



Feelings of alienation and community among higher education students in a virtual classroom

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Abstract

Although the professional literature identifies feelings of alienation and low sense of community as factors that help explain relatively low student persistence rates in distance education programs, no studies have attempted to investigate the relationship between these two constructs. Accordingly, the present study uses canonical correlation analysis to determine if and how a set of three alienation variables is related to a set of two classroom community variables in a sample ($N=117$) of online graduate students. The results suggest that the two sets of variables are related along two reliable multivariate dimensions. Implications for college teaching are discussed.

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1. Introduction

The growth of online learning in higher education during the past decade is well documented. According to a report of U.S. higher education (Allen & Seaman, 2004), 1.9 million students were enrolled in online courses in the fall of 2003, 19% more than a year earlier, and double-digit growth is expected to continue over the near term. However, a number of studies (e.g., Carr, 2000; Carr & Ledwith, 2000; Dutton, Dutton, & Perry, 1999) provide evidence that a higher percentage of distance

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education students become dropouts before completing their courses when compared to students in on-campus classrooms, with persistence rates reported below 60% in some online programs.

The professional literature (e.g., Sweet, 1986) also identifies multiple factors that can contribute to lower online persistence rates, such as varying degrees of mismatch between the difficulty of online courses and students' academic preparation, family and peer influences, the high degree of self-directedness required for most online programs, the need for students to adapt to computer mediated communication, student economic factors, lack of employer support, and the varied experience levels and skills of faculty in teaching online. Frequently this last factor manifests itself in deficient facilitation of discussion forums and group work and in faculty feedback to students that students perceive as neither timely nor constructive. Factors such as these, acting singly or in combination, create pressures for online students that can result in student attrition.

Researchers (e.g., Morgan & Tam, 1999) suggest that students in distance learning programs may be more likely to experience isolation and alienation from the institution because of their physical separation from the school and its services and from other students. Also, poor academic and social integration of students into the institutional life can also contribute to feelings of alienation (Tinto, 1975, 1995, 1997). Typically, postsecondary education persistence studies (e.g., Pascarella & Terenzini, 1991) find that integration has an important impact on persistence. Consequently persistence is often viewed as a measure of how well students integrate into a particular school. Finally, limited skills of some online faculty in presenting courses at a distance can erode affiliation and increase alienation among students.

1.1. Alienation

The construct of alienation has evolved over the centuries through Christian doctrine, philosophical thought, contemporary sociology, and social psychology (Trusty & Dooley-Dickey, 1993). It refers to a sense of social estrangement, an absence of social support or meaningful social connection (Mau, 1992). To be alienated is to lack a sense of belonging, to feel cut off from family, friends, or school (Bronfenbrenner, 1986). Within the school context, alienation is often related to negative student behaviors such as self-isolation, failure, absenteeism, and dropping out (Mau, 1992). This view is consistent with that of Adler (1939), who wrote that failure in school often stems from feeling unconnected to the teacher, other students, or the school community at large.

Seeman (1959) defines alienation as the discrepancy between personal expectation and reward in the context of modern society. His conceptualization of alienation consists of six dimensions: social isolation, cultural alienation, self-isolation, powerlessness, meaninglessness, and normlessness. However, social science researchers have been unable to validate the existence of six separate dimensions. Consequently Dean (1961), drawing from Seeman's work, redefined alienation as consisting of only three dimensions: social isolation, powerlessness, and normlessness.

