

Paired, developmental learning communities: A case study of one institution

by

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A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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2006

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DEDICATION

This
dissertation
is dedicated to
my husband, Mike,
and my children,
Madison, Conner, and Josie,
whose support and unconditional love
have enabled me to prevail and complete
this research.

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ABSTRACT

The purpose of this study was to examine a paired, developmental learning community to understand how it enhances learning at a selected community college—Metropolitan Community College in Omaha, Nebraska. Learning communities are defined as purposeful restructuring of an undergraduate curriculum that thematically link or cluster courses together and enroll a common group of students (MacGregor & Smith, 2005). Thus, the research focused on students in a paired, developmental learning community. Developmental learning communities consist of two developmental classes that are linked with other courses at the college and enroll a common group of students.

The primary focus was to view paired, developmental learning communities through the eyes of at-risk students who participated in them. To complement this part of the research, a persistence study was included in the findings that examined the percentage of students in a paired, developmental learning community who persisted to the next quarter.

In addition, secondary quantitative data previously collected by Metro was utilized as a part of study to gain a deeper understanding of the paired, developmental learning communities. Secondary data included Likert scale assessment and open-ended surveys. In addition, focus groups, interviews, and observations were conducted by the researcher.

The overall findings revealed that a higher level of comfort in the classroom was demonstrated by the students. Connections were developed between classes and topic; and student-linked subject matter from one class to the next. The study also revealed collaboration among faculty, a higher level of support and encouragement from fellow peers

and faculty during the experience, and a strong sense of community and commitment from both the faculty and fellow students.

Based on the themes identified in this study and the model for core practices in learning communities developed by Smith et al. (2000), a new model was proposed in this study for core practices in developmental learning communities. The model is a combination of attributes derived from the Likert survey, open-ended survey, observations, focus groups, informal interviews, literature review and the merged themes developed from this case study.

CHAPTER 1. INTRODUCTION

A paradigm shift is taking hold in American higher education. In its briefest form, the paradigm that has governed our colleges is this: A college is an institution that exists to provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists to produce learning. This shift changes everything. It is both needed and wanted. (Barr & Tagg, 1995, p. 12)

Educators are responsible for student learning! According to Elsner (2002), “A desired learning paradigm is characterized by a responsibility shared by the student and the institution through its faculty and staff and the larger community. The responsibility is lifelong learning” (p. 20). Collaboration, teacher-student partnerships, appreciation of diversity, and openness to understanding are all tenets of the new learning paradigm (Elsner, 2002). Huba (2000) maintained that, “The current view in higher education is that we should focus on student learning rather than teaching in order to improve students’ college experiences” (p.3). This learning revolution is placing learning first in every policy, program and practice in higher education and overhauling the traditional pedagogy and structural design of education (O’Banion, 1997).

Among the methods implemented to meet the needs of the new learning paradigm is the practice of community learning, more commonly called “learning communities.” Learning communities are the purposeful restructuring of the curriculum by linking or clustering courses that enroll a common cohort of students. Learning communities are an intentional structuring of students’ time, credit, and learning experiences to build community and foster more explicit connections among students, faculty and disciplines (Gabelnick, 1990). Learning communities represent an intentional restructuring of students’ time, credit and learning experiences to build community and to foster more explicit connections among

students and their peers, among students and their teachers, and among disciplines (MacGregor, Smith, Matthews, & Gabelnick, 2002)

Learning communities have become a means for many educators to enhance student learning. The learning community is another strategy used to meet the needs of at-risk students (Cohen & Brawer, 2003). Much of the previous research has demonstrated that learning communities are providing more opportunities for achievement which is beneficial to both students and faculty (Gabelnick, MacGregor, Matthews, & Smith, 1990). The connection that is created is improving academic success and establishing better retention rates for community colleges.

The National Learning Communities Project produced a monograph series that demonstrates support for learning communities in community colleges: *Learning Communities in Community Colleges* (2004). The series discusses the need for community colleges to respond to their populations. Strategies used in learning communities are one way that community colleges can bring disciplines together and provide greater curricular coherence and, at the same time, provide significant learning experiences for students who are at risk.

The national trend for developmental learning communities is on the rise because of the success many community colleges have demonstrated success with developmental learning communities (MacGregor & Smith, 2005). Developmental learning communities are designed for students who are academically underprepared and need additional knowledge before enrolling in a community college course for credit.

Purpose of the Study

The purpose of this study was to examine one specific paired, developmental learning community and to understand how it enhanced learning at Metropolitan Community College in Omaha, Nebraska. The researcher sought to determine whether student participation in a paired, developmental learning community influenced the student's view of learning. The specific characteristics of learning communities that improved the student's view of learning were also studied. A case study approach was used to explore how student participation in a paired, developmental learning community may influence the students' progression of learning. Specific characteristics of developmental learning communities were examined. Finally, the persistence of students from one quarter to the next in the learning community was examined. Many facts are known about learning communities; nevertheless, the current research focused specifically on community colleges, at-risk students, and developmental learning communities to advance knowledge and improve opportunities for at-risk community college students.

Research Questions

This case study sought to understand the perceptions of students participating in a paired, developmental learning community. The study also explored persistence of students in a paired learning community. Three research questions served as a guide to carry out this case study.

1. How did student participation in a paired, developmental learning community influence the student's view of learning?

2. What are the specific characteristics of paired, developmental learning communities that are most influential in shaping the students' learning experiences?
3. What is the percentage of students who participated in the paired, developmental learning community and persisted to the next quarter?

Statement of the Problem

Community colleges have had to become more accountable for student success in the last ten years, with the expectation that all people should have the opportunity for post-secondary education. Educational leaders face tremendous pressure to demonstrate that every student is achieving success (Shields, 2004). Along with accountability, schools are also responsible for delivering learning in an effective, achievable way to all students. Community college students include at-risk students, students who are not prepared academically, and those who do not have the knowledge or experience to succeed in the college system. As a result, it is imperative that community college instructional leaders build cultures that support learning (Cosner & Peterson, 2003).

Educators have altered their conventional style of teaching and formed learning environments that place learning first within the educational system. The learning community concept is one strategy that has been developed by community colleges to enhance the learning environment. Although previous research provides rich information on learning communities in general, it has only scratched the surface with regard to developmental learning communities in community colleges. Theories have often failed to consider those students who may bring inferior capital (skills, knowledge base, finances, etc.)

to college. The current study looked at the characteristics that contribute to student learning in a paired, developmental learning community.

Additionally, student persistence has been studied in higher education and received much attention. During the past 20 years, researchers have assembled an extensive database covering a variety of institutional settings and types of students that has demonstrated that persistence plays a role in student achievement (Tinto, 1998). Therefore, the current study looked at persistence in a paired, developmental learning community at a community college. The threads that ran throughout the study included topics such as: learner centered education, learning communities, developmental learning communities, at-risk students, persistence in paired, developmental learning communities, and site discussion.

Background and Rationale for the Study

Learning connections were researched at Metropolitan Community College (Metro) in Omaha, Nebraska. By using case study methodology, this researcher sought to determine whether student participation in a paired, developmental learning community impacts the students' view of learning. The specific characteristics of learning communities that most influence the students' view of learning were also researched. Finally, the persistence of students from one quarter to the next in the learning community was examined. Many facts are known about learning communities; nevertheless, this research built on the current research and specifically examined community colleges, at-risk students, and developmental learning communities.

Theory supporting the learning community concept emphasizes the importance of student involvement. Astin's theory of involvement reveals the importance of involving both the academic and the social aspect of college.

Assumptions

This study assumed that community college students are a different population than the university college student. Community colleges have open-access which allows all students to register for college level course work. The community college population is diverse and includes students who are first-generation, low-income, and those with low participation rates.

It was also assumed that faculty who choose to participate in a learning community have a passion for their students and successful learning. Faculty are life-long learners who value engaged learning, collaboration, and diversity. Therefore, it was assumed that faculty have a sense of responsibility to teach all students, not just the well-prepared.

In addition, this study assumed that the learning community strategy is a successful way to take action to meet the needs of community college students. The researcher believes learning communities contribute and foster a learning environment for all types of learning and learning strategies.

Finally, this study assumed that many at-risk students are often unprepared for the academic rigors of college. Many of the students need remediation to help them succeed in college courses.

Delimitations and Limitations

Delimitations narrow the focus of the study. This study had three delimitations. First, the study utilized only one institution, Metropolitan Community College. Second, the focus was on a paired, developmental learning community. Third, the interpretation of the data in this qualitative case study was limited because the information could be subject to other interpretations. Case studies are utilized to further understand a particular issue such as learning communities (Schwandt, 2001). The researcher has little control over the events that happen in a case study. Hence, a case study is one person's interpretation of a program. However, in a case study it is believed that the research will lead to a better understanding, perhaps better theorizing about a larger collection of cases (Denzin & Lincoln, 2000).

This study also had two limitations. Limitations are the weaknesses of the study. First, this study was confined to the examination of primary and secondary data at Metro Community College. A portion of this research study was developed by using a Likert scale survey, open-ended surveys, and persistence studies collected by Metropolitan Community College in Omaha and not by this researcher. The data collected by Metro were not gathered in a consistent manner, nor were the collection instruments (Likert scale and open-ended survey) created by an institutional researcher. Therefore, the questions on the Likert scale and open-ended surveys were often awkward and did not seek the information needed for this study. In addition, the data were not collected every year. Thus, the researcher collected additional data from focus groups, observations, and informal interviews to add to the secondary data provided by Metro.

