A COMPARATIVE STUDY OF FACULTY PRINCIPLES OF PRACTICE IN

CURRICULAR LEARNING COMMUNITIES AND NON-CURRICULAR

LEARNING COMMUNITIES ENVIRONMENTS

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A Dissertation

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the Faculty of the Graduate School

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

A COMPARATIVE STUDY OF FACULTY PRINCIPLES OF PRACTICE IN CURRICULAR LEARNING COMMUNITIES AND NON-CURRICULAR LEARNING COMMUNITIES ENVIRONMENTS

Presented by Stephanie G. Hein,

A candidate for the degree of Doctor of Education

And hereby certify that, in their opinion, it is worthy of acceptance.

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DEDICATION

To my dear husband, Tony, thank you for your unwavering love and support.

To my daughters, Megan and Emily, thank you for your sacrifices of time with Mom.

To my Dad, Allen, thank you for showing me the completion of a dissertation is an

achievable and worthwhile feat.

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ABSTRACT

The researcher implemented quantitative research methods to investigate faculty principles of practice in curricular learning communities (CLC) compared to faculty in non-curricular learning community environments. For this study, a sample of CLC faculty and non-CLC faculty who teach comparable courses at three, large, four-year, public universities in the Midwest were assessed for their implementation of Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education. Data was collected by administering an electronic version of the *Inventories of Good Practice in Undergraduate Education: Faculty Inventory* (Chickering, Gamson, & Barsi, 1989).

Data analysis revealed CLC faculty scored higher on the implementation of all seven principles. Only the implementation of *encourages active learning* and *communicates high expectations*, however, was significantly different. The factors of *hours of professional development completed* and *years of teaching experience* did not have a significant bearing on the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987). Pearson correlations (*r*) revealed only the principle of *encourages student-faculty contact* demonstrated a direct relationship with years of teaching experience. Furthermore, multiple regression revealed that the factor of *CLC faculty or non-CLC faculty* was the strongest predictor of the use of the Seven Principles for Good Practice. Both of the factors, *years of teaching experience* and *amount of professional development*, were removed via backward deletion methods to improve the regression model.

The findings of the study have implications for both CLC and non-CLC classrooms. The Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) can be applied to a wide variety of academic disciplines thus allowing the principles to be easily transferred to the traditional classroom setting. Additionally, the approach used in CLC professional development activities and the impact of the CLC structure should be examined to better understand how these factors could be transferred to a non-CLC environment.

CHAPTER ONE

INTRODUCTION TO THE STUDY

Background

The financial crisis facing many public institutions of higher education (Aujla, 2009; Blumenstyk, 2009) has resulted in colleges and universities across the nation to closely examine their operations. Decreases in local, state, and federal tax revenue coupled with increases in competition for students has forced institutions to evaluate how they approach the academic environment as they seek to achieve budgetary efficiencies on their campus. Aggressive recruiting, admissions, and enrollment strategies can be useful to increase student numbers and ultimately tuition revenues. While an increase in student enrollment may ease financial constraints, this benefit may only be temporary if these students prematurely leave the institution. Accordingly, colleges and universities are giving student retention greater attention as they seek to increase the rates at which students stay and complete degrees at their institutions (Carey, 2005; Heldman, 2008; Lederman, 2009).

Tinto (1993) noted student departure from an institution is most likely to occur during the first year of study. With this understanding, a number of researchers (Astin, 1993; Barefoot, 2004; Braxton, Hirschy, & McClendon, 2004; Tinto, 1993) have suggested special attention should be given to assisting students during their first year of study. As a result, many colleges and universities have implemented first-year experience programs designed to ease students' transition into higher education. These programs include curriculum focused efforts such as first-year seminars, curricular learning communities (CLCs), residential education, supplemental instruction, and service

learning (Upcraft, Gardner, Barefoot, & Associates, 2005). Of the curricular programs offered, Barefoot (2004) suggested the CLC design is poised to realize the most significant retention improvements.

The interest and use of CLCs surged after a number of educational reports calling for the reform of higher education surfaced (Smith, MacGregor, Matthews, & Gabelnick, 2004). According to Shapiro and Levine (1999), CLCs "emerged as a practical, pedagogically sound concept for addressing the criticisms and challenges leveled at higher education" (p. 14). The design of CLCs provides students the opportunity to experience community and collaboration, curricular cohesion, and academic as well as social integration during their first year of study (Smith et al., 2004). Banta (2001) also noted the CLC concept at its best exemplifies Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education which include (a) encourages student-faculty contact, (b) encourages cooperation among students, (c) encourages active learning techniques, (d) gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning.

While the structure and design of CLCs would appear to encourage the use of the Seven Principles, a review of existing literature revealed a deficit in the understanding of the teaching practices that are actually implemented in these environments. Additionally, it is important to understand the investment faculty have made in developing their teaching practices. Smith (2001) cautioned, too often " learning communities are little more than block registration devices, with little or no alteration of the teaching and learning environment" (p. 7) when institutions under-invest in providing adequate professional development for their faculty. Without an understanding of the teaching

practices utilized in these communities, it is challenging to fully know why the learning

community concept has been successful in improving student retention.

<center>*Conceptual Underpinnings for the Study*</center>

Colleges and universities across the United States have turned to the CLC concept

as they address educational reform concerns. CLCs link two or more courses together by

restructuring curriculum so as to realize greater curricular coherence (Gabelnick,

MacGregor, Matthews, & Smith, 1990). The reorganization of curriculum enables

students to make meaningful connections to their peers, faculty, and what they are

learning (Shapiro & Levine, 1999). Institutions may implement a variety of CLC designs

such as (a) paired or clustered courses, (b) freshman interest groups, (c) federated

learning communities, or (d) team-taught programs depending on the environment,

faculty, and student composition. Regardless of the structure, all share the common

purpose of creating community and collaboration, curricular coherence, and encouraging

academic and social integration (Smith et al., 2004).

Research has demonstrated students involved in CLCs have realized a number of

positive benefits. Cross (1998) found CLC participants experienced greater intellectual

and value growth, and obtained more from their college education. Zhao and Kuh (2004)

found learning community students realized improved academic performance, student

engagement, attendance, academic effort, and overall satisfaction with the college

experience. Additionally, these same students reported higher levels of academic

integration, social development, and active as well as collaborative learning. According

to the National Survey of Student Engagement (NSSE) (2007), CLC participants realized

higher scores on all five NSSE Benchmarks of Effective Practices including level of

<center>3</center>

academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and a supportive campus environment. These studies provide support for the utilization of CLCs as a means to positively impact student concerns and ultimately retention.

Students are not the only parties influenced by CLCs. Faculty participants have also realized a number of opportunities and challenges from such experiences. Teaching in a learning community places some faculty into a new environment. Faculty who have been isolated to only their classroom experiences must often shift their teaching approaches to take into account their fellow community faculty and the now shared responsibility of educating students (MacGregor, 2000). Working in these collaborative environments has a number of benefits for faculty. Learning communities provide faculty the opportunity to implement innovative pedagogical approaches (Dabney, Green, & Topalli, 2006; Stevenson, Duran, Barrett, & Colarulli, 2005) and gain new perspectives on teaching (MacGregor, 2000). Engstrom and Tinto (2007) noted the pedagogical approaches and techniques learned by faculty and selected for implementation are critical to students realizing the benefits of participating in such communities.

While participating in a CLC can be very rewarding for faculty, it is not without its challenges. One of the most substantial challenges faculty face is the investment of time (Dabney et al., 2006; Smith et al., 2004; Stevenson et al., 2005). This time investment is essential to the planning, collaboration and sense of team developed among community members. Another challenge learning community faculty often encounter is the cohort effect, or "hyperbonding," among students (Darabi, 2006; Smith et al., 2004). In this situation, high school-like behavior can form among students and faculty may

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experience an "us-versus-them" mentality. Such situations can be overcome through the use of collaboration and active participation that encourages the reduction of barriers between faculty and students (Jaffee, 2007).

To assist faculty in realizing the benefits and reducing the challenge of learning community participation, proper faculty development is needed. Faculty development in learning communities focuses on both the teacher and the curriculum (Laufgraben & Shapiro, 2004). Hunter (2006b) suggested such professional development include an examination of student characteristics, active learning teaching pedagogies, resource development, and assessment techniques. In addition to improving the teaching capabilities of the faculty, it is also important for these programs to facilitate the team building necessary for faculty to function in a collaborative and cohesive manner (Smith et al., 2004). Shaprio and Levine (1999) noted adequate professional development is essential to the successful implementation and sustainability of CLCs.

The approaches and techniques faculty use in the learning community classroom can be viewed from a variety of perspectives. One perspective that seems to be particularly advantageous is from Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education as these principles appear to be in line with the efforts of CLCs (Banta, 2001; MacGregor, 2000; Zhao & Kuh, 2004). Derived from over 50 years of teaching, learning and collaboration research (Chickering & Gamson, 1987) the Seven Principles were designed to provide concise, manageable practices for improving higher education (Chickering & Gamson, 1999). The Seven Principles for Good Practice posited good practice (a) encourages student-faculty contact, (b) encourages cooperation among students, (c) encourages active learning techniques, (d)

gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning (Chickering & Gamson, 1987). While each principle holds its own merit and can be implemented separately, Chickering and Gamson acknowledged when all seven are implemented together greater educational benefit is realized.

Statement of the Problem

Tinto (1993) suggested a critical component of student retention is providing opportunities for students to become socially and academically integrated into the community of the institution. To address the social and academic integration of students, many colleges and universities have introduced CLCs into their repertoire of first-year programming efforts (Shapiro & Levine, 1999; Smith et al., 2004; Upcraft et al., 2005). In fact, Barefoot (2004) noted 60% of all American colleges and universities now offer some form of CLC classrooms to their first-year students.

The body of existing research supports the utilization of CLCs as a means to address a number of first-year concerns such as student retention, achievement, performance, and satisfaction (Taylor, Moore, MacGregor, & Lindblad, 2003). Much attention has in fact been given to the impact these communities have on students; yet, little empirical research exists on the faculty practices and experiences in these learning communities (MacGregor, 2000; McClure, Atkinson, & Wills, 2008). Consideration has not been given to what is actually occurring in learning community classrooms and the pedagogical approaches their faculty are in fact implementing. The faculty research that does exist tends to be small in scale and of a qualitative design (Albers, 2005; Beaulieu & Williams, 2006; Boix-Mansilla, 2008; Dawkins, Froneberger, Sutton-Haywood, & Jeter,

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2007; Stevenson et al., 2005). Shapiro and Levine (1999) noted a lack of real evidence has been collected in terms of faculty teaching practices in learning communities.

Curricular learning communities have been shown to be an effective mechanism for addressing student retention concerns. An understanding, however, of the faculty practices within these communities is lacking. Additionally, little to no research exists explaining the differences in teaching practices of faculty in these CLCs compared to their counterparts who teach in a traditional higher education structure. The lack of empirical research pertaining to faculty practices in CLCs impedes the understanding of why these programs are effective and viable options for addressing student retention issues.

Purpose of the Study

The design of CLCs appears to be more conducive to creating a learner-centered classroom environment. Little research, however, has been conducted on what faculty practices are actually being implemented in these classrooms. Additionally, factors such as the influence of faculty professional development, noted by many as important to the CLC process (Darabi, 2006; Laufgraben & Shapiro, 2004; Shapiro & Levine, 1999; Smith et al., 2004), and years of teaching experience have yet to be examined. The purpose of this study, therefore, was to build a quantitative framework to examine faculty principles of practice in CLCs compared to faculty in non-CLC environments.

Research Questions

Using Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education as a point of reference, the following research questions were

crafted. These research questions served as a guide for the researcher to frame and develop this study.

1. What are the most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented by CLC faculty compared to non-CLC faculty?

2. Are there significant differences in the implementation level of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) among CLC faculty and their non-CLC counterparts?

3. Does the annual amount of professional development hours related to teaching differ between CLC faculty and non-CLC faculty?

4. Is there a relationship between years of teaching experience among faculty and the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?

5. How are the factors of being CLC or non-CLC faculty, years of teaching experience, and amount of professional development related to teaching associated with the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?

Limitations, Assumptions, and Design Controls

Limitations

As with any research, this study was impacted by a number of limitations which must be acknowledged. First, only four-year public universities were examined in this study. These universities were all located in the Midwest and held a Carnegie Foundation size classification of "large," which is defined by the foundation as enrolling at least

10,000 full-time equivalent, degree-seeking students (The Carnegie Foundation for the Advancement of Teaching, 2004). The length of time CLCs had been offered on these campuses varied. Additionally, the number of institutions involved was limited to only three as the researcher faced challenges gaining access to participants. As a result, the limited scope of the study reduces the generalizability of the study's findings.

Second, the survey instrument used in this study to evaluate teaching practices, the *Inventories of Good Practice in Undergraduate Education: Faculty Inventory* (Chickering, Gamson, & Barsi, 1989) referred to as the *Faculty Inventory* in this study, captured only self-reported faculty data. Because of the nature of self-reporting, faculty who perhaps wanted to present themselves in a particular manner may have skewed their answers to the questions. To offset the potential bias in the self-reported faculty responses, students could have also been surveyed to serve as a balance and to provide a more comprehensive perspective of the actual practices taking place in the classroom.

Finally, the length of the survey itself may have limited the number of faculty willing to participate in the study. The *Faculty Inventory* consisted of 70 questions, and additional demographic data was also requested. Faculty participation may have been deterred upon reviewing the length of the survey and calculating the perceived investment of time to participate in the study.

Assumptions

By selecting only four-year public universities in the Midwest of similar size, the researcher assumed some commonalities would exist in the teaching environment of faculty participants and the learning demands placed on students. Additionally, the researcher assumed Chickering and Gamson's (1987) Seven Principles for Good Practice

in Undergraduate Education was the appropriate framework to guide this study as these principles have been noted as improving student learning, and can be utilized in both CLCs and traditional classroom settings. Furthermore, the *Faculty Inventory* was assumed to be an appropriate instrument to measure the use of each principle as it was designed by the authors of the Seven Principles as a means for faculty to assess their use of each principle.

Design Controls

A quantitative research design was utilized to assess the faculty practices of CLC and non-CLC faculty. Such design allowed the researcher to view the study from a postpositive perspective and implement an objective approach (Creswell, 2003). Additionally, the use of the *Faculty Inventory* allowed the researcher to obtain large amounts of numerical data from participants which could then be statistically analyzed (Patten, 2007) and improve the generalizeability of the study (Creswell, 2003). By collecting this numerical data the researcher was also able to remain independent of the results and reduce potential researcher bias (Johnson & Onwuegbuzie, 2004).

To ensure information was obtained in an ethical manner, all research procedures were approved by the University of Missouri's Internal Review Board (IRB). In addition, permission was obtained from the CLC gatekeepers at each institution to survey their faculty. The researcher also completed and complied with the IRB requirements of each participating institution. To reduce potential participant bias in responses, participants were given a full description of the study and an assurance of the confidentiality of their responses in the informed consent process. By launching and completing the survey, participants acknowledged their understanding of their rights.

As with any research, the validity and reliability of the study design and data collection instrument is critical (Creswell, 2003). Validity ensures accurate results were obtained, whereas reliability assures consistent results were achieved (Fink, 2006). Extensive measurement of the *Faculty Inventory's* validity and reliability has yet to be measured. When considering validity Fink (2006) noted three types of validity should be considered including concurrent validity, construct validity and content validity. The length of time the *Faculty Inventory* has been in existence and the extensive use of the inventory lends some measure of validity to the instrument. Content validity of the inventory appeared strong as there was consistency between the variable of interest and the contents of the instrument.

Only a small number of studies (Blankson, 2004; Peer, 2001; Wardell, 2007) have considered the reliability of the *Faculty Inventory*. These few studies did find the inventory to be reliable for the populations specifically sampled in each one. To ensure reliability of the inventory in this study Cronbach Alpha measures were computed for each of the Seven Principles measured. According to Fraenkel and Wallen (2006), conducting such statistical analysis of the inventory is important for assessing if the instrument provides the needed consistency.

Definition of Key Terms

A number of key terms were used throughout this study. These terms are presented and defined in order to provide an understanding of their use in the context of this study.

Student retention. The term student retention is defined as the tendency of a student to remain at the same higher education institution from the first to the second year

of study (Barefoot, 2004). The terms persistence and retention are used by a number of researchers interchangeably. Barefoot makes the distinction between the two terms by indicating persistence is the retention of students for more than one year, whether at college or at another institution.

First-year experience. Programs focused on students' first-year experience are defined as those intended to ease the first-year transition to college, and to enhance the learning, success, retention, and graduation of these students (Gardner, 2009).

Curricular learning communities (CLC). According to Gabelnick, MacGregor, Matthews, and Smith (1990) curricular learning communities are defined as:

> Any one of a variety of curricular structures that link together several existing courses—or actually restructure the material entirely—so that students have opportunities for deeper understanding and integration with one another and their teachers as fellow participants in the learning enterprise. (p. 19)

CLC faculty. In the context of this study, CLC faculty refers to full-time faculty, part-time faculty, adjunct faculty, and teacher assistants who have been responsible for delivering educational content in a higher education curricular learning community.

Non-CLC faculty. Within this study, non-CLC faculty refers to full-time faculty, part-time faculty, adjunct faculty, and teacher assistants who have been responsible for delivering the educational content in a traditional higher education classroom format outside of a curricular learning community.

Seven principles for good practice in undergraduate education. The Seven Principles serve as guidelines designed for the improvement of undergraduate teaching

and learning (Chickering & Gamson, 1987). A description of each principle is provided in the following definitions.

1. *Encourages student-faculty contact.* Principle one, encourages student-faculty contact, involves the interactions that occur between faculty and students both inside and outside of the classroom that assist with student motivation and involvement (Chickering & Gamson, 1987).

2. *Encourages cooperation among students.* Principle two, encourages cooperation among students, refers to the utilization and encouragement of a collaborative, team environment designed to enhance the learning process (Chickering & Gamson, 1987).

3. *Encourages active learning.* Principle three, encourages active learning, includes teaching and learning practices intended to allow students to apply and relate curricular content to their lives by talking, writing and reflecting (Chickering & Gamson, 1987).

4. *Encourages prompt feedback.* Principle four, encourages prompt feedback, refers to providing students with suggestions for improvement or acknowledgements of acceptable performance in a timely manner so as to facilitate the students' understanding of their performance and competence in the classroom (Chickering & Gamson, 1987).

5. *Emphasizes time on task.* Principle five, emphasizes time on task, entails practices designed to assist students in developing time management skills and to improve the allocation of time given to studies (Chickering & Gamson, 1987).

6. *Communicates high expectations.* Principle six, communicates high expectations, involves approaches designed to establish and communicate standards of excellence that improve student performance (Chickering & Gamson, 1987).

7. *Respects diverse talents and ways of learning.* Principle seven, respects diverse talents and ways of learning, refers to the recognition and encouragement of diverse learning styles, perspectives, and talents in the classroom (Chickering & Gamson, 1987).

Faculty Inventory. Based on Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education, the *Faculty Inventory* (Chickering et al., 1989) is a self-assessment instrument with indicators designed to measure faculty members' implementation of the Seven Principles (Gamson, 1991). All inventory questions were designed so that they were "(1) applicable to a range of disciplines, institutions, and class settings, (2) short and jargon-free, and (3) focused on behavior or practices that could be changed" (Gamson, 1991, p. 9).

