

Classroom Community and Student Engagement in Online Courses

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Abstract

The purpose of this study was to examine correlates of both online classroom community and student engagement in online learning, as well as to compare community and engagement across disciplines in higher education. Participants (n=1,410) in online courses across five colleges and in both graduate and undergraduate courses were asked to complete an online survey. The survey consisted of 23 items measuring community and engagement as well as an additional six demographic items. Factor analysis yielded the following three factors accounting for approximately 58% of the total variance: classroom community with instructors (eight items), classroom community with classmates (eight items), and engagement in learning (seven items).

Discipline differences were found when examining the three factors across the colleges. Students taking courses in the College of Education reported significantly stronger feelings of community with instructors and classmates compared to all other colleges; students taking courses in the College of Health Sciences reported significantly stronger feelings of community with classmates compared to students in Business and Arts and Sciences courses. Also, students in Education and Health Science courses reported significantly stronger engagement compared to students in Arts and Sciences courses.

Keywords: higher education, online teaching and learning, instructor community, student community, factor analysis, ANOVA

Introduction

With more than 25% of the total number of students in higher education receiving instruction online and ever increasing online student numbers projected (Allen & Seaman, 2010), educators continue to identify factors that may enhance meaningful online learning. To facilitate positive outcomes, instructors must move beyond content oriented online delivery and create a supportive learning environment that is sensitive to student needs (Herbert, 2007; Mandernach, 2009). Rovai, Wighting, and Liu (2005) as well as Liu, Magjuka, Bonk, and Lee (2007) found that instructors who facilitate a sense of community and student engagement significantly affect student satisfaction and quality of online learning.

Classroom community and student engagement are closely related to one another. Students who feel a sense of connectedness and psychological closeness rather than isolation are better prepared to become more actively involved with online learning and the resulting higher order thinking and knowledge building (Baker, 2010; Engstrom, Santo, & Yost, 2008). Collaborative learning experiences online can increase participation and connectedness by means of enhanced critical thinking, shared reflections, and helpful feedback among peers within the relatively safe context of anonymity (Boerma, Stanley, & Westhorp, 2007; Holley & Dobson, 2008). Similarly, sustained online supported conversations can be the foundation of a classroom community that invites students to engage thoughtfully and respectfully, without the fear of marginalization due to discrimination based on cultural or ethnic differences (Cameron, Morgan, & Williams, 2009; Meyers, 2008; Rovai, 2007; Wang, 2007). Online students can collaborate by sharing their individual perspectives, ideas, and personal experiences,

thereby deepening their understanding with increasing higher order thinking and greater personal satisfaction (Engstrom, et al., 2008; Snyder, 2009). According to Ascough (2007) and Liu et al. (2007), a welcoming teaching and learning community is central to online student knowledge acquisition, which in turn leads to meaningful learning experiences.

Therefore, the purpose of the present study was to examine the correlates of student engagement and classroom community in online courses. Researchers were interested in specifically identifying what instructors can do to enhance classroom community and engagement in online learning. Additionally, differences in engagement and classroom community across various disciplines were examined, hypothesizing that students taking courses in the helping professions (education and health sciences) would feel a stronger sense of community and engagement compared to students in other courses.

Theoretical Framework

In this study, student engagement was defined as the interest and motivation students have in their own learning of course content. Mandernach (2009) proposed that student engagement depends primarily on a number of factors, including an instructor's personal connection with students and creation of an active online environment. Handelsman, Briggs, Sullivan, and Towler (2005) developed an instrument to measure student engagement and found that it consisted of four dimensions for students in traditional face-to-face classrooms: skills engagement, participation/interaction engagement, emotional engagement, and performance engagement. According to Richardson and Newby (2006), engagement is affected by the number of online courses that students have taken as well as the degree to which students take responsibility for their own learning.

Classroom community was defined as the connections among students and between students and instructors that lead to increased learning. Some researchers contend that the psychological distance, or rather lack of community, in the online learning environment, can result in student isolation, frustration, boredom, overload, and low course completion rates (Hara & Kling, 2000; Northrup, 2002; Rovai et al., 2005). On the other hand, Ascough (2007), Cho, Gay, Davidson, and Ingraffea (2007), as well as Pate, Smaldino, Mayall, and Luetkehans (2009) found that creating online social communities creates an encouraging environment of shared activities that results in deeper learning, higher final course grades, and successful online courses.

