Educational Telecommunications (WCET), 2002

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