Amount of professional development. For the purposes of this study, the amount of professional development refers to the annual number of hours faculty spend in structured activities designed to enhance teaching practices. Such professional development activities provide faculty with tools designed to enhance "class organization, evaluation of students, in-class presentation skills, questioning and all aspects of design and presentation…and other aspects of teacher/student interaction" (Professional and Organizational Development Network in Higher Education, 2007).

Years of teaching experience. In this study, years of teaching experience is defined as and limited to the number of years faculty have practiced in the higher education classroom.

Summary

Chapter One provided the background, conceptual framework, purpose, justification and clarification of key terms used to build this study. The purpose of this study was to build a quantitative framework to examine faculty principles of practice in CLCs compared to faculty in non-CLC environments. The existing literature on CLCs as well as Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education provided the framework upon which this study was developed. While a substantial amount of research has been collected pertaining to the impact CLCs have on students, limited research has been conducted pertaining to the practices of faculty teaching in these CLCs. To the knowledge of the researcher, the *Faculty Inventory* used within this study has not been utilized to specifically assess CLC faculty.

The chapters that follow give further insight and explanation into this study. Chapter Two entails an in-depth review of existing literature that informed the study. Included is a discussion of student retention concerns, first-year experience programs, CLCs concerns, and Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education. Chapter Three presents the research design and methodology used in the study. In this chapter, key quantitative research concepts are explored, the population and sample are described, the data collection methods are explained, and the steps for data analysis are offered. Chapter Four includes an explanation of the findings from the collection and analysis of the data. Chapter Five

offers a discussion of the major findings of this study and the implications of these findings as they pertain to higher education. Additionally, recommendations for future research are offered. Finally, an Appendix section is included to inform readers of supplementary materials, such as the informed consent letters, survey instrument, and permission to use the instrument.

REVIEW OF RELATED LITERATURE

Introduction

Student retention is a topic of much discussion and debate at colleges and universities across the country (Carey, 2005; Heldman, 2008; Lederman, 2009). The financial pressures facing the majority of institutions have caused many to examine not only how they can attract new students, but also how they can better retain the students currently enrolled at their institutions. To address the concern of student retention and thereby student success, institutions across the nation have implemented a number of first-year programs. Many of these programs are designed specifically to improve the persistence rate of students from the first year to the second year of college and reduce student attrition rates (Upcraft et al., 2005).

One program of particular interest is the use of the curricular learning community as a means to improve student retention (Barefoot, 2004). Laufgraben and Shapiro (2004) noted:

> Funding for higher education is at a breaking point. Calls for accountability from internal and external forces are increasing. As a result, institutions need to explain and explore the value that learning communities add to the campus, the students, the faculty, and—more generally—the culture of higher education. (p. xi)

Research supports the effectiveness of learning communities (Cross, 1998; Engstrom & Tinto, 2007; National Survey of Student Engagement, 2007; Tinto, 2003; Zhao & Kuh, 2004) as these programs address multiple student retention concerns. Banta (2001) and MacGregor (2000) both noted learning communities are effective in addressing student

issues for they provide the opportunity to utilize Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education.

Within the context of this literature review, five components are critically examined. First, the broad concept of student retention in higher education is addressed. Included in this concept are discussions of both Astin's (1993) Input-Environment-Outcomes Model and Tinto's (1993) Theory of Student Departure. Second, an overview of first-year programs is presented followed by an explanation of curricular programs and structures used to enhance the first-year experience. Third, a review of the development and structures of curricular learning communities is offered. In this section the history, events impacting these communities, and varying curricular structures are considered. Fourth, the impacts curricular learning communities have on students and faculty are addressed. In particular, the influence these communities have on student performance, and the opportunities and challenges encountered by faculty are examined. Finally, each of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) are examined.

Student Retention in Higher Education

Definitions of student success are varied and have a tendency to be guided by various perspectives defining success such as students, institutions, and external constituencies (Hunter, 2006a). In its basic form, student success has been considered to be the successful completion of first-year courses and continued enrollment into the second year. Upcraft, Gardner, Barefoot, and Associates (2005) noted, however, many institutions view student success as a much broader concept. They suggested student success occurs when students develop intellectual and academic competence, establish

and maintain interpersonal relationships, explore identity development, decide on a career, maintain health and wellness, consider spiritual identity, obtain an appreciation of diversity, and develop a sense of civic responsibility. Though many higher education organizations strive for the broader definition of student success, most are faced with the reality of addressing the narrower concept, retaining students from their first-year at the institution to their second-year.

As the competition for students increases and financial constraints tighten, universities are seeking ways to retain currently enrolled students. Braxton, Hirschy and McClendon (2004) asserted:

> Retention is an issue of importance for individuals (future opportunities), for
> institutions (financial success, accountability, and moral commitment to a
> supportive environment), and for the nation that strives to develop a workforce
> and citizenry to support the future. Few issues could be judged so important to the
> future of higher education and society. (p. xi)

Education is a critical component to the betterment of society. When surveyed, 55% of Americans believed a college education is a necessity for success (Immerwahr, Johnson, Gasbarra, Ott, & Rochkind, 2009). Salary data reported by Baum and Ma (2007) supported this research noting the typical full-time, year-round United States worker with a four-year college degree "earned $50,900, 62% more than the $31,500 earned by the typical full-time year-round worker with only a high school diploma" (p. 9).

Although the importance of a college education is understood, colleges and universities across the nation are faced with dismal degree completion rates. According to ACT (2009), only 43.8% of students complete their degree within five years. Research

has demonstrated the largest proportion of students leaving an institution takes place during the first year of enrollment and prior to the second year beginning (Tinto, 1993; Upcraft et al., 2005). ACT (2009) further noted the first- to second-year retention rate for all public four-year colleges was 72.9%. Institutions across the nation have recognized the need to address the first- to second-year retention rate. Few, however, have taken all of the steps necessary to impact retention. Habley and McClanahan (2004) reported: "(a) only 48.7% of campuses have identified an individual responsible for coordinating retention strategies, (b) only 59.6% of campuses have established an improvement goal for retention of students from the first- to second-year, and (c) only 45.6% of campuses have established a goal for improved degree completion" (p. 6). While acknowledging the significance of student retention is important, having structures put into place which actually address the concern is critical. As colleges and universities work to develop such retention structures, there is a need to consider the factors which influence students' willingness to stay at an institution. Consequently, a number of student retention models have emerged over the past few decades which provide insight into students' success and departure decisions.

Models of Student Retention

Efforts to improve student retention were drawn to the forefront in the 1980s as an emphasis on higher education reform was taking place. During this time, a number of student retention and persistence theories emerged (Astin, 1993; Bean & Metzner, 1985; Braxton, 2000; Pascarella & Terenzini, 1991; Tinto, 1993). Two theories in particular, Astin's (1993) Input-Environment-Outcomes (I-E-O) Model and Tinto's (1993) Theory of Student Departure, tend to be the most frequently discussed and applied.

Astin's input-environment-outcomes (I-E-O) model. Alexander Astin's (1993) I-E-O model was designed around the premise that a student's persistence in college is impacted not only by what happens during the college experience, but is also influenced by the student's characteristics prior to entering college. The intent of the I-E-O model was to "assess the impact of various environmental experiences by determining whether students grow or change differently under varying environmental conditions" (Astin, 1993, p. 7). To develop the model, Astin conducted a longitudinal study of over 24,500 college freshmen attending four-year colleges and universities participating in the Cooperative Institutional Research Program (CIRP) in conjunction with supplementary data sources.

The first component of the model involves students' inputs. According to Astin, students initially enter the institution with a set of pre-college characteristics, or inputs, which influence how students perceive the college experience. Astin recognized 146 input measures that potentially influence a student's view of college including high school courses taken, preliminary choice of career, reason for attending college, religious preference, parental occupation, parental income, parental education, demographic measures, and preliminary choice of a major field or study. The input component of the model enables institutions to better understand how students' precollege characteristics influence their persistence in college. Input data was obtained from an extensive questionnaire administered in the fall of 1985 to entering freshmen of CIRP institutions. Three types of input items which included "pretests on possible outcome measures, self-prediction about possible future outcomes, and personal characteristics that might affect the propensity to change" (Astin, 1993, p. 21) were obtained from the questionnaire.

Astin also utilized SAT or ACT scores provided by Educational Testing Service and American College Testing program to obtain additional input data (Astin).

The second component of the model takes into account the environment, or the "various programs, policies, faculty, peers, and educational experiences to which the student is exposed" (Astin, 1993, p. 7). The I-E-O model recognized 192 environmental measures that influence student success. Astin organized these environmental measures into eight categories including institutional characteristics, peer group characteristics, faculty characteristics, curriculum, financial aid, freshman major field choice, place of residence, and student involvement. Environmental data was obtained from a number of sources. For instance, the U.S. Department of Education provided information pertaining to the administrative characteristics of each CIRP institution. Information on the faculty environment was gathered via a survey of all teaching faculty at 217 of the 309 institutions. Lastly, individual student environmental data was obtained from a follow-up 1989-1990 student questionnaire (Astin).

The final element of the I-E-O model includes the outcomes component. In Astin's (1993) model, outcomes "refer to the student's characteristics after exposure to the environment" (p. 7). The 82 outcome measures are organized into five classifications including academic growth and development, career development, satisfaction with the college experience, academic achievement, and retention (Upcraft et al., 2005). To examine student growth during the college experience, students' outcome characteristics are compared to their input characteristics (Astin, 1993). The primary source of outcome data was obtained from an extensive follow-up questionnaire sent in the fall of 1989 and winter of 1990 to students who had completed the original 1985 questionnaire.

Additionally, data was gathered from the registrars' offices of participating CIRP institutions and standardized test scores including GRE, LSAT, MCAT, and NTE were provided from the respective testing agencies (Astin).

Tinto's theory of student departure. Building on the work of Durkheim (1951), Van Gennep (1960), and Spady (1970), Vincent Tinto's work provided insight into interrelationships among Astin's (1993) variables and "direct, indirect, and total effects of each factor" (Upcraft et al., 2005, p. 30). These previous works led to Tinto's (1993) development of a theoretical longitudinal model of institutional departure. Like Astin, Tinto (1993) acknowledged the influence of pre-college characteristics in relation to their educational goals and commitment. Two distinct theories shaped Tinto's model. The first was Durkheim's (1951) theory of suicide which used principles of sociology to explain differing suicide rates. Adding to Spady's (1970) earlier applications of Durkheim's work, Tinto (1993) theorized students' persistence at an institution is in large part determined by the level of social and academic integration they have experienced while at college. Students who realized greater levels of positive social and academic integration were more likely to have higher retention rates than their counterparts who did not (Tinto).

The second theory shaping Tinto's model was Van Gennep's (1960) anthropological study of the rites of passage in tribal societies. Tinto (1988) utilized the rites of passage stages put forward by Van Gennep to view the process of student retention. During the first stage, separation, Tinto suggested students realize decreased interactions with members of a former group or community, such as high school or hometown friends. The second stage, transition, is marked by students leaving old

communities in hopes of finding new communities. During this stage, students are in a great deal of flux as they have not yet "acquired the norms and patterns of behavior appropriate to integration in the new communities of college" (Tinto, 1988, p. 444). In the final stage, incorporation, students begin to adopt the new norms of the college community and seek to make new connections with other students and faculty of the institution. According to Tinto's theoretical model, the incorporation into intellectual and social communities is imperative if a student is to remain in college. Furthermore, failure to make such connections may potentially lead to departure from the institution. Tinto (1993) noted the institution must take shared responsibility in helping first-year students realize academic and social integration within the institution.

Building from his model, Tinto (1993) offered three principles for institutions to utilize when developing programs to address student retention. First, effective student retention programs are committed to the students they serve. Second, effective student retention programs are committed to the education of all students. Third, effective student retention programs are committed to the development of communities, both social and educational, where all students become competent, contributing members (Tinto, 1993). When considering the contribution of specific retention programs, Habley and McClanahan's (2004) study, *What Works in Student Retention? Four Year Public Colleges*, found institutional practices contributing the most to improving student retention included academic advising, first-year experience programs, and learning support services. Tinto (1993) suggested these and other retention programs produce the greatest effect when they are front loaded into students' higher education experience. Hunter (2006a) suggested the first-year experience in particular should receive the

attention of administration, faculty, and staff if they are to meet the obligations they have to students and ultimately realize the potential of their institutions as the "first year underpins the entire undergraduate experience" (p. 7).

Addressing student retention concerns is important for students' future success as well as the financial well-being of institutions and the betterment of society. The works of Astin (1993) and Tinto (1993) continue to provide frameworks for colleges and universities to examine and better understand student retention concerns facing their institutions. While students and their interactions with peers influences retention, institutions are also responsible for providing environments that reduce student departure (Tinto, 1993). Recognizing the importance of the first year in particular, provides institutions the opportunity to address student retention concerns through the implementation of first-year experience programs (Upcraft et al., 2005).

The First-Year Experience

The transition from the high school setting to the college environment is challenging for many incoming students. In the early 1980s, John Gardner was one who led the way in higher education reform by noting the importance for institutions to acknowledge the challenges students encounter when beginning their higher education experience. Gardner is credited with developing the phrase the "First-Year Experience," defined as "the creation of programs to enhance the learning, success, retention, and graduation of students in transition" (2009). To ease students' transition and ultimately improve retention, many institutions have developed initiatives to improve student involvement and to foster a sense of community, factors positively correlated with student retention (Hunter, 2006a).

When institutions build their first-year experience efforts, most are intended to achieve a number of core research based objectives. According to Barefoot (2000), these objectives include:

> (a) increasing student-to-student interaction, (b) increasing faculty-to-student interaction, especially out of class, (c) increasing student involvement and time on campus, (d) linking the curriculum and the co-curriculum, (e) increasing academic expectations and levels of academic engagement, and (f) assisting students who have insufficient academic preparation for college. (p. 14)

Keup (2006) suggested for first-year initiatives to be effective and improve student performance in the classroom, first-year programs and practices should be designed to "empower students to participate in class, facilitate their engagement with the material, and enhance students' feelings of satisfaction with academic experiences" (p. 43). When developing first-year programs, it is important to recognize a single program alone cannot resolve all student retention concerns. Instead, the first-year experience is "the sum of many parts" (Upcraft et al., 2005, p. 62) for what is beneficial to one student or campus may not work for another. With this understanding, colleges and universities can select and adapt a number of curricular first-year programs and structures that best meet the needs of their student populations.

Curricular Programs and Structures Used to Enhance the First-Year

A variety of first-year initiatives have been implemented in colleges and universities across the United States. These initiatives range from recruitment and enrollment activities, new student orientation programs, to curricular designs. In many institutions, first-year experience curricular initiatives include first-year seminars, peer

educator courses, common reader programs, curricular learning communities, residence

education initiatives, supplemental instruction, and service learning opportunities

(Hunter, 2006a; Hunter & Murray, 2007; Kuh, Kinzie, & Buckley, 2007; Upcraft et al.,

2005).

First-year seminars. The most frequently used first-year curricular initiative is the

first-year seminar. According to the National Resource Center for The First-Year

Experience and Students in Transition (2006), first-year seminars were utilized by 84%

of the 968 four-year institutions surveyed. First-year seminars are focused on the

individual needs of new students. The small class size of the first-year seminar enables

faculty and their students to engage in discussion and encourages the "learning about a

subject or a combination of topics, learning about the institution, learning about the

diversity within campus communities, but most important, learning about oneself and

one's abilities" (Upcraft et al., 2005, p. 276). The first-year seminar may be facilitated by

a faculty member or a peer leader (Shapiro & Levine, 1999) and is sometimes linked to

other curricular activities such as common reader programs, learning communities,

residence life initiatives, and service learning (Upcraft et al., 2005).

Keup and Barefoot (2005) found first-year seminars were particularly helpful in

easing students' transition from high school to college. According to Anderson, Briggs

and Scarpati (2002), first-year seminars can "(a) serve as a bridge from high school to

college through skill development, …(b) promote a sense of connectedness and

engagement on the campus,… and (c) introduce the aims of a college education" (p. 16).

Additionally, research has demonstrated first-year seminars have a positive impact on

academic performance, retention, persistence, graduation rates, and credit hours earned (Lang, 2007; Miller & Janz, 2007; Sidle & McReynolds, 1999; Upcraft et al., 2005).

Curricular learning communities. Offered at 37% of four-year institutions, learning communities offer a mechanism for large institutions to feel small and connected (Upcraft et al., 2005). Curricular learning communities are most commonly defined as:

> Any one of a variety of curricular structures that link together several existing courses—or actually restructure the material entirely—so that students have opportunities for deeper understanding and integration with one another and their teachers as fellow participants in the learning enterprise. (Gabelnick et al., 1990, p. 19)

Although the curricular structures of learning communities may vary, all share similar intentions of encouraging a sense of community and collaboration, creating curricular coherence, and developing the ability to make academic and social connections through reflective practices (Smith et al., 2004). Learning community students who frequently integrate the material from their linked classes have realized increased gains in deep approaches to learning as well as an enriched social life (Chamberlain, 2009). Additionally, when required out-of-class activities were used in the learning community, students reported gains in self-understanding, deep learning, and an enriched social life (Chamberlain).

Residence education initiatives. Most often, residence education initiatives take the form of residential living-learning communities or residential education programs. Residential living-learning communities combine shared courses with shared living (Tinto, 2003). These communities are usually one year "residential academic programs,

with dedicated faculty and a set of courses that are linked together…Courses are often held in the residence hall, where faculty members also maintain office hours" (Laufgraben & Shapiro, 2004, p. 140). Residential living-learning communities require a great deal of coordination and collaboration between academic and student affairs professionals (Upcraft et al., 2005).

Residential education programs are designed to help students transition from high school to college. Laufgraben and Shapiro (2004) defined residential education as "a one- or two-year program, usually initiated by student affairs or its housing division…that involves an intentional and cohesive educational focus for students that goes beyond what typically characterizes the traditional residence hall" (p. 141). These programs provide a highly supportive environment and, to some extent, offer a year-long orientation to the institution in order to prepare students for the remainder of their college career (Upcraft et al., 2005). Academic support services, programs, and workshops as well as social activities are incorporated into the community to assist in their transition.

Supplemental instruction (SI). Often characterized as a peer assistance program, SI is frequently implemented as a way to "reduce high rates of attrition, increase the level of student performance in difficult courses, and increase graduation rates" (Upcraft et al., 2005, p. 308). Deanna Martin developed SI in 1973 at the University of Missouri-Kansas City as a way to improve the performance and retention of at risk students (Hurley, Jacobs, & Gilbert, 2006). The premise of SI is to link a weekly supplemental course to selected high-risk courses (Barefoot, 2004). Courses are determined to be high-risk when at least 30% of students earn a D, F, or W and are considered to contain difficult course material (Hurley et al., 2006). SI sessions are facilitated by a "master student" who has

successfully completed the high-risk course. The SI leader attends training on how to facilitate the session prior to the course beginning, attends the class and takes notes with the current students, and completes the course homework and reading assignments in preparation for their sessions. As the SI leaders facilitate their session, they "guide students to engage with the material in ways that strengthen their learning" (Upcraft et al., 2005, p. 309).