In an effort to enhance interpersonal and classroom community, online instructors and students often work hard to become acquainted with each other by means of text-based content. However, these interactions may focus primarily on academic content and not as much on meaningful, interpersonal connections. While instructors in various disciplines may differ in their beliefs that mastering content knowledge and skills is a sufficient focus to facilitate meaningful student engagement, Exter, Korkmaz, Harlin, and Bichelmeyer (2009) found that text-based experiences are likely insufficient for participants to break down the barriers created by distance and the lack of face-to-face interaction. Rovai, Wighting and Lucking (2004) proposed that a successful online learning community encompasses two underlying dimensions: social, whereby students feel a personal involvement with others, and learning, which relates to academic content. According to Rovai (2002), online community in general can be enhanced in seven ways: decreasing the learners' transactional space, increasing social presence, providing equal opportunity for involvement, designing small group activities, facilitating group discussions, matching teaching style with the learning stage, and limiting class size. Rovai (2002), as well as Holley and Dobson (2008), suggested that a community is based on what groups of people share and do with one another, not how or where they do them.

In his description of best online practices, Meyers (2008) emphasized the need for instructors to validate all student perspectives, as well as acknowledge differing beliefs and biases, to create a safe and welcoming community that helps students become "more engaged and feel more interconnected" (p. 220). Ascough (2007) found that classroom community was positively related to student engagement. The social and emotional support of an online community may increase members' feelings of belonging and interdependence, which can boost academic motivation and reduce burnout. The caring and resultant trust among online community members also can increase psychological health, in general leading to greater productivity and enhanced learning (Sitzman & Leners, 2006). Pittman and Richmond (2008) found that a sense of belonging may enhance personal adjustment and success in higher education.

Online courses create unique environments that require thoughtful care for instructors to help students become engaged in their learning and to design virtual classrooms that enhance a sense of community (Meyers, 2008). According to Berge (2002) and Northrup (2002), when instructors carefully plan ways for students to interact, students can focus on achieving course learning goals. Students who learn the most from online courses have online instructors who provide a structured and comfortable classroom environment that involves the participation of everyone in the learning activities (Young, 2006). Oriogun, Ravenscroft, and Cook (2005) and Liu et al. (2007) posited that online student collaboration provides opportunities for students to realize their potential through meaningful engagement, which may ultimately increase student persistence rates in education. Teaching strategies that promote classroom community with free and open communication facilitate the personal engagement of students, which in turn may enhance the quality of student learning (Meyers, 2008).

The current study was undertaken to identify the correlates of online classroom community and student engagement as well as any differences in community and engagement across disciplines. Research questions included the following: (1) What are the correlates of classroom community in online courses? (2) What are the correlates of student engagement in online courses? (3) How do students in various colleges differ in their perceptions of student engagement and classroom community? The sample, instrumentation, and procedures are described in the next section.

Method

The sample for this quantitative study included students taking online courses over two semesters at a university in the Rocky Mountain region. After the study was approved by the university's Institutional Review Board, students were invited by email to participate. The researchers developed the online survey to assess the degree to which online students believed they were part of a classroom community as well as the degree of their engagement with learning.

The survey items were adapted from scales used to assess community and engagement in traditional face-to-face classrooms as well as the literature on community and engagement in online classrooms (e.g., Handelsman et al., 2005; Liu et al., 2007; Pate et al., 2009). The survey was piloted twice with approximately 100 students in two undergraduate and two graduate level courses. Two items were revised and two new items were added during the piloting phase. The final survey consisted of 23 Likert scale items, and six demographic items (see Appendix for the scale items). The survey was expected to take approximately 10 minutes to complete.

The land grant university where the study took place offers over 150 different areas of study and enrolls approximately 13,000 students per year. It is accredited by the Higher Learning Commission and many of the degree programs are also accredited by organizations specific to the area of study. Courses are offered on campus as well as through distance technologies such as online, video conferencing, and audio conferencing. The primary mode of course delivery across the university is face-to-face in a traditional classroom setting. However, an increasing number of courses are offered through various distance approaches and of those, the majority are offered online.

At the time of the study in 2009, 56% of the university's students were female and 44% male; 75% were undergraduate and 25% were graduate (or non-degree seeking); 5% were international, 8% were minorities, and 77% were residents of the state. Researchers for the present study collected data from students taking online courses only.

