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Social Networks in Higher Education: A Study of the Relationship of Social Structural and Proximity Factors to Teacher Credibility and Perceived Quality of Academic Life

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ABSTRACT

As Berge (1998) tells us, learning is a lifelong process that is important to effective participation in cultural and economic life in a democratic society. In their research on cultural issues in distance education, Enoch and Soker (2006) note one of the major concerns of modern societies today is to ensure increased access to higher education, and to include members of formerly under-represented social groups and categories, such as ethnic and racial minorities, women and people who live in distant rural or disadvantaged areas or who have to combine their studies with full-time or part-time jobs. Building on the work of Enoch and Soker, this paper looks at race, gender, age, course location and job status and their relationship to teacher credibility and perceived quality of academic life. The data for this study was provided by students attending a community college located in a metropolitan area of the Midwest.

INTRODUCTION

Social networks refer to a series of relationships between individuals and groups (Rohall, Milkie, & Lucas, 2007). People hold certain positions in society that connects them to others. In situations where someone is not acquainted with everyone in a group, the network provides a connection to those people who are strangers. This is true for relationships that are formed in the classroom, as well as society in general.

The Current College Climate

As part of his education initiative, President Obama has challenged America to have the highest proportion of residents with college degrees in the world by 2020. If the country is to realize this ambitious goal, it will mean not only increasing the number of traditional age college students who complete a four-year degree but also providing working adults convenient part-time educational pathways to a baccalaureate degree. Many in today's workforce—28 percent—left college before earning a degree. Now, with good jobs requiring at least a two-year credential if not more, enrollments of working adults in university degree completion programs are climbing—and especially in programs that offer the option of completing some coursework online (Gilligan, 2009).

From 2000 to 2006, there was a 10 percent growth in overall enrollment at two-year institutions, according to the most recent figures from the Department of Education. During the 2006-7 academic year, 6.2 million students were enrolled in the country's 1,045 community colleges, 35 percent of all people working toward a degree that year, according to a new National Center for Education Statistics study (Moltz, 2008). The 2009 Sloan-C report on online education confirmed that Americans are flocking to web-based classes. Last year, enrollment increased 17 percent increase in online classes. Overall, higher education enrollment increased by 1.2 percent last year, according to the report.

Moore (2008) suggests the class of 2009 will probably have a tough time finding jobs, even if they have stellar credentials, as employers start to feel the full brunt of the economic crisis. Recent graduates, though, are still finding work, despite the recent economic downturn. There is a consensus among college counselors that more seniors will turn to graduate school, as jobs continue to dry up. Students hope to build their skills and improve their prospects.

Historical Perspective of Student-Teacher Philosophy and Interaction

Bonser (1992) tells us beginning in the 1960s, college students began to think strategically about the role, philosophy and leadership of their schools' administration. He goes on to say administrators can meet the demands of these more discriminating consumers, if they adopt a total quality management approach similar to the one that has been successful in other types of organizations.

Rogers's (1969) theory of education has as its goal the facilitation of the whole and fully functioning person, who is a citizen and leader in a democratic society. He sees the facilitation of citizens as vital, without which education will "doom us to a deserved and universal destruction". Learning style refers to the way in which a student approaches the learning process, and learns and retains new and difficult information (Dunn & Dunn, 1993). It is a personal trait that develops from inherited characteristics, previous experience, and the demands of the present environment (Kolb, 1981).

Teaching style consists of a teacher's personal behaviors and the media used during interaction with learners (Kaplan & Kies, 1995). In other words, it is mostly related to how the teacher teaches or to the instructional methods used (Felder & Silverman, 1988).

More recently, a learner-centered approach to teaching design has evolved that views learners as active participants in their own learning experience. The learner-centered model refers to a "perspective that couples a focus on individual learners with a focus on learning" (McCombs & Whisler, 1997).

For Paris and Combs (2006), there are three main tenets of learner centered education: 1) the student is the starting point for curriculum making; 2) the teacher and students are co-participants in the learning process; 3) the teacher strives toward intense student engagement with the curriculum.