Social isolation, according to Dean (1961), is the feeling of loneliness, even when in the company of others, due to a perceived lack of meaningful, intimate relationships with peers, family, and the wider community. Students who feel isolated tend to be separated from mainstream groups, feel a lack of connection to others, and feel no one cares or pays attention to them (Dean, 1961). Powerlessness, the second dimension, is a feeling of the inability to influence one's choices and a belief that one has little control over what occurs; a construct very much related to external locus of control. Students who feel powerless often give up when encountering resistance or failure (Dean, 1961). Finally, normlessness

involves a rejection of the dominant rules and values of our society or those of the majority cultural group. In a school environment, normless students tend to feel that they do not relate to classroom or school norms, they have difficulty conforming to rules and codes, and their values and goals conflict with those of the school, teachers, and other students. Normlessness can therefore occur when the value system of a student is inconsistent with school norms or the norms of the majority group enrolled at the school. In an educational environment, such feelings can adversely affect student performance, success, and ultimately persistence (Dean, 1961).

Dean (1961) published empirical evidence to support the existence of these three dimensions and suggests that strong feelings in only one of these three factors are sufficient to result in an individual feeling alienated. Students who feel they do not fit in, that is, they fail to find a satisfactory niche in the academic or social system of the college and fail to develop high levels of commitment to the school, become alienated and tend to withdraw (Tinto, 1975, 1995). More specifically, poor experiences within the classroom environment can be expected to contribute to negative feelings toward school since these experiences are at the very heart of the educational process. Other researchers have reported additional factors related to the school environment that can increase feelings of alienation, such as negative student–student relationships (Valverde, 1987), low curriculum relevancy (Kunkle, Thompson, & McElhinney, 1973), and lack of control over school policies and activities (Calabrese & Seldin, 1987).

Dean (1961) views alienation as a situational construct involving the independent relationship between an individual and his or her environment. Situational factors provide an explanation for why students may be alienated in one situation, such as school, but not in another (Calabrese & Seldin, 1986). When viewed in this manner, alienation helps explain the disjuncture between the experiences of individuals in different environments (LeCompte & Dworkin, 1991). Palloff and Pratt (1999) describe the importance of establishing a strong sense of community among online students in order to help combat feelings of alienation. Consequently it is possible to view sense of community as a measure of how well students socially integrate into a particular school.

1.2. *Sense of community*

Glasser (1986) wrote that the need for belonging is one of the five basic needs written into the human genetic structure. Sense of community provides a sense of belonging, identity, emotional connection, and wellbeing. The 17th-century English poet John Donne (1624/1987) recognized this need when he wrote about the oneness of mankind and the need to be part of a greater whole,

No man is an island, entire of itself; every man is a piece of the continent, a part of the main. If a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as well as if a manor of thy friend's or of thine own were. Any man's death diminishes me because I am involved in mankind; and therefore never send to know for whom the bell tolls; it tolls for thee (1624/1987, p. 86)

McMillan and Chavis (1986) define psychological sense of community as “...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 to be together” (p. 9). According to Fisher, Sonn, and Bishop (2002), people experiencing and perceiving a strong sense of community receive multiple benefits. They are better adjusted, feel supported, have connections to others and to goals that may be above their own limited aspirations, and have stronger levels of social support and social connectedness.

Consequently, a strong sense of community acts as a buffer against threats, provides a place in which individuals are free to express their identities, and helps them deal with changes and difficulties in society at large. Students who feel lonely or isolated will invest more energy in seeking a sense of community and support than in learning and if need be, they will move to another school or educational delivery medium to satisfy their basic needs.

Hill (1996) identifies the need for extensive research in a variety of contexts to understand fully sense of community. She hypothesizes that the dimensions of community differ from setting to setting suggesting that sense of community is setting specific. One such setting is the online virtual classroom. When community is viewed as what people do together, rather than where they interact, community becomes separated from geography and campuses (Wellman, 1999). Rheingold (1993) defines virtual communities as “social aggregations that emerge from the [Internet] when enough people carry on...public discussions long enough with sufficient human feeling, to form personal relationships in cyberspace” (p. 5). In order for online students to develop a strong sense of community, it is crucial that the learner feels part of a learning community where his or her contributions add to a common knowledge pool and where a community spirit is fostered through social interactions facilitated by a skilled instructor.

