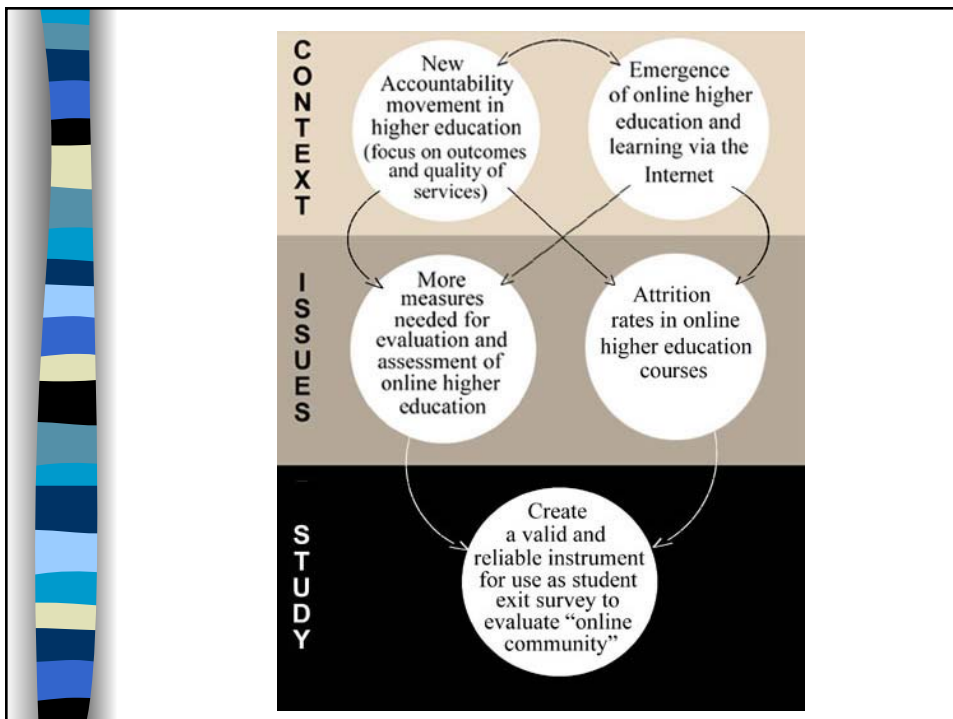


Measuring Virtual Community: Using Principles from Learning Communities to Evaluate Online Courses

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The Study: Research Questions

- What are the identifiable factors that best describe a learning community that have application for online teaching and learning?
- In what ways would a valid and reliable student exit survey, designed to detect the presence of an online learning community, prove useful to faculty leaders and administrators in evaluating online courses and programs?

Purpose of the Study

- Using principles from the learning communities movement, the purpose of this study is to develop and validate a survey instrument for measuring the presence of community in an online course.

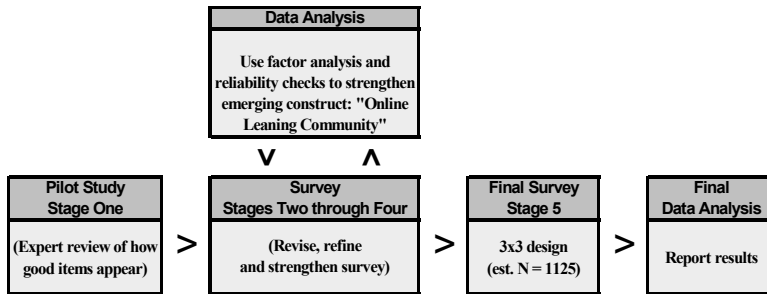
The Study: Develop a Measure or Survey Instrument

- Using a three-fold, general methodological approach



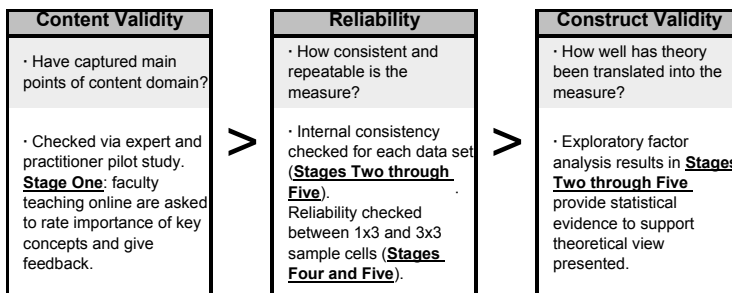
The Study: Development of a Measure / Survey Instrument

“Flow” of the Study



The Study: Development of a Measure / Survey Instrument

Concerns for...