The second limitation was regarding the student population. The students included in the Likert scale and open-ended surveys were different students from the focus groups and

observation. Therefore, the results should be interpreted with care to avoid misinterpretations.

Overview of Community Colleges and Learning Communities

Bryant (2001) described the characteristics of community college students and their cultures in: *Community college students: Recent findings and trends*. Bryant looked at cultures of students and the differences between students who choose a four-year university and a community college. Because community colleges were established to provide access to higher education for all types of learners, they attract more students who are disadvantaged. Flexible and open-admission policies provide opportunities for students who lack other educational options (Bryant, 2001). Students who come into college classes “underprepared” do not respond to traditional and conventional college teaching (Smith, MacGregor, Matthews, & Gabelnick, 2004). Community colleges are faced with a high rate of student dropout between the first and second year of college because they enroll a unique population of students (Barefoot, 2004). They offer access to higher education for all students, including the students who are not academically prepared or are at risk for dropping out. Thus, students at community colleges require a high level of engagement and additional focus on retention. Community college faculty struggle to teach underprepared students in the traditional teaching pedagogy (O’Banion, 2003). According to O’Bannion (1999), learning communities provide the building blocks of a learning college that are needed to produce engaged learning in at-risk students. Restructuring is needed beyond question: the passive lecture settings where faculty talk and most students listen, are contrary to almost every principle of optimal settings for student learning (Barr & Tagg, 1995). Hence,

developmental learning communities provide successful learning environments for underprepared or at-risk community college students.

Community colleges that are cognizant of the role they play to diverse student populations are constantly striving to retain students by providing courses and programs that meet a variety of needs. They are looking for strategies to enhance at-risk students learning and persistence. Learning communities provide opportunities for community colleges to increase persistence and maintain academic achievement among their at-risk population.

Learning communities are designed for tomorrow's students, students who are multicultural, poorer than students in previous generations, more stressed by multiple responsibilities, and seeking an education that is delivered in a variety of formats and locations. Although institutions will struggle for many years with financial shortfall and issues of succession and faculty workloads, the students will continue to demand that they are prepared for a rapidly changing world. (Smith, MacGregor, Matthews, & Gabelnick, 2004)

"Learning communities build on our knowledge of the undergraduate experience, reinvent undergraduate education, and expand on our contemporary understandings of liberal education to create a multidimensional student experience grounded on a foundation of what matters in college" (Shapiro & Levin, 1999, p. 15). Learning communities emphasize educational strategies that engage students in the learning process.

Significance of the Study

To begin, one must first understand why one would elect to explore the learning community phenomena. What do learning communities have to offer to the students at community colleges? Are the needs of community college students different from those of university students? Should our educational system explore the challenges of the community college student and better meet the needs of that population?

Today, leaders at community colleges are being encouraged to develop learning communities and learning cultures that meet the student's needs academically and socially. It is imperative that leaders sustain cultures that support learning (Cosner & Peterson, 2003). Education is changing and educators are becoming life-long learners who value learning while teaching. A sense of responsibility is needed by instructors to teach all students, not just the well-prepared.

This study was conducted to build an understanding of the importance of paired, developmental learning communities in a community college setting. First, the study was designed to determine how Metropolitan Community College is serving at-risk students through learning communities. Second, the study looked at the specific characteristics of paired, developmental learning communities that are most influential in shaping students' learning experiences. The information obtained from this study may be useful for educators and administrators at community colleges who are considering the implementation of similar programs.

Finally, researchers have often studied learning communities at universities, but their findings may be over-generalized when applied to community colleges and the unique population they serve. Specifically, this study could be useful for community college leaders because it focused on learning communities solely for community college students. Much of the research has demonstrated that learning communities are a reasonable response to many of the challenges faced by community colleges. Students and teachers work as teams to enhance education and to participate in good citizenship practices. Attention has been given to the effectiveness of learning communities by examining academic achievement and persistence. What has been lacking in past research is the need to examine the characteristics

of learning communities that develop the students' view of learning and allows them to persist from one quarter or semester to the next one.

Theoretical Framework

To understand the influence of learning communities on at-risk students, a research design was selected that is qualitative in nature; however some secondary, quantitative data collected by Metro were also utilized in this study. A qualitative study may offer insight to student perceptions and help the researcher understand the students' views about how participating in a learning community influenced their learning. The theoretical framework that guided the study was the Theory of Involvement (Astin, 1984). Throughout the study, questions were asked about students, particularly why some, but not others, succeed in college. Education relies on theory to better understand students in their development and what may cause success, motivation and behavior. Astin's theory of involvement describes how the quality and quantity of a student's involvement dictates student learning and development. Astin encouraged student involvement in the college environment, which leads to increased learning opportunities. The learning community is a pedagogical style that promotes such an environment. Learning communities take into consideration the social aspect and the academic need for students to learn from other students. When using Astin's theory of involvement, one could say that an instructor should move away from his/her own teaching style and allow the students to determine the needs of the classroom. Learning communities provide such an opportunity.

The theory of involvement includes three types of involvement: "...academic involvement, involvement with faculty, and involvement with student peer groups (Astin,

1984, p. 126). According to Astin (1984, 1999), the type of involvement predicts student satisfaction with the college experience and increased retention rates. Learning communities encourage involvement academically and socially; hence, theory of involvement was utilized for this study.

There are several practical implications to Astin's theory of involvement. Hunt (2003) stated that, "Educators must adapt their pedagogical strategies to students' learning preferences in order to foster an equitable learning environment. Decades of research vividly demonstrate that students learn in a number of different ways" (p. 135). Hunt continued to discuss that theories, such as Astin's theory of involvement, give educators a framework to understand how to embrace deep learning. Learning communities utilize strategies that academically support critical thinking skills and active learning.

The importance of student involvement: A dialogue with Alexander Astin (1986) expressed Astin's view on the involvement concept. Astin stated that involvement theory identifies two goals in education. The first is the concept of retention. The second is to explore the intrinsic benefits of education. If students have learned and have felt value in their educational experience then involvement theory applies.

The social institution of a learning community for at-risk students was explored in depth. Interpretative phenomena were utilized when interviewing participants. Interpretivism is an act of clarifying and explaining the meaning of a learning community phenomenon (Schwandt, 2001). It also enabled the researcher to develop richer concepts and models of learning communities for at-risk students.

Definition of Terms

Several terms were defined for use in the study:

Coordinated studies: Courses that are taught by two faculty members in a team approach (Lenning & Ebbers 1999).

Developmental learning communities: Learning communities that are designed for students who are academically unprepared for typical college coursework (Metropolitan Community College, retrieved July 16, 2006, <http://www.mccneb.edu/learningcommunities/aimforsuccess.asp?Theme=2>).

High-risk or at-risk developmental students: Characteristics that frequently lead to withdrawal or failure in school; students are usually labeled as at-risk if they have poor academic backgrounds or personal concerns such as low socio-economic backgrounds or unsuccessful histories in education (Pizzolato, 2004). In addition, at-risk students are considered the underprivileged, minorities, lacking a quality K-12 education, or the academically challenged (Hagedorn, Chlebek, & Moon, 2003).

Learning communities: Purposeful restructuring of an undergraduate curriculum to thematically link or cluster courses and to enroll a common group of students in these courses (MacGregor & Smith, 2005).

Linked courses or clusters: Two or more connected thematic classes (Lenning & Ebbers 1999).

Living learning communities: Learning communities that restructure the residential environment to build community and integrate academic work with out-of-class experiences (Smith et al., 2004).

Paired learning communities: Courses share content and activities, so that students can draw connections between two subjects. Students learn skills in one subject and then apply them to another subject (Metropolitan Community College, retrieved December, 2006, from http://www.mccneb.edu/search_results.asp?q=developmental+reading&x=9&y=13).

Student cohorts or integrative seminars: Students enroll in large classes that are not coordinated by faculty (Lenning & Ebbbers, 1999).

Organization of the Study

This study is organized into five chapters. Chapter 1 provides an overview of the study, explains the purpose of the study, and presents the research questions and problem. This chapter also describes why the study is significant to community colleges, offers limitations of the study, and introduces the concepts of persistence and at-risk students. Chapter 2 builds the conceptual framework for the study and provides an inclusive review of learning communities at community colleges. In addition, the history of learning communities, models of learning communities, and recent findings are summarized to establish the reason for embarking on this study. Chapter 3 embodies the qualitative case study methodology that guided this research. The chapter begins with an explanation of the methodology for collecting data, a description of the site for the case study, how participants were selected, design of the study, data collection, methods employed, and theory. Chapter 4 presents an analysis of the results of the study. The final chapter includes the conclusions that may be drawn from the findings and their connotations for future educators and researchers.

CHAPTER 2. LITERATURE REVIEW

Introduction

This chapter presents a review of literature that provides the conceptual framework and informs the study. The learning community phenomenon is a concept that is being implemented in a variety of ways at many community colleges and universities across the United States. The purpose of this review is to further explore learning communities at community colleges as well as understand their affect on at-risk students.

The literature review begins with a synthesis of related research that focuses on the primary theoretical framework of the study, Involvement Theory (Astin, 1986). In addition, research is presented on other theories that have informed the study and guided exploration of effective learning communities and the attributes that make them work well. Such attributes include: collaboration, student involvement, engaged learning, constructive knowing, accountability, responsibility, critical thinking, and other learning strategies that build community. The literature review is organized into the following subsections: (1) Theories Related to the Current Research; (2) Related Research; and (3) Learning Communities—concept, definition, history, types, establishing a learning community, student success in learning communities, and effective practices in learning communities.