Approaches to learning that promote social constructivism, or learning within a social context, and that feature active group construction of knowledge, rather than transfer of knowledge, provide ideal learning environments. Vygotsky (1978) argues that all cognitive functions must be explained as products of social interactions and that learning is not simply the accumulation of new knowledge by learners; it is the process by which learners are integrated into a knowledge community. Learning is therefore viewed as a function of the activity, context, and culture in which it occurs and cognition must take account of social interaction and work (Brown, Collins, & Duguid, 1989). Consequently, learning has important social and cognitive dimensions and occurs most effectively when there is a strong sense of community.

In a review of distance education programs around the U.S., Horn (1994) found low levels of interactivity and concluded that, as currently practiced, online courses compromise human interaction. Moller (1998) encourages the development of communities in online courses by increasing the quantity and quality of interactions. She writes that “the potential of asynchronous learning can only be realized by designing experiences and environments which facilitate learning beyond the content-learner interaction. To that end, it becomes necessary to create learner support communities” (pp. 115–116). Wegerif (1998) found the social dimension of online learning to be an important predictor of the success of the distance learner. He concludes that forming a sense of community is a necessary first step for collaborative learning, without which students are likely to be unwilling to take the risks involved in learning. Ng (2001) writes about the potential for a collaborative learning experience in the online classroom, but only if the participants can relate to one another and share a sense of community and a common goal.

The professional literature (e.g., Fisher et al., 2002; McMillan, 1996; McMillan & Chavis, 1986; Wellman, 1999) suggests that the most essential elements of community are spirit, trust, mutual interdependence among members, connectedness, interactivity, shared values and beliefs, and common expectations. Drawing on these findings, Rovai (2002) hypothesizes that members of strong classroom communities have feelings of belonging and trust and that they believe they matter to one another and to the group; that they have duties and obligations to each other and to the school; and that they possess a shared faith that members’ educational needs will be met through their commitment to shared goals. He

also provides empirical evidence that the construct of classroom community consists of two dimensions: social community and learning community.

Social community, derived primarily from the work of McMillan and Chavis (1986) and McMillan (1996), represents the feelings of the community of students regarding their spirit, cohesion, trust, safety, interaction, interdependence, and sense of belonging. Learning community, on the other hand, consists of the feelings of community members regarding the degree to which they share group educational norms and values and the extent to which their educational goals and expectations are satisfied by group membership. Learning community is closely related to the work of Glynn (1981) and Royal and Rossi (1997), who argue that common goals and values are essential elements of community; and Strike (2004), who theorizes that normation, that is, the willingness of students to internalize group-shared expectations, is an important aspect of a school community.

1.3. Purpose

Although feelings of alienation and sense of community are widely discussed in the distance education literature as factors that are related to student persistence, no studies have attempted to investigate the relationship between these two constructs. Accordingly, the purpose of the present study is to gain new insights into how to foster higher levels of persistence by examining the relationship of student alienation and sense of community in higher education online classroom environments. Important aspects of this study include examining the extent, if any, to which general feelings of alienation carry over and influence sense of classroom community and how sense of community and alienation differ by gender and by ethnicity in the virtual classroom.

2. Methodology

2.1. Participants

Study participants consisted of a convenience sample of 117 college students enrolled in six online graduate-level educational research methods courses conducted during the same academic year. Participants consisted of 75 (64.1%) female and 42 (35.9%) male students. By ethnicity, the breakdown was 44 (37.6%) African-American, 71 (60.7%) Caucasian, and 2 (1.7%) Hispanic participants.

2.2. Setting

The semester-long courses examined by the present study were delivered fully online by an accredited inter-denominational Christian university in the state of Virginia by experienced and trained online faculty who value student collaborative work and student–student and student–instructor interactions. Participants were widely dispersed throughout the U.S., although most resided in the eastern part of the country. The Blackboard.comSM e-learning system was used to deliver the courses. This system consists of an integrated set of productivity, communication, assessment, and content management tools that allow instructors to design, present, and facilitate online instruction.

