

Community among University Students: An Online vs. On Campus Comparison

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Abstract

In an attempt to determine the differences between the perceptions of a sense of community among online students versus on campus students, the research surveyed 200 undergraduate students regarding their sense of relational affiliation with their university and, for some, with their small group. The results of the ANOVA indicated that students who participated in a small group reported a higher sense of community than the non-participant peers.

Keywords: Online Education, On campus Education, Survey, Community

1. Introduction

Distance education is a pervasive part of higher education which continues to rapidly expand (Tabs 2003, Walts & Lewis, 2003, Wirt et al., 2004). Allen and Seaman (2007) found that the percentage of total university enrollment accounted for by online courses rose from 9.7% to 19.8% in just 4 years (2002 to 2005), and in the fall of 2006, nearly 20% of university students were enrolled in an online course. Through the internet, universities and colleges provide students with a wide variety of online methods of study. Parsad and Lewis (2008) found that courses are offered in multiple formats such as completely online, blended between online and in-person, asynchronous learning networks (ALN), video conferencing and other types of distance learning experiences. Among schools offering online courses and programs, the vast majority (90%) report that they offer internet courses using the anytime, anywhere delivery method of ALN (Tabs, 2003). While distance and online learning expands, research into the effectiveness of the learning environment has produced conflicting results.

Many studies on the effectiveness of online education have concluded that student learning is at least equivalent to learning in face-to-face environments or even superior to face-to-face education (e.g. Bekele & Menchaca, 2008; Bernard et al., 2004; Noble, 2002; Tallent-Runnels et al., 2006; Zhao, Lei, Yan, Lai & Tan, 2005). While the body of research advocating the effectiveness of online programs of study continues to grow (e.g. Allen & Seaman, 2003, 2007; Russell, 1999; Shachar & Neumann, 2003), there remain studies which have found quite the opposite regarding effectiveness. As a result, concerns regarding the online learning environment continue to persist. For instance, studies have found that students in online courses have significantly lower levels of learning (Karatas & Simsek, 2009) and lower levels of academic retention (Carr, 2000; Diaz, 2000; Frydenberg, 2007).

A second concern in regard to the online learning environment is the issue of low student persistence in completing their course of study. Rovai, Wighting and Lucking (2004) and Frankola (2001) report dropout rates of between 20% and 50% in online learning courses. Additionally, Carr (2000) points out that dropout rates tend to be higher for distance learning courses (including online courses) than for equivalent traditional, face-to-face, courses.

Both academic learning and student persistence have been tied to a sense of community making it one of the most pivotal issues facing online education. Rovai and Gallien (2005) found that students who experienced a higher level of community through face-to-face team meetings, a blended instructional method and informally established study groups succeed in achieving a higher grade point level than their peers who did not have access to community in the same way. In an additional study, Rovai (2002, p. 330) found that “students with a stronger sense of community tend to possess a greater sense of connectedness and perceived cognitive learning”. Additional studies have supported these findings as well (e.g. Liu et al., 2007; Ouzts, 2006; Swan, 2002).

One of the strongest reasons for student attrition, according to Dyrud (2000), is a student’s sense of isolation. Tinto (1993) has indicated that social integration produces a stronger student commitment to their institution and has increased student persistence. Further, his research has found that students who experience difficulty in integrating socially are at higher

risk to leave their program of study. Park and Choi (2009) conducted a regression analysis in part to determine which factors were significant to predict learners' decision to drop out of online courses. Their results showed that the persistence group and the dropout group significantly differed in their perception of social support at the university. Perception of support was found to be positively correlated with student persistence. So significant was the connection between social support and attrition that the authors concluded, "learners are more likely to drop out of online courses when they do not receive support from their family and/or academic organization while taking online courses, regardless of learners' academic preparation and aspiration" (p. 215).

As Rovai and Gallien (2005) note, students who feel they do not fit in are likely to have a low sense of community, feel isolated, and are at risk of becoming dropouts. A lack of physical presence, as experienced in online programs, has been found to exacerbate student's feelings of isolation from their instructors and classmates (Carr, 2000; Rovai, 2002). As a result, these feelings of isolation have been associated with lower levels of student persistence (Carr, 2000; Rovai, 2002; Rovai & Wighting, 2005; Tyler-Smith, 2006). Additional research (e.g. Drouin & Vartanian, 2010; Palloff & Pratt, 1999; Robertson & Klotz, 2002; Rovai, 2002) supports the notion that a sense of community in the online environment is a desirable and likely necessary component of distance education courses.

Rovai (2002, p. 320) writes, "in order to improve persistence in distance education programs, schools need to assist students in making the adjustment to learning at a distance by enhancing student satisfaction and commitment. One strategy to help increase retention is to provide students with increased affective support by promoting a strong sense of community." Additional research supports this position as well (e.g. Bocci, Eastman & Owens-Swift, 2004; Hongmei, 2002; Mc Bain, 2001; Ramos, 2001). Therefore, it is crucial that universities with online courses develop a strong sense of community among online learners. One method utilized by faith-based universities to provide higher affective support to students is through a small group community.

