



#QMConf2016
#QMResearch
@bsimunich



Quality Control: Using QM as a Control Variable in Research Design

QUALITY MATTERS 8TH ANNUAL CONFERENCE ON QUALITY ASSURANCE IN ONLINE LEARNING

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*"Maybe stories are
just data with a
soul."*

- Brene Brown



Conducting QM Research

What are you measuring?

Who are the stakeholders?

What does the literature say?

What do you need to control for?

What sample size do you need?

How will you get it?

Using a Framework for QM Research

What is your general research question?

- Do students learn as much in shortened/accelerated online courses as they do in their full-term counterparts?

Why are you interested in this?

- Graduate programs are shortened courses, as are summer offerings

Who has a stake in the answer?

- Faculty, students, administrators, accreditors, professional organizations

What has already been published about this topic/question?

- Research on accelerated face-to-face courses, student motivation, rigor, teaching strategies in shortened courses

What theoretical framework will you use?

- Equivalency theory, motivation theory (MSLQ)

Using a Framework for QM Research

Has your RQ evolved based on your lit review?

- Additional RQ: Do levels of motivation differ?

What will be your DVs and IVs?

- DV: student learning, student motivation; IV: term length

What is the unit of analysis you will be studying?

- Online students

What sample size do you need? How will you get it?

- 162 total: 98 fall, 64 summer

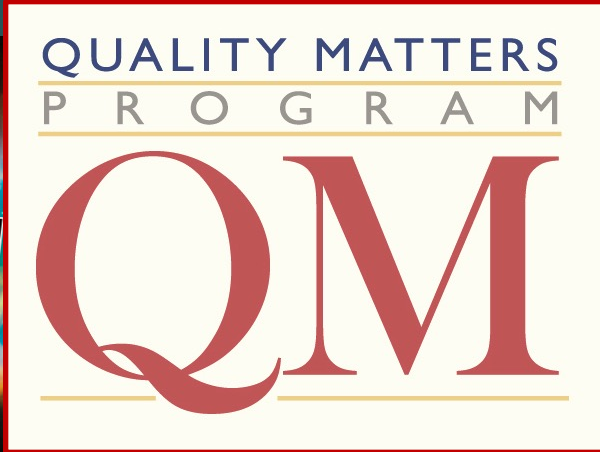
How will you control for, include, or acknowledge confounding variables?

Course Design

Independent variable: course length

RIGOR

A Tale of Two Courses



Control for course design

A Tale of Two Teachers



- Teaching experience
- Professional development in online teaching
- Student feedback
- How do you keep quality teaching constant?

Control for teaching

Additional Information Collected

- ▶ Number of online courses completed
- ▶ Experience with Blackboard Learn
- ▶ Number of shortened courses completed
- ▶ GPA, Gender, Year in School, Age
- ▶ Attitudes about shortened courses
- ▶ Why they took the course



What do we want to know? And why?

- ▶ **R₁**: Is student learning outcome achievement the same in shortened, online summer courses, versus their traditional-length counterparts?
- ▶ **R₂**: Is student motivation the same in shortened, online summer courses, versus their traditional-length counterparts?

The
Questions

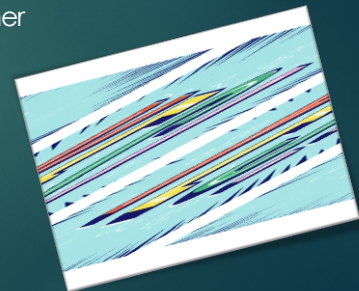
What are we measuring?



What did we find out?

- ▶ **R₁**: Is student learning outcome achievement the same in shortened, online summer courses, versus their traditional-length counterparts?
- ▶ **R₂**: Is student motivation the same in shortened, online summer courses, versus their traditional-length counterparts?

Spoiler Alert!



Using a Framework for QM Research

How will you collect and analyze your data?

- Create survey for courses that includes demographic questions, MSLQ questions; gather final grades, project grade, and knowledge test grade

How will you use the results?

- Share with NCCSS, publish findings, use with faculty developing shortened courses to discuss rigor, quality design, motivation factors, quality teaching

What can we take away from this?

- ▶ Examine rigor in all courses.
- ▶ Employ processes to design high-quality courses; design once, regardless of length. Use quality standards.
- ▶ Teaching matters: motivation, learning, retention
- ▶ What might this mean for marketing efforts? Are you targeting a different population than you thought?

Practical
Applications

An older story: QM Research Grant

- ▶ Examined "findability" in online courses
- ▶ Needed to isolate former standard 6.3/current standard 8.1
- ▶ Had to keep the rest of the design constant
- ▶ Dependent variables: self-efficacy and motivation
- ▶ Independent variable: navigation
- ▶ QM used as a control variable for design unrelated to navigation



Questions?
Comments?

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