In the third subsection, the background and development of learning communities at universities is discussed briefly followed by a more in-depth review of community colleges and at-risk students. This subsection then leads to the learning communities at community colleges and effective practices in developmental learning communities which is the focus of the current study.

Finally, the summary presents the research according to successes of learning communities, focusing on the learning community movement in community colleges. Through use of an historical timeline, the summary narrows the focus of the literature review from the development and integration of the broader concept of learning communities to the need for developmental learning communities at the community college level.

Theories Related to Learning Communities

The primary theoretical framework for this study was involvement theory (Astin, 1986); however, other theories also informed the study and guided the researcher's exploration of effective learning strategies. Erickson (1968) closely studied individual identity and personal development. Erickson's identity theory focuses on the process of developing an identity over a lifetime. During young adolescence identity is solidified and continually refined throughout adulthood (Alessandria & Nelson, 2005). "A positive resolution of the identity and repudiation versus identity diffusion crisis is classified by Erickson as a sense of psychological well-being" (p. 4). Hence, a person's identity is developed over a lifetime and may be the reason for that person's own successes and failures. This can be related to at-risk students and their success at colleges. For example, if students are challenged by others but lack the resources they need to succeed, they may have an identity problem leading to failure in school.

Chickering (1991) introduced identity development theory which is based on Erikson's identity formation stage (as cited in Chickering, 1969). Factors that enter into identity formation consist of family background, communities, ethnicity, race, socioeconomic status, and personal beliefs (Chickering, 1969). Extending Erickson's studies,

Chickering established a model for identity development, which included developing competence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, developing purpose, and developing integrity (as cited in Alessandria & Nelson, 2005, p. 5). Erickson's and Chickering's theories are based on the premise that, as individuals gain new information, they develop and form ideas.

Consequently, students should not be seen as a homogeneous population but as individuals.

Chickering's (1969) seven principles for creating community with students included designing course activities based on differences in learning style, utilizing group activities when teaching, increasing interaction during class meetings, using ongoing experiential contexts that are part of the students' daily lives, creating learning teams, encouraging interactions between classes and providing explicit criteria for evaluation. Both Chickering and Erickson perceived family, friends, race, gender, sexual orientation, socioeconomics, and life experiences as influences on identity. If students are lacking in these areas or are at-risk, they may suffer from identity confusion causing failure in life. This failure may be related to college experiences; thus, identity development theory was selected as a key component in the current study.

Involvement theory (Astin, 1986) also supports the learning community phenomena. Astin (1984) listed five key elements of involvement theory, one of which engages educators evaluating the effectiveness of their programs and relating them to the "quantity and quality" of student involvement (p. 298). The second relevant element includes involvement of the student, which can range in varying degrees from highly involved students to students with little or no engagement. Astin defined involvement as the investment of physical and psychological energy that is processed by students. Involvement supports the learning

community concept with the simple fact that the mission for learning communities is to build an understanding of the needed support both academically and socially. Students who are involved will stay in college (Astin, 1984).

Rendón (1993) developed an academic validation model to demonstrate many characteristics utilized in learning communities and strategies working with at-risk youth. Learning standards are designed through collaboration with students, faculty meetings with students in and out of classes, students collaborating with each other, teachers facilitating learning, engaged learning occurring with reflection, and the student's culture being valued and appreciated. Rendón's validation model also discusses the importance of an in-and-out of class experiences playing an important role in transforming the students from at-risk students to successful students.

Erickson's identity theory, Chickering's identity development theory, Rendón's validation model, and Astin's theory of involvement provided the theoretical basis for the current study. These theories/models represent many of the characteristics that are comprised in developmental learning communities, such as: (a) collaboration among faculty and students, (b) student involvement, (c) engaged learning, (d) responsibility, and (e) critical thinking. Table 1 provides a brief summary of these researchers and theories, and their relationship to developmental learning communities.

Related Research

This section examines and synthesizes the related research on learning communities and at-risk students at community colleges. As mentioned previously, there is a paucity of existing research on developmental learning communities. Researchers have focused their

Table 1. Summary of research theories used in this study and their potential relationship to developmental learning communities

Researcher	Year	Theory	Description	Relationship to developmental learning communities
Erickson	1968	Identity	Process of developing an identity over a lifetime	Learning communities provide <i>resources</i> needed to succeed and develop ones own identity.
Chickering	1969	Seven Principles of Good Practice	Guide to successful undergraduate education	Learning communities meet several learning styles, utilize <i>group activities, engaged learning and assessment</i> .
Astin	1984, 1986	Involvement	Involvement is the key aspect of student success	Learning communities, engaged educators provide <i>support and feedback</i> .
Rendón	1993	Validation	At-risk students must be validated in-and-out-of the classroom	Learning communities emphasize the <i>academic and social aspects</i> of the students.

Key: Developmental learning community characteristics are italicized.

studies either on learning communities or at-risk students. However, related research does exist when a review is made separately of the topics of learning communities and at-risk students. Several previous studies have influenced educators regarding at-risk or developmental students.

Rendón (1993) assessed the effect of classroom experiences along with social influences or outside variables on retention of at-risk students. The purpose of Rendón's study was to pose questions related to what influenced students' innate beliefs regarding their capacity to learn and what experiences influenced their learning, self-concept and connection to the institution. "The study concluded that validation and community experiences are prerequisites, not outcomes, of student development" (Rendón, p. 3).

A secondary theme which is repeated throughout Rendón's (1993) research is the necessity for students to get involved. Being part of the campus life, connecting with instructors, and learning from others were factors that made at-risk students successful.

Rendón noted that researchers and practitioners need to continue to design studies that seek to understand the issues students bring to college. Reassurance from instructors and validation that they are capable students are important when retaining students. Learning communities provide a culture that encourages validation and connection with other students, instructors, and the campus. Although learning communities were not addressed, Rendón did refer to validation that needs to be made by instructors to reassure students that they are on the right path. Rendón provided a list of ideas to foster a validating classroom which embodies concepts that are similar to a learning community program. The model includes faculty sharing knowledge with students and showing support for the students in their learning, acting as partners rather than all-knowing beings, and employing active learning such as teaming, demonstrations, field trips, and collaboration. Active learning strategies that Rendón discussed are characteristics embodied in learning communities. Learning communities increase comfort levels of students, assure academic success, and provide connections in education, thus validating student learning.

In a study of nontraditional technical students, Goldberg and Finkelstein (2002) hypothesized that an experimental group in a team-taught learning community would have significantly better academic and social integration and a more positive perception of their experiences than the control class which consisted of students who enrolled in individually taught, non-linked classes. They also hypothesized that students would have higher grades and grade point averages, connect with other students and faculty, and develop a greater sense of commitment to college. The study was both quantitative and qualitative, and it examined student success and connections students make in college. Goldberg and Finkelstein focused on traditional, full-time students in a small community college in a large

metropolitan area. They used a similar population to determine perceptions and behaviors of students participating in a learning community. Data were obtained from the First Semester Student Experience Survey (FSSES), which is a 44-item questionnaire. Descriptive statistics, simple frequency, percentage, and cross-tabular calculations were used to ascertain the outcomes of the survey. Students in the experimental group experienced a higher level of social integration than the control group (Goldberg & Finkelstein). The learning community connected two classes that were designed to reinforce the concepts from each class and provide opportunities to apply skills learned in one class to be utilized in another class. Students in the experimental group indicated that they appreciated the opportunity to apply knowledge from one class to the other (Goldberg & Finkelstein).

The qualitative findings corroborated the quantitative findings. By using an open-ended survey that explored the comfort level of the college and academic success, Goldberg and Finkelstein (2002) determined that the learning community students had more positive responses than the controlled group. Themes included the connection with other students, support of faculty, students' equality, and a more open environment. Other themes included the positive environment, utilizing classes together, working in groups and being able to ask more questions (Goldberg & Finkelstein).

The Community College Survey of Student Engagement (CCSSE) helps colleges focus on good educational practices and high levels of student learning and retention (CCSSE: Community College Survey of Student Engagement, retrieved February 26, 2006, from <http://www.ccsse.org/>). CCSSE uses grounded research to determine what works in strengthening student learning and persistence. Each year CCSSE publishes research that recommends changes for community colleges (2005). The article, *Highlights*, discussed

topics about collaborating to involve all stakeholders in decisions, identifying and carrying out improvement strategies, and focusing on students' experiences of the college to improve retention. Valencia Community College made these changes and found their retention rates improved, the number of credit hours attempted per term increased and, finally, completion rates of cohort students enrolled in prep reading, writing one, and math all increased an average of 8% – 15% (CCSSEE: Community College Survey of Student Engagement, retrieved February 26, 2006, from <http://www.ccsse.org/>).

The community college population is a unique group with a variety of learning needs. All community colleges face the challenge of retaining their diverse student population (O'Banion, 2003). Learning communities are effective learning environments for many types of students (O'Banion). Educators are faced with determining what makes students successful, motivates them, and the educational strategies that are effective with all types of students. Learning communities have demonstrated value when working with diverse populations such as community college students. Once one understands that the community college population is different, alternative learning strategies must be considered to determine the best method to deliver education to the community college student.