All students were enrolled in multi-course educational programs and there was no attrition in any of the courses sampled in the present study. A volunteer rate of 93% was achieved. All respondents

completed both scales described in the following paragraphs prior to receiving their final course grades. Two students earned a C+ and the remaining students earned course grades that ranged from B– to A.

2.3. Instrumentation

The Dean Alienation Scale (Dean, 1961) was used to operationalize alienation in the present study. This self-report instrument consists of 24 items that examine alienation in a non-situational context, such as: *the future looks very dismal, the world in which we live is basically a friendly place, and people's ideas change so much that I wonder if we'll ever have anything to depend on*. Following each item is a five-point Likert scale of potential responses: *strongly agree, agree, uncertain, disagree, and strongly disagree*. Participants check the place on the scale that best reflects their feelings about the item. Three subscales are generated: social isolation, powerlessness, and normlessness, with 9, 9, and 6 items respectively devoted to each subscale. Subscale scores are computed by adding points assigned to each of the five-point items based on a scoring scheme that ranges from a low of 1 to a high of 5 on the instrument's scoring guide. Consequently possible subscale scores range from a low of 9 to a high of 45 for social isolation and powerlessness and from 6 to 30 for normlessness. Higher scores represent stronger levels of alienation.

Dean (1961) reports that the Dean Alienation Scale possesses strong face validity and that the instrument's construct validity was demonstrated by field-tests involving a variety of groups. However, Hensley, Hensley, and Munro (1975) criticize the scale for its generic nature versus being more situational, but validated the dimensionality of the scale. Despite this criticism, the instrument remains a valid and reliable tool for assessing levels of alienation.

Dean (1961) also reports the following split-half internal consistency reliability coefficients: 0.78 for total alienation, 0.83 for social isolation, 0.78 for powerlessness, and 0.73 for normlessness. Estimates of internal consistency reliability were also examined for total alienation and each subscale using the sample in the present study. The resultant alpha coefficients were 0.77 for total alienation, 0.70 for social isolation, 0.71 for powerlessness, and 0.69 for normlessness. These estimates suggest that the Dean Alienation Scale and its three subscales possess acceptable levels of internal consistency reliability.

The Classroom Community Scale (Rovai, 2002) was used to measure classroom community. This instrument consists of 20 self-report items that examine community within the classroom setting, such as *I feel isolated in this course and I feel that this course is like a family*. Following each item is a five-point Likert scale of potential responses: *strongly agree, agree, neutral, disagree, and strongly disagree*. Study participants check the place on the scale that best reflects their feelings about the item. Scores are computed by adding points assigned to each of the 20 five-point items. Items are reverse-scored where appropriate to ensure the least favorable choice is always assigned a value of 0 and the most favorable choice is assigned a value of 4. The Classroom Community Scale produces social community and learning community subscales. Scores on each subscale can range from 0 to 40, with higher scores reflecting a stronger sense of community.

The results of a factor analysis provide evidence that the two subscales are latent dimensions of the classroom community construct (Rovai, 2002). Cronbach's coefficient alpha for the full classroom community scale was 0.93. Additionally, the internal consistency estimates for the social community and learning community subscales were reported as 0.92 and 0.87 respectively. In the present study, alpha estimates for the full classroom community scale and the social community and learning community subscales were 0.89, 0.90, and 0.76 respectively, suggesting acceptable reliability.

2.4. Procedures

During the final 3 weeks of each course, prior to the final exams, online students were presented with both the Dean Alienation Scale and the Classroom Community Scale as online surveys using the Blackboard.comSM e-learning system. Students were informed that participation was voluntary and participation or non-participation would not affect course grades. Volunteers were also asked to identify their gender and ethnicity.

