Measure Once, Analyze Twice: Putting Quantitative and Qualitative Data in Dialogue

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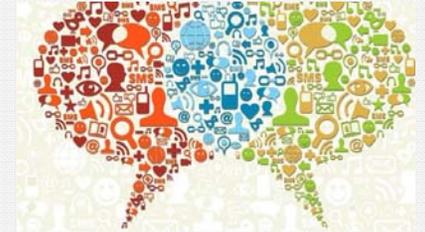Alan W. Aldrich, MA, MLS

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Neoliberal universities expect ROI

Evaluation and assessment provide ways to measure and communicate value by demonstrating effective teaching and student learning.

Instructional & institutional context

- IL mandate in first-semester Freshman Composition

- 50+ Freshman Composition sections/semester

- 2 library sessions/semester to support research assignments

- 11 instructors

- Responsibility Center Management

- Emerging library culture of evaluation and assessment

- Initiating evaluation and assessment of library instruction

Managing demands for ROI
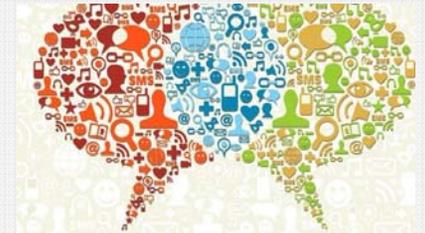
- RRIS collaboration
- Hybrid evaluation and assessment instrument
- Quantitative and qualitative data
- Pilot in spring 2016
- Deployment in fall 2016

Problem – solution
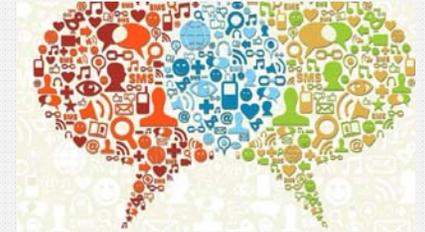
- Negotiate the tensions between…
  - Neoliberal workplace expectations
  - Critical Pedagogy, which informs our instructional praxis…

- By introducing…
  - 4 closed-ended questions
  - 2 free-response questions
    - Students' reactions to instruction
    - Assessing students' learning using their own words
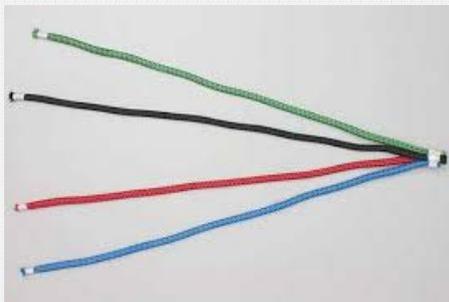
Hybrid survey design

Evaluation and Assessment Questions	
Question	**Closed-Ended Evaluation Questions**
1	The librarian presented the material effectively.
2	The librarian presented clear and accurate information.
3	The librarian answered questions competently.
4	Students had the opportunity to participate and/or ask questions.
	Open-Ended Evaluation and Assessment Questions
5	How could the librarian have taught this session better?
6	What did you learn in this library session that you could pass on to fellow students or friends to help them complete this assignment better?

Quantitative results
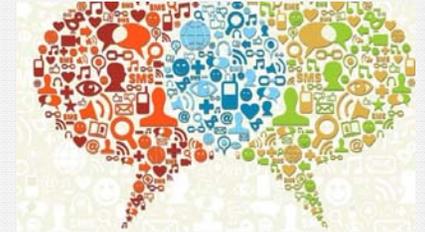
- Quantitative data reinforced the strong qualitative findings

- Mean score 4.54 (out of 5)

| Overall Mean Scores for Evaluation Questions 1-4		
Question	Question	Mean
Q1	Librarian presented materials effectively	4.52
Q2	Librarian presented clear and accurate information	4.51
Q3	Librarian answered questions completely	4.51
Q4	Students could participate and ask questions	4.53

Qualitative results: Positive behaviors

Librarian Positive Instructional Behaviors from the Open-Ended Evaluation Question		
Librarian positive behaviors	n	%
holistic positive	312	65%
effective explanations	90	19%
generally positive (praise + recommendation)	19	4%
helpfulness	19	4%
answering questions	13	3%
appropriate pacing	7	1%
individualized attention	7	1%
librarian knowledge	3	1%
positive affect	3	1%
effective explanations (library resources)	2	0%
emoticon (smiley face)	2	0%
modeling effective searching	2	0%
attentiveness to students	1	0%
effective explanations (databases)	1	0%
kindness	1	0%
opportunities to ask questions	1	0%
repeating/restating instruction	1	0%
Total	482	99%