Palmer (2009) cites the fact that student engagement occurs when a specific situation captures the attention of a student. Kellogg and Tomsho (2009) point out enrollment at two-year schools has been booming for more than a decade, due partly to increased demand for more college-educated workers and sharply higher costs of a four-year college degree. It is important to these students that they succeed.

A major goal of teachers is to spark interest and understanding in the minds of their students (Thweatt & McCroskey, 1998). Wrench and Punyanunt-Carter (2005) argue that since the days of Corax and Tisias, theorists have been concerned with the role of ethos, credibility, in communication. Voss, et al. (2007) suggest this may be why colleges are now feeling increased pressure to compete for qualified students.

In their research on distance programs, Lu, Ma and Huang (2007) note Internet technology is gaining a foothold on more and more campuses. Their findings also suggest the Internet has a positive and significant influence on student-centered learning in three dimensions: pedagogical, technological and cultural learning.

Research Question

As noted previously, the makeup and expectations of students attending college is changing. While looking at the impact of social structural and proximity factors, the current study seeks to add to the body of knowledge in this area, by exploring the research question 'What, if any relationship teacher credibility and perceived quality of academic life, in online students and what, if any, relationships exist between these variables and the social structural factors of race, gender age and job status?'

LITERATURE REVIEW

In preparation to study the relationship between teacher credibility, perceived quality of academic life in online students and the aforementioned demographic variables, this literature review will cover the following areas: social structure and proximity, teacher credibility and perceived quality of academic life.

Social Structure

Social structure is a construct of social network research that refers to patterning in social relations (Freeman, 1989; White, Boorman & Breiger 1976; Radcliffe-Brown, 1940). Radcliffe-Brown and Pearce (1976) agree social structure is a condition where individuals are embedded within the social systems that influence their behavior. At the

same time, Tichy, Tushman and Fombrun (1979) extended the definition of Pearce and Radcliffe-Brown, stating a group's social structure is influenced by its social context. Communications researchers consider social structure to represent patterns of interaction. These patterns tend to persist over time and therefore can be thought of as representing structure (Hammer, 1979; Schwartz & Jacobson, 1977). While a review of definitions finds there is no single one that uniformly describes social structure, it does reveal certain recurring themes. These include social norms, habits and practices.

Proximity

Proximity has been studied extensively over the past 50 years (Monge & Kirste, 1980; Priest & Sawyer, 1967; Tesch, Huston & Indenbaum, 1973). The majority of the research falls into one of three categories: the linear distance approach, the functional approach or the psychological approach (Monge et al., 1985). The linear approach treats proximity simply as the distance between two people.

With regard to functional proximity Thomsen (1969) first observed, the travel time and number of travel irritants between two locations is a better predictor of a travel route than is the simple distance between two locations. Similarly, Monge and Kirstie (1980) hold that proximity between individuals is affected by both the nature of the space and the objects in it.

The third and most current area of research dealing with proximity is the psychological approach. Bennett (1974) holds that an individual's perception of how proximate he or she is to others is a better predictor of what kind of interaction will occur, than is linear or functional proximity. From an academic perspective, the psychological approach to measuring proximity would seem to be particularly relevant both in a traditional classroom setting, and courses that are taught in a distance format.

Teacher Credibility

The research on the effects of communicator credibility on persuasion dates back to the 1950s. Communicator credibility is viewed as a multidimensional construct incorporating "trustworthiness," "charisma," "dynamism," "co-orientation," and "expertise" (Umeh & Stanley, 2005). Aristotle refers to credibility as *ethos* and suggested it consisted of three dimensions: intelligence, character and goodwill (Thweatt & McCroskey, 1998).

McCroskey and Teven (1997) suggest that in teacher-student relationships the behavior patterns of teachers affect the behavior patterns of students. Presumably, the more students perceive their teacher cares about them, the more the students will care about the class. Consequently, they will be more likely to pay attention and learn more of the course material.

Additionally, McCroskey and Teven (1999) hold that perceived caring is seen as a means of opening communication channels more widely. This is significant, as it is consistent with the McCroskey's (1992) earlier work which finds competent teachers explain complex material well, have good classroom management skills that have the ability to answer student questions and communicate effectively.