The Pilot Study: Faculty Survey Results

- Rank order
- Faculty responses

Table 4.1. Rankings of survey statements as "most important" by faculty who teach online classes, Stage One pilot.

Rank	Statement	f/(freq)
1	Encourage students to share... in discussions and/or postings.	30
2	Course has a "learning community" structure...	25
3	Inspect student writings and postings for evidence of learning...	24
4	Clearly state the purpose, scope, and "do's-and-don'ts" for the class.	18
5	Utilize some method to assess if curriculum is relevant to students.	13
6	Share your own internal processes (ways of thinking) with students.	10
6	Incorporate ideas about ethics, character, and leadership into the course.	10
8	Use group projects to promote collaborative learning.	5

The Student Exit Survey: Stage Five

Table 4.11. Breakdown of the Stage Five sample by institution and discipline.

Institution	Education	Business/ Professional	Social Sci. /Other	Total
University of Nevada, Las Vegas	66	76	151	293
University of Nebraska-Lincoln	96	82	39	217
Florida State University	77	62	60	199
TOTAL:	239	220	250	709

- IRB Approvals

The Student Exit Survey: Stage Five Results

Table 4.12. Factor analysis component matrix for Stage Five (N = 709).

Survey Question	Instructor's		Student's
	Role	Connections	
Q8. Do's-and-don'ts for class were clearly stated.	.696	.055	.157
Q10. Student was encouraged to communicate ideas and experiences.	.575	.380	.165
Q11. Instructor shared ways of thinking about problems.	.770	.159	.081
Q14. Instructor inspected writings for evidence of learning.	.676	.185	.141
Q16. Instructor took role of mentor / guiding student.	.781	.181	.076
Q2. Had opportunity to work in a group.	.079	.830	.026
Q4. Had opportunity to help other students.	.183	.753	.132
Q7. Student took leadership role in task/event.	.174	.751	-.028
Q12. Interaction between students was important.	.259	.742	.106
Q3. It was important to be self-motivated.	-.014	.107	.789
Q9. Student ability to organize/prioritize important.	.254	.116	.730
Q13. Student responsible for their own learning.	.058	-.056	.715
Q18. Student needed to manage time effectively.	.274	.087	.717

Note. Shaded scores show question's component grouping.

"Instructor's Role," "Connections," and "Student's Responsibility"

- Use exploratory factor analysis to help establish correlative connections between complex sets of data
- Procedure yielded **three-component construct**
- One-word indicator selected to best characterize theme for each group of clustered questions

The Student Exit Survey: Results

Rank	Survey Question (abbreviated)	Mean Likert Score		Score Diff.	Sig.
		Student Comment Positive	Negative		
1	Q16. Instructor took role of mentor-guide	3.30 (.66)	1.89 (.86)	1.41	<.001
2	Q11. Instructor shared ways of thinking	3.44 (.74)	2.35 (.95)	1.08	<.001
3	Q8. Do's-and-don'ts for class clearly stated	3.45 (.62)	2.46 (.84)	0.99	<.001
4	Q10. (Student) encouraged to communicate	3.62 (.52)	2.65 (.92)	0.97	<.001
5	Q1. Expectations for the class clearly stated	3.67 (.51)	2.73 (.91)	0.95	<.001
6	Q2. Had opportunity to work in a group	3.32 (.89)	2.38 (1.14)	0.94	<.001
7	Q14. Instructor inspected writings for learning	3.54 (.50)	2.73 (.96)	0.81	<.001
8	Q6. (Student) had input into goals / expectations	2.68 (.89)	1.89 (.71)	0.79	<.001
9	Q12. Interaction between students was important	3.23 (.78)	2.45 (1.03)	0.78	<.001
10	Q4. Had opportunity to help other students	3.30 (.54)	2.58 (.97)	0.72	<.001
11	Q15. (Course) schedule / calendar provided	3.78 (.52)	3.10 (.98)	0.68	<.001
12	Q7. (Student) took leadership role in task/event	3.05 (.91)	2.55 (.87)	0.50	.018
13	Q17. Introduced self to the other students	3.58 (.59)	3.18 (.73)	0.40	.004
14	Q9. (Student) ability to organize / prioritize	3.73 (.45)	3.35 (.74)	0.38	.001
15	Q5. Ability to work independently was vital	3.73 (.52)	3.41 (.98)	0.32	.017
16	Q18. (Student) needed to manage time	3.78 (.42)	3.53 (.64)	0.26	.015