The following section provides a background of learning communities to introduce and further develop the newly emerging concept of developmental learning communities at community colleges. The progression first addresses learning communities, then narrows to focus on the at-risk student's view of learning through examination of the effects on retention, student motivation, and student success. In addition, the relationship between learning communities and developmental learning communities is discussed. The study also examines at-risk students and learning strategies that work for them, persistence in learning

communities, and developmental learning communities that are currently in progress at community colleges.

Learning Communities

Learning communities distinguish themselves from other strategies by their complex involvement at all levels of the college (MacGregor, 1994). Faculty members learn from students, students learn from fellow students and faculty, library services adjust to a holistic approach, student affairs is involved at all levels of the educational process, and recruiters will recast their roles from traditional to progressive. Learning communities have a strong history of meeting the needs of students, and they create a unique, productive learning environment that better facilitates retention and graduation. In the following subsections, the concept, definition, types, history, and related research on learning communities are discussed. Their development in educational institutions present a rich background for the current research on developmental learning communities for at-risk students and the value developmental communities can provide for students with differing needs and experiences.

Conceptualization

Learning communities are not a simple concept or definition but a much deeper and richer phenomenon. Learning communities are a concept that goes far beyond a simple program or activity. They emphasize many ideas, concepts, and theories that generate a community of students who experience college through a new pedagogical perspective.

Learning communities include both academic and social opportunities for students. Positive outcomes will occur if learning communities actively engage the student (Lenning & Ebbers, 1999). Simply adding a learning community to a campus is not the answer to higher

retention rates or happier students; the learning community is about engagement of student learning and connections to peers, faculty, and staff.

Learning communities emphasize many educational strategies, including collaborative learning. Collaborative learning is typically one of the keys to learning community success by promoting connections, and critical thinking, a deeper concept of teaching as well as collaborative learning (Dodge & Kendall, 2004). The concept of learning communities enables the student to critically think, promotes problem solving in a team, enables mentoring to occur, and causes faculty to adapt in a classroom environments (Dodge & Kendall). If one examines learning communities at four-year institutions and community colleges, one can identify similarities such as collaboration, team teaching, common projects, and engaged learning.

Smith et al. (2004) proposed a model for core practices in learning communities that illustrates the interrelationship among the practices to integrate theory and facilitate student development and learning. These interrelationships include: community, diversity, integration, active learning, and reflection and assessment (see Figure 1).

Definitions

The following definition of student learning communities has been provided by Lenning and Ebbers (1999):

Student learning communities are relatively small groups of students (and faculty) working together to enhance student's learning and to help students become well-rounded, broad-based individuals. (p. 15)

Learning communities have been established in many institutions of higher education including community colleges; however, many educators have yet to understand the

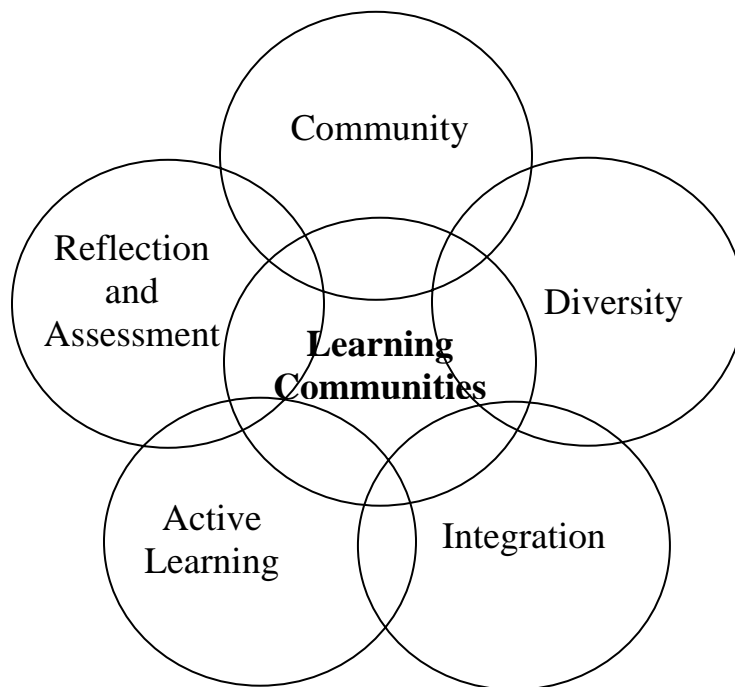


Figure 1. Core practices in learning communities (Smith et al., 2004, p. 98)

depth of a learning community. Researchers describe learning communities as important in the, “purposeful restructuring of an undergraduate curriculum to thematically link or cluster courses and to enroll a common group of students in these courses” (MacGregor & Smith, 2005, p. 2). Because of the variety of learning community formats, educators refer to learning communities in a variety of ways: paired learning communities, clusters, and linked courses. Each carries a slightly different meaning, yet all have similar goals meeting students’ needs and creating successful learning environments. For example, a paired learning community has courses that share content and activities, so that students can draw connections between two subjects. Students learn skills in one subject and then apply them to another subject (Metropolitan Community College, retrieved December, 2006 from

<http://www.mccneb.edu/index.asp>). Other learning communities have similar characteristics but may be connected through thematic classes or residential living.

At-risk students are an integral part of the ever-changing student population challenging American community colleges today. Each student brings his or her own resources or individual needs to their respective college campuses. Students with few resources become at-risk for dropping out of college. At-risk students bring varying degrees of preparation, social and academic development, financial availability, and support or lack of it to college. At-risk can be defined as students with characteristics that frequently lead to withdrawal failure in school; students are usually labeled as at-risk if they have poor academic backgrounds or personal concerns such as low-socio-economic backgrounds or unsuccessful histories in education (Pizzolato, 2004).

Students at community colleges are oftentimes “ethnic and racial minorities, first-generation students, low-income students, students with low participation rates, and students who view community college as their last chance to realize their hopes and dreams” (Rendón, 2000, p. 1). It is clear that community college students fall in a wide continuum with varying degrees of preparedness (Rendón). This continuum of students includes commuter students, students who work full or part-time, students who need to take developmental coursework to prepare for college level courses, students with families, low-income students, academically unprepared students, traditional-aged students, valedictorians, salutatorians, and students who have come to the community college as the last resort.

History

Several researchers have cited works of John Dewey (1933, 1938), Alexander Meiklejohn (1932), and Joseph Tussman (1960, 1977) as founders of learning communities (Lenning & Ebbers, 1999; Minkler, 2002; Smith, 2001). Dewey (1938) stressed the relationship between students and teachers, as well as the relationship between students and students, as a critical part of the learning process. Dewey argued that education plays a key role in teaching students to be effective citizens of a democracy. Many of Dewey's beliefs laid the foundation of the theory behind learning communities (Minkler, 2002). Dewey (1938) stressed that students are individuals with different backgrounds and experiences that must be taken into consideration in the teaching process.

Meiklejohn (1932) is acknowledged as the builder of the first, short-lived learning community in 1927, at the University of Wisconsin. Meiklejohn stressed the importance of continuity of content rather than the unity of content. He was concerned that colleges were becoming narrow departments with smaller and smaller units of credits, which he felt caused problems for relationships in the classroom and discouraged deep engagement in learning. Hence, Meiklejohn developed the "Experimental College" which focused on team teaching, democracy with traditional, and contemporary curriculum. Meiklejohn's focal point was building communities and teachers as facilitators of learning. After five years, the program was eliminated because of low enrollment.

In the 1960s and 1970s, many traditional institutions created "sub colleges", or learning communities, within residential facilities (Meiklejohn, 1932). The Residential College at Michigan, Centennial Program at the University of Nebraska, Unit One at University of Illinois, Calling College at Indiana University, and Goodrich Program at University of

Nebraska Omaha are examples of these living learning experiments (Smith et al., 2004).

Living learning communities are learning communities that restructure the residential environment to build community and integrate academic work with out-of-class experiences (Smith et al.).

Joseph Tussman, a student of Meiklejohn, demonstrated his beliefs regarding learning communities as he built them at the University of California at Berkeley in the 1960s. Tussman (1997) wrote *Experiment at Berkeley*, which was reprinted as *The beleaguered college*. His influences on later learning community initiatives were noted in Smith et al. (2004). Tussman believed a new way of thinking about education was needed to resolve the dualism in universities. His endeavors also led to new ways of thinking on how faculty should interact with one another and with their students. Many alumni of Tussman's program mentioned community as a strong element of the program. Tussman had to stop his program because the University of California at Berkley was not welcoming to such innovations (Smith et al.). Community was described using terms such as social environment, friendships and sharing ideas (Smith et al.).

While many of the initial learning community programs at community colleges were short in duration, more started emerging in the 1970s. La Guardia and Daytona Beach community colleges established a foundation for learning communities in the 1970s and 1980s (Gabelnick et al., 1990). In the mid 1980s, Seattle Central Community College launched a learning community that served as the foundation for Tinto's (1993, 1994, 1998) research.

Another innovator of learning communities during the 1970s and 1980s, Gabelnick stressed the importance of collaboration and believed educators should move away from

competition in education (Gabelnick et al., 1990). Gabelnick was a major contributor in the development of learning community principles and standards as they are known today.