Perceived Quality of Academic Life

Kalimo (1999) tells us the critical factor for success in professions where knowledge management is important is the human mind. Optimism is a clearly definable construct that seems to represent a robust, trait-like psychological factor (Lipkus et al., 1993). Optimists are able to diminish problems through positive reframing or reinterpretation and by seeking emotional support (Billingsley, Waehler, & Hardin, 1993). Quality of life has also been defined as the difference, at a particular time, between one's hopes or expectations versus one's experience (Caiman, 1984). Similarly, Harju and Bolen, (1998) hold that quality of life is satisfaction with one's overall life or components of it.

Optimism has been linked to quality of life in a study conducted by Scheier et al. (1989). When college students were asked what factors were important to quality of life, they cited: feeling in control over life, satisfaction with school, perceived well-being, and social belonging (Keith & Schalock, 1994).

METHODOLOGY

Having presented review of the re literature germane to the current research, this section presents the plan for the methodology that seeks to address the following research question of this study. Specifically, it discusses research variables, sample population, hypotheses, and the data collection and analysis procedures. The theoretical basis for investigation of this study comes from the work first done by Enoch and Soker (2006).

The conceptual framework used in this study will be to identify a relationship between two types of variables: a dependent variable and an independent variable with three dimensions. The strategic objective of this study is to increase the understanding of the dynamics of the relationship between credibility and perceived quality of academic life among adult college students.

Research Design

Correlational studies consist of observations that determine the values of one variable that are associated with those of another variable in order to describe the degree and form of the relationship between them, but not to establish causality (Gould, 2002 p. 49). Ex post facto studies are correlational studies that provide explanations for those relationships after the fact (Babbie, 1995). The current research will be an ex post facto study of the relationship between the dimensions of credibility and perceived quality of academic life.

Hypotheses

As part of the current research, the following hypotheses are tested:

H₁₁: There is a significant relationship between competence and perceived quality of academic life.

H₁₀: There is no significant relationship between competence and perceived quality of academic life.

H₂₁: There is a significant relationship between goodwill and perceived quality of academic life.

H₂₀: There is no significant relationship between goodwill and perceived quality of academic life.

H₃₁: There is a significant relationship between trustworthiness and perceived quality of academic life.

H₃₀: There is no significant relationship between trustworthiness and perceived quality of academic life.

Data Collection Instruments

The dependent variable used in this study is perceived quality of academic life which is measured using the 10-question Perceived Quality of Academic Life Scale (PQAL). This is a subset of the Feelings About College scale (FAC), developed by Andrews and Withey (1976). The PQAL uses a total of six items from the longer survey. Students rate how they feel about different aspects of their college experience, using a seven-point, delighted-terrible Likert scale. Okun et al. (1986) reported a median internal consistency rating of .83 across four samples (Okun et al., 1988).

Teacher credibility is the independent variable of interest in this study is measured using the Source Credibility Questionnaire (SCQ). There are three dimensions associated with this variable: (1) competence; (2) goodwill and (3) trustworthiness intent toward the receiver. The respondent offers his or her impression of the person being evaluated using a seven-point Likert scale to measure a group of adjectives used to identify each of the antecedents of source credibility (McCroskey & Teven, 1999). The Alpha reliabilities for the three dimensions of credibility were: competence .85; goodwill .92; trustworthiness .92. Taken as a single measure the reliability for the SCQ was .94.

Data Collection Procedure

As noted by Gilligan (2009) and in the 2009 Sloan-C report, enrollment in online courses is increasing steadily. This study examines data collected from a group of 34 community college students attending a school in the metropolitan area of a Midwestern city. All but one of these individuals are completing all or part of their education through online courses. Data for this study was collected via a two-part, paper survey. Since both the SCQ and PQAL are public domain documents, no permission is needed to use either instrument. In this study the independent variable is manipulated and will vary according to the experiences of the respondents.

ANALYSIS OF FINDINGS

This section provides results of the hypothesis testing done on the dependent and independent variables used in this study. These data are organized in a correlational matrix. The matrix also presents relationships that exist between the two variables structural factors included in this study. Enrollment type (Taking_Classes) is either on-campus only, on-line only or both on-campus and on-line.