Service learning. As a form of experiential learning, service learning enables students to work in a real-world context to apply concepts learned in the classroom. Bringle and Hatcher (1996) consider service learning to be a:

> credit-bearing educational experience in which students participate in an organized service activity that meets identified community needs and reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. Unlike extracurricular voluntary service, service learning is a course-based service experience that produces the best outcomes when meaningful service activities are related to course material through reflection activities such as directed writings, small group discussions, and class presentations. (p. 222)

A key difference between service learning and volunteerism is the connection between learning and service (Shapiro & Levine, 1999). In a well-designed service learning experience, students take what is learned in the classroom and apply it to a real world setting. Chamberlain (2009) noted NSSE data has shown service learning to be positively associated with deep learning and personal development.

While each first-year experience program may assist in improving student retention, administrators have noted the significance of these programs varies. When Habley and McClanahan (2004) asked four-year public university administrators to identify three campus practices that had the most significant influence on student retention, 20.2% reported freshman seminars as key, 18.4% noted learning communities as effective, and 12.3% reported advising interventions for selected populations as important. Other retention practices were cited by less than 10% of the responding colleges (Habley & McClanahan, 2004). Of these three practices, Barefoot (2004) further suggested, "the current structural innovation that seems to be correlated with the most significant retention improvements is the learning community" (p. 14).

The first-year experience of students is an important factor of student retention. Accordingly, colleges and universities have developed a range of first-year experience programs designed to improve students' success and retention. These programs also assist students in making the challenging transition from high school to college. When selecting programs, it is important for institutions to choose initiatives that are useful in addressing their particular students' needs and campus resources since what works at one institution may not work at another. Properly selected and designed first-year programs encourage the academic and social integration necessary to positively impact student retention and improve students' satisfaction with their undergraduate experience.

Curricular Learning Communities Development and Structures

Curricular learning communities have been implemented in colleges and universities across the nation as a means to address educational concerns. Though curricular learning communities may be relatively new to some higher education

institutions, the concept actually dates back to the early 1900s. Recent calls for

educational reform, however, have resulted in new interest in using the concept to

improve student retention and success. From a first-year perspective, these communities

serve as a mechanism for institutions to provide the social and academic integration noted

by Tinto (1993) as being critical to student retention. An understanding of the different

curricular learning community structures is important in order for institutions to select

and implement an approach appropriate for their campus.

Historical Development

When considering the historical development of curricular learning communities,

three educators, John Dewey, Alexandar Meiklejohn, and Joseph Tussman, are most

commonly credited with providing the foundation for today's learning communities.

Each educator brought new ways of thinking about the educational process for students

by focusing on ways knowledge could be connected as opposed to the fragmentation that

was occurring in many institutions (Shapiro & Levine, 1999).

The influence of John Dewey's work is most often seen in the teaching and

learning strategies employed in learning communities (Gabelnick et al., 1990). In

Dewey's works *Education and Experience* (1938) and *How We Think* (1910), he

advocated for new ways to approach the learning process. His progressive views of

education were the first to move away from traditional teacher-centered approaches

towards more student-centered methods and active learning. According to Dewey,

learning occurred through experiences and was an inherently social process. Dewey

(1938) proposed that learning was individualistic in nature, and educators must build

upon the individuality of each student by acknowledging his or her diverse, prior experiences.

Like Dewey, Alexander Meiklejohn was concerned about the fragmentation occurring in the curriculum of American universities. He feared the specialization of academic majors that was occurring in the 1920s would lead to disjointed general education efforts that often take place in a student's first two years at an institution. Meiklejohn believed the first two years of a student's college education should be focused on preparing students to be responsible citizens. In 1927, Meiklejohn opened the Experimental College at the University of Wisconsin. Meiklejohn's original 1932 book, *The Experimental College,* details the process of opening the college (Meiklejohn, 2001). Students in the Experimental College enrolled in a two year program of study focused on the development of society. Utilizing great books and active learning teaching techniques, Meiklejohn encouraged students to examine and question the world around them. In the first year of study, students focused on Athens society. Over the summer, they were asked to analyze their hometowns from an Athenian perspective. Upon returning for their sophomore year, students examined society from a late nineteenth and early twentieth century perspective. Meiklejohn faced much skepticism regarding this unorthodox approach. In 1932, the Experimental College was closed. Though its life was short-lived, its influence on today's learning communities is clear (Shapiro & Levine, 1999; Smith et al., 2004).

Nearly 30 years after the closing of the Experimental College, Joseph Tussman re-introduced the concept of learning in a curricular cohesive manner. Tussman, who studied with Meiklejohn at the University of Wisconsin, was intrigued by the concept of

the Experimental College. Similar to Meiklejohn, he believed the goal of lower-division, general education courses should be education for democracy (Smith et al., 2004). Tussman believed the challenge to this goal was the tension in many institutions between the idea of being a university and the individual concerns of the colleges within them. The result is a disjointed, fragmented general education experience. While at the University of California, in Berkley, Tussman sought to overcome this challenge in what became known as the Berkley Experiment. Tussman's solution was to disband the traditional course system of curricular planning and instead build a lower-division curricular program. These programs were a revolutionary approach to teaching (Gabelnick et al., 1990). Programs were team-taught by faculty and encouraged a sense of community among colleagues. Cross-disciplinary faculty teams were asked to closely examine what they were teaching and the purpose of their curricular content selections in a way that completely liberated the planning process. Although the Berkley Experiment only lasted four years, its impact resonates today in learning communities across the country. Most notably, the well-known coordinated studies program at The Evergreen State College was heavily influenced by Tussman's work with the Berkley Experiment (Shapiro & Levine, 1999).

While the early efforts of Dewey, Meiklejohn, and Tussman were relatively short-lived, they have influenced today's learning communities. Their works serve as a frame of reference for many current educators. Regardless of the community structure, many of the practices and principles realized in these environments have been impacted by these early educators' efforts.

Recent Events Causing Interest in Curricular Learning Communities

Although the learning community concept faded briefly after Tussman's Berkley Experiment, a number of reports calling for reform in undergraduate education spurred new interest in how institutions approached student learning. Smith, MacGregor, Matthews, and Gabelnick (2004) suggested seven educational reports, noted in Table 1, were particularly important in producing renewed interest in how institutions approached student learning. Additionally, these reports led to a push for greater accountability in higher education.

Upon reviewing these reports, Smith et al. (2004) noted the emergence of four critical themes. First, the need to provide access to diverse student populations and to serve these populations successfully surfaced. Second, the need to recognize new approaches to better reach students emerged. Of particular importance was the realization that curricular content and delivery methods must change to better serve students. Third, the need to create campuses connected to the external community in significant ways was advocated. Finally, the need for institutions to coherently plan and respond to challenges facing academia surfaced (Smith et al., 2004). Realizing external pressure from these reports, institutions sought ways to address the needs and concerns noted. Consequently, institutions began to re-examine the learning community concept as a mechanism to address the challenges facing higher education (Shapiro & Levine, 1999).

Table 1

Recent Reports on Calling for Undergraduate Education Reform

Year	Report
2002	*Greater Expectations: A New Vision for Learning as a Nation Goes to College* produced by the Association of American Colleges and Universities
2002	*Report on the Reports: Recommendations for Action in Support of Undergraduate Science, Technology, Engineering, and Mathematics* submitted by Project Kaleidoscope
2001	*Reinventing Undergraduate Education: Three Years After the Boyer Report* submitted by the Reinvention Center, Stony Brook
2000	*The Knowledge Net: Connecting Communities, Learners, and Colleges* produced by the American Association of Community Colleges
1999-2000	*Returning to Our Roots* published by the Kellogg Commission on the Future of State Land-Grant Universities
1999	*Transforming Undergraduate Education in Science, Mathematics, Engineering, and Technology* published by the National Research Council
1998	*Reinventing Undergraduate Education: A Blueprint for America's Research Universities* compiled by the Boyer Commission on Educating Undergraduates in Research Universities

Note. Adapted from *Learning Communities*: *Reforming Education*, by B. L. Smith, J. MacGregor, R. S. Matthews, and F. Gabelnick, 2004, San Francisco: Jossey Bass.

Common Learning Community Structures and Characteristics

As with learning, there are a number of approaches to the structure of a learning community. Environmental considerations, faculty capabilities, and student composition are all factors to consider when selecting a learning community design. While variations exist, the most common curricular learning communities include (a) paired or clustered courses, (b) freshman interest groups, (c) federated learning communities, and (d) team-taught programs.

Paired or clustered courses. In the paired or clustered learning-community design, individually taught courses are linked together by the scheduling and registration of student cohorts (Laufgraben & Shapiro, 2004). With paired courses, cohorts of 20 to 30 students typically attend two linked courses together, whereas in the cluster design, student cohorts attend three to four classes together (Gabelnick et al., 1990). Paired-course learning communities frequently link together classes that have a logical curricular connection and enroll large numbers of first year students (Shapiro & Levine, 1999). Often, a basic skills class such as a basic composition or a communication course is included in the pair of classes.

Cluster course learning communities are expansions of the paired course concept. Often cluster learning communities are designed and taught around a central theme (Laufgraben & Shapiro, 2004). The theme serves as a common thread among all of the linked courses. Included in each cluster is a writing course and a freshman seminar course designed to ease the first year students' transition into college (Shapiro & Levine, 1999). Additionally, the seminar course provides the opportunity for curricular

connections between the courses to be developed and strengthened by engaging students in discussions about the content.

Both the paired course and the cluster course design allow for social and curricular connections to be established within the learning community (Smith et al., 2004). Social connections are inevitable as students travel through the linked courses in a cohort fashion. Attending two to four courses together provides the opportunity for students to share experiences and to get to know one another. The level of curricular connections, however, is in large part determined by faculty. Because faculty teach individually, the curricular connections that may or may not occur are often a direct result of the faculty member's investment of time and resources (Shapiro & Levine, 1999). Paired or clustered learning communities with little faculty collaboration may realize only the social benefits of the effort (Smith et al., 2004). Conversely, communities where faculty collaborate on the design of course content, readings, and assignments provide students with a "deeper understanding of course material and a more meaningful interaction with teachers and peers—the outcomes that learning communities, by design, should offer" (Shapiro & Levine, 1999, p. 25).

Freshman interest groups. The freshman interest group (FIG) allows for the formation of student cohorts in large courses and frequently focus on pre-major content areas (Gabelnick et al., 1990). In this model, students enrolled in the FIG represent a subset of the total enrollment of the large course (Shapiro & Levine, 1999). Each cohort subset registers and travels to a linked group of courses. The linked courses include one or two large lecture classes with open enrollment as well as a smaller writing course and a weekly seminar course limited to the FIG students (Laufgraben & Shapiro, 2004). In

many FIGs, the weekly seminar is most often lead by an undergraduate peer who serves as the teacher of the course.

Faculty involvement in the FIG is negligible, and faculty are not expected to collaborate with their FIG colleagues (Gabelnick et al., 1990). As a result, faculty attempts to make connections across the curriculum tend to be minimal. Many faculty members are not even aware which students are enrolled in the FIG. Often, the important task of helping students make curricular and social connections is left to the peer teacher of the weekly seminar (Shapiro & Levine, 1999). The low demands FIGs have on faculty make them one of the easiest and economical learning communities to establish (Gabelnick et al., 1990). FIGs tend to be particularly effective at large universities where freshmen are commonly enrolled in large lecture courses (Laufgraben & Shapiro, 2004). In these situations, FIGs help provide a support system to first year students in an environment that can be overwhelming (Gabelnick et al., 1990).

Federated learning communities. The federated learning community (FLC) model is similar, but more complex than the FIG model. The FLC "federates diverse courses around an overarching theme, and invites up to 40 students to co-register and travel as a small group within those larger courses" (Gabelnick et al., 1990, p. 27). In addition, students also enroll in a three-credit discussion-based seminar designed to enhance students' curricular connections with the three FLC courses. Facilitating the seminar is a Master Learner who is from a discipline outside of the three FLC courses. The Master Learner attends the courses and completes the assignments alongside the FLC students then leads the seminar in a manner that encourages the students to synthesize material from all three courses and to considered varying points of view (Kellogg, 1999). Because

of the time demands of attending classes with the students and leading the seminar, the Master Learner is typically relieved of all other teaching responsibilities.

As with the FIGs, faculty teaching FLC courses are not expected to coordinate or integrate activities with their colleagues (Gabelnick et al., 1990). FLC faculty can, however, work with the Master Learner to discern students' understanding of course material as the Master Learner has firsthand knowledge of how students are processing and applying information in their discussion sections.

Team-taught programs. Team-taught programs, also known as coordinated studies programs, are the most integrated of all learning community designs (Shapiro & Levine, 1999). In these programs, "faculty and students participate in full-time active learning" (Kellogg, 1999, p. 4) centered around an interdisciplinary theme. Typically, three to five faculty members are involved in the team teaching of their learning community (Gabelnick et al., 1990). Enrollment in team-taught programs typically ranges between 40 to 75 students per community (Shapiro & Levine, 1999). Students and faculty use small break-out discussion groups of 20 to 25 students to make curricular connections and to discuss assigned readings.

Frequently, the team-taught learning community will constitute a student's entire schedule and the faculty member's full course load for the semester (Laufgraben & Shapiro, 2004). With the full-time nature of these learning communities comes opportunities and challenges. Because students are solely enrolled in the team-taught learning community, traditional scheduling barriers can be eliminated as faculty work together to negotiate with one another for scheduling longer blocks of time with the students when they wish to incorporate extended learning activities (Gabelnick et al.,

1990). The highly integrative nature of faculty activities can be challenging. Consequently, these team-taught programs require extensive professional development for faculty if they are to realize their potential (Kellogg, 1999).

Common characteristics of all learning communities. Though the structure of learning communities may vary, Shapiro and Levine (1999) suggested all maintain a common set of characteristics. These include (a) the organization of students and faculty into smaller groups, (b) the support to integrate curriculum, (c) the opportunity for students to develop academic and social support networks, (d) the capability for students to be socialized to the expectations of college, (e) the opportunity for faculty to work together in a meaningful manner, (f) the ability for both students and faculty to focus on learning outcomes, (g) the capability to deliver academic support services using community-based modes of delivery, and (h) the opportunity to examine the first-year experience of students from a critical perspective (Shapiro & Levine). MacGregor (2000) further suggested all learning communities:

> Create small, knowable communities of students with an academic purpose. They develop active, collaborative learning environments where understanding of course content is shared and constructed. They intentionally increase time on task through formal and informal activities related to the coursework. The collaborative activities themselves increase feedback loops among students as they test their understanding and share information, questions, and study strategies. In the multiple-course learning community models, intellectual connections are drawn between two or more classes.   (p. 48)

The incorporation of these common characteristics into the classroom positively impacts the learning experience for students.

The historical foundation of learning communities serves as an important backdrop upon which modern learning communities have been developed. Calls for educational reform continue to push institutions to find better ways to address their students' educational needs. Curricular learning communities provide a mechanism for addressing these educational concerns. While multiple learning community structures exist, all provide the opportunity for curricular integration to occur and social needs of students to be addressed. Some learning communities are more conducive to an institution's needs than others depending on the environmental factors, faculty capabilities, and student composition present. These concerns all influence the student and faculty perceptions of the community.

Curricular Learning Communities Student and Faculty Impact

Curricular learning communities are viewed by many (Shapiro & Levine, 1999; Smith et al., 2004; Tinto, 2003; Upcraft et al., 2005) as a viable option for addressing first-year student concerns and improving student retention. Students participating in curricular learning communities have realized a number of benefits which have positively influenced their educational experience. Faculty members involved in these communities have also realized positive benefits from their participation in these environments such as greater collaboration with colleagues and opportunities for innovation. These benefits are not without challenges, however, as these same faculty often experience obstacles not present in the traditional classroom experience. Consequently, curricular learning

community faculty development is important for faculty to realize the benefits and overcome the challenges of teaching in such an environment.

Influence on Students

The shared knowledge, shared knowing, and shared responsibility (Tinto, 2003) found in the learning community environment have profound effects on students. Research conducted by Cross (1998) concluded students who participate in the learning community concept were significantly more likely to demonstrate "growth in intellectual interests and values, and apparently get more out of their college education" (p. 7) than their counterparts who were not involved in such a community. A comprehensive review of learning community empirical evidence presented in The National Learning Communities Project monograph, *Learning Community Research and Assessment: What We Know Now*, (Taylor et al., 2003), concluded participation in a learning community strengthened student retention, achievement, performance and satisfaction.

The positive impact of learning communities is further supported by the research of Zhao and Kuh (2004) who utilized the National Survey of Student Engagement (NSSE) data of 80,479 randomly sampled first-year and senior students to reach a number of conclusions. First, participation in learning communities was found to be positively "linked with student academic performance, engagement, educationally fruitful activities,…gains associated with college attendance, and overall satisfaction with the college experience" (Zhao & Kuh, 2004, p. 19). Second, the learning community experience was associated with higher levels of academic effort, academic integration, and active and collaborative learning. Third, learning communities appeared to be

positively linked to increases in students' practical competence as well as personal and social development (Zhao & Kuh).

A more recent examination of NSSE data revealed students who participated in learning communities that incorporated material across the curriculum reported higher scores on the five NSSE Benchmarks of Effective Educational Practices (National Survey of Student Engagement, 2007). These benchmarks included level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and a supportive campus environment. In addition to reporting higher benchmarks, specific classroom practices in the learning communities revealed additional positive results. For instance, discussion groups, as well as in-class and out-of-class assignments which utilized an integrated curricular approach in the community, resulted in students using more deep learning approaches, realizing an enriched social life and in some instances making substantial gains in self-understanding (National Survey of Student Engagement).

The mere design of learning communities encourages social interaction among students. Freshmen in particular have expressed the primary benefits of participating in a learning community is realizing social interactions with peers (Pastors, 2006) and achieving a sense of belonging at the institution (Barefoot, 2004). The relationships students build with their peers have a profound impact on students' perceptions of learning and the college experience. Research conducted by Tinto (2003) suggested learning community students have a greater tendency to form self-supporting groups with their learning community cohort members than their counterparts in traditional classroom settings. Additionally, learning community students had a greater tendency to be actively

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involved in learning with their classmates both in and out of class. The result of the

interaction among learning community peers appeared to be quality student learning

(Tinto, 2003). Further research suggested when such students learn together in an

interdependent manner "higher levels of academic and social engagement, greater rates of

course completion, and higher rates of persistence" (Engstrom & Tinto, 2007, p. 3) are

realized.

Faculty Concerns

Learning communities have the ability to positively influence the student learning

experience. Students, however, are not the only ones impacted by the learning

community experience. The design and structure of learning communities alone place

faculty in a very new teaching experience. Teaching in a community-based design takes

the "private acts of solo teaching into a new arena of shared responsibility, shared

students, and often shared curriculum" (MacGregor, 2000, p. 59). Additionally, learning

communities require "team building, collaborative skills and collective responsibility"

(Laufgraben & Shapiro, 2004, p. 68) of its faculty participants. The shared and

collaborative nature of learning communities offers both opportunities and challenges for

faculty participants.