2.5. Design and data analysis

A correlational design was used in the present study to determine if and how the set of three alienation subscales are related to the set of two classroom community subscales. Canonical correlation analysis (CCA) was used to analyze the data. For this analysis, two canonical functions or sets of weights were calculated because the smaller of the two variable sets (i.e., classroom community) possessed only two variables. Two canonical variates were obtained for each of the two canonical functions, one representing alienation and the other representing classroom community. CCA computed these variates by applying weights to the scores on the five measured variables: social isolation, powerlessness, normlessness, social community, and learning community. More specific procedures used in this analysis are described in Results below.

3. Results

Table 1 displays the descriptive statistics for each variable by gender, ethnicity, and overall scores and Table 2 shows the bivariate correlations for the five alienation and community measures. A two-way multivariate analysis of variance (MANOVA) was used to determine the effects of gender and ethnicity on the five dependent variables. Because there were only two Hispanic participants, this analysis examined only African-American and Caucasian participants. Evaluations of MANOVA assumptions revealed no univariate or multivariate within-cell outliers at $p < 0.001$. Results of the evaluation of normality, homogeneity of variance–covariance matrices, linearity, and multicollinearity were also satisfactory. The MANOVA revealed no significant differences on the dependent measures by gender, Wilks' $\Lambda = 0.91$, $F(5, 107) = 2.25$, $p = 0.06$, $\eta^2 = 0.10$. However, a significant difference existed for ethnicity, Wilks' $\Lambda = 0.83$, $F(5, 107) = 4.34$, $p = 0.001$, $\eta^2 = 0.17$. The interaction effect was not significant, Wilks' $\Lambda = 0.92$, $F(5, 107) = 1.76$, $p = 0.13$, $\eta^2 = 0.08$.

Post hoc analysis of the significant ethnicity main effect showed that African-American participants generally felt more normless than their Caucasian peers, $F(1, 111) = 7.88$, $p = 0.006$, $\eta^2 = 0.07$, as well as feeling a lower sense of social community, $F(1, 111) = 8.17$, $p = 0.005$, $\eta^2 = 0.07$, and learning community, $F(1, 111) = 18.83$, $p < 0.001$, $\eta^2 = 0.15$. There was no evidence of a significant difference in either feelings of social isolation or powerlessness.

CCA was used to examine simultaneously the relationship between the set of three alienation variables and the set of two classroom community variables within the pooled data. Evaluations of canonical correlation assumptions were satisfactory. Significant relationships between the two sets of variables were found to exist in two canonical functions, $\chi^2(6) = 62.94$, $p < 0.001$. Upon removal of the first canonical function, χ^2 values remained significant, $\chi^2(2) = 30.49$, $p < 0.001$. The first canonical

Table 1
Descriptive statistics for alienation and classroom community variables

Variable	Female		Male		Overall	
	M	S.D.	M	S.D.	M	S.D.
Social isolation	25.09	5.33	25.48	4.28	25.23	4.96
African-American	25.67	6.29	27.14	4.83	26.14	5.85
Caucasian	24.47	4.57	24.64	3.80	24.54	4.26
Powerlessness	21.95	5.17	23.45	4.42	22.49	4.95
African-American	23.90	5.30	23.29	2.97	23.70	4.66
Caucasian	20.63	4.81	23.54	5.04	21.77	5.07
Normlessness	11.28	3.30	11.05	3.50	11.20	3.36
African-American	12.90	3.70	11.64	3.00	12.50	3.51
Caucasian	10.12	2.55	10.75	3.74	10.37	3.06
Social community	27.91	6.76	26.76	5.91	27.50	6.46
African-American	27.20	8.97	22.86	7.42	25.82	8.67
Caucasian	28.63	4.78	28.71	3.84	28.66	4.40
Learning community	33.53	4.67	31.76	4.04	32.90	4.52
African-American	31.77	5.61	29.00	5.01	30.89	5.52
Caucasian	34.93	3.45	33.14	2.61	34.23	3.25

N=117; female, n=75; male, n=42; African-American, n=44; Caucasian, n=71; Hispanic, n=2; African-American female, n=30; African-American male, n=14; Caucasian female, n=43, Caucasian male, n=28.