Table 1: Correlation Matrix

| | | competence | goodwill | trustworthy | pqal | Age | Gender | Race | Job Status | Taking Classes | Enroll. Status |
|-------------------|-----------------|------------|-----------|-------------|-----------|-----------|--------|-----------|------------|----------------|----------------|
| competence | Pearson Corr. | 1 | -.174 | .215 | .017 | .138 | .016 | -.029 | -.063 | .131 | .205 |
| | Sig. (2-tailed) | | .325 | .222 | .926 | .436 | .926 | .873 | .725 | .462 | .244 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| goodwill | Pearson Corr. | -.174 | 1 | .117 | -.342(*) | .258 | .190 | -.461(**) | .119 | -.066 | -.393(*) |
| | Sig. (2-tailed) | | .325 | .511 | .048 | .141 | .281 | .006 | .502 | .709 | .022 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| trustworthy | Pearson Corr. | .215 | .117 | 1 | .011 | .050 | -.086 | .215 | -.065 | .132 | .048 |
| | Sig. (2-tailed) | | .222 | .511 | .953 | .778 | .627 | .223 | .717 | .456 | .786 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| pqal | Pearson Corr. | .017 | -.342(*) | .011 | 1 | -.563(**) | -.122 | .259 | -.493(**) | .557(**) | -.057 |
| | Sig. (2-tailed) | | .926 | .953 | | .001 | .493 | .139 | .003 | .001 | .748 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Age | Pearson Corr. | .138 | .258 | .050 | -.563(**) | 1 | -.087 | -.023 | .523(**) | .597(**) | .111 |
| | Sig. (2-tailed) | | .436 | .778 | .001 | | .624 | .897 | .002 | .000 | .532 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Gender | Pearson Corr. | .016 | .190 | -.086 | -.122 | -.087 | 1 | -.102 | -.032 | .105 | -.161 |
| | Sig. (2-tailed) | | .926 | .627 | .493 | .624 | | .565 | .859 | .555 | .363 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Race | Pearson Corr. | -.029 | -.461(**) | .215 | .259 | -.023 | -.102 | 1 | .074 | -.148 | .182 |
| | Sig. (2-tailed) | | .873 | .223 | .139 | .897 | .565 | | .677 | .405 | .304 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Job Status | Pearson Corr. | -.063 | .119 | -.065 | -.493(**) | .523(**) | -.032 | .074 | 1 | -.541(**) | .212 |
| | Sig. (2-tailed) | | .725 | .717 | .003 | .002 | .859 | .677 | | .001 | .228 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Taking Classes | Pearson Corr. | .131 | -.066 | .132 | .557(**) | -.597(**) | .105 | -.148 | -.541(**) | 1 | -.205 |
| | Sig. (2-tailed) | | .462 | .456 | .001 | .000 | .555 | .405 | .001 | | .245 |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| Enrollment Status | Pearson Corr. | .205 | -.393(*) | .048 | -.057 | .111 | -.161 | .182 | .212 | -.205 | 1 |
| | Sig. (2-tailed) | | .244 | .786 | .748 | .532 | .363 | .304 | .228 | .245 | |
| | N | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

For Hypothesis 1:

H₁: There is a significant relationship between competence and perceived quality of academic life.

H₀: There is no significant relationship between competence and perceived quality of academic life.

For the first hypothesis, Table 2 shows a correlation coefficient of .017 for the relationship between competence and perceived quality of academic life. This indicates the relationship between these two variables is not statistically significant. Thus, the null hypothesis for Hypothesis 1 should not be rejected.

For Hypothesis 2:

H2₁: There is a significant relationship between goodwill and perceived quality of academic life.

H2₀: There is no significant relationship between goodwill and perceived quality of academic life.

For the second hypothesis, Table 2 shows a correlation coefficient of -.342 for the relationship between goodwill and perceived quality of academic life. This indicates a statistically significant inverse relationship between these two variables, at the .05 level of significance. Thus, the null hypothesis for Hypothesis 2 should not be rejected.

For Hypothesis 3:

H3₁: There is a significant relationship between trustworthiness and perceived quality of academic life.

H3₀: There is no significant relationship between trustworthiness and perceived quality of academic life.

For the first hypothesis, Table 2 shows a correlation coefficient of .011 for the relationship between trustworthiness and perceived quality of academic life. This indicates the relationship between these two variables is not statistically significant. Thus, the null hypothesis for Hypothesis 3 should not be rejected.