During the summer and fall semesters of 2009, a total of 1,410 participants in 47 different online courses and five different colleges at the university were invited to participate in the study and received an email invitation. Of the 47 courses, 30 were graduate level and the remaining 17 were undergraduate. Five hundred eighteen participants completed the survey for a response rate of 37%.

The online students were invited to complete the survey near the end of each semester. They received an email with a link to the survey. Two reminder emails were sent during each of the following two weeks to non-respondents. The courses were not separately identifiable so that students would feel comfortable that their responses were confidential.

Results

Participants responded to six demographic questions on the survey (see Table 1). Seventy-five percent of respondents described themselves as female, while 23% said they were male. Although the gender distribution across the university differed from the sample, the sample included a number of students in

nursing and in education, fields that are highly favored by females. The average age of the entire sample was 31.8 years (SD=11.5); approximately one-third of the participants were undergraduate and two-thirds were graduate students. Even though the distribution of undergraduate and graduate students differed from the overall distribution of the university, about twice as many online courses were graduate compared to undergraduate. Students reported that they had taken an average of three online courses (SD=2.2) prior to the current course. About one-third of the students reported that the present course was taken in Arts and Sciences; the next most frequently taken course was in Education (22%). Most students (63%) expected to earn a course grade of A, although about one-third expected to earn a B in their courses.

Table 1. *Description of the sample*

	n	Percent
Gender		
Male	128	22.8
Female	390	75.3
No response	10	1.9
Age		
18-22	144	27.8
23-32	161	31.1
33-42	84	16.2
43 and above	101	19.5
No response	19	3.7
Student Level		
Undergraduate	182	35.1
Graduate	321	62.0
No response	15	2.9
Number of online courses taken		
1	185	35.7
2-5	241	46.5
6 or more	80	15.4
No response	12	2.3
College for course		
Agriculture	36	6.9
Arts & Sciences	173	33.4
Business	74	14.3
Education	117	22.6
Health Sciences	90	17.4
No response	40	5.4
Expected course grade		
A	325	62.7
B	155	29.9
C	23	4.4
Below C	4	0.8
No response	11	2.1

Factor analysis was used to reduce the 23 scale items into identifiable and interpretable factors so the factors could be used in further analysis and so the items within each factor could provide definitions of classroom community and student engagement. An orthogonal rotation, Equamax, was used in the analysis since the factor loadings were simplest to interpret compared to other rotations. Three factors were identified that accounted for 58.4% of the variance (see Table 2 for factor loadings). The first factor, accounting for 35.7% of the variance and including eight of the 23 items, consisted of items that reflected how the students viewed the community that was built by connections with instructors. The second factor was made up of eight items that were related to the community that was built by connections with classmates and accounted for 15.1% of the variance. The third factor, student engagement with their own learning, was made up of seven items that explained 8.6% of the variance.

Table 2. *Factor loadings for 23 items on 3 factors*

Factor Number	Item Description	Loadings		
		Factor 1	Factor 2	Factor 3
1	Contact with instructor	0.83	0.05	0.03
1	Instructor is responsive	0.83	0.08	0.02
1	Trust instructor to handle inappropriate interactions	0.82	0.08	0.08
1	Instructor well organized	0.79	0.02	0.19
1	Instructor consistently enforces rules	0.74	0.01	0.12
1	Clear course rules	0.70	0.04	0.23
1	Instructor is present & active online	0.68	0.29	0.03
1	Feel isolated	0.34	0.21	0.23
2	Committed to working with classmates	0.07	0.85	0.24
2	Interact with classmates	0.05	0.84	0.23
2	Help fellow classmates	0.01	0.84	0.21
2	Connect personally with classmates	0.07	0.83	0.21
2	Enjoy interacting	0.20	0.77	0.27
2	Share personal concerns	0.13	0.73	0.08
2	Participate actively online	0.12	0.67	0.32
2	Ask questions when needed	0.20	0.63	0.24
3	Well organized in my learning	0.06	0.13	0.72
3	Give effort to the class	0.12	0.31	0.69
3	Complete all assigned work	0.04	0.08	0.67
3	Maintain assigned readings	0.04	0.17	0.67
3	Visit course website	0.01	0.19	0.64
3	Earn good grade	0.29	0.08	0.61
3	Desire to learn	0.16	0.29	0.58

Note: Factor 1 = community building with instructor,
 Factor 2 = community building with classmates, and
 Factor 3 = engagement with learning.