Subscale possible ranges: social isolation and powerlessness, 9 to 45; normlessness, 6 to 30; social community and learning community, 0 to 40. Higher alienation scores reflect stronger alienation; higher classroom community scores reflect stronger community.

correlation coefficient was 0.50 and the second was 0.49. The results of the CCA are displayed in Table 3. Included are the standardized canonical coefficients, structure coefficients (i.e., canonical loadings), squared structure coefficients, communality coefficients, adequacy coefficients, and redundancy coefficients for both canonical functions. Since the canonical communality coefficients were 92% or greater for all measured variables less powerlessness, which was 27%, the canonical variates obtained in this CCA have relatively less to do with scores on the powerlessness variable.

Using a cutoff structure coefficient of 0.30, social isolation and powerlessness were the only variables in the alienation set that were correlated with the alienation variate in the first canonical function. In the classroom community set, both social community and learning community were correlated with the classroom community variate. Social isolation was 85% useful and powerlessness was 21% useful in explaining variance in the alienation variate, whereas social community was 92% useful and learning community was 12% useful in explaining variance in the classroom community variate. Thus, the first

Table 2
Intercorrelations between variables

Variable	1	2	3	4	5
(1) Social isolation	–	0.38	ns	– 0.49	– 0.32
(2) Powerlessness		–	0.34	– 0.26	– 0.19
(3) Normlessness			–	ns	– 0.38
(4) Social community				–	0.58
(5) Learning community					–

p<0.05; ns=not significant.

Table 3

Standardized canonical coefficients, structure coefficients, squared structure coefficients, communality coefficients, adequacy coefficients, and redundancy coefficients for canonical functions I and II

Variable	Canonical function I			Canonical function II			h^2
	Coefficient	r_s	r_s^2	Coefficient	r_s	r_s^2	
Alienation set							
Social isolation	0.83	0.92	0.85	-0.41	-0.37	0.14	0.99
Powerlessness	0.29	0.46	0.21	0.25	-0.24	0.06	0.27
Normlessness	-0.41	-0.27	0.07	-0.98	-0.92	0.85	0.92
Adequacy			0.37			0.35	
Redundancy			0.09			0.09	
Classroom community set							
Social community	-1.15	-0.96	0.92	-1.15	0.27	0.07	0.99
Learning community	0.33	-0.34	0.12	0.33	0.94	0.88	1.00
Adequacy			0.52			0.48	
Redundancy			0.12			0.11	

$N=117$. r_s =structure coefficient; r_s^2 =squared structure coefficient; h^2 =canonical communality coefficient.

pair of canonical variates that comprise the first canonical function suggests that participants with both stronger feelings of social isolation and powerlessness were also more likely to have both weaker feelings of social community and learning community.

Also using a cutoff structure coefficient of 0.30, social isolation and normlessness in the alienation set were related to the alienation variate in the second canonical function, while learning community in the classroom community set was related to the classroom community variate. Social isolation and normlessness were 14% and 85% useful respectively in explaining variance in the alienation variate, and learning community was 88% useful in the classroom community variate. Thus, the second pair of canonical variates that comprise the second canonical function suggests that participants with stronger feelings of both social isolation and normlessness were also more likely to have weaker feelings of learning community.

4. Discussion

The primary aim of this study was to determine if and how a set of three alienation variables is related to a set of two classroom community variables. Previous research suggests that alienation and low sense of community are contributing factors to student attrition in higher education (e.g., Tinto, 1975, 1995, 1997) and that alienation is related to negative student–student relationships (Valverde, 1987). These findings suggest an inverse relationship between alienation and sense of community. What is not known, and which this study addressed, is how alienation is related to sense of community within an online classroom environment. In particular, how does alienation with society influence sense of community within the virtual classroom setting? Results of the present study suggest that there indeed is a relationship between these two sets of variables. This relationship is inverse and can be best described by two reliable pairs of canonical functions.