Tussman and Meiklejohn developed the basic concept, but there were other key individuals who built support for the movement with their research findings. Tinto also played a critical role in the development of learning communities. Tinto studied learning communities at The University of Washington and Seattle Central Community College in the early 1990s. Tinto and Russo (1994) conducted an in-depth study of freshman interest groups and team-taught coordinated studies programs. The results clearly supported learning communities and demonstrated their effectiveness for students at Seattle Central Community College (SCCC). The research involved pre and post questionnaires that were administered to coordinated studies students and non-participating students. Qualitative interviews and observations were included in the findings. The findings indicated the coordinated studies students were more involved academically and socially compared to students who were not in coordinated studies. The students also had significant gains in development and persistence. Another researcher, Astin (1993) published, *What matters in college*, which brought solutions to problems with undergraduate educators. Astin, along with Tinto, supported the concept of a learning community and established a framework for why educational systems need to explore teaching strategies.

Evergreen State College (Washington) also examined the concepts of learning communities. Two researchers, Matthews (1986) and Patrick Hill, who had been involved in many of the East coast learning communities, reorganized the learning community concepts at Evergreen to meet the needs of contemporary students. Hill, a former understudy of Dewey, began to see ways in which learning communities could flourish. In 1983, Hill

became the provost at Evergreen, and learning communities were established and supported campus wide. Concurrently, The Washington Center for Undergraduate Education at Evergreen State College was established. Washington Center is a public service center of The Evergreen State College. It was established in 1985 and emphasized collaboration, low-cost, highly effective approaches in education ([www.http://ww.evergreen.edu/washcenter/about1.asp](http://www.evergreen.edu/washcenter/about1.asp)). In 1996, the Washington Center broadened its learning community work through the Learning Commons to include a summer institute, directory, resources and publications of learning communities. Barbara Leigh Smith, senior researcher and educator at Evergreen State College, and Jean MacGregor, a researcher and educator at The Washington Center for Improving the Quality of Undergraduate Education, promoted writing across curriculums which were implemented within learning communities. These two researchers have been instrumental in the development and publishing of research on learning communities.

The National Learning Commons is an organization that promotes learning communities. It was established in 1996 broadening learning community work through grants, the Fund for Improvement of Postsecondary Education (1996-1999), and The Pew Charitable Trust (2002-04) (Washington Center, February 26, 2006, from <http://www.evergreen.edu/washcenter/project.asp?pid=73>). The National Learning Commons is flourishing due to the growing national trend for the development of learning communities. Community colleges, also continuing to show interest in learning communities, became part of the National Learning Commons.

The National Learning Communities Project produced a monograph series that demonstrates support for learning communities in community colleges: *Learning*

Communities in Community Colleges (2004). The series discusses the community colleges' need to respond to their at-risk populations and to develop strategies for learning communities that can bring disciplines together and provide greater curricular coherence. Community colleges help provide equal opportunities and upward mobility for at-risk students. The series also includes an analysis of how learning communities meet multiple learning strategies for faculty and students. In addition the series gives ideas for meeting general education goals, explains how to get started and recommends resources to community colleges (*National Learning Communities in Community Colleges*, p. 7).

Other researchers' projects continued to focus on the effectiveness of learning communities. The National Learning Community Dissemination Project was a three-year study involving nineteen institutions, seven of which were community colleges. The goals were to support campuses as they developed learning communities, provide information on learning communities, and feature the experiences of these institutions at national conferences. The results for students were higher grades, higher rates of retention, and a high degree of satisfaction (Minkler, 2002).

Types

Types of learning communities have varying connotations to different researchers and educators, but common threads run throughout learning community definitions. These common threads include: collaborative learning, linked or clustered courses, building interdisciplinary themes, common cohorts, building community, learning from faculty and students and team teaching (Lenning & Ebbers, 1999).

According to research by Lenning and Ebbers (1999), Shapiro and Levin (1999), and Learning Commons (2005), there are several types of learning communities. Three of the general types are: (a) student cohorts or integrative seminars for students who are enrolled in large classes that faculty do not coordinate; (b) linked courses or clusters where there are two or more linked thematic classes; and (c) coordinated study in which courses are team taught by faculty. Other types may include residential learning communities where students actually live in the same community, curricular learning communities, classroom learning communities, and student-type learning communities.

The Washington Center for Improving Quality of Undergraduate Education listed five types of learning communities: freshman interest groups, linked courses, course clusters, federated learning communities, and coordinated studies (retrieved July 5, 2005, from http://learningcommons.evergree.edu/03_start_entry.asp). Lenning and Ebbers (1999) discussed these five learning communities in detail in their book, entitled: *The powerful potential of learning communities*. The first chapter addresses freshman interest groups wherein freshmen participate in a learning community with other students who have similar interests. It is also mentioned that linked courses enable students to participate in learning communities that are related in content. Course clusters are groups of courses that are assembled together and are taken by the same students at the same time. Students in course cluster learning communities are also allowed to take courses outside the group. Federated learning communities involve students who are encouraged to be in study groups and scheduled to take a set of disciplinary courses. Another learning community, known as coordinated studies, includes students and faculty assigned together in a complete program of

study. The final learning community suggested by Lenning and Ebbers is a curricular cohort program in which a group of students take the same set of classes through an entire program.

Establishing a learning community

As indicated in the literature, learning communities are developed using various strategies with student populations. Shapiro and Levin (1999) presented five change levers that need to occur to establish successful learning communities: (1) institutional mission statements; (2) strategic planning process; (3) periodic campus reviews of departments and colleges; (4) collaboration between departments and colleges; and (5) external reviews. Nevertheless, when starting effective learning communities, the institution must have the appropriate culture. Creating a successful learning community requires building a learning culture (Cosner & Peterson, 2003). If the culture of an institution is appropriate, many types of learning communities can flourish. Several educational institutions have been successful in developing learning communities on their campuses because of their “change levers” and “culture”. In the following subsections, learning communities are further explored at universities, followed by a more in depth study of community college involvement. The research continues identifying characteristics of students who benefit most from inclusion, in particular at-risk students at community colleges. The focus narrows to explore the need for developmental learning communities at community colleges.

University-based

Iowa State University (ISU) has established learning communities in a variety of offerings. Some of these learning communities are in the format of course clusters, which require the students take two or more courses together. Iowa State also offers course-linked

learning communities that include large course lectures, small classes, and instructors exchanging their course syllabi. ISU's enhanced course learning communities link instructors and coordinate the courses. There is also actual linkage of course work and class time (<http://www.lc.iastate.edu/>, June 1, 2006).

Other universities (Maryland, Michigan, and Missouri) continue to use the learning community model and create programs similar to those at ISU. Central Missouri State University has recently been added to the learning community list and is recognized by The National Learning Commons as one of its most recent entries onto their website. They are currently offering a block of courses, which include classes from the student's major, a learning strategies course, and supplemental instruction. Part of the instruction is done by peers to build yet another connection for the entering students. The students seem to rave about the learning communities. Some of their comments follow:

“Helps boost your GPA!”

“Gives you a leg up on other students in the same class.”

“Helps transition to college.”

“Builds friendships with students that have common interests.”

“Is a laid-back learning environment.”

“Is FUN!” (<http://cmsu.edu/x25574.xml>, 2005)

Central Connecticut State University (CCSU) is also recognized as a recent addition to the Learning Commons website. CCSU is in the process of creating learning communities to help students adjust to campus life and the classroom. They want to provide a richer college experience and promote life-long learning. Included in their definition of learning communities is ...encompassing a campus change and fostering interdisciplinary learning (<http://www.evergreen.edu/washcenter/project.asp?pid=73>).

Community College Learning Communities

Learning community initiatives at community colleges are not designed without outside influences. They are intentional structures designed to address specific issues and raise collective aspirations in the context of a campus' mission and culture, and are often developed out of the passion and energy of certain faculty and staff leaders (Smith et al., 2004).

The community college student population includes a mix of students, many whom are first-generation college students. Many possess the following characteristics: (a) unfamiliar with the culture of the college classroom; (b) prior education has not prepared them academically for success at college; (c) returning adults and displaced workers who are often students with who have concurrent work and family obligations; (d) have chaotic personal lives that interfere with learning; and (d) documented disabilities (Smith et al.). In addition, the community college has its own unique characteristics that are designed to meet the needs of its students with differing and/or special needs. The following subsections present a description of the characteristics of community college students, the community college culture within three community colleges that have active learning communities, and introduce the at-risk student population and developmental learning community that form the basis for the current study.

Characteristics of community college students

Community colleges play a critical role for those students who lack the basic skills to attend further their education. Students who do not meet university admission test or grade scores often enroll in community colleges. Community college students are different from

their four-year college counterparts in many ways (Miller, Pope, & Steinmann, 2005). Often the community college student does not fall into a “typical” student profile and, hence, may need to be offered alternative effective teaching strategies to learn. The research has shown that traditional, teacher-centered methods are “not ineffective... but the evidence is equally clear that these conventional methods are not as effective as some other, far less frequently used methods” (Terenzini & Pascarella, 1994, p. 29).

At-risk students

Although there have been many efforts in the past decade to prepare students for the rigors of college course work, “higher education continues to find that a high percentage of students need varying degrees of remediation to help them succeed in college courses” (Hadden, 2000, p. 824). Barefoot (2004) stated, “In the United States, as in many other countries, academic preparation, socioeconomic status, family participation in higher education and gender are good predictors of a student’s persistence in higher education” (p. 15). Good persistence predictors are often linked to students’ backgrounds. At-risk students come to college with different backgrounds than the typical student.