Learning community faculty opportunities. Research conducted by Engstrom and

Tinto (2007) found the pedagogies utilized in learning communities were critical to

realizing student success in these environments. Dabney, Green, and Topalli (2006)

suggested learning communities provide an opportunity for faculty to work together to

implement innovative pedagogical approaches, such as writing across the curriculum, that

cannot be accomplished in a traditional classroom setting. Faculty involved in learning

communities frequently reported the collaborative planning and team teaching found in these formats assisted in providing new perspectives on their discipline and teaching as well as fostered a sense of being better connected to the larger institution (MacGregor, 2000).

As learning community faculty collaborate, they often report a greater willingness to take more risks in their teaching approaches (Shapiro & Levine, 1999). In a small, qualitative study conducted by Stevenson, Duran, Barrett, and Colarulli (2005), faculty reported collaborating with colleagues to be a "rich, satisfying, and energizing experience that produces improvements in pedagogy" (p. 32). These same faculty also reported the learning community environment encouraged them to grow in their teaching capabilities and become more innovative in the classroom. The improved pedagogical approaches of learning community faculty potentially transfers over to the other classes they teach. For example, McClure, Atkinson, and Willis (2008) found faculty who teach first-year seminar courses, a common class in learning communities, realized "positive transfer effects in four areas: (a) reflecting on teaching methods, (b) using formal measures to assess critical thinking, (c) devoting class time to discussions about critical thinking, and (d) reevaluating how they see themselves as instructors" (p. 31).

Learning community challenges for faculty. While the learning community experience can be particularly rewarding for faculty, it is not without its challenges. One of the most significant challenges facing learning community faculty is the significant investment of time required to effectively plan and collaborate with their colleagues (Dabney et al., 2006; Smith et al., 2004; Stevenson et al., 2005). Not investing time in the planning and collaborating process can lead to a "weak understanding of learning

community goals and core practices on the part of teaching teams" (Smith et al., 2004, p. 283). Additionally, an inability to invest time in the collaborative planning process can exacerbate personality differences among the teaching team. These personality differences can be further troubled when learning community faculty teams do not get to select their teaching partners (Stevenson et al., 2005). Without sufficient time to work through these personality differences, the success of the community may be compromised.

Another challenge learning communities face is the cohort effect. The same community structure that encourages student growth and development can also have negative consequences as the environment potentially encourages a high-school like mentality among students (Jaffee, 2007). This high-school effect, or "hyperbonding," has been experienced by many learning community faculty (Darabi, 2006; Smith et al., 2004). Faculty involved in these situations have reported feelings of being an outsider in their own classrooms and facing an "us-versus-them" adversarial mentality with students (Jaffee, 2007). It is important for faculty who are working to overcome the negative impacts of "hyperbonding" to utilize cooperative and collaborative techniques to encourage active participation. Such methods have a greater tendency to improve interpersonal comfort levels and break down barriers between faculty and students (Jaffee).

Importance of professional development. The cornerstone of a learning community's success is professional development. A key strategy for launching a learning community initiative is to attract faculty who are willing to take risks and serve as change agents on their campus (Shapiro & Levine, 1999). To ensure learning

community faculty are successful, attention must be given to their professional development (Darabi, 2006). According to Laufgraben and Shapiro (2004), "faculty development is central to the teaching and mission of learning communities and focuses not only on the teacher but also on the curriculum" (p. 76). A sound professional development program includes a focus on student characteristics and demographics, active learning teaching pedagogies, resource development, and evaluation and assessment techniques (Hunter, 2006b).

Professional development for learning community faculty requires a broader scope approach than may be typically offered to faculty. According to Smith, MacGregor, Matthews, and Gabelnick (2004), learning community faculty development often means acknowledging new perspectives of the development process. In particular, learning communities require the development of long-term relationships among faculty teams. The development of these relationships requires a greater investment of time and effort than can be normally realized in a one day workshop. Additionally, a systematic and comprehensive approach to professional development is necessary to address "faculty recruitment, orientation, curriculum planning, the introduction and support of new pedagogies, student development and adjustment issues, and different forms of assessment" (Smith et al., 2004, p. 289).

While a structured faculty development program is imperative to the success of learning communities, faculty development also occurs by merely participating in the activities required to sustaining the community. Research conducted by Albers (2005) suggested learning communities enhanced faculty development in three ways:

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First, faculty learning about teaching is strongly motivated by being imbedded in

practice. Second, structuring learning communities to foster ongoing collaboration

encourages using colleagues as resources in an iterative cycle of discovering,

enacting, and evaluating new practices. Third, the communities of practice that

result from these collaborations have complex influences on the social structures

that compose the institution. (p. 1)

The combination of structured faculty development and the additional learning that

occurs from doing serves as "the road map to help teachers navigate the shift from the

traditional ways of teaching to the more active and collaborative modes of pedagogy

characteristic of learning communities" (Laufgraben & Shapiro, 2004, p. 77).

Curricular learning communities appear to have a positive influence on student

behaviors, success, and retention. While the collaborative nature of these communities

provides a positive educational environment for students, this same environment offers

both benefits and challenges to faculty. As a result, faculty development is critical if the

communities are to realize their full potential. From student learning to faculty

development, the collaborative design and pedagogical approaches of learning

communities support a learner-centered approach. More specifically, when appropriately

implemented, learning communities provide the opportunity to exemplify Chickering and

Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education (Banta,

2001; MacGregor, 2000).

Seven Principles for Practice

Spurred by the great scrutiny during the 1980s of the quality of undergraduate

education, a tremendous amount of research and initiatives designed to reform the work

of higher education occurred (Gamson, 1991). One of the key pieces of work to surface during this time was the development of Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education. Sponsored by the American Association of Higher education (AAHE) and the Johnson Foundation, the Seven Principles resulted from a culmination of discussions between those who were experts on the research of the college experience (Gamson, 1991). Based on over 50 years of research pertaining to teaching practices, learning styles, and the interaction between faculty and students (Chickering & Gamson, 1987), the Seven Principles were created as a way to provide recommendations on improving higher education that were "accessible, understandable and practical" (Chickering & Gamson, 1999, p. 76).

The Seven Principles for Good Practice in Undergraduate Education put forward by Chickering and Gamson (1987) included (a) encourages contacts between students and faculty, (b) develops reciprocity and cooperation among students, (c) uses active learning techniques, (d) gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning. The conciseness and practicality of the Seven Principles aided in the overwhelming positive response from educators and institutions. After only 18 months in print, over 150,000 copies of the principles were ordered from the Johnson Foundation and countless copies appeared in numerous publications as the principles were not copyrighted (Gamson, 1991). Shortly after the release of the Seven Principles, the *Inventories of Good Practice in Undergraduate Education: Faculty and Institutional Inventories* were developed in 1989 as self-assessment tools to measure the use of the practices by faculty and the support given to the practices by campuses (Chickering & Gamson, 1999). In the

sections that follow, an in-depth explanation and supporting research for each of the Seven Principles is presented.

Encourages Student-Faculty Contact

According to Chickering and Gamson (1987), encouraging student and faculty contact is the most important tool educators can use to increase students' motivation for learning and involvement in the classroom. The quantity and quality of faculty interactions with students influences the "intellectual competence and sense of competence, autonomy, purpose, and integrity" (Chickering, 1969, p. 233) of students. Astin's (1993) research further supported the importance of student-faculty contact finding that besides the student's peer group "faculty represents the most significant aspect of a student's undergraduate development" (p. 410). Additionally, student-faculty contact has demonstrated to be correlated to first year students' persistence and withdrawal decisions (Pascarella & Terenzini, 1979),"a strong determinant of both program completion and effective learning" (Education Commission of the States, 1995, p. 19), an indicator of student motivation (Rugutt & Chemosit, 2009), and "predictive of students' academic achievement and scholastic self-concept" (Woodside, Wong, & Wiest, 1999, p. 730).

The type of interaction between students and faculty has shown to have differing results. Kuh and Hu (2001) found students who met with faculty to discuss course related concerns performed better academically; however, interactions between students and faculty that were social in nature did not improve academic performance. Umback and Wawrzynski (2004) also found course-related student and faculty interactions to positively affect student engagement, personal development, general education

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knowledge, and practical competencies. By interacting and connecting with students on academic concerns, faculty gain a better understanding of learners' individual needs (McCombs & Whisler, 1997). Bruffee (1999) further suggested that the dialogue between faculty and students plays a critical role in reacculturating the student into the knowledge world of the educator. The interaction process allows students "to see faculty members less as experts than as role models for ongoing learning" (Education Commission of the States, 1995, p. 19).

Encourages Cooperation Among Students

Quality learning is not a solitary effort, but is instead a collaborative and social process whereby the ability to discuss and work with others encourages the learning process (Chickering & Gamson, 1987). Astin's (1993) research further supported the importance of student to student interactions stating "the students' peer group is the single most potent source of influence on growth and development during undergraduate years" (p. 398). Additionally, Bruffee (1999) suggested the interactions students have with one another assist in creating a sense of community and interdependency among students both in and out of class. Students involved in collaborative learning with peers have demonstrated higher levels of academic motivation (Rugutt & Chemosit, 2009), improved classroom engagement, and greater feelings of support (Umbach & Wawrzynski, 2004).

Learning is improved when students have the opportunity to work together in the classroom as opposed to working alone (Education Commission of the States, 1995). At the core of collaborative learning is conversation. Through conversation students are able to exchange thoughts, challenge preconceptions, and reconcile conflicting information.

According to Nonaka (1994), collaborative opportunities and dialogue assist in solidifying the "spiral of knowledge," or the conversion of tacit and explicit knowledge, among individual learners and the classroom as a whole. Upon reviewing over 35 years of cooperative learning research, Johnson, Johnson, and Smith (1998) found five critical elements appeared necessary to the success of the cooperative learning process including "positive interdependence, individual accountability, face-to-face promotive interaction, social skills, and group processing" (p. 35). The research of Eraut (2004) further suggested that learning is increased when certain events take place. These events include (a) participation in group activities whereby the group is working toward a common outcome, (b) working alongside others to learn and possibly experience the tacit knowledge of others, and (c) tackling challenging tasks which potentially increases motivation. The activities described by Eraut can all be incorporated into the classroom as a means to support and encourage collaboration at all levels.

Encourages Active Learning

For true learning to occur, students must be active participants in the process meaning they are discussing, writing, and applying classroom content in order to truly process the material (Chickering & Gamson, 1987). Active learning in the classroom has been defined as "instructional activities involving students in doing things and thinking about what they are doing" (Bonwell & Eison, 1991, p. 2). Research has demonstrated the use of active learning activities in the classroom improves students' knowledge and understanding of course related material (Chickering & Gamson, 1987; Johnson et al., 1998; McKeachie, Pintrich, Lin, & Smith, 1986). Additionally, individual student educational gains (Kuh, Pace, & Vesper, 1997) and personal and social awareness

(Strayhorn, 2008) have been shown to be positively related to the use of active learning practices in the classroom. According to Sorcinelli (1991), teaching practices that encourage active learning foster students' higher-order thinking and affective learning capabilities.

Learning is greatly improved when students have numerous occasions to engage in active learning practices (Education Commission of the States, 1995). Such active learning activities suggested by Bonwell and Eison (1991) included (a) utilizing brief pauses during lectures to allow students to summarize notes, (b) incorporating demonstrations or brief writing activities followed up with discussion, (c) formulating opportunities for both small and large group discussion, (d) utilizing unique lecture approaches such as the feedback and guided approach, and (e) developing problem-solving or role playing activities that allow students to apply information. Additionally, Chickering and Ehrmann (1996) noted the use of certain technology resources such as computer simulations and real-time online conversations can be useful in facilitating an active learning experience.

In addition to improving student learning, the use of active learning practices in undergraduate classrooms has demonstrated to have a number of positive effects for institutions as a whole. For example, a student's decision to depart a campus may be influenced by the faculty's use of active learning techniques. Students who have encountered active learning in the classroom have been shown to be less likely to depart their institution than their counterparts who have not (Braxton, Milem, & Sullivan, 2000). Additionally, Umbach and Wawrzynski (2004) found active learning in the classroom positively influences "student engagement behaviors, student perceptions of the

environment, and student self-reported gains" (p. 19), all critical to a student's success. The influence of active learning is further supported by the work of Kuh, Kinzie, and Buckley (2007) who found active learning is one of several "institutional conditions associated with student success" (p. 102).

Gives Prompt Feedback

Frequent and appropriate feedback is critical for students to benefit from courses (Chickering & Gamson, 1987). The use of feedback serves as a mechanism to help focus learning, and assess what one knows and does not know. The overall learning process is improved when students receive information on their "performance, both within courses and through advisement processes and integrative experiences that give them an opportunity to assess more broadly what they have learned" (Education Commission of the States, 1995, p. 18). In order for feedback to improve the learning process, however, it needs to be delivered frequently throughout the duration of a course in an "immediate, corrective, and supportive" (Sorcinelli, 1991, p. 19) manner. Quality must be present in the feedback faculty give to students. A simple letter grade or score is not enough for students to benefit from the feedback process (McKeachie et al., 1986).

Although receiving prompt feedback from faculty has not been specifically linked to student engagement, it has been linked to a number of student performance and satisfaction measures. NSSE data analyzed by Kuh et al. (2007) indicated prompt feedback from faculty is a positive influencing factor of students' grade point averages at four-year institutions. When considering larger research institutions, prompt feedback coupled with the communication of high expectations has been shown to offer "the most fruitful avenues for improving undergraduate education outcomes" (Ryan, 2005, p. 29).

Specifically, Ryan found prompt feedback had a positive influence on students' self-reported learning gains, educational development, likelihood of returning to the same institution, and overall educational experience. Prompt feedback, therefore, is an important factor in not only the learning experience but also the perceived quality of the college experience.

Emphasizes Time on Task

The amount of time and energy students invest in the learning process is critical to the learning process (Chickering & Gamson, 1987). Time management is a necessary skill for both academic and professional success. Research indicates what and how much students learn is positively influenced by the amount of time students dedicate to learning (Education Commission of the States, 1995; Sorcinelli, 1991). When examining the influence of time on task, three factors should be considered including the university, faculty and students (Hatfield, 1995). University policies and allocation of time impacts how faculty can instruct and learning can occur. Faculty member's use of time in the classroom also impacts student learning as quality learning requires quality teaching and faculty time management. Students control the quantity and quality of time they dedicate to a task (Hatfield). The environment and student norms of an institution have been found to influence students' investment of time on task. Caboni, Mundy, and Black-Duesterhaus (2002) found successful implementation of time on task at an institution where student norms did not support time on task was "less assured because of the lack of student normative support for the recommendation" (p. 134). When considering all of the factors at a university, the manner in which the institution "defines time expectations for

students, faculty, administrators, and other professional staff can establish the basis for high performance for all (Chickering & Gamson, 1987, p. 5).

Communicates High Expectations

Effective learning takes place when high but attainable expectations for students are clearly communicated at the beginning of a course or college experience (Education Commission of the States, 1995). The level of focus placed on high expectations influences student performance and success. Kuh et al. (2007) found institutions demonstrating a strong student success orientation had a greater tendency to hold high expectations for all students. Establishing high expectations is important for institutions, faculty, and students alike. An overall campus emphasis on quality undergraduate education focuses on encouraging "high aspirations in students by making high expectations a campus-wide goal and by challenging students to set goals, aim high, and achieve" (Hatfield, 1995, p. 80). According to Chickering and Gamson (1987), "expecting students to perform well becomes a self-fulfilling prophecy when teachers and institutions hold high expectations of themselves and make extra efforts" (p. 5).

Students often put forward greater effort when challenging performance expectations are established (Education Commission of the States, 1995). Communicating and upholding high expectations, however, requires the appropriate environment of support. A number of steps can be taken by institutions and faculty to help facilitate this environment including (a) creating a supportive campus and classroom climate, (b) establishing clear performance expectations, (c) tailoring assignments to meet the needs and interests of individual learners, (d) modeling appropriate behavior by both the institution and faculty, (e) providing feedback on works in progress, (f) tolerating and

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learning from mistakes, and (g) celebrating student successes (Hatfield, 1995). By

establishing and supporting students to uphold high expectations, faculty help facilitate

the growth of students' self-esteem and confidence (Chickering & Reisser, 1993).

Respects Diverse Talents and Ways of Thinking

Students enter the college classroom with a multitude of talents, experiences, and

approaches to learning. Research conducted by Vermunt (2005) found student learning

styles and patterns to be influenced by both "personal and contextual factors, such as

academic discipline, prior education, age and gender" (p. 227), and explained some of the

variance in students' academic performance. To further add to the complexities of the

college classroom, faculty and students often do not agree on the goals of the college

learning experience (Myers, 2008). The divergence in faculty and student goals put

forward by Myers not only impacts the process of teaching and learning but also the

potential development of students.

Recognizing and addressing the variety of student approaches is critical to the

learning process. According to Sorcinelli (1991), respecting students' diverse talents and

ways of learning serves as "the linchpin that holds the Seven Principles together, for

knowledge about learning styles helps faculty to transmit their course content with

greater sensitivity to the differences that students bring to the classroom" (p. 21). Within

the college curriculum, students need a variety of opportunities to demonstrate their

talents and achieve success in a manner that works for them for no one experience will

work for all students (Chickering & Gamson, 1987). Additionally, faculty can strengthen

the other six principles by actively tapping into the diverse experience of students to

make connections between prior experiences and course content (Education Commission

of the States, 1995). The ability to experience success and make connections in the classroom assists in building students' self-esteem, purpose and confidence.

Chickering and Gamson (1987) acknowledged that the Seven Principles are independently capable of adding value to the learning experience. When the Seven Principles are all used in combination, however, their impact is increased. Utilization of all Seven Principles in the classroom takes advantage of "six powerful forces in education: activity, cooperation, diversity, expectations, interaction, and responsibility" (Chickering & Gamson, 1987, p. 4). Over the years, a number of adaptations have been made to the Seven Principles including the addition of principles and the development of new inventories. Some of the most notable include (a) the College Student Experiences Questionnaire, (b) the Learning Processes Inventory Assessment, (c) the Education Commission of the States'1995 report *Making Quality Count in Undergraduate Education*, and (d) the National Survey of Student Engagement (Chickering & Gamson, 1999). The Seven Principles, and the adaptations that have followed, continue to shape the development of higher education practices.

Summary

Student retention is a pressing concern as institutions face continued financial pressures and accountability measures. While institutions seek to find ways to improve the retention of their students, it is important to understand the factors which influence student performance (Astin, 1993) and decisions to leave an institution (Tinto, 1993). With an understanding of students' behaviors, colleges and universities can better develop strategies that assist in keeping students at their institution. Of particular importance is recognizing the influence of students' first-year experiences on decisions to

stay. To address the importance of students' first-year experience, colleges and universities have developed a variety of programs designed to ease the transition into college. By selecting first-year programs that best address the needs of their students, institutions can help students realize the academic and social integration necessary to achieve improved retention and success (Tinto, 1993).

While a multitude of first-year experience programs exist, curricular learning communities are gaining increased support for their ability to positively impact student retention (Barefoot, 2004). Educational reform efforts have resulted in institutions revisiting the idea of these communities as the structure allows for a number of educational concerns to be addressed. Though the structures of the communities may vary, all allow the necessary academic and social needs required for retention to be addressed. The collaborative environment encouraged in curricular learning communities is beneficial to students' academic and social development. While faculty members often realize benefits from the collaborative environment of these communities, they may also encounter significant challenges making professional development essential.