For the first function, both social isolation and powerlessness with society are inversely related to both social community and learning community in the virtual classroom. The canonical correlation between

alienation and classroom community for this function was a moderate 0.50. These results are consistent with the writings of Bronfenbrenner (1986), who suggests that the underlying issue of alienation is essentially lack of a sense of belonging. If the structure of the learning experience assures that students are able to feel as if they belong to a valuable and worthwhile endeavor and that they are connected to each other, it may be possible to reduce feelings of alienation and increase sense of community within the context of a virtual classroom.

Noddings (1996) suggests that the preoccupation with creating the autonomous, self-directed individual with individual rights and the consequent neglect of alternative values associated with social responsibility and community have eroded “our understanding of human sociality” (p. 252). However, Merriam and Caffarella (1999) suggest one view of promoting self-directed, autonomous individuals stresses the social construction of knowledge and the social context of learning. The issue is not whether producing self-directed learners is an appropriate goal, but rather how best to achieve this goal in terms of course design and pedagogy without eroding affiliation and increasing social isolation. In Caffarella's (1993) view, being self-directed is “to be primarily responsible and in control of what, where, and how one learns” (p. 32). This does not imply social independence.

The courses sampled in the present study emphasized class discussion and instructor feedback in order to nurture a spirit of community. To some extent, such instructional activities may have achieved their aim. For example, one online student posted the following comment to the course discussion board at the end of the semester: “I think we all came away with a sense of family; it has made responding to each other comfortable”. Another student wrote: “I was very apprehensive about this class but the other members have helped me feel good about it—especially through the use of discussion boards”.

For the second function, both social isolation and normlessness with society were inversely related to learning community in the virtual classroom. The canonical correlation between alienation and classroom community was a moderate 0.49. Results showed that study participants with both a stronger sense of social isolation and normlessness with society were also more likely to possess a weaker sense of learning community. Accordingly, participants whose general values are less aligned with those of the society in which they live are also less likely to share the learning-related values, goals, and expectations held by their virtual classroom peers.

This effect was expected since classroom community, to some extent, reflects the values of the society of which it is a part. However, it was also felt that individuals who are out of touch with the norms of society, particularly those related to Christian values, might be attracted to a Christian university such as the one sampled in the present study, which would better reflect their values and promote sense of community as students made connections with colleagues holding similar values. Indeed, such a situation may have occurred, which would help explain the absence of a higher crossover effect between normlessness with society and learning community in the second canonical function.

Heightened sense of normlessness could manifest itself in students as a more general feeling of alienation and thus may adversely affect the learning processes and persistence for those individuals. The implication for online education is that early identification and recognition of normlessness may enable the college instructor to pay particular attention to at-risk students and help them to reconcile their values with those of their classroom peers in order to lessen feelings of alienation. Online discussion topics in which students discuss their educational values, goals, and expectations might foster an increased sense of connectedness among students and reduce any feelings of normlessness by helping students align themselves to group norms.

Online faculty members serve a key role in fostering a strong sense of community through their teaching styles and attitude of caring about their students. Palmer (1998) also suggests that “the connections made by good teachers [among themselves, their subjects, and their students] are held...in their hearts...the place where intellect, emotion and spirit will converge in the human self” (p. 11). Workman and Stenard (1996) suggest that alienation may be mediated in distance education settings by providing services that clarify regulations, build self-esteem, improve campus identity, create opportunities for interpersonal contacts, and provide easy access to learning support services.

Although differences in alienation and classroom community were noted by both gender and ethnicity, only the difference by ethnicity was statistically significant. Moreover the effect size (i.e., $\eta^2=0.17$) was large. The direction of this difference is consistent with what researchers have reported regarding greater alienation and weaker sense of community for African-American students on predominantly White campuses (e.g., Crosson, 1992). The reasons for this increased sense of alienation among African-American students are not entirely clear and many reasons have been suggested to include attempts to reaffirm Black culture (Boyd, 1997).