Community colleges serve about half of all the minority undergraduate population, adult students, and students from low-income families (Boswell, 2004). Often times these students are classified at risk because of a number of factors, including parental education level, parental income, academic background, etc.

As mentioned previously, the community college embraces a diverse student population. Many students enter the first semester of college needing what many colleges refer to as developmental classes (Boylan, 1995). Developmental education has been

identified as a strategy to achieve improved academic success for at-risk students. To prepare students that are in danger of dropping out or stopping out of college, developmental classes are oftentimes provided as a prerequisite to college courses. Research has indicated that students who score below college entrance level standards may benefit from non traditional methods such as learning communities (Thomas, Cooper, & Quinn, 2003).

Students are usually labeled “at-risk” if they come from a low socioeconomic background, have a poor academic history or personal concerns that affect their ability to learn in a traditional setting. (Pizzolato, 2004). Researchers in developmental education stress the importance of teaching students the needed coping behaviors for success at college. Pizzolato suggested that students often enter college with “self-authoring ways of knowing,” which are ways of coping with stress and adjusting to the college experience. At-risk students typically have a way of knowing that does not contribute to success. If the students’ ways of knowing are challenged early on, the students can create formulas for being successful and leave previous, unsuccessful strategies behind (Pizzolato). Research on at-risk students has suggested they are missing characteristics that enable them to persist in a traditional educational environment. “Academically high-risk students are typically under-prepared and lack prior knowledge shared by their low-risk peers” (Pizzolato, p. 425).

In the article, *Improving completion rates among disadvantaged students*, Thomas et al. (2003) discussed four factors that contribute to student retention at colleges and universities: institutional commitment, academic and social support, involvement, and learning. “Students are more likely to persist when they find themselves in settings that hold high expectations for their learning, provide academic and social support, and actively involve the other students and faculty in learning” (Thomas et al., p. 5). Thus, the current

research supports the concept of a learning community that incorporates learning, academics, and social support to empower students to succeed.

Some colleges require mandatory placement to improve their retention effort while other colleges allow the students “the right to try” or what many community colleges refer to as “the right to fail.” By allowing students the right to fail, colleges are allowing students to suffer academic harm (Hadden, 2000).

Retention and student success are primary goals of many developmental education programs. Learning communities promote such programs and, hence, develop a sense of a learning culture that is needed to better prepare students. The following community colleges have created a culture that enables life-long learning and individualized learning.

Daytona Beach

Daytona Beach Community College was the first community college established in Florida in 1957. Daytona Beach serves 40,000 students per year and has college credit, adult education, and vocational schools. Its mission states:

Daytona Beach Community College provides quality, affordable academic, job training and personal enrichment programs to educate and empower individuals and promote economic development in Volusia and Flagler Counties. As a comprehensive public two-year college committed to open access, student learning and success, Daytona Beach Community College provided personalizes attention to students, embraces diversity and uses innovation to enhance teaching and learning (<http://www.dbcc.edu/missiongoals/missionstatement.htm>, 2004).

The focus on individualism is shown on the Daytona Beach learning communities’ Web homepage, which states: “Learning communities are curricular redesigns that link or cluster classes during a given term around a central, often interdisciplinary, theme or question and enroll a common cohort of students” (<http://www.dbcc.edu/academics/>

learningcommunity/index.htm, 2004). The mission states that learning communities can assist students in building a convenient class schedule, meet general education requirements, make friends, enjoy closer interaction with faculty, develop critical thinking skills and practice team building.

Daytona Beach Community College offers students two choices when choosing a learning community environment: (1) linked classes, which were discussed in the definition of a learning community in this research; and (2) QUANTA, which is a small, nationally recognized learning community. Daytona offers common traditional courses under a common theme, and helps students link their classes together with common thoughts and ideas that typically run through the courses. Daytona promotes community learning, peer relationships and critical thinking. It also requires minimum ACT, SAT, or CPT scores to qualify and participate.

Glendale

Glendale Community College (GCC) has in-depth data to determine if their learning communities lead to success. Glendale is home to 25,000 students and is located in Glendale, Arizona. They pride themselves on the fact that GCC has one of the highest transfer rates in the state. Their mission states:

Its primary mission is to prepare students for successful transfer to four-year colleges and universities or for successful placement or advancement in rewarding careers. Its mission is also to serve its surrounding community through adult non-credit education and community services courses and programs. (<http://www.glendale.cc.ca.us/new/welcome/mission.htm>, 2004)

In its mission, GCC includes several important keys to their success. One key is to provide students with a rigorous curriculum that includes artistic and cultural heritage, development

of civilization, scientific environmental information, and appropriate ways to face challenges in one's personal life. The college promotes openness to the diversity of the educational experience, skills in written communication and mathematics, effective use of technology, problem solving, and the ability to work with others.

Based on the mission statement, GCC believes in a holistic approach in education. Glendale has the understanding that a student comes to college with a background to share and to continue their path of learning. Their mission supports the concept of learning communities.

Glendale defines learning communities as a combination of two or more courses around interdisciplinary themes, or questions, in which "learning communities restructure the curriculum to provide both students and faculty unique opportunities to add greater coherence and relevance to course materials and to sponsor greater interaction among students and between faculty and students" (<http://www.gc.maricopa.edu/linkup/guidelines>, 2004). Glendale has had learning communities on their campus since 1999. The learning communities began with 14 linked classes facilitated by Dr. Nancy Siefer who was on sabbatical from Evergreen State College in Olympia, Washington. Glendale offers linked classes where two or more courses are linked together revolving around a common theme and having a common syllabus. Finally, fully linked classes are offered with the same instructor around the same theme.

Glendale has remained dedicated to learning communities. Like Daytona, GCC offers faculty information about starting a learning community on campus. Guidelines are offered as a general road map for instructors. The proposals must include the course title, type of linkage, proposed semester, classroom information, competencies, target population,

and marketing plan. In the marketing plan, the instructor documents approaches to market his/her learning community. Other parts of the guidelines include the history of learning communities on campus, definition of the type of learning communities offered, proposal forms, discussion of what the learning community committee is and who are the active members, information on how to market a learning community, evaluating procedures, and sustaining and improving learning communities. Glendale offers many resources and states that the information is a roadmap for learning communities; however it does not have a sequential procedure such as Daytona.

Lane

Lane Community College (LCC) is located in Eugene, Oregon, and serves about 40,000 students per year. The LCC president welcomes visitors to their website and stresses that their instructors are people who have learning at the heart in everything they do. As depicted in its mission statement, Lane places students first and values each student's unique needs as a learner:

Lane Community College is a comprehensive community college whose mission is to provide accessible, high quality, affordable, lifelong education through: vocational/career preparation and retraining, skill upgrading, lower division transfer programs, personal development and enrichment, and cultural and community services.
(<http://www.lanecc.edu/research/mission.http>, 2004)

The learning communities homepage at Lane begins with the definition of a learning community: "Learning communities are curricular redesigns that link or cluster classes during a given term around a central, often interdisciplinary, theme or question and enroll a common cohort of students" (<http://sliunix.lanecc.edu/~>

learncom?whatare.htm, 2004). Lane offers several reasons for participating in a learning community, which include: creating connections between disciplines, building an academic and social community of students, having continuity of curriculum, increasing faculty interaction and professional growth, and increasing student retention.

Lane also offers faculty checklists to help prepare and answer questions before implementing a learning community. The checklist contains 11 suggestions to consider before building a learning community.

1. Identify group goals by researching and reading articles on the reading list.
2. Trade syllabi and meet to discuss commonalities with the fellow instructor.
3. Begin to visit the classes and observe the person you will be developing the learning community with.
4. Design new syllabi or revise what already exists.
5. Continue to work together to adapt assignments.
6. Determine classroom strategies, activities and guest presenters.
7. Review grading philosophies and evaluate.
8. Discuss workload and report to the appropriate person.
9. Consider assessment and ask questions.
10. Determine schedule and classroom needs.
11. Determine the best time to offer the course.

Lane has ample references and resources that provide faculty and students with a better understanding of learning communities (Lane Community College, February 26, 2006, from <http://www.lanecc.edu/>).

Student success

Learning communities are on the rise because of the success many institutions are having with these communities. In an article entitled, *Learning communities program evaluation*, Connal (2002) stated many positive features of the Cerritos Community College learning communities program. Ninety percent of the students in learning communities at Cerritos are from underrepresented groups (i.e., under-prepared, first-generation, low-income homes). At Cerritos, the success rate of students in learning communities was better in more than half of the cases when compared to students that did not take part in learning communities. A mixed method of qualitative and quantitative research was used to study at Cerritos. In 17 out of 23 learning communities studied, at least one of the courses in the community had better than average success rates (Connal, 2002). Students in learning communities gave the impression that they were taking more responsibility for their learning. It was also noted that learning community students seemed more connected to other students and instructors when compared with non-learning community students. Students who continued their education after their learning community experience felt greater networking with their peers and interacted more with the faculty. The faculty appeared more caring and offered more guidance according to students who were involved in learning communities. Students in learning communities took more responsibility for their learning and placed less responsibility on their instructors.

The value of establishing effective learning communities is supported by research. According to Tinto (1998), “One thing we know about persistence is that involvement matters. The more academically and socially involved individuals are – that is, the more they interact with other students and faculty – the more likely they are to persist” (p. 167). In *The*

art of retention, Lovely (2004) stated that learning communities enable students to be part of “something larger than themselves.” Cohesion and inclusion are part of the process when building, participating and engaging in a learning community. McAndrews, Tobin, Anderson, and Wendell (2002) stressed the benefits of learning communities which include higher test scores, increased self-awareness, better attendance, lower drop out rates, and greater cost effectiveness. They stated that smaller learning communities generate happier and higher achieving students. Their research promotes the following points—that learning communities can make a difference for students who need the additional support, and students are capable of being retained if institutions provide an appropriate educational path.