When professional development is encouraged and student learning is appropriately supported, the collaborative nature of learning communities supports a learner-centered approach. Furthermore, the design of curricular learning communities provides a platform to fully incorporate Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education (Banta, 2001; MacGregor, 2000). Employing all Seven Principles in a curricular learning community supports "activity, cooperation, diversity, expectations, interaction, and responsibility" (Chickering & Gamson, 1987, p. 4), all powerful forces in education.

The preceding literature review provided a foundation for the purpose of this study: to build a quantitative framework to examine faculty principles of practice in curricular learning communities compared to faculty in non-curricular learning community environments. Chapter Three provides a comprehensive explanation of the quantitative research design and methodology used to address the study's purpose. In Chapter Four, the results of the study are presented followed by a discussion of these results in Chapter Five. Finally, supplementary materials, such as the informed consent letters, survey instrument, and permission to use the instrument are provided in the Appendix.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

Colleges and universities across the nation have faced student retention challenges

(Carey, 2005; Heldman, 2008; Lederman, 2009) that have only been exacerbated by the

current economic climate. As the competition for students has increased, universities are

seeking ways to retain currently enrolled students. Of great concern for many universities

is the ability to improve the first-year to second-year retention rate when student attrition

tends to be at its highest (Tinto, 1993; Upcraft et al., 2005). In an attempt to improve

retention rates, many universities have invested substantial amounts of resources into

First Year Experience (FYE) programs which offer a number of learning opportunities

and services geared toward increasing student success and ultimately retention. An

opportunity offered by some FYE programs is the ability to participate in Curricular

Learning Communities (CLC). The design of the CLC allows students to enroll and

complete a series of two to four linked freshman-level courses in a cohort fashion. While

much research has demonstrated the positive impact of CLC on student success (Cross,

1998; Taylor et al., 2003; Zhao & Kuh, 2004), little research has focused on faculty

principles of practice in these learning environments (MacGregor, 2000; McClure,

Atkinson, & Wills, 2008).

Purpose of the Study

The purpose of this study was to build a quantitative framework to examine

faculty principles of practice in CLCs compared to faculty in non-CLC environments. In

this chapter, key concepts of quantitative research design are analyzed by utilizing a

number of readings. Next, the characteristics of the population and sample studied are discussed. Additionally, data collection methods and implementation of these methods are presented. Finally, the manner in which the data collected for the study was statistically analyzed is offered.

Research Questions

Within the context of this study, the following research questions were addressed:

1. What are the most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented by CLC faculty compared to non-CLC faculty?

2. Are there significant differences in the implementation level of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) among CLC faculty and their non-CLC counterparts?

3. Does the annual amount of professional development hours related to teaching differ between CLC faculty and non-CLC faculty?

4. Is there a relationship between years of teaching experience among faculty and the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?

5. How are the factors of being CLC or non-CLC faculty, years of teaching experience, and amount of professional development related to teaching associated with the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?

Design for the Study

A quantitative research design was utilized in this study. Quantitative research has a number of distinctive characteristics affording researchers the capability to systematically assess the surrounding environment. To begin, quantitative research frequently bases assumptions from a postpositive perspective utilizing an objective research approach (Creswell, 2003). A quantitative study begins with a thorough review of literature. From the literature, the researcher works to deductively reason possible explanations to the phenomenon being studied (Patten, 2007). The research questions of this study were formed to test and perhaps confirm the theories of interest.

Whereas qualitative research design emerges while the researcher is in the field, quantitative researchers utilize structured hypotheses and standardized data collection tools that have been established prior to entering the field (Creswell, 2003). Quantitative data collection tools are designed to yield numerical data which can be statistically analyzed (Patten, 2007). For the purposes of this study, the *Inventories of Good Practice in Undergraduate Education*: *Faculty Inventory* (Chickering et al., 1989) referred to as the *Faculty Inventory* in this study, served as the primary standardized data collection tool. By using the *Faculty Inventory*, the researcher was able to generate a substantial amount of numerical data related to teaching practices. Reliance on numerical data allowed the researcher to be independent of results and reduce potential researcher bias (Johnson & Onwuegbuzie, 2004).

While not yielding the rich, descriptive data of qualitative research (Merriam, 1998), quantitative data collection and analysis methods allow research concerns to be addressed in a relatively efficient and economical manner (Patten, 2007). The few studies

conducted on faculty practices in CLCs have been relatively small in size and scope (Albers, 2005; Beaulieu & Williams, 2006; Boix-Mansilla, 2008; Dawkins et al., 2007; Stevenson et al., 2005). By using a quantitative approach, the researcher was able to draw upon the efficiencies of quantitative methods to reach and assess large samples. The ability to analyze large samples provided the opportunity for the researcher to generalize research findings and ultimately offer a new contribution to the CLC literature. To generalize findings, however, it is important that data be obtained from a random sample and results "replicated on many different populations and subpopulations" (Johnson & Onwuegbuzie, 2004).

Population and Sample

Prior to selecting a sample for data collection, it was imperative to establish the appropriate population (Fraenkel & Wallen, 2006). The population of interest for this study included faculty members who taught at four-year, public universities offering CLCs. Members of the targeted population included those who offered courses taken by freshman college students during their first semester, and were offered in both a curricular learning community format and a traditional classroom format. This study focused on three public, four-year universities in the Midwest all of large size, but varying in the length of time curricular learning communities have been offered on their campuses.

University One was a large four-year, primarily nonresidential institution with a high undergraduate enrollment profile (The Carnegie Foundation for the Advancement of Teaching, 2004). Of the university's 19,000 plus students over 16,000 were undergraduate students (U. S. News & World Report, 2010). The institution held a

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Carnegie Classification of master's colleges and universities (larger programs) and was considered to have a selective admissions process (The Carnegie Foundation for the Advancement of Teaching, 2004). Undergraduate students enrolled in University One were typically full-time with a higher tendency to transfer into the institution. According to the university's Carnegie Classification, undergraduate instructional programs focused on the professions, arts, sciences, and some graduate coexistence (The Carnegie Foundation for the Advancement of Teaching).

University Two was a large four-year, primarily residential institution with a high undergraduate enrollment profile (The Carnegie Foundation for the Advancement of Teaching, 2004). The university enrolled just over 27,000 students of which approximately 23,000 were undergraduates (U. S. News & World Report, 2010). According to the Carnegie Classification, the institution was considered to be a research university with a very high research activity level and more selective admissions standards (The Carnegie Foundation for the Advancement of Teaching, 2004). The undergraduate student body of University Two was comprised of predominantly full-time students who had a higher tendency to transfer into the institution. Undergraduate instructional programs at the university were balanced among the arts, sciences and professions with a high level of graduate coexistence (The Carnegie Foundation for the Advancement of Teaching).

University Three was a large four-year, primarily nonresidential institution with a high undergraduate enrollment profile (The Carnegie Foundation for the Advancement of Teaching, 2004). The institution enrolled close to 30,000 students of which approximately 21,000 were undergraduates (U. S. News & World Report, 2010).

University Three held a Carnegie Classification of a research university with high

research activity and selective admissions criteria (The Carnegie Foundation for the

Advancement of Teaching, 2004). The undergraduate student body was compromised of

a medium number of students enrolled on a full-time basis who had a higher propensity

to transfer into the institution. Undergraduate instructional programming efforts included

the professions, arts, sciences, and some graduate coexistence (The Carnegie Foundation

for the Advancement of Teaching).

Within the population, distinct characteristics existed. To capture the subgroups

found in the population, a stratified random sampling process was appropriate (Fink,

2006). Necessary subgroups included faculty who taught in CLCs and those who taught

similar classes but not in a CLC format. The use of stratified random sampling improved

the capability to accurately represent the population (Fraenkel & Wallen, 2006).

While a sizeable population existed, there were definite challenges in acquiring an

adequate response rate from the sample. At a minimum, Fraenkel and Wallen (2006)

recommended a sample size of at least 100 when conducting a descriptive study. With

this in mind, the target sample was no less than 100, with an understanding that an

increased sample size would reduce sampling errors (Fink, 2006).

To compile the sample of participants, the fall 2009 CLC course offerings and

faculty at the selected institutions were obtained via each of the three universities'

website. Permission was obtained from the coordinators of each CLC to contact potential

faculty participants. For each CLC faculty identified at an institution, a non-CLC faculty

teaching the same class in a traditional format was selected. If a comparable non-CLC

counterpart was not identified, the CLC faculty was not included in the sample. Email

addresses for both CLC faculty and non-CLC faculty were collected from university websites, and served as the mode of communication with participants and method of survey distribution.

<p align="center">*Data Collection and Implementation*</p>

To obtain data, sampled faculty members completed an electronic survey which included the *Faculty Inventory* as well as additional demographic measures. Prior to the collection of data, permission was received from The Johnson Foundation to utilize the *Faculty Inventory* in the study. Correspondence between the researcher and The Johnson Foundation is captured in the Appendix of this study. The *Faculty Inventory*, additional measures, and data collection procedures were all reviewed by the University of Missouri's Internal Review Board (IRB). The approval of the data collection process and participants' rights were communicated to participants before the survey was launched via the informed consent process. A participant's completion of the survey indicated his or her willingness to participate in the study. The collection of demographic information as well as the contents of the *Faculty Inventory* is discussed in the following sections.

Demographic Measures

Demographic data was also obtained at the time the survey was launched. Questions used to collect faculty demographic information were placed at the beginning of the survey process. Information obtained included (a) CLC faculty or non-CLC faculty status, (b) primary discipline of study, (c) highest level of degree completion, (d) average annual hours of professional development related to teaching, (e) years of teaching experience, (f) primary work role of participants, and (g) faculty status. A full description of the faculty demographic measures utilized is located in the Appendix section of this

study. The addition of the demographic information was needed in order to accurately address all of the research questions and appropriately assess the participants of the survey.

Faculty Inventory

The *Faculty Inventory* was based on the research of Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education. With the support of the Johnson Foundation, the *Faculty Inventory* was developed as a way for faculty to self-assess their usage of the seven principles (Chickering et al., 1989). Numerous universities post Chickering and Gamson's principles for practice on their faculty resource websites and some even post the inventory itself. While a number of studies have utilized the inventory to assess different faculty populations (Blankson, 2004; Guidera, 2000; Peer, 2001; Wardell, 2007), the inventory has not been used to specifically assess faculty who teach in academic learning communities.

The inventory measured seven principles considered to be best practices in undergraduate education including (a) encourages student-faculty contact, (b) encourages cooperation among students, (c) encourages active learning, (d) gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning. Participants self-reported the level at which they practiced each principle by answering 10 questions related to each dimension for a total of 70 questions. Response selections for each question were based on a five point Likert scale of 1 to 5 (1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Often, and 5 = Very Often). The *Faculty Inventory* in its entirety is located in the Appendix of this study.

Encourages student-faculty contact. The most important component of student motivation and involvement in undergraduate education is frequent contact between students and their faculty (Chickering & Gamson, 1987). The items used to measure this principle captured a number of student-faculty interactions that may take place both in and out of the formal classroom environment. Interactions such as the level of informal advising activities, involvement in attending student sponsored events, and sharing professional activities or experiences with students were areas assessed on the instrument.

Encourages cooperation among students. Understanding and thinking abilities are improved when learning takes place in a collaborative environment (Chickering & Gamson, 1987). The items utilized to assess this principle addressed the level in which faculty encourage student interaction among classroom peers. Areas such as encouraging study groups or peer discussion of key concepts, creating project teams, and facilitating student involvement were measured on the inventory.

Encourages active learning. For true learning to occur, students must be actively involved in the process (Chickering & Gamson, 1987). Active learning most often occurs when students are able to write or talk about what they have learned, and by making connections to their daily life. The items used to assess this principle pertained to faculty implementation levels of activities that foster the active learning process. Areas such as challenging the process, providing real-life experiences, and encouraging students to assist in developing the learning activities were assessed on the instrument.

Gives prompt feedback. In order to focus the learning process, it is important to assess what a student knows and does not know (Chickering & Gamson, 1987). Timely feedback is a necessary component of assessing what students know. Items used to assess

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this principle involved the level at which prompt feedback actions were implemented by faculty. Actions such as the time frame in which feedback is given as well as the type and quality of the feedback were used to evaluate how faculty attends to this principle.

Emphasizes time on task. Teaching students how to allocate and use their time wisely is a critical component of the learning process (Chickering & Gamson, 1987). The items used to measure this principle captured the extent to which faculty communicate the importance of time management. The level at which faculty communicated the importance of the timely completion of assignments, the level of time commitment needed for the course, and the consequence of not investing time on task was measured by the instrument.

Communicates high expectations. Establishing high expectations for students is critical to the learning process. Faculty who expect more from their students often realize greater effort from their students (Chickering & Gamson, 1987). The items used to measure this principle assessed the level at which faculty communicated to students performance expectations and assisted students in setting high expectations for themselves. Areas such as how faculty communicate high expectations, explain consequences for not meeting expectations, and reflect upon course progress throughout the semester were measured by the inventory.

Respects diverse talents and ways of learning. The methods in which students learn vary from person to person. Students need to be presented with the opportunity to demonstrate their abilities in a manner that best draws out their talents (Chickering & Gamson, 1987). Faculty awareness of student educational background and learning styles are important components of this principle. Areas addressed by the instrument included

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the level at which faculty use diverse teaching techniques, attend to diverse student backgrounds, and create classroom environments conducive to numerous student talents in order to support the learning process.

A critical concern of any quantitative research is achieving validity and reliability in the data collection instrument (Creswell, 2003). According to Fink (2006), three types of validity must be achieved including concurrent validity, construct validity, and content validity. The length of time the *Faculty Inventory* has been in existence and the large number of institutions that utilize the inventory lends some measure of validity to the instrument. Content validity of the instrument appears strong as consistency exists between the variables of interest and the inventory's content and format. Further confirmation of the instrument's concurrent and construct validity, however, is more difficult. For example, concurrent validity would require a high correlation to exist between the results of the *Faculty Inventory* and those of a valid comparison inventory, such as the Teaching Perspectives Inventory (Pratt, Collins, & Jarvis Selinger, 2001).

Reliability of the instrument is more challenging to discern. To test for the instrument's reliability, statistical measures, such as computing alpha coefficients, are important in discerning if the instrument provides the consistency needed (Fraenkel & Wallen, 2006). Although the inventory is frequently utilized, only a small amount of data exists regarding its reliability. In separate studies, Blankson (2004), Peer (2001), and Wardell (2007) tested the reliability of the *Faculty Inventory* for their intended purposes by computing Cronbach Alpha measures. Blankson's (2004) study indicated overall Cronbach Alpha results of .92 when utilized to assess online faculty practices. Peer's (2001) study of athletic training program directors found Cronbach Alphas to range from

a low .71 for Respects Diverse Talents and Ways of Learning to a high of .79 for

Emphasizes Time on Task. In Wardell's (2007) pilot study of 31 nursing faculty,

Cronbach Alpha measures ranged from a low .62 for Encourages Student-Faculty Contact

to a high of .83 for Gives Prompt Feedback. Each researcher found the inventory to be

reliable. To further establish internal reliability, Cronbach Alpha measures of the

subscales were computed for each of the seven principles as part of the current study.

Data Analysis

The Statistical Program for the Social Sciences (SPSS) 16.0 edition was utilized

to analyze the data for this study. The manner in which the data was prepared, as well as

how SPSS was used in the analysis of demographic information and each research

question is described in the following section.

A number of steps were implemented in the preparation of the data to ensure the

information could be appropriately analyzed. The process began by first scoring

demographic data. To capture CLC faculty and non-CLC faculty status, responses were

given a 1 if they were CLC faculty and a 2 if they were non-CLC faculty. Years of

teaching experience was limited to the years the faculty member had taught in a

university classroom. To assess the annual amount of professional development hours

related to teaching, participant responses were given a 1 for 1 hour, a 2 for 2 hours, a 3

for 3 hours, etc. Next, respondents' primary disciplines of study were scored by assigning

a number to each discipline selection that was given on the survey instrument. To score

responses to the highest level of degree completion, a 1 was assigned to bachelor's

degrees, a 2 was assigned to master's degrees, and a 3 was assigned to doctoral degrees.

The responses to participants' primary role at their institutions were scored by assigning a

1 for faculty, a 2 for advisor, a 3 for graduate student, and a 4 for administrator. Finally, the work status of participants was scored by assigning a 1 for adjunct faculty, a 2 for part-time faculty, and a 3 for full-time faculty.

After the preparation of the demographic information, the *Faculty Inventory* data was considered. First, an overall score was computed by using the numerical scores from each *Faculty Inventory* item to calculate the overall mean response to faculty implementation of the Seven Principles for Good Practice (Chickering & Gamson, 1987). No items on the inventory were reverse scored. Next, subscales for each of the principles for good practice captured on the survey were calculated. The subscale scores included (a) encourages student-faculty contact (10 items), (b) encourages cooperation among students (10 items), (c) encourages active learning (10 items), (d) gives prompt feedback (10 items), (e) emphasizes time on task (10 items), (f) communicates high expectations (10 items), and (g) respects diverse talents and ways of learning (10 items). A numerical score was computed for each subscale by calculating the mean responses to the 10 items that corresponded to each principle resulting in possible mean scores ranging from 1 to 5.

With the data prepared, the analysis process started by first considering the demographic data. The five areas on the survey that were demographic in nature were evaluated by using descriptive frequency analysis of the data. The analysis of demographic data assisted in determining the composition of respondents. Additionally, the demographic data was utilized to address a number of the research questions.

When considering the data pertaining to the research questions, the independent variables of concern included CLC faculty versus non-CLC faculty status, amount of professional development related to teaching, and years of teaching experience.

Dependent variables of interest consisted of the seven principles for good practice (encourages student-faculty contact, encourages cooperation among students, encourages active learning, gives prompt feedback, emphasizes time on task, communicates high expectations, and respects diverse talents and ways of learning).

Data analysis methods most commonly utilized in quantitative studies include descriptive statistics as well as correlations and regressions (Fink, 2006). This study made use of a number of data analysis procedures in order to appropriately address each research question.

Research question one asked, "What are the most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented by CLC faculty compared to non-CLC faculty?" To address this question, subscale averages were computed for the two groups, CLC faculty and non-CLC faculty. Using frequency distributions, each subscale was analyzed to determine the most and least prevalent principles for good practice that were implemented for each group. The subscale means were then presented in rank order, and comparisons between the highest and lowest scores for the two groups were made.

For research question two, "Are there significant differences in the implementation level of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) among CLC faculty and their non-CLC counterparts?", a comparison was made utilizing eight independent samples *t*-tests. According to Field (2005), independent samples *t*-tests are "used when there are two experimental conditions and different participants were assigned to each condition" (p. 286). The independent variable of interest in this study was faculty status, CLC or non-

CLC. Dependent variables included the seven subscales established from the survey (encourages student-faculty contact, encourages cooperation among students, encourages active learning, gives prompt feedback, emphasizes time on task, communicates high expectations, and respects diverse talents and ways of learning). Independent samples *t*-tests were computed for the overall mean response and for each of the seven subscales. An alpha level of .01 was utilized for each independent samples *t*-test as opposed to an alpha level of .05 to reduce the probability of committing an error in the communicated results and improve the rigor of analysis (Mertler & Vannatta, 2005).