Thus, the 23 items on the survey grouped into three factors: community building with the instructor (eight items), community building with classmates (eight items), and engagement with learning (seven items). Internal reliability for each factor was found to be .87, .90, and .81, respectively. Factors were correlated with each other and also with age, number of online courses taken, and expected grades to

provide some evidence of construct validity. As expected, correlations among factors were small to moderate, with the strongest correlations between classmate community and engagement ($r=.52$) and engagement and expected grades ($r=.44$). All correlations supported the construct validity of the three sub-scales.

Research Questions One and Two. The items loading onto the first and second factors helped to answer the first two research questions, identifying the correlates of classroom community and also the correlates of student engagement in online courses. The analysis indicated that classroom community consisted of two factors: sense of community between the instructor and students and sense of community among students. The strongest three correlates of community between instructors and students, with factor loadings greater than .80, were contact with instructor, instructor responsiveness, and trust that instructor would handle inappropriate interactions. The strongest four correlates of community among students, also with factor loadings greater than .80, were feeling committed to working with other students, interacting with classmates, helping classmates, and connecting personally with classmates. The strongest correlate of student engagement, with a factor loading greater than .70, was being organized.

Research Question Three. In order to answer the third research question, a comparison of community and engagement across colleges, scores for the items in each factor were averaged to create one score per participant for each factor. Three one-way ANOVAs were conducted using the three factors (community building with instructor, community building with classmates, and engagement with learning) as dependent variables and college where the course was taken as the independent variable. See Table 3 for the means of each of the three factors by college.

Table 3. Means for the three factors by college

	Community with instructor	Community with classmates	Engagement with learning
Agriculture (n=36)	4.16	3.35	4.44
Arts & Sciences (n=173)	4.16	3.33	4.37
Business (n=74)	4.18	3.37	4.46
Education (n=117)	4.45	4.10	4.62
Health Sciences (n=90)	4.15	3.68	4.56

Note: Items were rated on a scale from one (not at all descriptive) to 5 (very descriptive).

All three ANOVAs yielded significant effects of course's home college (see Table 4). Follow-up comparisons (using Least Significant Differences, or LSD) indicated that when the course was taken in the College of Education, students described themselves as creating a significantly stronger classroom community with instructors and also with classmates than when courses were taken in any of the other four colleges. Also, when the course was taken in the College of Health Sciences, students reported that they created significantly stronger classroom community with classmates compared to students taking College of Business and the College Arts and Sciences courses.

A similar pattern was found in the follow-up comparisons for engagement in learning. Students taking courses in the College of Education and in the College of Health Sciences reported that they were significantly more engaged in their coursework than students taking courses in the College of Arts and Sciences.

In summary, students indicated that having contact with a responsive instructor who deals with inappropriate interactions and who is committed to interacting and helping classmates are important when creating a classroom community. In addition, students must be well organized in their own learning in order to have a strong sense of student engagement. Students taking courses in Education and in Health Sciences, both educating students in the helping professions, were the only two areas in which

students reported stronger feelings of community and engagement compared to other colleges. Students taking courses in the College of Business, College of Agriculture, and the College of Arts and Sciences reported the lowest feelings of connectedness and engagement. Discussion follows in the next section.

Table 4. *Analysis of variance for Community with instructor, community with classmates, and engagement in content*

Community with instructor					
Source	SS	Df	MS	F	P
Course College	7.50	4	1.88	2.66	.032
Error	341.53	485	0.70		
Community with classmates					
Source	SS	Df	MS	F	P
Course College	48.65	4	12.16	14.39	<.001
Error	409.93	485	0.85		
Engagement with learning					
Source	SS	Df	MS	F	P
Course College	5.14	4	1.29	4.19	.002
Error	148.88	485	0.307		

Discussion

Factor analysis was used to group items together into interpretable factors. Three factors, creating community with instructors, creating community with classmates, and engagement with learning, were identified. The three factors accounted for a total of 58.3% of the variance in the 23 items. The majority of items were most strongly related to classroom community, indicating that student connections with instructors as well as with other students support a sense of helping each other. Student engagement, the connection between students and their own learning, was characterized by exhibiting organizational skills. Community with classmates and engagement were moderately positively related, indicating that students who are motivated to working and helping each other are also engaged in their own learning. Finally, engagement was moderately related to expected course grades, indicating that those students who feel connected with peers and also engaged in course activities, in turn feel confident in their achievement and expectation of higher grades.