- Qualitative data initially privileged
- High degree of student satisfaction (65%)

Qualitative results: Recommendations
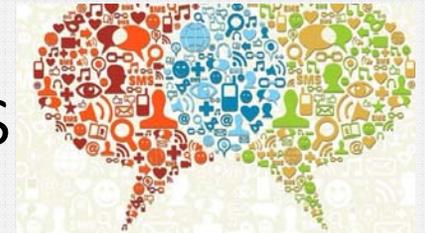
Student recommendations	n	%
Instruction management		
use appropriate pacing	87	40%
provide more individual attention to students	13	6%
provide more interactive learning	6	3%
other instructional management recommendations	20	9%
Explanations		
provide more detailed explanations	38	17%
provide more effective explanations	21	10%
provide more focused examples	7	3%
Self-presentation		
provide more positive affect	13	6%
use appropriate volume	7	3%
other self-presentation recommendations	5	2%
Beyond instructor control		
provide longer sessions	2	1%
Total recommendations	219	100%

Analytical dilemma:

How to reconcile the high positive results with the students' recommendations?

Midwestern Nice?

A form of hyper-politeness characterized by a disinclination to provide negative responses even when they are warranted

- Were they simply being "nice"?

- Were they being mentally lazy?

- Were they refusing to participate?

- Was something more complicated afoot?

Hybrid structure & dialogue?
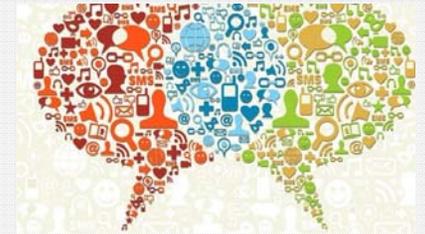
- The instrument's hybrid structure
  - Afforded a space for dialogue with students
  - Focused on teaching and learning
  - Facilitated management of MWN in the analysis
- Dialogue
  - Essential aspect of Freirean Critical Pedagogy
  - Leads to individual transformation
 - Can bring about social change

Structure of the analysis

- Stratification of the quantitative data
  - Identifying the lowest and highest 20% of sections for analysis
  - One-way ANOVA
- Coding and categorization of the qualitative data
- Testing for significant relationships between each quantitative question and the qualitative categories (Z Tests)

Dialogic analysis of the data
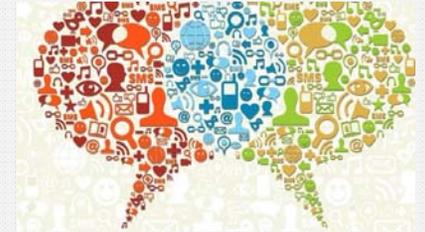
Holistic Positive Comments Proportions and Z scores			
Question	Holistic positive % low scores	Holistic positive % high scores	Z test
1	0.67	0.58	Z = 1.33, ns
2	0.7	0.6	Z = 1.48, ns
3	0.75	0.58	Z = 2.43, p < .05
4	0.74	0.64	Z = 1.56, ns

Accounting for Midwestern Nice

- Role of Midwestern Nice in evaluation
  - Not just being "nice"
  - Used to manage the relational dimension of communication
  - Deployed to counteract potential damage due to criticism
- Recommendation for instructors
  - All instructors will receive holistic positive comments.
  - Percentages of holistic positive comments higher than 60% are correlated with less desirable teaching behaviors.
  - Instructors receiving more than 60% holistic positive comments should examine their qualitative and quantitative data to identify potential issues.

"...a critical interpretation of reality should make use of the scientific tools developed by sociology and thereby seek to contribute to the emancipation of society" - Pierre Bourdieu

- The demands of the neoliberal university would have been met by simple analyses of the quantitative and qualitative data.

- As practitioners of Critical Pedagogy, the Instructional Team sought to disrupt neoliberal expectations.

- As researchers, they engaged in a more nuanced analysis by putting quantitative and qualitative data in (asynchronous, mediated) dialogue.

- By doing the above, they fulfilled neoliberal expectations in a way that valued student voices.

- The results of the study can be used to create more student-centered and effective instruction.

Dialogue with us!

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