As it stands, the current literature does not fully explain the role of Christian discipleship and small group affiliation on students' perception of community within on-campus and online communities. As a result, students' perception of community will be evaluated by examining student participation in small groups whether they attend classes in an on-campus or online capacity. Sense of Community

Later, Rovai (2004; Rovai & Gallien, 2005) expands on his own definition and pulls from the myriad definitions of community in the professional literature (e.g. Glynn, 1981; McMillan, 1996; McMillan & Chavis, 1986; Rheingold, 2000; Rovai, 2002; Royal & Rossi, 1997; Sarason, 1974; Unger & Wanderman, 1985) and presents one of his own (p. 267): "Members of school communities should feel that they belong and feel safe at school, they trust others, they have ready access to others at the school, and they feel that they are supported by the school. They should also believe that they matter to other students and to the school; that they have duties and obligations to each other and to the school; and that they possess a shared faith that their educational needs will be met through their commitment to the shared goals

and values of other students at the school.”

Rovai (2002) detailed upon his definition of community by specifying a number of factors that contribute to a strong sense of community. Included in these factors are social presence, or the individual’s ability to contribute, socially or emotionally, to the group and the instructor’s ability to interact constructively with the students as well (Rourke, Anderson, Garrison & Archer, 2001).

2. Definition of the Terms

Sense of Community: “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment together” (MacMillan and Chavis, 1986, p. 9).

Small group: an informal gathering of 6 to 10 undergraduate students meeting with the purpose of relational connection, support and discussion on spiritual, faith-based topics. These meetings are not mandatory, they do not receive the evaluation of a supervisor nor do they impact the students’ academic performance in any way.

1. RQ1: Is there a significant difference in perception of sense of community (SOC) between students who participate in a small group and those who do not?
2. RQ2: Is there a significant difference in perceived SOC between online students and on campus students?
 1. H1: Students who participate in a small group will report a higher SOC than students who do not.
 2. H2: Students who attend classes in an on-campus format will report a higher sense of community than those who attend online.

The independent variable of this study is the student’s level of interaction with a small group. The dependent variable is the students’ perceived level of sense of community (SOC). SOC was measured with the Classroom and School Community Inventory (CSCI). The research method used in this study was a repeated measures factorial ANOVA. The data source included a sample of convenience from the larger student body at Regent University which is a private, faith-based institution of higher education.

3. Instrumentation

Data will be collected through the following questionnaires:

Classroom and School Community Inventory – This is a 20 item, self-report measure completed by the study participants. This instrument consists of 10 self-report items for the classroom community such as “I trust others in this course,” and 10 self-report items from the school community form such as “I feel close to others at this school.” Each statement is followed by a 5-point Likert scale with the following ranges of response: strongly agree, agree, neutral, disagree and strongly disagree. The total possible scores range from 0 to 40 for each of the scales. A higher score represents a stronger sense of community.

4. Results

A total of 200 university students participated in the study. The population included both undergraduate (79%) and graduate students (21%) from one faith-based university. The participants' average age was 27 years, and their ages ranged from 16 to 56 years old. Participants were mostly female (74.5%) and mostly Caucasian (70%). Seventy nine percent of respondents were enrolled as undergraduate students. Sixty three percent of participants were enrolled as on-campus students with thirty seven percent indentifying as online students. Finally, the majority of participants (65.5%) stated that they were not a member of a small group.

When separating students based on their enrollment status, the majority of participants reported being enrolled on-campus ($n = 126$). The average age of the participants who were on-campus students was 22.5 years, with their ages ranging from 16 to 55 years. The on-campus group was mostly female (70.5%) and mostly Caucasian (74.5%). The majority of on-campus students (50.8%) reported involvement in a small group and being in their undergraduate course of study (74.6%).

Participants who identified their enrollment status as online were in the minority ($n = 74$). The average age of the online students was 34.6 years, with ages ranging from 16 to 56 years. The online group was mostly female (81%) and Caucasian (62.2%). A minority of online students reported involvement in a small group (6.8%). The majority of online students reported being in their undergraduate course of study (86.5%).

When separating students based on their small group participation, the total number of participants who reported participating in a small group was $n = 69$. The average age of participants who were in a small group was 20.8 years of age and their ages ranged from 17 to 55 years. Students who participated in a small group were predominantly female (75.5%) and Caucasian (85.5%). The majority of students who participated in small groups reported being in their undergraduate course of study (84.1%).

The total number of participants reporting no involvement in a small group was $n = 131$. The average age of participants not in a small group was 30.2 years, with their ages ranging from 16 to 56 years. The majority of students who reported not participating in a small group were female (74.0%) and Caucasian (61.8%). The majority of students who did not participate in a small group reported being in their undergraduate course of study (76.3%).