Research question three asked, "Does the annual amount of professional development hours related to teaching differ between CLC faculty and non-CLC faculty?" To address this question, participants were asked to give the annual number of hours they have spent in professional development activities related to teaching. Participant responses were then grouped into categories where natural breaks occurred. With this information, a descriptive analysis was performed. This involved performing crosstabs and calculating a chi-square test of independence to compare the frequency level for faculty within CLC and non-CLC categories, and their patterns of professional development related to teaching. The chi-square test of independence with an alpha level of .01 was used to determine if these categorical variables were associated (Field, 2005).

Research question four asked, "Is there a relationship between years of teaching experience among faculty and the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?" This question was assessed by performing a bivariate measure of association to examine the pattern of the relationship between the variables. Because the variables were interval in nature, seven

Pearson correlations (*r*) were calculated to determine if significant correlations existed between years of teaching and implementation levels of the principles for good practice. The Pearson correlation provided a "standardized measure of the strength of relationship" (Field, 2005, p. 740) between the two variables. A correlation of .7 or higher was considered a strong relationship, a correlation of .4 to .6 was considered a moderate relationship, and a correlation of .1 to .3 was considered a weak relationship. Additionally, an alpha level of .01 was established to assist in the determination of the Pearson correlation significance (Mertler & Vannatta, 2005).

Finally, to examine research question five, "How are the factors of being CLC or non-CLC faculty, years of teaching experience, and amount of professional development related to teaching associated with the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?", multiple regression was used. The purpose of using multiple regression was to discern what combination of predictor variables best predicted the criterion variable (Mertler & Vannatta, 2005). To address the research question, CLC faculty status, years of teaching experience, and amount of professional development related to teaching served as the predictor variables. The overall mean response calculated to capture the overall implementation of the seven principles for practice served as the dependent variable. An alpha level of .01 was set to determine the significance of the results (Mertler & Vannatta, 2005).

Summary

Within chapter three, an overview of the quantitative research design of this study has been presented. The purpose of this study was to build a quantitative framework to

examine faculty principles of practice in CLCs compared to faculty in non-CLC environments. For this study, the population of interest consisted of CLC faculty and non-CLC faculty who teach comparable courses at four-year, public universities of similar size in the Midwest. Utilizing electronic survey methods, demographic information was captured to assess the composition of respondents and to address a number of the research questions. Additionally, an electronic version of the *Faculty Inventory* was used to assess faculty principles of practice. Data collected from respondents was loaded into SPSS 16.0 edition and analyzed to specifically address each research question.

The chapters that follow provide further insight into the analysis and results of this study. Chapter Four includes an explanation of the findings from the collection and analysis of the data. Chapter Five offers a discussion of the study's major findings, implications, and recommendations for future research. Finally, an Appendix section is included to inform readers of supplementary materials, such as informed consent letters, survey instrument, and permission to use the instrument.

CHAPTER FOUR

RESULTS AND FINDINGS

Introduction

Colleges and universities across the nation have been forced to closely examine their operations as they seek to address the financial challenges currently confronting public higher education institutions (Aujla, 2009; Blumenstyk, 2009). Reduced governmental financial support paired with increased competition for students has forced institutions to closely examine how they attend to the academic concerns of students while addressing imminent budgetary shortfalls. Although aggressive recruitment, admissions and enrollment strategies may be useful to boosting tuition revenues, failure to address student retention on campus can lead to premature departure from the institution and a loss of future tuition benefits for the institution. Acknowledging the importance of future tuition revenue, colleges and universities are giving greater attention to student retention and degree completion efforts (Carey, 2005; Heldman, 2008; Lederman, 2009).

According to Tinto (1993), student departure decisions are most likely to occur during the first year of study. Research (Astin, 1993; Barefoot, 2004; Braxton, Hirschy, & McClendon, 2004; Tinto, 1993) has suggested attention should be given to students' first year of study. Consequently, many colleges and universities have incorporated a number of first-year experience programs designed to ease students' transition into higher education and improve student retention. These programs include curriculum focused efforts such as first-year seminars, curricular learning communities (CLCs), residential education, supplemental instruction, and service learning (Upcraft, Gardner, Barefoot, &

Associates, 2005). Of the curricular programs offered, Barefoot (2004) suggested the CLC design has the potential to realize the most significant retention improvements.

Shapiro and Levine (1999) noted CLCs potentially address the challenges facing higher education in a practical, pedagogically appropriate manner. When properly configured, the CLC structure provides first year students with a sense of community and collaboration, curricular cohesion, and academic as well as social integration (Smith, MacGregor, Matthews, & Gabelnick, 2004). In addition, the CLC design has been noted by Banta (2001) as having the potential to fully demonstrate Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education which include (a) encourages student-faculty contact, (b) encourages cooperation among students, (c) encourages active learning techniques, (d) gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning.

Although the CLC structure would appear to encourage the use of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987), little is known about the teaching practices that are implemented in these environments and how the practices differ from a traditional classroom setting. Furthermore, an understanding of the time investment faculty members make toward developing their teaching practices may provide greater insight into the CLC classroom. Smith (2001) noted, too often "learning communities are little more than block registration devices, with little or no alteration of the teaching and learning environment" (p. 7) when institutions under-invest in providing adequate professional development for their faculty. Without an understanding of the teaching practices utilized in these communities, it is

challenging to fully know why the CLC concept has been successful in improving student retention.

The purpose of this study was to build a quantitative framework to examine faculty principles of practice in CLCs compared to faculty in non-CLC environments. For this study, the population of interest consisted of CLC faculty and non-CLC faculty who teach comparable courses at large, four-year, public universities in the Midwest. Using electronic survey methods, demographic information was captured to assess the composition of respondents and to address a number of the research questions. Additionally, an electronic version of the *Inventories of Good Practice in Undergraduate Education: Faculty Inventory* (Chickering, Gamson, & Barsi, 1989), referred to as the *Faculty Inventory* in this study, was used to assess faculty principles of practice.

Within this chapter, the results of the statistical analysis performed on the data collected for the current study are presented. Demographic findings are discussed to provide an understanding of participant characteristics. Next, the research questions of this study are offered. Finally, the statistical analysis performed to address each question is reviewed followed by the findings of the analysis.

Demographics

To conduct this study the survey instrument was distributed electronically to 290 faculty members. Of the 290 invitations to participate, 73 individuals elected to complete the survey for a response rate of 25%. Respondents were not required to answer all questions which resulted in differing sample sizes for a number of the data analyses performed.

Of those participating in the study, 60.3% ($N = 44$) indicated they had taught in a

CLC classroom while 37% ($N = 27$) reported they had not taught in a CLC classroom

(see Table 1). Though all participants had taught in college classrooms, participants'

primary job role at their institutions varied (see Table 2). Nearly two-thirds (60.3%, $N =$

44) had the primary job role of faculty, 6.8% ($N = 5$) were advisors, 17.8% ($N = 13$) were

graduate students, 11% ($N = 8$) were administrators, and 4.1% ($N = 3$) reported having

Table 1

Faculty CLC Teaching Status

Teaching Status	Frequency	Percent	Valid Percent	Cumulative Percent
CLC Faculty	44	60.3	62.0	62.0
Non-CLC Faculty	27	37.0	38.0	100.0
Total	71	97.3	100.0	

Table 2

Participants' Primary Job Role

Primary Job Role	Frequency	Percent	Valid Percent	Cumulative Percent
Faculty	44	60.3	60.3	60.3
Advisor	5	6.8	6.8	67.1
Graduate Student	13	17.8	17.8	84.9
Administrator	8	11.0	11.0	95.9
Other	3	4.1	4.1	100.0
Total	71	100.0	100.0	

"other" primary responsibilities. Of the participants reporting their primary job role, 47.9% ($N = 35$) were full-time faculty, 4.1% ($N = 3$) were adjunct faculty, 2.7% ($N = 2$) were part-time faculty, and 5.5% ($N = 4$) were "other" faculty status.

The highest level of degree completion varied among participants. Over half (53.4%, $N = 39$) of the participants reported master's degrees as their highest degree completed, 30% ($N = 22$) noted doctoral degrees, and 16.4% ($N = 12$) indicated bachelor's degrees (see Table 3).

Table 3

Highest Degree Held by Participants

Degree Held	Frequency	Percent	Valid Percent	Cumulative Percent
Bachelor's Degree	12	16.4	16.4	16.4
Master's Degree	39	53.4	53.4	69.9
Doctoral Degree	22	30.1	30.1	100.0

The years of college teaching experience between CLC faculty and non-CLC faculty varied among the two groups (see Table 4). To compare the difference in teaching experience, seven categories for the years of teaching experience were created and data was transformed. The categories included (a) category 1: 1 – 4 years, (b) category 2: 5 – 8 years, (c) category 3: 9 – 12 years, (d) category 4: 13 – 16 years, (e) category 5: 17 – 20 years, and (f) category 6: 21 years or more. Crosstabulation data analysis was performed to better understand how the years of teaching experience differed. More CLC faculty ($N = 18$) had 21 years or more of teaching experience, whereas, more non-CLC faculty ($N = 10$) had 1 – 4 years of teaching experience. A chi-square test of independence was

computed to compare the frequency of CLC faculty and non-CLC faculty, and their

pattern of years of teaching experience. The analysis revealed a significant interaction [χ^2

(5) = 12.46, p = .03]. Faculty members in the CLC and non-CLC categories were not

proportionately dispersed throughout the years of teaching categories. These findings

support statistical significance. Consequently, the variables appear to be dependent.

Table 4

CLC Faculty and Non-CLC Faculty Years of Teaching Experience

Years of Teaching Experience Categories	CLC Faculty Frequency	CLC Faculty Percent	Non-CLC Faculty Frequency	Non-CLC Faculty Percent
1 – 4 years	6	14.0	10	38.5
5 – 8 years	7	16.3	4	15.4
9 – 12 years	7	16.3	1	3.8
13 – 16 years	2	4.7	4	15.4
17 – 20 years	3	7.0	3	11.5
21 years or more	18	41.9	4	15.4
Total	43	100.0	26	100.0

Participants' discipline of study varied as well (see Table 5). Of the disciplines

more frequently specified, 19.2% (N = 14) studied liberal arts, 17.8% (N = 13) studied

communications, 13.7% (N = 10) studied the sciences, and 12.3% (N = 9) studied

education. Additionally, 20.5% (N = 15) of participants noted their primary disciplines as

something "other" than the selections given on the survey instrument.

Table 5

Primary Discipline of Study

Discipline	Frequency	Percent	Valid Percent	Cumulative Percent
Liberal Arts	14	19.2	19.2	19.2
Communications	13	17.8	17.8	37.0
Science	10	13.7	13.7	50.7
Education	9	12.3	12.3	63.0
Business	4	5.5	5.5	68.5
Agriculture	2	2.7	2.7	71.2
Engineering	2	2.7	2.7	73.9
Fine and Applied Arts	1	1.4	1.4	75.3
Health	1	1.4	1.4	76.7
Law and Legal Studies	1	1.4	1.4	78.1
Medicine	1	1.4	1.4	79.5
Other	15	20.5	20.5	100.0

Note. $N = 71$.

Research Questions Findings

Data collected from the electronic survey was downloaded into SPSS 16.0 edition. A number of steps were taken to prepare the data for analysis. First, subscale averages were computed for each faculty member for each of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987). Participants

self-reported the level at which they practiced each principle by answering 10 questions related to each dimension for a total of 70 questions. Response selections for each question were based on a five point Likert scale of 1 to 5 (1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Often, and 5 = Very Often). The subscales were computed by adding the responses to the ten questions tied to each principle and then dividing that answer by 10. Additionally, an overall score for the use of Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) was also computed by adding the seven subscales of each principle and dividing that answer by seven.

The reliability of each subscale was then examined by conducting a Cronbach-alpha analysis. The results ranged from .698 to .833, with the *gives prompt feedback* subscale performing lowest (Cronbach-alpha = .698) and the *encourages student-faculty contact* subscale performing highest (Cronbach-alpha = .833). The reliability of the remaining subscales was as follows: (a) *encourages active learning techniques* (Cronbach-alpha = .822), (b) *encourages cooperation among students* (Cronbach-alpha = .797), (c) *respects diverse talents and ways of learning* (Cronbach-alpha = .724), (d) *emphasizes time on task* (Cronbach-alpha = .718), and (e) *communicates high expectations* (Cronbach-alpha = .715).

Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education served as a point of reference to craft the following research questions. These research questions served as a guide for the researcher to frame and develop this study.

1. What are the most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented by CLC faculty compared to non-CLC faculty?

2. Are there significant differences in the implementation level of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) among CLC faculty and their non-CLC counterparts?

3. Does the annual amount of professional development hours related to teaching differ between CLC faculty and non-CLC faculty?

4. Is there a relationship between years of teaching experience among faculty and the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?

5. How are the factors of being CLC or non-CLC faculty, years of teaching experience, and amount of professional development related to teaching associated with the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987)?

Prevalence of the Seven Principles for Good Practice

The most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented by CLC faculty compared to non-CLC faculty were examined to detect differences between the groups. To conduct the analysis, mean responses for each of the Seven Principles for Good Practice including (a) *encourages student-faculty contact*, (b) *encourages cooperation among students*, (c) *encourages active learning techniques*, (d) *gives prompt feedback*, (e) *emphasizes time on task*, (f) *communicates high expectations*, and (g) *respects diverse*

talents and ways of learning were calculated for each participant. The mean responses were grouped based on the participants' CLC faculty status. The CLC faculty and non-CLC faculty means were then compared to discern which principles were the most and least prevalent in the two groups. An examination of the mean response data revealed CLC faculty scored higher than their non-CLC counterparts on the use of all Seven Principles for Good Practice. Table 6 depicts the mean responses for each group ranking each principle from most prevalent to least prevalent, using the mean responses for CLC faculty for the ranking.

Both similarities and differences existed between CLC faculty and non-CLC faculty in regard to the most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented. CLC faculty mean responses from most to least prevalent were *communicates high expectations* (4.39, $N = 41$), *emphasizes time on task* (4.12, $N = 41$), *encourages cooperation among students* (4.09, $N = 41$), *encourages active learning techniques* (3.87, $N = 42$), *gives prompt feedback* (3.69, $N = 42$), *encourages student-faculty contact* (3.60, $N = 41$), and *respects diverse talents and ways of learning* (3.54, $N = 39$). Non-CLC faculty mean responses from most to least prevalent included *communicates high expectations* (4.14, $N = 24$), *emphasizes time on task* (3.94, $N = 25$), *encourages cooperation among students* (3.92, $N = 26$), *gives prompt feedback* (3.50, $N = 25$), *encourages active learning techniques* (3.46, $N = 25$), *respects diverse talents and ways of learning* (3.46, $N = 24$), and *encourages student-faculty contact* (3.36, $N = 27$).

Similarities existed in three of the most prevalent principles practiced among CLC faculty and non-CLC faculty. Both groups noted *communicates high expectations* as the

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Table 6

Mean Responses for CLC Faculty and Non-CLC Faculty Use of the Seven Principles

Principle		CLC Faculty	Non-CLC Faculty
High Expectations*	Mean	4.39	4.14
	N	41	24
	Std. Dev.	.45	.42
Time on Task	Mean	4.12	3.94
	N	41	25
	Std. Dev.	.53	.51
Cooperation Among Students	Mean	4.09	3.92
	N	41	26
	Std. Dev.	.69	.55
Active Learning*	Mean	3.87	3.46
	N	42	25
	Std. Dev.	.72	.61
Prompt Feedback	Mean	3.69	3.50
	N	42	25
	Std. Dev.	.61	.52
Student-faculty Contact	Mean	3.60	3.36
	N	41	27
	Std. Dev.	.70	.71
Diverse Ways of Learning	Mean	3.54	3.46
	N	39	24
	Std. Dev.	.67	.61

Note. Likert scale: 1=Never, 2=Rarely, 3=Occasionally, 4=Often, and 5=Very Often. (*Sig at .05.)

most prevalent principle practiced followed by *emphasizes time on task* and *encourages cooperation among students*. Differences did exist on the prevalence of the remaining principles. An examination of CLC faculty mean responses revealed *respects diverse talents and ways of learning* as the least prevalent principle practiced. Conversely, non-CLC faculty mean responses revealed responses *encourages student-faculty contact* as the least prevalent principle practiced.

Differences in the Implementation Level of the Seven Principles for Good Practice

Eight independent samples *t*-tests were computed to detect significant differences in the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) among CLC faculty and their non-CLC counterparts. Independent samples *t*-tests were utilized to determine if any of the Seven Principles for Good Practice subscales as well as the overall subscale were affected by CLC or non-CLC faculty status. An alpha level of .01 was used for each independent samples *t*-test.

Although CLC faculty appeared to implement more of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987), the independent samples *t*-tests revealed no significant differences at an alpha of .01. Two principles, *encourages active learning* [CLC faculty mean = 3.87, *sd* = .72; non-CLC faculty mean = 3.46, *sd* = .61; *t*(65) = 2.36, *p* = .021] and *communicates high expectations* [CLC faculty mean = 4.39, *sd* = .45; non-CLC faculty mean = 4.14, *sd* = .42; *t*(63) = 2.23, *p* = .03], however, did have significantly different mean responses between CLC faculty and non-CLC faculty at an alpha of .05 as noted in Table 7 and supported by data in Table 6.

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Table 7

Independent Samples t-Test Comparing CLC Faculty and Non-CLC Faculty

	t-test for Equality of Means		
	t	*df*	*Sig.*
Student-Faculty Contact	1.39	66	.17
Cooperation Among Students	1.05	65	.29
Active Learning*	2.36	65	.02
Prompt Feedback	1.25	65	.22
Time on Task	1.29	64	.20
High Expectations*	2.23	63	.03
Diverse Ways of Learning	.45	64	.65
Overall Implementation	1.87	50	.07

Note. * Sig. at .05.

When examining the remaining principles, the results revealed no significant difference in CLC faculty compared to non-CLC faculty mean responses to *encourages student-faculty contact* [CLC faculty mean = 3.60, *sd* = .70; non-CLC faculty mean = 3.36, *sd* = .71; *t*(66) = 1.39, *p* = .170]. The results indicated no significant difference in CLC faculty compared to non-CLC faculty mean responses to *encourages cooperation among students* [CLC faculty mean = 4.09, *sd* = .69; non-CLC faculty mean = 3.92, *sd* = .55; *t*(65) = 1.05, *p* = .29]. The findings indicated no significant difference of mean responses between CLC faculty and non-CLC faculty in the implementation of *gives prompt feedback* [CLC faculty mean = 3.69, *sd* = .61; non-CLC faculty mean = 3.50, *sd* =

.52; $t(65) = 1.25$, $p = .22$]. The results revealed no significant difference in mean responses between CLC faculty and non-CLC faculty regarding the *emphasis of time on task* [CLC faculty mean = 4.12, *sd* = .53; non-CLC faculty mean = 3.94, *sd* = .51; $t(64) = 1.29$, $p = .20$]. The results revealed no significant difference of CLC faculty and non-CLC faculty mean responses to *respects diverse ways of learning* [CLC faculty mean = 3.54, *sd* = .67; non-CLC faculty mean = 3.46, *sd* = .61; $t(64) = .45$, $p = .65$]. Examining the CLC faculty and non-CLC faculty mean responses to the *overall implementation of the Seven Principles for Good Practice in Undergraduate Education*, revealed no significant difference [CLC faculty mean = 3.88, *sd* = .48; non-CLC faculty mean = 3.65, *sd* = .33; $t(50) = 1.87$, $p = .067$].