Tinto’s studies focused on academic and social experiences. In Tinto’s (1994) longitudinal study at the University of Washington, Seattle Central Community College, and LaGuardia Community College, learning community students had higher academic achievement and lower attrition. Tinto revealed that students were more active in their social environments when participating in a learning community. “The persistence rate into the following fall quarter (at Seattle Central Community College) was 15% greater than it was for similar students enrolled in regular classes” (Tinto, p. 27). Thus, learning communities continue to improve retention for many community college students. Tinto also reported students in learning communities had an improved range of academic and social involvement, better developmental gains compared to students in regular curriculum, more positive views of college, longer successful persistence, and greater persistence at their transfer institutions.

Learning communities have advanced levels of engagement by students and improved test results (Killacky & Thomas, 2002, p. 764). Kleine (2000) noted a retention rate of 10% greater in learning communities compared to the college-wide retention rates. In their article,

Adding value: Learning communities and student engagement, Zhao and Kuh (2004)

positively linked learning communities to student engagement and overall student satisfaction. Zhao and Kuh examined first year students as well as seniors while they participated in learning communities. They found higher levels of academic effort, collaborative learning, more interaction with faculty and fellow students, deeper engagement in diverse activities and engagement in classes that required higher order thinking skills. Thus, learning community students showed gains in personal and social development.

Retention is affected by learning communities. “Nearly 650 Seattle Central students a year sign up for learning communities and for these students the retention rate is 97%. The colleges’ overall retention is 70%, a strong number for a community college serving such a low-income population” (IEP Agency Handbook, 2003-2004, p. 5).

In summary, educators have illustrated how many colleges are developing successful pathways that incorporate learning communities. Retention, learning, peer evaluation and collaboration are many of the concepts that learning communities improve. Learning communities make the educational system a holistic learning environment.

Effective practices

In the monograph, *The pedagogy of possibilities: Developmental education, college-level studies, and learning communities*, Malnarich (2003) explored the features of effective programs for developmental students. One feature is the developmental philosophy wherein the “whole” learner is placed at the center of practice. The caring teacher must have confidence in the student and create an environment that requires the student’s best efforts.

Malnarich stated that learning communities provide integrative learning, academic rigor and engaging activities that at-risk students need (Malnarich, p. 26).

A year-long qualitative case study focusing on the Community College of Denver, its developmental program, and student success examined the factors necessary to become an effective learning college for all students. The focus was at-risk students who were defined as “high school dropouts, under-prepared high school graduates, students with learning disabilities, adults returning to college for retraining, welfare recipients, and immigrants requiring English as a second language assistance” (Rouche, Rouche, & Ely, 2001, p. 525). Rouche et al. recommended strategies that are often utilized in a learning community’s mission including: increasing student success by acknowledging diversity in the classroom and utilizing cultures of the students, creating an internal process that encourages open discussion, teaming, collaboration of faculty and staff and celebrating student success, recruiting the best faculty members available for mentoring and training, seeking funding to support retention and, finally, being committed to and taking steps toward leveling the educational playing field.

Similar to the current study, Rouche et al. (2001) conducted an in-depth, qualitative study focusing on one college, and acknowledged the many challenges that face community colleges, such as increased demands for accountability and funding concerns. Along with having similar characteristics to the current study, Rouche et al. examined a similar student population which included minority students, low income, welfare recipients, and returning students. Many key variables relating student success to learning communities were identified. These variables included commitment to student success, quality faculty members,

quality advising, ongoing efforts with diversity, collaboration, and meeting the needs of all students.

Developmental learning communities

While the previously mentioned institutions provide examples of effective learning communities, there are fewer models of developmental learning communities. Examining developmental learning communities provides a means to understand and review the concepts regarding what makes a developmental learning community and why they are so important for community colleges. Although literature is extensive on learning communities in general, very little research has been done on developmental learning communities. As stated previously, 12 community colleges across the nation registered with the Washington Center as having a developmental learning community (retrieved July 5, 2005, from <http://learningcommons.evergreen.edu/dir/prog/Details.asp?progid=358>). When researching each developmental learning community, there are a variety of community colleges that claim to run developmental learning communities. An examination of each of the 12 revealed that some community colleges are in the initial stages, a few have established developmental learning communities, and others are simply offering at-risk students a chance to participate in a learning community.

An example of a community college that is in the process of establishing a developmental learning community is Broward Community College in Florida (discussed previously). Broward's developmental reading course was linked with Introduction to Sociology (retrieved July 2005, from <http://learningcommons.evergreen.edu/dir/prog/Details.asp?progid=331>). Hutchinson Community College in Kansas is another institution

that is in the process of creating a program that links developmental English and Math. Hutchinson's goal is to have 80% of their students pass math as a result of being in a learning community (retrieved July 5, 2005, from <http://learningcommons.evergreen.edu/dir/prog/Details.asp?progid=216>). Massachusetts Bay Community College offers criminal justice students a developmental reading course together with an Introduction in Criminal Justice class. This is a beginning program that has had little follow-up at the time the current study was conducted.

Of the 12 community colleges examined, two claim to be well-established in their efforts as organized, developmental learning communities. The first is Grossmont in California, with a program entitled Project Success, which began in 1985. Instructors define the developmental learning communities as links between composition and reading courses. Students are required to keep journals and respond to questions in those journals that are developed by instructors. Grossmont currently has 42 learning communities that involve a total of 2,000 students. The institution assesses its program through faculty/student affairs satisfaction, retention at the institution as compared to the specific retention of learning community students, and annual program enrollments. "Ten years of institutional research indicates that students involved with learning communities at the developmental level have higher retention and persistence rates than students who are not involved in those programs" (retrieved July 5, 2005, from <http://learningcommons.evergreen.edu/dir/prog/Details.asp?progid=358>).

The other well-established developmental learning community is at Chandler-Gilbert Community College in Arizona (part of Maricopa Community College). This developmental learning community is one of the first learning communities established at Chandler-Gilbert

Campus, and has become one of the most successful programs (retrieved July 5, 2005, from <http://classe.cgc.maricopa.edu/servlet/schedule.Resultslc?term=20056&lc=4>). Chandler-Gilbert's program establishes needed skills to succeed in college and builds relationships with instructors. Students must qualify for the program to participate in the learning community. Chandler-Gilbert has a strong mission promoting the connection between students and faculty and encourages the faculty to collaborate. The learning community is established to influence a deeper understanding of college curriculum, produce an active participation in one's own learning and inspire personal growth.

Summary

The literature was reviewed to provide a background for the need and growth of learning communities in higher education, particularly at community colleges, and to introduce developmental learning communities, the focus of the current research. Theory and related research provided a background to understand learning, characteristics of learners, and the learning community phenomena. The outcomes of research on the learning process by Dewey (1938), Tussman (1969), Tinto (1998), and Astin (1984) were reviewed in relationship to viewing the student as a whole person. An historical perspective was also provided to demonstrate the past experiences and successes of learning communities.

Learning communities were discussed in relationship to their definition and purpose—to promote responsibility for learning—in higher education, particularly at community colleges. Students from diverse backgrounds are able to relate their learning to their environment. Learning communities are a powerful tool for educators to empower

students to achieve success. Learning communities have a positive influence on students, faculty and institutions.

Finally, at-risk students and the need for developmental learning communities at community colleges were presented and discussed to provide a background for the current research on developmental learning communities. Developmental learning communities are defined as links or bridges in the learning process as they examine the entire student, teach from the heart, engage interdisciplinary teaching, build connections between subjects and create productive community members (retrieved July 5, 2005, from <http://learningcommons.evergreen.edu/dir/prog/Details.asp?progid=216>).

The theoretical basis and related research on learning communities provided a background for this case study on a paired, developmental learning community. The next chapter presents the methodology used to carry out the study.

CHAPTER 3. METHODOLOGY

Introduction

This qualitative study was conducted to capture the perceptions of students who participated in a paired, developmental learning community at Metropolitan Community College in Omaha, Nebraska. In addition, secondary quantitative data collected by Metro was used for additional analysis to provide a more rich understanding of the significance of the paired, developmental learning community. Case study method enabled the researcher to examine the learning communities from the viewpoint of at-risk students.

The theoretical framework selected for this research was Astin's involvement theory (1984). Astin's theory explains why the learning community phenomenon aids in the retention of students. The basic premise of Astin's theory is that a student who is engaged in the college environment is a student who will find success. Theory of involvement discusses how the quality and quantity of the student's involvement dictates student learning and development. Astin promoted efforts to get the student involved in the college environment because involvement leads to increased learning.

A qualitative research design was the primary methodology selected for this research to understand the impact of learning communities on developmental students. Qualitative studies offer insight to student perceptions and help expose the student's point of view. The purpose of this study was to ascertain how participating in a paired, developmental learning community may influence at-risk students' view of learning.

The qualitative paradigm that was applied in this research was constructivism. Constructivism focuses on the unique experience each person has and suggests that each

individual has his/her own way of making sense of the world (Crotty, 1998). The research may empower the at-risk students during the research process. The researcher also drew on interpretative phenomena when interviewing participants. Interpretivism is an act of clarifying and explaining the meaning of a learning community phenomenon (Schwandt, 2001).