Additionally, it is possible that including diversity in a virtual classroom provides an environment that can foster alienation, particularly social isolation. Some minority students may feel that they do not fit in. Consequently, they may segregate themselves, much like in a traditional classroom when minority students sit together in ethnic clusters (Tatum, 1997). It would therefore appear that building a strong sense of community encompassing all online students could be an antidote to any increased feelings of alienation and lower persistence rates among some students in online programs.

However, it should be noted that many studies that have attempted to test differences in alienation on the basis of ethnicity have produced inconsistent results (e.g., Calabrese & Seldin, 1986). Consequently, it is recommended that the present study be replicated in other higher education distance education settings reflecting a broader cross-section of students in order to examine more comprehensively the alienation and classroom community typologies of students by ethnicity. For example, differences may be less of a trait associated with ethnicity, and more related to specific settings influenced by school culture.

The present study possesses several limitations. The sample consisted of education and counseling graduate students attending the same Christian university in the Eastern U.S. and all were enrolled in research methodology courses. Consequently, results may not generalize to graduate students taking other courses or attending other universities. The self-report nature of both the Dean Alienation Scale and the Classroom Community Scale is another limitation. The use of self-report measures has a tendency to inflate correlations among variables because of common method variance and the possibility of response set. Moreover, the internal consistency reliabilities of alienation subscales are at the lower end of acceptability.

5. Conclusions

Based on the preceding discussion, several tentative conclusions can be drawn from the study. First, the study provides evidence that general alienation is inversely related to classroom community. The theoretical implication is that although alienation is generally viewed as a situational construct (Dean, 1961), alienation with society can exert a dampening effect on sense of community within a virtual classroom environment and can possibly lead to low student achievement and student attrition. School administrators should seek ways to reinforce student persistence, which is vital to the success of online programs.

Research (e.g., Ritschel 1995; Tinto 1997) provides evidence that improving the quality of a student's experiences in the classroom is central to student retention. Consequently, classroom activities that improve this experience should be pursued. For example, Berman (1997) found that a cooperative learning community "creates the bond among people that moves democratic decision making from negotiations around competing self-interests to a consideration of the common good" (p. 136). Such activities can improve the quality of the virtual classroom experience by nurturing intimacy among class members and strengthening sense of community. To develop such levels of intimacy, individuals must set aside their preoccupations and concerns for their own identity and voice, and invite the voices of others (Smith & Berg, 1987).

Second, study results revealed African-American participants generally felt more normless and had lower sense of social community and learning community than their Caucasian peers in a predominately White virtual classroom community. Some ethnic groups, such as African-Americans, place higher emphasis on communal values, which include knowledge that is valued, how learning occurs, and communication patterns of working together for the good of community (Flannery, 1995). The implication for professors of African-American students is to use a pedagogy that encourages Black students to explain their understanding of subject matter within a collaborative and cohesive group context. Although the courses sampled in the present study include graded weekly group discussion topics, course assignments involve only independent work, which may have contributed to Black students possessing weaker sense of community than their White peers.

Finally, measures of classroom community and alienation, such as used in the present study, can provide a valid predictive and explanatory tool for researchers concerned with the welfare and persistence of students in higher education programs. Additional research is recommended to investigate the relationship between alienation and sense of community more closely. The present study compares a general worldview of alienation with the sense of community in a virtual classroom setting; additional research might further examine this relationship using a more situationally-specific measurement of alienation, particularly alienation and sense of community within the school-wide environment.

Future research should also be directed at identifying collaborative and facilitative online instructional strategies that foster a sense of community and increase academic achievement and persistence among culturally diverse students. If we can determine how to increase sense of community among minority students in a predominately White online learning environment, perhaps we can concentrate on forming strong classroom communities and rely on these communities to reduce feelings of alienation and to promote high achievement and persistence among all students.

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