Analysis of Social Structural Factors

Age. Table 2 gives a frequency distribution of the respondents by age. Assuming the table shows the age of traditional students is between 18-22, it can be concluded the majority of students who took part in this study were non-traditional age, adults, 73.5 percent

Table 2: Distribution of Respondents by Age

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 18-22 | 9 | 26.5 | 26.5 | 26.5 |
| | 23-27 | 6 | 17.6 | 17.6 | 44.1 |
| | 28-32 | 2 | 5.9 | 5.9 | 50.0 |
| | 33-37 | 9 | 26.5 | 26.5 | 76.5 |
| | 38-42 | 3 | 8.8 | 8.8 | 85.3 |
| | 43-47 | 1 | 2.9 | 2.9 | 88.2 |
| | 48-52 | 4 | 11.8 | 11.8 | 100.0 |
| | Total | 34 | 100.0 | 100.0 | |

Gender and Race. Tables 3 and 4 breakdown the students according to gender and race. Here the data indicate the students who took part in the study were mostly female and predominately white.

Table 3: Distribution of Respondents by Gender

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------|-----------|---------|---------------|--------------------|
| Valid | Male | 14 | 41.2 | 41.2 | 41.2 |
| | Female | 20 | 58.8 | 58.8 | 100.0 |
| | Total | 34 | 100.0 | 100.0 | |

Table 4: Distribution of Respondents by Race

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------------|-----------|---------|---------------|--------------------|
| Valid | White | 22 | 64.7 | 64.7 | 64.7 |
| | African American | 6 | 17.6 | 17.6 | 82.4 |
| | Native American | 1 | 2.9 | 2.9 | 85.3 |
| | Latino | 2 | 5.9 | 5.9 | 91.2 |
| | Asian | 1 | 2.9 | 2.9 | 94.1 |
| | Other | 2 | 5.9 | 5.9 | 100.0 |
| | Total | 34 | 100.0 | 100.0 | |

Job Status. Table 5 provides a profile of the employment status of the students who are part of this study. The data indicate the vast majority of these students are work full-time.

Table 5: Distribution of Respondents by Job Status

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------|-----------|---------|---------------|--------------------|
| Valid | Not Employed | 6 | 17.6 | 17.6 | 17.6 |
| | Employed part-time | 6 | 17.6 | 17.6 | 35.3 |
| | Employed full-time | 22 | 64.7 | 64.7 | 100.0 |
| | Total | 34 | 100.0 | 100.0 | |

Enrollment Location. As noted previously, only one of the students who participated in this study is not taking any web-based courses. From Table 6, it can be seen that most of the respondents are completing their education completely online.

Table 6: Enrollment Location

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------------|-----------|---------|---------------|--------------------|
| Valid | On-campus only | 1 | 2.9 | 2.9 | 2.9 |
| | On-line only | 20 | 58.8 | 58.8 | 61.8 |
| | Both on-campus & on-line | 13 | 38.2 | 38.2 | 100.0 |
| | Total | 34 | 100.0 | 100.0 | |

Summary of Findings

The results of the hypothesis testing showed a statistically significant relationship between one of the antecedents of teacher credibility and perceived quality of academic life. At the same time, this section provides a snapshot of the structural factors that were also analyzed. Next, is discussion of the implications of the current study possibilities for future research.

CONCLUSIONS

The advance of technology has changed the way students access information and acquire knowledge. The findings reported here help to fulfill the purpose of this study which was to extend the research of Enoch and Soker (2006). Their work focuses on addressing barriers to higher education for traditionally underrepresented groups of students.

By including proximal and social structures factors as items for consideration, this study makes another significant contribution to the existing body of work in this area. In addition to the statistically significant relationships that among the independent and dependent variables, after running the correlations, there were also several significant relationships that were discovered among the structural. While the data can be found in the current correlation matrix, a more complete exploration and discussion of those findings will be addressed more fully in a future study.

As technological advances, in the form of online programs continue to make education more universally accessible, the results of the current research serve as a reminder that teacher-student interaction still plays a significant role in student satisfaction and success.

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