Professional Development Differences

To determine if the amount of professional development hours related to teaching differed between CLC faculty and non-CLC faculty, a chi-square test of independence was utilized. First, participant responses to the number of professional development hours completed were placed within four categories. Figure 1 depicts the dispersion of the professional development data within the categories (a) 1–5 hours, (b) 6–10 hours, (c) 11-15 hours, and (d) 16–20 hours.

Next, a chi-square test of independence was computed to compare the frequency of CLC faculty and non-CLC faculty, and their pattern of professional development hours related to teaching. The results from the analysis revealed a significant interaction was not found [$\chi^2 (3) = 7.3$, $p = .064$]. Faculty in the CLC and non-CLC categories were not proportionately dispersed throughout the professional development hours categories. The

findings do not support statistical significance. Thus, the variables appear to be independent of each other.
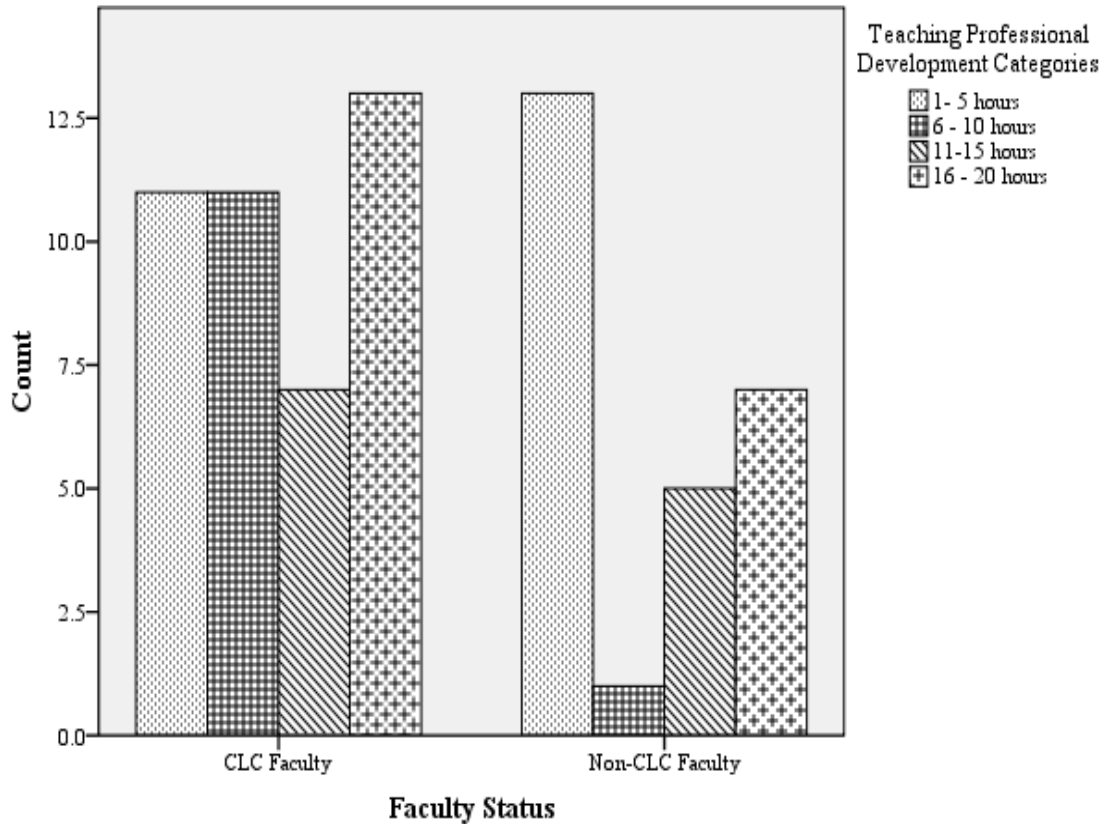
Figure 1. Professional development differences among CLC faculty and non-CLC faculty

Relationship between Teaching Experience and the Seven Principles for Good Practice

The relationship between teaching experience and the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) was considered by calculating seven Pearson correlations (*r*) noted in Table 8. The parameters used to determine the strength of the relationship among the variables were as follows: a correlation of .7 or higher was considered a strong relationship, a correlation of

Table 8

Correlation of Years of College Teaching Experience with the Seven Principles

		Years of Teaching Experience
Student-Faculty Contact**	Pearson Correlation	.31
	Sig. (2-tailed)	.01
	N	68
Cooperation Among Students	Pearson Correlation	-.06
	Sig. (2-tailed)	.60
	N	67
Active Learning	Pearson Correlation	.00
	Sig. (2-tailed)	.99
	N	67
Prompt Feedback	Pearson Correlation	.07
	Sig. (2-tailed)	.54
	N	67
Time on Task	Pearson Correlation	.22
	Sig. (2-tailed)	.07
	N	66
High Expectations	Pearson Correlation	.09
	Sig. (2-tailed)	.44
	N	65
Diverse Ways of Learning	Pearson Correlation	.14
	Sig. (2-tailed)	.24
	N	66

Note. **Correlation significant at the 0.01 level (2-tailed). *Correlation significant at the 0.05 level (2-tailed).

.4 to .6 was considered a moderate relationship, and a correlation of .1 to .3 was considered a weak relationship. The alpha level to determine the significance of the relationship was .01.

Upon review of the data, only one significant relationship between *years of college teaching experience* and the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) was realized. A significant relationship between *years of college teaching experience* and the principle, *encourages student-faculty contact*, was revealed ($r = .31$; $p = .01$). The direct relationship between the two variables indicates that as years of college teaching experience increases, the implementation of *encourages student-faculty contact* also increases. Though the relationship was significant, the strength of the relationship was moderate to weak at best. The remaining six variables, (a) *encourages cooperation among students* ($r = -.06$; $p = .60$), (b) *encourages active learning techniques* ($r = .00$; $p = .99$), (c) *gives prompt feedback* ($r = .07$; $p = .54$), (d) *emphasizes time on task* ($r = .22$; $p = .07$), (e) *communicates high expectations* ($r = .09$; $p = .44$), and (f) *respects diverse talents and ways of learning* ($r = .14$; $p = .24$) demonstrated no significant relationship with years of college teaching experience.

Factors Associated with the Implementation of the Seven Principles for Good Practice

Backward deletion multiple regression was conducted to determine a parsimonious model for predicting the overall implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987). Predictor variables included *CLC faculty status, years of teaching experience,* and *amount of professional development related to teaching*. The backward deletion method of multiple

regression allowed all predictor variables to be loaded into the model. The contribution of each predictor was assessed for the level of significance. If a predictor was not significant, it was removed from the model, and the model was recalculated with the remaining variables (Field, 2009). The results of the backward deletion multiple regression analysis as well as the models examined are presented in Table 9.

Table 9

Multiple Regression Analysis of the Seven Principle Implementation Predictors

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.32[a]	.11	.05	.44
2	.32[b]	.11	.07	.43
3	.31[c]	.10	.08	.43

Note. a. Predictors: (Constant), Hours of Teaching Professional Development, Years of College Experience, Faculty CLC Status

b. Predictors: (Constant), Hours of Teaching Professional Development, Faculty CLC Status

c. Predictors: (Constant), Faculty Status.

CLC faculty status was the significant predictor for the overall implementation of the Seven Principles for Good Practice ($R = .32$; $p = .03$). The predictor variables removed from the final model were *amount of professional development related to teaching* and *years of teaching experience*. As noted in Table 9, the coefficient of determination, R^2, was .10 meaning 10% of the variance in one variable can be accounted for by the other variables. The beta weight of this model ($b = -.293$) indicated CLC

faculty were likely to have higher overall implementation of the Seven Principles for Good Practice than their non-CLC counterparts.

Summary

The purpose of this study was to build a quantitative framework to examine faculty principles of practice in CLCs compared to faculty in non-CLC environments. Using Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education as a guide, five research questions were developed to help focus the study. Data was then collected by administering an electronic version of the *Faculty Inventory* and demographic measures. The reliability of the instrument was tested by calculating Cronbach-alphas for each subscale created for the Seven Principles for Good Practice. A number of data analysis techniques were then performed to address each research question.

Research question, "What are the most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented by CLC faculty compared to non-CLC faculty?", was addressed by performing a means response analysis. The analysis revealed both CLC faculty and non-CLC faculty implemented the principle of *communicates high expectations* the most followed by *emphasizes time on task* and *encourages cooperation among students*. Differences existed in the principle practiced the least. CLC faculty reported implementing *respects diverse talents and ways of learning* the least, whereas non-CLC faculty indicated implementing *encourages student-faculty contact* the least.

Research question two, "Are there significant differences in the implementation level of the Seven Principles for Good Practice in Undergraduate Education (Chickering

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& Gamson, 1987) among CLC faculty and non-CLC faculty?", was examined by

performing eight independent samples *t*-tests. The analysis revealed no significant

differences between the two groups in the implementation level of the principles with an

alpha level of .01. At an alpha level of .05, however, the results revealed two principles

of practice, *encourages active learning* and *communicates high expectations,* were

significantly different in the level of implementation with CLC faculty reporting higher

scores.

Research question three, "Does the amount of professional development hours

related to teaching differ between CLC faculty and non-CLC faculty?", was analyzed by

calculating a chi-square test of independence. The results revealed no significant

interaction between the categories. Additionally, the variables appeared to be independent

of each other.

Research question four, "Is there a relationship between years of teaching

experience among faculty and the implementation of the Seven Principles for Good

Practice in Undergraduate Education (Chickering & Gamson, 1987)?", was addressed by

calculating seven Pearson correlations (*r*). The analysis revealed only the principle of

encourages student-faculty contact demonstrated a direct relationship with years of

teaching experience. The relationship was considered moderate to weak given the

parameters established.

Research question five, "How are the factors of being *CLC faculty or non-CLC*

faculty status, years of teaching experience, and *amount of professional development*

related to teaching associated with the implementation of the Seven Principles for Good

Practice in Undergraduate Education (Chickering & Gamson, 1987)?", was examined by

utilizing multiple regression. The results revealed that the factor of *CLC faculty or non-CLC faculty* was the strongest predictor of the use of the Seven Principles for Good Practice. Both of the factors, *years of teaching experience* and *amount of professional development*, were removed via backward deletion methods to improve the regression model.

The preceding chapter provided an explanation of the results from the data analysis conducted for this study. Chapter Five offers a discussion of the study's major findings, the implications for practice, and recommendations for future research. Finally, an Appendix section is provided to inform readers of supplementary materials, such as informed consent letters, survey instrument, and permission to use the instrument.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

Introduction

The current economic climate has forced colleges and universities nationwide to closely examine their operations as they look for ways to overcome financial distress (Aujla, 2009; Blumenstyk, 2009). Dwindling revenue streams from governmental sources and greater competition for students has caused institutions to consider how to best serve student concerns with the limited resources available. While increased student numbers often translates into additional tuition revenue, the surge of financial gain from these students may quickly be lost if the students do not return to the institution the next year. Consequently, student retention and degree completion efforts have garnered greater attention from higher education administrators (Carey, 2005; Heldman, 2008; Lederman, 2009).

Students who decide to depart most often do so during the first year of study (Tinto, 1993). Accordingly, many institutions have implemented a number of first-year experience programs designed to improve student retention. These programs have included both curricular and non-curricular efforts (Upcraft et al., 2005). Of the curricular first-year programs implemented, the curricular learning community concept (CLC) has been noted as having the greatest potential to realize student retention improvements (Barefoot, 2004).

The intent of this study was to examine the teaching practices occurring in the CLC classroom compared to those in a traditional classroom setting. To do so, a quantitative study was designed to evaluate faculty principles of practice in CLC

environments compared to faculty in non-CLC environments. Five research questions were developed by using Chickering and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education as a guide. The Seven Principles for Good Practice include (a) encourages student-faculty contact, (b) encourages cooperation among students, (c) encourages active learning techniques, (d) gives prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respects diverse talents and ways of learning

Using a sample of faculty from three, large, public four-year universities from the Midwest, data was collected using electronic survey methods. Teaching practices data was obtained via the *Inventories of Good Practice in Undergraduate Education: Faculty Inventory* (Chickering et al., 1989) referred to as the *Faculty Inventory* in this study. Additionally, demographic data was collected in order to address the five research questions. A number of data analysis techniques were then implemented to compare the teaching practices of CLC faculty compared to non-CLC faculty.

In Chapter Four the results of the data analysis were presented. Within this chapter, the study's conclusions of the results are offered. Then, a discussion section is presented to provide further understanding of the study's findings. Next, the limitations of the study are discussed to provide greater insight into the study's challenges. Finally, the study's implications for practice and recommendation for future research are presented.

Conclusions

The current study was designed to provide a better understanding of the teaching practices implemented by CLC faculty compared to non-CLC faculty. Using Chickering

and Gamson's (1987) Seven Principles for Good Practice in Undergraduate Education as a guide, five research questions were developed. Data was then collected and analyzed to address each research question.

An examination of the results pertaining to the most and least prevalent Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) implemented by CLC faculty compared to non-CLC faculty revealed both CLC and non-CLC faculty utilized the principles of *communicates high expectations*, *emphasizes time on task*, *encourages cooperation among students* the most although at differing levels. CLC faculty and non-CLC faculty differed in the principle used the least. CLC faculty used *respects diverse talents and ways of learning* the least, whereas non-CLC faculty used *encourages student-faculty contact* the least.

An analysis of the results pertaining to the differences in CLC faculty and non-CLC faculty implementation levels of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) revealed no significant difference among the two groups at an alpha of .01. However, at an alpha of .05 the implementation levels of two principles, *encourages active learning* and *communicates high expectations*, did reveal significant differences in implementation levels.

An examination of the results related to differences in professional development hours completed by CLC faculty and non-CLC faculty revealed no significant difference. The variables of *CLC faculty status* and *professional development hours related to teaching* appeared to be independent. CLC faculty did not complete significantly more hours of professional development than non-CLC faculty.

A review of the demographic data revealed a significant interaction was found between *CLC faculty status* and *years of teaching experience*. CLC faculty reported having significantly more years of teaching experience. The *years of teaching experience*, however, did not appear to have a strong relationship with the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987). With the exception of *encourages student-faculty contact*, *years of teaching experience* was not significantly correlated to the use of the principles.

The analysis of how *CLC faculty or non-CLC faculty status, years of teaching experience,* and *amount of professional development related to teaching* were associated with the implementation of the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) revealed that the factor of *CLC faculty or non-CLC faculty* was the strongest predictor of the use of the Seven Principles for Good Practice. Both of the factors, *years of teaching experience* and *amount of professional development*, were removed via backward deletion methods to improve the regression model.

Discussion

The CLC faculty mean responses to the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987) were all higher than the mean responses of their non-CLC counterparts. Additionally, CLC faculty status appeared to be a predictor of the overall implementation of the Seven Principles for Good Practice. These findings perhaps support the claims of Banta (2001) and MacGregor (2000) that CLCs provide the opportunity to exemplify the Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987).

CLC faculty appear to implement two principles, *encourages active learning* and *communicates high expectations*, significantly more than their non-CLC counterparts. MacGregor (2000) acknowledges the CLC design fosters the use of active learning practices. Previous research has found active learning linked to improved understanding of course material (Chickering & Gamson, 1987; Johnson, Johnson, & Smith, 1998; McKeachie, Pintrich, Lin, & Smith, 1986), individual student educational gains (Kuh, Pace, & Vesper, 1997), student engagement (Umbach & Wawrzynski, 2004), personal and social awareness (Strayhorn, 2008), and higher-order thinking (Sorcinelli, 1991). Additionally, students who have encountered active learning have been shown to be less likely to depart their institution (Braxton, Milem, & Sullivan, 2000). In regard to the influence of communicating high expectations, Kuh et al. (2007) found institutions demonstrating a strong student success orientation had a greater tendency to hold high expectations for all students. The effects of both active learning techniques and communicates high expectations appeared to be in line with the intent of student retention and first-year program efforts (Upcraft et al., 2005).

The results pertaining to the differences in professional development hours completed by CLC faculty members and non-CLC faculty members are somewhat conflicting with the research that has been conducted on the importance of professional development in CLCs (Darabi, 2006; Shapiro & Levine, 1999). The results suggest perhaps time spent in professional development activities may not be as important as the type of professional development faculty attend. Previous research has suggested CLC professional development requires a broader approach than is traditionally used (Hunter, 2006b; Laufgraben & Shapiro, 2004; Smith et al., 2004). Smith, MacGregor, Matthews,

and Gabelnick (2004) asserted CLC professional development should take a systematic and comprehensive approach to address "faculty recruitment, orientation, curriculum planning, the introduction and support of new pedagogies, student development and adjustment issues, and different forms of assessment" (p. 289). Hunter (2006b) further added that a CLC professional development program addresses student characteristics and demographics, active learning teaching pedagogies, resource development, and evaluation and assessment techniques. Professional development, however, does not occur only in formal training sessions. Instead, professional development can occur simply by participating in the acts and collaboration that sustain the CLC (Albers, 2005).

Research has demonstrated the CLC concept to be a viable option for addressing institutional challenges (Barefoot, 2004; Cross, 1998; Engstrom & Tinto, 2007; National Survey of Student Engagement, 2007; Tinto, 2003; Zhao & Kuh, 2004); however, only a small amount of empirical research exists on the faculty practices and experiences in these learning communities (MacGregor, 2000; McClure, Atkinson, & Wills, 2008). Shapiro and Levine (1999) noted a lack of real evidence has been collected in terms of faculty teaching practices in learning communities. Though small in scope, the results of this study have provided some insight into the differences and similarities of the teaching practices utilized by CLC faculty compared to non-CLC faculty. Although the findings may be limited, they do add to the existing body of research on this topic. What may be of greatest interest in this study is not what was found, but instead what was not found and what needs to be further examined.

Limitations

In any research, it is important to recognize and acknowledge limitations may exist. Within this study, a number of limitations were present. First, this study examined only three public, four-year universities located in the Midwest. These universities all held a Carnegie Foundation size classification of "large," which is defined by the foundation as enrolling at least 10,000 full-time equivalent, degree-seeking students (The Carnegie Foundation for the Advancement of Teaching, 2004)**.** Additionally, the length of time and type of CLCs offered by the universities varied among the institutions. Consequently, the generalizability of the study's findings may be limited in scope.

Second, the survey instrument, the *Faculty Inventory*, used in this study captured only self-reported faculty data. The nature of self-reporting provided faculty the opportunity to present themselves in a particular manner. As a result, the self-reported data may have been skewed depending on the respondents' perception of their teaching practices.