4.1 Inventory Scores

In Table 1, the means and standard deviations are reported for the Classroom Community Scale (CCS). These descriptive statistics are given to summarize the inventory scores.

Table 1. Means and Standard Deviations of Inventory Scores Across Groups

CSCI	
Variable	M SD
Enrollment	
On-campus	30 (7.02)
Online	24 (6.51)
Small Group Participation	
Yes	32 (6.42)
No	24 (6.56)

4.1.1 Evaluation of Hypotheses

The two hypotheses of this study were tested using a two-way, between subjects analysis of variance (ANOVA). The ANOVA measured students' sense of community. The scores were compared for students who were enrolled on-campus and online. The scores for students who participated in a small group and those who did not were also compared.

There were no significant interaction effects between life group status and enrollment status [$F(1, 32) = .786, p = .376, \text{partial } \eta^2 = .004$]. However, there were significant main effects for both life group status [$F(1, 367) = 8.99, p = .003, \text{partial } \eta^2 = .044$] and enrollment status [$F(1, 274) = 6.71, p = .010, \text{partial } \eta^2 = .033$] such that there is a significant difference between perceived sense of community between students with and without a small group, as well as between on-campus and online students. Students who participated in small groups, both on-campus and online, reported a higher perceived sense of community than students, both on-campus and online, who did not participate in small groups. Additionally, students who were on-campus and in a small group reported a higher perceived sense of community than online students who were in a small group. It is important to note that students who were online and in a small group reported a higher perceived sense of community than on-campus students who did not participate in a small group.

5. Discussion

The results of this study supported the first hypothesis, that students who participate in a small group will report a higher perceived sense of community than students who are not involved with a small group. Of particular importance was the finding that online students who participated in a small group reported a higher perceived sense of community than on-campus students who did not participate in a small group.

The results of this study found mixed results with regards to the second hypothesis, that students who attend classes on-campus would report a higher perceived sense of community than students who attended classes online. The results demonstrated that on-campus students who participated in a small group did report a higher sense of community than online students in a small group and on-campus students who were not in a small group did report a higher sense of community than online students who were not in a small group. In this respect,

the results supported hypothesis 2. However, online students in a small group reported a higher sense of community than on-campus students who were not in a small group. In this respect, the findings did not support hypothesis 2 resulting in mixed support for hypothesis 2.

5.2 Implications of the Results

Several implications can be drawn from the results of this study. First and foremost, this study found that students participating in a small group, whether on-campus or online, reported a higher sense of community than students who did not. Since, as was established in the review of the literature, student persistence has been correlated with a high sense of community, it can be inferred that both on-campus and online student who participate in a small group are more likely to complete their program of study than their peers who do not. For colleges and universities seeking to improve their rate of student retention, the development of a small group program may be desirable. One caution is noted, however, in this study the sample size of students who were enrolled online and participated in a small group was small ($n = 5$) and only accounted for 6.8% of the total number of respondents. With a sample size this small, generalizability is limited. As a result, it is recommended that a similar study be conducted with a larger representation in the sub-group of online students in a small group. For future research, it is also suggested that a follow-up study be performed regarding the assumed connection of a higher sense of community being related to higher student persistence. Do the students who attend a small group actually exceed students who do not in their rate of program completion?

A surprising finding was also identified through this study. It was found that online students who participated in a small group indicated a higher sense of community than on-campus students who did not participate in a small group. The implications of this finding suggest that the benefits of a small group could greatly enhance student persistence, significantly decrease a sense of isolation and result in higher program satisfaction. Of all the finding, this is the most noteworthy. For future research, it is suggested that this study be repeated at an institution with a fully developed online small group program to enhance the number of participants who are both online and in a small group.

This study was conducted as a between samples ANOVA. This method comes with its limitations. It is impossible to rule out the notion that other factors are at work elevating the sense of community scores. Changing the methodology to a repeated measures ANOVA where the participants are not in a small group during the first survey and allowing enough time (e. g. one semester) for students to have joined a small group, may result in a more accurate report of the influence of small groups on a student's perceived sense of community. It is also recommended that the students be tracked from the pre-test through the post-test to increase the correlation of scores.

6. Conclusion

Based on the findings of this study, it can be concluded that student who participate in a small group report a higher sense of community than their peers who do not. This finding remains constant whether students are enrolled in an on-campus program of study or an online course

of study. Of particular interest is the finding that online students who participated in a small group reported a higher sense of community than their on-campus peers who did not. These findings suggest that a higher sense of community can be obtained by participation in groups which focus on personal and relational concerns rather than groups solely focused on tasks or academics. A higher sense of community may lead to a lower sense of isolation among students and increase the likelihood of students completing their program of study in higher education.

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