Analysis of variance was used to compare the means of five colleges (Agriculture, Arts and Sciences, Business, Education, and Health Sciences) on the three factors. Students taking courses in the College of Education reported significantly stronger feelings of community with instructors and classmates compared to students in all other colleges; students taking courses in the College of Health Sciences reported significantly stronger feelings of community with classmates compared to students in Business and Arts and Sciences courses. Also, students in Education and Health Science courses reported significantly stronger engagement compared to students in Arts and Sciences courses.

It may be that the nature of courses and expectations of most instructors in the Colleges of Education and Health Sciences are to plan activities that call for students to work collaboratively. Instructors of these colleges may strategize about how to facilitate shared group goals and appropriate group tasks, being intentional about organizing collaborative groups to support learning. Other instructors may simply assign group tasks focused on knowledge acquisition, with the intention of building community, but these tasks may actually create feelings of anxiety and conflict rather than feelings of a connected learning

community (Exter et al., 2009). As suggested by Rovai (2001), a successful instructor intentionally balances two types of interactions: (1) task-driven to focus on learning goals and (2) socio-emotional to support students' well-being. Valuing appropriate online interactions of both types, instructors of the Colleges of Education and Health Sciences may be more likely to create the type of in-depth dialogues and sensitive exchanges that are crucial to fostering a sense of a nurturing community in groups and in the entire class (Liu et al., 2007).

In addition, students in the Colleges of Education and Health Science courses reported a stronger sense of engagement in learning compared to students in Arts and Science courses; because engagement was positively correlated with expected grades ($r=.44$), it may be that students in education and health science courses believe they learn more than students in other courses. Although the relationship between engagement and actual course grades was not examined, expected grades were likely a fairly accurate substitute since the data were collected very near the end of the semester.

Another major contributing factor to both of these findings regarding the constructs of community and engagement may be the different instructional practices employed across the disciplines. Virtanen and Nevgi (2010) emphasized that traditional teaching methods in the hard and applied sciences focus on facts, effective competencies, and practical application by means of lectures and problem solving interactions assessed by the instructor. Meanwhile, in the soft sciences and the applied sciences of the helping professions, student learning focuses on thinking and creative dialogue facilitated by personal interactions, discussion groups, and debates with outcomes of growth and deep learning assessed by student and instructor reflections. The simple mechanics of a traditional lecture format emphasizing knowledge retention as compared to collaborative interactions and deliberations logically seems destined to produce different levels of students' sense of classroom community and engagement.

Practical Implications

As online classroom opportunities continue to grow exponentially, wise investment in time and funding for effective support of distance education is crucial (Boyle, Jinhee, Ross, & Simpson, 2010). Drawing on numerous previous studies and their own work, Park and Choi (2009) claimed student characteristics may not be as crucial as other factors when examining how to improve students' learning experiences online. Instead, the focus for institutions and instructors must be specifically on how to produce increased engagement and sense of community, resulting in enhanced student satisfaction and persistence in online programs.

One critical factor involves adequate professional development for all faculty who teach online. Specific instructional design strategies and knowledge of best practices can help instructors offer ample opportunities for student interaction, participation, and feedback among themselves and with the instructor. For example, embedding the use of technology designed for connecting, such as Facebook, twittering and blogging, might increase the social presence of all of the students as well as the teaching presence of the instructor.

Building the social element into the course plan itself can balance the social and academic dialogue so critical to the success of distance education (Pate et al., 2009). Best practices to strengthen bonding include simple tasks such as collaborative decision-making related to communication protocols, and required and ongoing student postings in online discussions. In addition, use of synchronous instant messaging to enhance camaraderie, asynchronous communication for deeper discussions, and instructor modeling of thoughtful responsiveness with a personal tone all can help build classroom community connections.