Third, the survey length may have limited the number of participants willing to participate in the study. The survey instrument included a number of demographic questions as well as the *Faculty Inventory* which contained 70 questions. Participation may have been deterred as faculty reviewed the length of the survey. A review of the data revealed that a number of faculty members started, but did not complete the survey.

Finally, the response rate of 25% may have limited the strength of the study's results. Additionally, participants were not required to answer all questions. As a result, varying *N* values were found throughout the study.

Implications for Practice

As noted earlier, CLCs have been shown to have a positive impact on students, and, ultimately, institutions (Barefoot, 2004; Cross, 1998; Engstrom & Tinto, 2007; National Survey of Student Engagement, 2007; Tinto, 2003; Zhao & Kuh, 2004). If CLC teaching practices are a contributing factor of CLCs, then the question becomes how can the success that has been realized in the CLC structure be transferred to the traditional classroom environment? The results of this study did provide some perspectives as to where efforts can be focused.

Though not significant in all Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987), CLC faculty did have a higher mean response on all seven principles. Chickering and Gamson (1987) asserted the implementation of all Seven Principles for Good Practice supports "activity, cooperation, diversity, expectations, interaction, and responsibility" (p. 4), all powerful forces in education. Additionally, the principles are not discipline specific meaning they are applicable to a variety of academic environments. While the structures of CLCs do provide opportunities to encourage active learning and cooperation among students (MacGregor, 2000), these principles can also be incorporated into the traditional classroom setting.

Professional development can be instrumental in developing and encouraging these principles. According to Laufgraben and Shapiro (2004), the professional development experienced by CLC faculty often serves as "the road map to help teachers navigate the shift from the traditional ways of teaching to the more active and collaborative modes of pedagogy characteristic of learning communities" (p. 77). Similar

professional development experiences could be designed and offered to non-CLC faculty to provide them the opportunity to shift their pedagogical methods.

In addition to examining professional development strategies, attention may need to be given to the structural design benefits of CLCs and how these benefits could be transferred into a traditional classroom setting. The CLC design encourages the social interaction among students. Pastors (2006) noted that freshman students participating in CLCs believed the primary benefit of the CLC was the social interactions that occurred with peers. Students in CLCs have a greater tendency to form self-supporting groups in their learning communities and engage in activities with their classmates outside of the classroom compared to those who are in a traditional classroom setting (Tinto, 2003).

Two approaches could be utilized to realize the collaborative and social integration of CLCs in a non-CLC environment. First, non-CLC faculty could be encouraged to incorporate activities that facilitate social interactions among students. While giving attention to social integration may take away from the amount of content that could be covered, the potential improvements in first-year student retention may outweigh the reduction in course content. Second, greater attention could be given to the extra-curricular social integration activities that may be offered on college and university campuses as a whole. Non-CLC faculty could work with campus coordinators to gain awareness of extracurricular activities offered on campus. Faculty members could then attend select activities and encourage their students to attend these events with them. Support from administrators may be needed to encourage faculty members to implement both of these social integration approaches.

Recommendations for Future Research

      While the current study revealed some interesting findings, more research is needed to better understand the true impact of the CLC concept. This particular study focused on the teaching practices of CLC faculty members compared to their non-CLC faculty counterparts. The data collected in this study provided some insight, but additional research approaches could reveal more. First, replicating the study with an expanded sample size could strengthen and add to the results of this study. A number of the data analysis techniques revealed alpha levels close to the .05 threshold. A larger sample size could reveal a greater number of factors that meet the .05 alpha level.

      Second, gaining insight from the students who participate in CLCs compared to non-CLC students regarding the teaching approaches they have encountered could be useful. The current study relied only on self-reported data from faculty. By collecting student data in addition to faculty data, a more comprehensive picture could be realized as to what is occurring in these two classroom environments.

      Third, research could be conducted to examine whether different teaching practices are occurring in the varying CLC structures. Shapiro and Levine (1999) noted all CLC structures have the potential for achieving a number of commonalities such as collaboration and integration for both students and faculty. Little is known, however, about how or if these differing structures influence the teaching practices utilized by faculty. A better understanding of how these structures influence teaching could prove useful to institutions that are seeking to implement CLCs on their campus.

      Finally, professional development has been noted by researchers (Shapiro & Levine, 1999; Smith et al., 2004) as being a critical component of the CLC concept.

While this study revealed no significant difference in the amount of professional development hours between CLC faculty and non-CLC faculty, it did not address the professional development topics or formats faculty attended. By knowing both the professional development topics and formats attended, a better understanding could be achieved of how the teaching practices of CLC faculty and non-CLC faculty are potentially influenced.

The CLC design has been shown to be an effective mechanism for improving student retention (Shapiro & Levine, 1999; Smith et al., 2004; Tinto, 2003; Upcraft et al., 2005). The current study attempted to discover the teaching practices that are occurring in the CLC classroom environment and gain a better understanding as to how the practices may differ from the traditional classroom environment. With more knowledge of what is occurring in the CLC environments, institutions can work to transfer those practices to the traditional classroom environment. As higher education budgets continue to shrink, transferring the positive impacts of the CLC experience to the non-CLC classroom may become more important than ever.

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APPENDIX A

Permission to Use the Inventories of Good Practice in Undergraduate Education:

Faculty Inventory

March 9, 2009

Dear Ms. Hein,

Reprint permission granted for the aforementioned publication in the manner described, as long as you credit The Johnson Foundation.

Sincerely,

Ms. Grazyna T. Elwell
Accounting/Administrative Assistant

APPENDIX B

IRB Approval Letter

Dear Investigator:

Your human subject research project entitled A Comparative Study of Faculty Principles of Practice in Curricular Learning Communities and Non-curricular Learning Communities Environments meets the criteria for EXEMPT APPROVAL and will expire on February 11, 2011. Your approval will be contingent upon your agreement to annually submit the "Annual Exempt Research Certification" form to maintain current IRB approval. The Campus IRB is required to maintain a record of all human subject research activities conducted under its jurisdiction, and this includes exempt research.

*We reserve the right to seek clarification from you to confirm this exempt status.

You must submit the Annual Exempt Research Certification form before **December 28, 2010**. Failure to timely submit the certification form by the deadline will result in automatic expiration of IRB approval.

If you wish to revise your exempt activities, you must contact the Campus IRB office for a determination of whether the proposed changes will continue to qualify for exempt status. You may do this by email. You will be expected to provide a description of the proposed revisions and how it will impact the risks to subject participants.

Please be aware that all human subject research activities must receive prior approval by the IRB prior to initiation, regardless of the review level status. If you have any questions regarding the IRB process, do not hesitate to contact the Campus IRB office at (573) 882-9585.

Campus Institutional Review Board

APPENDIX C

Recruitment Email for Participants

Dear Prospective Participant:

My name is Stephanie Hein, a doctoral student at the University of Missouri-Columbia and faculty member at Missouri State University. I am currently conducting a comparative study for my dissertation of the faculty teaching practices in undergraduate classes. The purpose of this study is to examine the various faculty principles of practice that are utilized in the undergraduate classroom. This information will be utilized to better understand the different teaching practices that are occurring in varying classroom environments.

I invite you to participate in this study by completing the survey found at the link below. The survey is divided into three parts. First, an informed consent statement is given so that you can review your rights as a participant. Next, you will be asked to provide some demographic information. Finally, you will be asked to complete an electronic version of the Faculty Inventory, created by Chickering, Gamson, and Barsi, which assesses seven principles of practice. The survey will take approximately 10 minutes of your time to complete. All responses will be anonymous and data will only be shared with others in aggregate form.

This project has been reviewed and approved by the University of Missouri-Columbia Campus Institutional Review Board (IRB) and has received approval from the appropriate administrators at your institution. The project is being supervised by Dr. Cindy MacGregor, Associate Professor, CLSE, Missouri State University (417.836.6046). You may contact me by phone at 417.836.5159 or email at StephanieHein@missouristate.edu if you have questions or concerns about your participation.

Thank you in advance for your valuable feedback. Please click on the link below to begin this survey. Alternatively, you may cut and paste the url provided below into your browser. The survey will be available Monday, February 15, 2010 through Tuesday, March 9, 2010.

Start Survey

http://undergraduateteachingpractices.questionpro.com/

Sincerely,

Sincerely,
Stephanie Hein
University of Missouri-Columbia, Doctoral Candidate

Survey of Teaching Practices in the Undergraduate Classroom

Utilizing Chickering, Gamson, and Barsi's (1989) Faculty Inventory

Copy of the Web Based Survey Instrument

Informed Consent Statement

Thank you for considering participation in this comparative study of faculty principles of practice in undergraduate classes. This study is being conducted in partial fulfillment of the requirements for the Doctor of Education degree in Educational Leadership and Policy Analysis at the University of Missouri-Columbia. The purpose of this study is to examine the various faculty principles of practice that are utilized in freshman level undergraduate classes. This information will be utilized to better understand the different teaching practices that are occurring in varying classroom environments.

Before you make a final decision about participation, please read the following about how your input will be used and how your rights as a participant will be protected:

- Participation in the study is completely voluntary. You may stop participating at any point without penalty.
- You need not answer all of the questions
- Your responses will be anonymous and kept confidential. Results will be presented to others in summary form only, without names or other identifying information.
- Your participation will take approximately 10 minutes. During this time you will complete an electronic version of the Faculty Inventory.
- The data will be held in a secured manner.

This project has been reviewed and approved by the University of Missouri-Columbia Campus Institutional Review Board (IRB). The project is being supervised by Dr. Cindy MacGregor, Associate Professor, CLSE, Missouri State University (417.836.6046). You may contact me by phone at 417.836.5159 or email at StephanieHein@missouristate.edu if you have questions or concerns about your participation.

Thank you in advance for your valuable feedback. Please select "Begin Survey" and "Continue" if you agree to participate in this study.

Sincerely,
Stephanie Hein
University of Missouri-Columbia, Doctoral Candidate

1. Begin Survey
2. Exit Survey

Demographic Information

What is your primary discipline of study?
1. Agriculture
2. Business
3. Communications
4. Education
5. Engineering
6. Fine and Applied Arts
7. Health
8. Law and Legal Studies
9. Liberal Arts
10. Medicine
11. Science
12. Other

What is your highest level of degree completion?
1. Bachelor's Degree
2. Master's Degree
3. Doctoral Degree

How many years have you been teaching in the college classroom?
1. 1 year or less
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. 10
11. 11
12. 12
13. 13
14. 14
15. 15
16. 16
17. 17
18. 18
19. 19
20. 20
21. 21
22. 22
23. 23
24. 24
25. 25 years or more

On average, how many hours of professional development pertaining to teaching practices do you complete each year?

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. 10
11. 11
12. 12
13. 13
14. 14
15. 15
16. 16
17. 17
18. 18
19. 19
20. 20 hours or more

Have you taught an undergraduate course that was part of a curricular learning community (defined as linked courses that enroll a common cohort of students)?

1. Yes
2. No

What is your primary role at your institution?

1. Faculty
2. Advisor
3. Graduate Student
4. Administrator
5. Other

If your primary role is faculty, which of the following best describes you?

1. Adjunct Faculty
2. Part-time Faculty
3. Full-time Faculty
4. Other

Faculty Inventory
Student-Faculty Contact

	Very Often	Often	Occasionally	Rarely	Never	N/A
I advise my students about career opportunities in their major field.	❏	❏	❏	❏	❏	❏
Students drop by my office just to visit.	❏	❏	❏	❏	❏	❏
I share my past experiences, attitudes, and values with students.	❏	❏	❏	❏	❏	❏
I attend events sponsored by student groups.	❏	❏	❏	❏	❏	❏
I work with student affairs staff on issues related to student extracurricular life and life outside of school.	❏	❏	❏	❏	❏	❏
I know my students by name by the end of the term.	❏	❏	❏	❏	❏	❏
I make special efforts to be available to students of a culture or race different from my own.	❏	❏	❏	❏	❏	❏
I serve as a mentor or informal advisor to students.	❏	❏	❏	❏	❏	❏
I take students to professional meetings or other events in my field.	❏	❏	❏	❏	❏	❏
Whenever there is a conflict on campus involving students, I try to help in its resolution.	❏	❏	❏	❏	❏	❏

Cooperation Among Students

	Very Often	Often	Occasionally	Rarely	Never	N/A
I ask students to tell each other about their interests and backgrounds.	❏	❏	❏	❏	❏	❏
I encourage my students to prepare together for classes or exams.	❏	❏	❏	❏	❏	❏
I encourage students to do projects together.	❏	❏	❏	❏	❏	❏
I ask my students to evaluate each other's work.	❏	❏	❏	❏	❏	❏
I ask my students to explain difficult ideas to each other.	❏	❏	❏	❏	❏	❏
I encourage my students to praise each other for their accomplishments.	❏	❏	❏	❏	❏	❏
I ask my students to discuss key concepts with other students whose backgrounds and viewpoints are different from their own.	❏	❏	❏	❏	❏	❏
I create "learning communities," study groups, or project teams within my courses.	❏	❏	❏	❏	❏	❏
I encourage students to join at least one campus organization.	❏	❏	❏	❏	❏	❏
I distribute performance criteria to students so that each person's grade is independent of those achieved by others.	❏	❏	❏	❏	❏	❏

Active Learning

	Very Often	Often	Occasionally	Rarely	Never	N/A
I ask my students to present their work to the class.	❏	❏	❏	❏	❏	❏
I ask my students to summarize similarities and differences among different theorists, research findings, or artistic works.	❏	❏	❏	❏	❏	❏
I ask my students to relate outside events or activities to the subjects covered in my courses.	❏	❏	❏	❏	❏	❏
I ask my students to undertake research or independent study.	❏	❏	❏	❏	❏	❏
I encourage students to challenge my ideas, the ideas of other students, or those presented in readings or other course materials.	❏	❏	❏	❏	❏	❏
I give my students concrete, real life situations to analyze.	❏	❏	❏	❏	❏	❏
I use simulations, role-playing, or labs in my classes.	❏	❏	❏	❏	❏	❏
I encourage my students to suggest new readings, research projects, field trips or other course activities.	❏	❏	❏	❏	❏	❏
My students and I arrange field trips, volunteer activities, or internships related to the course.	❏	❏	❏	❏	❏	❏
I carry out research projects with my students.	❏	❏	❏	❏	❏	❏

Student Feedback

	Very Often	Often	Occasionally	Rarely	Never	N/A
I give quizzes and homework assignments.	❏	❏	❏	❏	❏	❏
I prepare classroom exercises and problems which give students immediate feedback on how well they will do.	❏	❏	❏	❏	❏	❏
I return examinations and papers within a week.	❏	❏	❏	❏	❏	❏
I give students detailed evaluations of their work early in the term.	❏	❏	❏	❏	❏	❏
I ask my students to schedule conferences with me to discuss their progress.	❏	❏	❏	❏	❏	❏
I give my students written comments on their strengths and weaknesses on exams and papers.	❏	❏	❏	❏	❏	❏
I give my students a pre-test at the beginning of each course.	❏	❏	❏	❏	❏	❏
I ask students to keep logs or records of their progress.	❏	❏	❏	❏	❏	❏
I discuss the results of the final examination with my students at the end of the semester.	❏	❏	❏	❏	❏	❏
I call or write a note to students who miss class.	❏	❏	❏	❏	❏	❏

Time on Task

	Very Often	Often	Occasionally	Rarely	Never	N/A
I expect my students to complete their assignments promptly.	❏	❏	❏	❏	❏	❏
I clearly communicate to my students the minimum amount of time they should spend preparing for classes.	❏	❏	❏	❏	❏	❏
I make clear to my students the amount of time that is required to understand complex material.	❏	❏	❏	❏	❏	❏
I help students set challenging goals for their own learning.	❏	❏	❏	❏	❏	❏
When oral reports or class presentations are called for I encourage students to rehearse in advance.	❏	❏	❏	❏	❏	❏
I underscore the importance of regular work, steady application, sound self-pacing, and scheduling.	❏	❏	❏	❏	❏	❏
I explain to my students the consequences of non-attendance.	❏	❏	❏	❏	❏	❏
I make it clear that full-time study is a full-time job that requires forty or more hours per week.	❏	❏	❏	❏	❏	❏
I meet with students who fall behind to discuss their study habits, schedules, and other commitments.	❏	❏	❏	❏	❏	❏
If students miss my classes, I require them to make-up that work.	❏	❏	❏	❏	❏	❏

Student Expectations

	Very Often	Often	Occasionally	Rarely	Never	N/A
I tell students that I expect them to work hard in my classes.	❏	❏	❏	❏	❏	❏
I emphasize the importance of holding high standards for academic achievement.	❏	❏	❏	❏	❏	❏
I make clear my expectations orally and in writing at the beginning of each course.	❏	❏	❏	❏	❏	❏
I help students set challenging goals for their own learning.	❏	❏	❏	❏	❏	❏
I explain to students what will happen if they do not complete their work on time.	❏	❏	❏	❏	❏	❏
I suggest extra reading or writing tasks.	❏	❏	❏	❏	❏	❏
I encourage students to write a lot.	❏	❏	❏	❏	❏	❏
I publically call attention to excellent performance by my students.	❏	❏	❏	❏	❏	❏
I revise my courses.	❏	❏	❏	❏	❏	❏
I periodically discuss how well we are doing during the course of the semester.	❏	❏	❏	❏	❏	❏

Diverse Ways of Learning

	Very Often	Often	Occasionally	Rarely	Never	N/A
I encourage students to speak up when they don't understand.	❏	❏	❏	❏	❏	❏
I discourage snide remarks, sarcasm, kidding, and other class behaviors that may embarrass students.	❏	❏	❏	❏	❏	❏
I use diverse teaching activities to address a broad spectrum of students.	❏	❏	❏	❏	❏	❏
I select readings and design activities related to the background of my students.	❏	❏	❏	❏	❏	❏
I provide extra materials or exercises for students who lack essential background knowledge or skills.	❏	❏	❏	❏	❏	❏
I integrate new knowledge about women and other under-represented populations into my courses.	❏	❏	❏	❏	❏	❏
I make explicit provisions for students who wish to carry out independent studies within my own course or as separate courses.	❏	❏	❏	❏	❏	❏
I have developed mastery learning, learning contracts, or computer assisted learning alternative for my courses.	❏	❏	❏	❏	❏	❏
I encourage my students to design their own majors when their interests warrant doing so.	❏	❏	❏	❏	❏	❏
I try to find out about my students learning styles, interests or backgrounds at the beginning of each course.	❏	❏	❏	❏	❏	❏

VITA

The author, Stephanie Hein, began her professional career in hospitality business operations. She holds the following degrees: B.S. degree in Hospitality and Restaurant Administration from Missouri State University (1995); M.B.A. with an emphasis in Management from Missouri State University (2006); and Ed.D. in Educational Leadership and Policy Analysis from the University of Missouri-Columbia (2010). She has held management positions with the Old Spaghetti Factory and Marriott hotels as well as staff positions in country clubs and casual dining. In addition, she has served as a capital campaign manager for the Ronald McDonald House in Nashville, Tennessee and owned a hospitality firm for a number of years.

Stephanie began her career in higher education at Missouri State University where she joined the Hospitality and Restaurant Administration department as faculty in 2003. She teaches courses in financial analysis, leadership, and hospitality operations. Stephanie continues to seek ways to improve her teaching practices and enhance students' higher education learning experience.