The Student Exit Survey: Results

- Qualitative framework and Survey measure

Factor 1 <i>INSTRUCTOR'S ROLE</i>	Factor 2 <i>CONNECTIONS</i>	Factor 3 <i>STUDENT'S RESPONSIBILITY</i>
How the online course is organized, including: course expectations, virtual classroom rules, and instructor duties.	Participation and familiarity: helping other students, group work, taking the lead, student interaction.	Motivation and maturity: students accountable for own learning, empowered to learn in a manner that works best for them.
1. Instructor took the role of mentor, guiding students through the course.	1. Student had the opportunity to work in a group on a project or task.	1. It was important to be self-motivated.
2. Instructor shared ways of thinking about problems and problem-solving with students.	2. Student had the chance to help other students.	2. The ability to organize and prioritize was vital.
3. "Do's-and-don'ts" for the class were provided.	3. Student took a leadership role in some task or event related to the course.	3. Student needed to manage time effectively.
4. Instructor looked for course concepts and course-specific vocabulary when grading student writing assignments.	4. Interaction between students was important.	4. Student was responsible for own learning.
5. Instructor encouraged students to share their ideas and experiences.		

"Online Learning Community" Survey Measure

Survey Statement	All Surveys (N=708)				All Surveys (N=708)		Your Course	Note: + 0.5 SD above or below the mean for all surveys
	Factor Structure Coefficients	Reliability α	Variance Explained	Mean Scores	SD			
Instructor's Role								
Q8: Do's-and-don'ts for class were clearly stated	0.690	0.794	21.2%	3.20	0.73	2.86		
Q10: Student encouraged to communicate ideas / experiences	0.575			3.46	0.72	2.78	*	
Q11: Instructor shared ways of thinking about problems	0.770			3.18	0.84	2.87	*	
Q14: Instructor inspected writings for evidence of learning	0.676			3.36	0.69	3.50		
Q16: Instructor took role of mentor / guiding student	0.791			2.91	0.86	2.33	*	
Connections								
Q2: I had the opportunity to work in a group on a project or task	0.830	0.804	20.4%	3.04	1.06	1.88	*	
Q4: I had the chance to help other students	0.753			2.88	0.83	2.40	*	
Q7: I took a leadership role in some task or event related to the course	0.751			2.84	0.93	1.88	*	
Q12: Interaction between students was important	0.742			3.06	0.92	1.87	*	
Student's Responsibility								
Q3: It was important to be self-motivated	0.789	0.736	17.6%	3.84	0.59	3.88		
Q6: The ability to organize/prioritize was vital	0.730			3.66	0.54	3.87		
Q13: Student responsible for their own learning	0.715			3.67	0.53	3.63		
Q18: Needed to manage my time effectively	0.717			3.73	0.51	3.87		
			Total					59.2%

Comments

Sample size small <10

- Q10: Instructor encouraging students to share ideas and experiences builds community in an online course.
- Q11: May want to share more of your own personal and professional experiences (I suspect you would in traditional class?)
- Q16: My study shows students are looking for a little more mentoring from the instructor (constructivist pedagogy).
- Q2: My study shows that group work might be a hassle... but WORTH IT in terms of community building/engagement.
- Q4: Students helping other students builds community and increases engagement.
- Q7: Study shows opportunity for leadership role part of building community...merits further research.
- Q12: Student interaction... my study and others show VERY IMPORTANT for building community online.

- Faculty Report showing results from student exit survey for the online class
- Identifies factors that were ½ SD above or below the mean score for all surveys
- Comments tie the results to research findings
- Not many surveys designed specifically for online courses?