With the elimination of time and place constraints, instructors can create innovative assignments and interactions in a global context. According to Robinson and Hullinger (2008), small group discussions and projects can provide an emphasis on higher level thinking skills of synthesis and decision making, which in turn create a more challenging learning environment and deeper learning. Such meaningful academic experiences provide students with relevant accomplishments and satisfaction that build learning communities, enhance the quality of student engagement, and decrease dropout rates (Park & Choi, 2009). While the importance of collaborative team assignments and reflective discussions are recognized, many instructors have continued to use their traditional lecture format translated into an online environment by use of PowerPoints or text-based electronic documents.

Guided by the tenets of the [National Science Foundation Strategic Plan](#) (2006), a movement toward redesigning courses for active learning with real life applications rather than passive learning is occurring

throughout the hard sciences with significantly positive results (Levine et al., 2008). For example, in a study by Clase, Hein, and Pelaez (2008) with students in the biosciences and biomedical engineering, instructional strategies focused on lab experiences rather than the traditional science educational practices of a lecture format. Results indicated that academic content was learned just as well as with the experiential activities encompassing group discussions and personal interactions. This brought additional benefits of reducing stereotypes between disciplines as well as increasing use of students' acknowledged strengths, effective conflict management skills, and communication among students and faculty for overall improved student learning.

Yet another implication involves the ongoing mentoring of faculty members that can bring together faculty colleagues to exchange ideas and institute changes related to best practices and technological improvements. Faculty mentoring across colleges may result in a variety of perspectives that broaden thinking and assist instructors in enhancing their presence online, thus positively affecting student learning and motivation (Baker, 2010; Rovai & Downey, 2010). Research conducted by Liu et al. (2007) and Exter et al. (2009) indicated numerous instructors, especially those new to distance education, may not realize the importance of community in a course and a program. Instructors can support each other with different perspectives of facilitating student conversations related to conflict management, team building strategies, and appropriate interactions among classmates.

An instructor's competent presence online maintains student engagement, offers encouragement, and sets the expectation and climate for high achieving community members who learn together in an equitable culture (Rovai, 2007; Shea, Li & Pickett, 2006). Also, faculty members realize that learners sometimes experience difficult external situations. Instructors may share insights in how to offer needed understanding, flexibility, and extra attention without compromising quality and academic standards. Faculty members across colleges may collaborate to offer ideas and explore the means to balance students' social needs and academic content (Rovai et al., 2004). Future studies need to focus on how to prepare instructors to offer relevant learning experiences that bring together students in a community to collaborate, socialize, and interact.

Conclusions

In summary, in order to create a strong sense of community and to help students engage with learning in online courses, instructors need to find ways to help students feel more strongly connected with each other and with the instructor and to facilitate activities that more actively involve students in their own learning. Instructors who purposefully design learning activities to create opportunities for students to learn about each other, thereby decreasing transactional distance and increasing social presence (Robinson & Hullinger, 2008; Rovai, 2002), are likely to improve learners' sense of classroom community. Students from marginalized populations may especially benefit from a sense of belonging and community (Pittman & Richmond, 2008).

When instruction is designed to actively involve learners in meaningful tasks, students' sense of engagement may be elevated. Student engagement and sense of classroom community are closely related to one another; students who feel a sense of connectedness rather than isolation are very likely better prepared to become more actively involved with course learning, successfully persist, and experience real world success.

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Appendix

Online Community and Engagement Scale

As you complete this survey, please consider only one course that you are taking this semester. To what extent do the following statements describe your expectations of yourself, your instructor, or your course? Please choose from very descriptive to not at all descriptive.

(Scale is very descriptive, somewhat descriptive, slightly descriptive, not very descriptive, not at all descriptive)

1. I participate actively in online discussions.
2. The course rules are clear.
3. My instructor is present and active in class discussions.
4. I ask questions in discussions when I don't understand.
5. My instructor is responsive to me when I have questions.
6. I complete all of the assigned class work.
7. I visit the course website regularly.
8. My instructor is consistent about enforcing course rules.

9. I know that I can contact my instructor when I need to.
10. I trust my instructor to handle inappropriateness in class interactions.
11. I truly desire to learn the course material.
12. I give a great deal of effort to the class.
13. I am well organized in my learning.
14. My instructor provides a well-organized course.
15. I will earn a good grade in the course.
16. I stay caught up on readings.
17. I interact with classmates on course material.
18. I connect personally with classmates.
19. I enjoy interacting in my class.
20. I help my fellow classmates.
21. I share personal concerns with others.
22. I am committed to working with my classmates so that we can help each other learn.
23. I feel isolated in the class.

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