"Online Learning Community" framework

Component One: Instructor's Role

"Online Learning Community"		
Component 1 INSTRUCTOR'S ROLE	Component 2 CONNECTIONS	Component 3 STUDENT'S RESPONSIBILITY
1. Instructor took the role of mentor, guiding students through the course.	1. Student had the opportunity to work in a group on a project or task.	1. It was important to be self-motivated.
2. Instructor shared ways of thinking about problems and problem-solving with students.	2. Student had the chance to help other students.	2. The ability to organize and prioritize was vital.
3. "Do's and don'ts" for the class were provided.	3. Student took a leadership role in some task or event related to the course.	3. Student needed to manage time effectively.
4. Instructor looked for course concepts and course-specific vocabulary when grading student writing assignments.	4. Interaction between students was important.	4. Student was responsible for own learning.
5. Instructor encouraged students to share their ideas and experiences.		

Component 1 INSTRUCTOR'S ROLE
1. Instructor took the role of mentor, guiding students through the course.
2. Instructor shared ways of thinking about problems and problem-solving with students.
3. "Do's-and-don'ts" for the class were provided.
4. Instructor looked for course concepts and course-specific vocabulary when grading student writing assignments.
5. Instructor encouraged students to share their ideas and experiences.

- "Instructor as mentor-guide" factor reported as most important difference.
- Students want professor to share professional/personal experiences and "ways of thinking."
- "Do's-and-don'ts," well-organized with clear goals and objectives, guidelines for assignments (due dates)
- Feedback on writing
- Students contributing to the process in online class

"Online Learning Community" framework

Component Two: Connections

"Online Learning Community"		
Component 1 INSTRUCTOR'S ROLE	Component 2 CONNECTIONS	Component 3 STUDENT'S RESPONSIBILITY
1. Instructor took the role of mentor, guiding students through the course.	1. Student had the opportunity to work in a group on a project or task.	1. It was important to be self-motivated.
2. Instructor shared ways of thinking about problems and problem-solving with students.	2. Student had the chance to help other students.	2. The ability to organize and prioritize was vital.
3. "Do's and don'ts" for the class were provided.	3. Student took a leadership role in some task or event related to the course.	3. Student needed to manage time effectively.
4. Instructor looked for course concepts and course-specific vocabulary when grading student writing assignments.	4. Interaction between students was important.	4. Student was responsible for own learning.
5. Instructor encouraged students to share their ideas and experiences.		

Component 2 CONNECTIONS
1. Student had the opportunity to work in a group on a project or task.
2. Student had the chance to help other students.
3. Student took a leadership role in some task or event related to the course.
4. Interaction between students was important.

- "Group Work" high variance, disagreement
- "Students helping students" used to increase student learning, involvement, and satisfaction with the classroom
- "Students leadership" in online class merits further research
- "Interaction between students" using discussion forums and chats, respond to the postings of others

"Online Learning Community" framework

Component Three: Student's Responsibility

"Online Learning Community"		
Component 1 INSTRUCTOR'S ROLE	Component 2 CONNECTIONS	Component 3 STUDENT'S RESPONSIBILITY
1. Instructor took the time to establish rapport and connect with students.	1. Student had the opportunity to work in a group or a project or team.	1. A sense of responsibility to be self-motivated.
2. Instructor shared ways of thinking about problems and problems-solving with students.	2. Student had the chance to help other students.	2. The ability to organize and prioritize was vital.
3. "This and that" for the class were provided.	3. Student took a leadership role to serve back to events related to the course.	3. Student needed to manage time effectively.
4. Instructor looked for course strengths and weaknesses, particularly when grading student writing assignments.	4. Interaction between students was important.	4. Student was responsible for own learning.
5. Instructor encouraged students to share their ideas and experiences.		



Component 3 STUDENT'S RESPONSIBILITY
1. It was important to be self-motivated.
2. The ability to organize and prioritize was vital.
3. Student needed to manage time effectively.
4. Student was responsible for own learning.

- Study suggests that online learners are quite determined and motivated
- Students can easily fall behind, must emphasize responsibility, organization, and priorities
- Making time to spend 2-3 hours each week per credit for a online class
- Not much in the literature exploring notion of responsibility for learning online.. merits further research

Concluding Thoughts

- "Online Learning Community" factors can be used as a checklist for designing an online course
- Survey results can be used as a data point (representing one aspect of distance education) in a larger, comprehensive institutional assessment formula
- Further research on differences between how students and instructors rated the importance of the "Online Learning Community" factors

Thank You!