Case Study

A case study is an in-depth exploration of a process based on extensive data collection (Creswell, 2003). The researcher explores a program, activity or process in depth. The cases are bounded by time and researchers collect detailed information using a variety of data collection procedures (Stake, 1995). The case may be selected for study because it has merit in and of itself (Creswell, 2002). According to Denzin and Lincoln (2000), there are three types of case studies: intrinsic, instrumental, and collective.

This case study was an instrumental one. Instrumental case studies serve the purpose of illuminating a particular issue such as the student's views of their learning experience in a paired, developmental learning community (Creswell, 2002; Denzin & Lincoln, 2000). The researcher sought to develop an in-depth understanding of a paired, developmental learning community by analyzing primary and secondary data about the program.

Metropolitan Community College was selected for this case study. Metro is one of the few institutions in the nation to offer developmental learning communities (retrieved July 1, 2005, from <http://www.evergreen.edu/washcenter/project.asp?pid=73>). In addition, Metro provided a variety of secondary data which consisted of Likert scale surveys, open-ended surveys, and a persistence study collected over a three-year period. Metro collected data

from all three of their campus locations: Downtown, West, and South. The data were collected from the spring of 2001 to winter of 2004.

The paired, developmental learning community at Metropolitan Community College was the case selected for this research. This paired, developmental learning community offered a unique program in a community college setting. Primary data were collected for a two-year period (December 2004 –December 2006). The primary data consisted of focus groups, observation, and informal interviews. The downtown campus was chosen for the focus groups, observation and informal interviews.

Research Site

Metropolitan Community College is located in Omaha, Nebraska, and was selected because of its commitment to learning communities and the willingness to participate in this study. In addition, this community college was identified as an institution that has developed extensive developmental learning communities. According to the Washington Center for Learning, 12 developmental learning communities were registered with them during the summer of 2005 (retrieved July 1, 2005, from <http://www.evergreen.edu/washcenter/project.asp?pid=73>).

Nebraska's community college system came into being in 1971, when Nebraska's Legislature created eight "technical community college areas." Metropolitan was created in 1974, when the Legislature consolidated the original eight technical community college areas into six. At this point in time, the college merged with the Eastern Nebraska Technical Community College Area and became Metropolitan Technical Community College Area. Metro has been one of the fastest growing postsecondary institutions in the state of Nebraska.

(Metropolitan Community College, retrieved February 26, 2006, from http://www.mccneb.edu/search_results.asp?q=developmental+reading&x=9&y=13).

Metropolitan Community College is a public institution that is supported by the taxpayers of Dodge, Douglas, Sarpy, and Washington counties. The counties pride themselves in providing a high quality education and career preparation to all people. General support courses, classes for business and industry courses are offered to students and are an important part of the community. All programs are approved by Nebraska State Department of Education (Metropolitan Community College, retrieved February 26, 2006, from http://www.mccneb.edu/search_results.asp?q=developmental+reading&x=9&y=13).

Metropolitan Community College has three urban campuses and serves a population of approximately 26,000 credit-students per year. The community college campuses are: Fort Omaha “Downtown,” Elkhorn Valley “West,” and South Omaha “South.” The oldest campus of the institution is the downtown campus which also houses the majority of the administrative offices. This campus was selected to conduct focus group studies while the secondary data included information from all three campuses. The average age of the students was 30, and 50% of them were women while 20% were students of color. The faculty included in the study were all white females and had voluntarily participated in the paired, developmental learning communities.

Metro offers 100 career options in business administration, computer and office technologies, food arts and management, industrial and construction technologies, nursing and allied health, social sciences and services, visual and electronic technologies and transfer. Students are also offered a diverse student campus atmosphere that is committed to self-

improvement and promoting student success. The college mission highlights the importance of life-long learning, serving diverse students, and maintaining quality.

Metropolitan participated in a workshop presented by Tinto (1994) to design learning communities. A leader in research on learning communities, Tinto invited several employees to visit and observe Evergreen State College (2005), the hub of nationally known learning communities. The administrative staff at Metropolitan supported the use of learning communities financially by providing additional funds to teachers and staff who choose to participate.

Metropolitan offers developmental learning communities to at-risk students. The learning communities are known as paired, developmental learning communities and defined as courses that share content and activities, so that students can draw connections between two subjects. Students learn skills in one subject and then apply them to another subject (Metropolitan Community College, retrieved December, 2006, from http://www.mccneb.edu/search_results.asp?q=developmental+reading&x=9&y=13).

Data Collection

Six data sources were used in this study. The first three were provided to the researcher from Metro (secondary data), and the last three were conducted by the researcher at Metro (primary data).

1. *Likert scale survey*: Quantitative data from a Likert scale designed by Sue Raferty, the Dean of Learning, Design and Support at Metropolitan Community College. The surveys were completed in fall 2004, winter 2004, and consisted of 15 questions

- which asked students to respond by checking strongly agree, agree, neutral, disagree or strongly disagree.
2. *Open-ended surveys:* Forty-seven surveys completed in fall 2001, spring 2001, winter 2001, and spring 2002 were provided to the researcher by the Coordinator of Assessment, Kelly Lawler. They were comprised of 15 open-ended questions administered to students in a classroom setting.
 3. *Persistence study:* One study measuring persistence based on the experiences of 20 students who participated in a paired, developmental learning community in the winter and spring of 2002 were provided to the researcher by the Coordinator of Assessment, Kelly Lawler.
 4. *Focus groups:* Two focus groups were conducted by the researcher on the Metro Downtown campus; the first on May 16, 2005, and the second on July 26, 2005. Each focus group consisted of 10 questions and was approximately one hour in length. The Coordinator of Assessment at Metro, Kelly Lawler, was instrumental in helping the researcher organize them. The first focus group consisted of six students and the second focus group had 10 participants.
 5. *Observation:* Two paired learning communities—English and Speech—were observed on May 16, 2005 by the researcher on the Downtown campus. There were 6 students in each hour-long class for a total 12.
 6. *Informal interviews:* Several informal interviews were conducted by this researcher with administration, faculty, and staff on the Downtown campus. The informal interviews were conducted with the Dean of Learning Design and Support,

Coordinator of Assessment and faculty. The meetings were often an hour in length and notes were taken in a journal to record information.

The rich data gave the researcher the opportunity to gain insight to the learning community phenomena at Metro's Downtown campus. The following subsections describe the data collection process in detail.

Secondary

Likert scale survey

School and learning community documents were collected for this researcher by Metropolitan Community College to provide the historical and social context of the learning communities. One year of Likert scale surveys from the paired, developmental learning communities were collected, alphabetized, and dated. The surveys were designed, administered, and stored by Sue Raftery Dean of Learning Design and Support. The data were collected in fall 2004 and winter 2004. The Likert scale surveys included 15 questions which asked students to respond by checking strongly agree, agree, neutral, disagree or strongly disagree to the following statements:

1. I am a better student as a result of participating in a learning community.
2. The assignments in my learning community challenged me to think in new ways.
3. The class discussions helped me to see a connection between classes and topics.
4. My participation in a learning community has motivated me to take more classes and continue with my education.
5. I received support and encouragement from my instructors in my learning community.
6. My learning community instructor referred me to other college services or offices when necessary.

7. The integrated courses increased my understanding of the subject matter.
8. I applied what I learned in my learning community to other courses at Metro.
9. I felt a sense of community in the classroom.
10. I spent time with students in my learning community outside of class.
11. I attended an ON-campus activity (speaker, cultural event, academic activity, etc.) with other learning community students.
12. I attended an OFF-campus activity (speaker, cultural event, academic activity, etc.) with other learning community students. I would recommend participating in a learning community to other students.
13. I would recommend participating in a learning community to other students.
14. I would participate in another learning community.
15. Which of the following had the greatest impact on your decision to join a learning community?

Open-ended survey

Open-ended surveys were collected by Metropolitan in fall 2001, spring 2001, winter 2001, and spring 2002. Forty-seven surveys were collected from students in a classroom setting by Metropolitan Community College and consisted of 16 open-ended questions.

1. How and why did you become part of the AIM program?
2. Please circle any of the extra services that you had the opportunity to use (tutoring, counseling, instructors, or other) during the quarter.
3. For the extra services, how effective was that additional help?
4. Would you change any of the educational choices you made during the quarter? Which ones?
5. Do you feel differently about yourself now that you have attempted/completed the program? Explain.
6. How do you feel about attending classes with the same group of students?
7. Please tell us about the best learning activities in your English class.

8. Please tell us about the best learning activities in your mathematics class.
9. Please tell us about the best learning activities in your reading class.
10. Please tell us about any class activities that were not helpful to your learning.
11. Is there anything else you would like to tell us about your classroom experiences?
12. What is your opinion of the AIM program?
13. Would you recommend this program to a family member?
14. If YES, what would you tell them?
15. If MAYBE or NO, what could be done to improve the program?
16. Do you have any other suggestions or comments you would like to make?

Using the coding method by Denzin and Lincoln (2000), the researcher established several themes throughout the responses on the student surveys.

Persistence studies

The third aspect of the secondary data collection process was to review the persistence information provided by the college. These data included persistence studies maintained in the Office of the Dean of Learning Design and Support. The survey information was compiled based on the results of students who received a grade of pass (P) or who re-enrolled (R), which indicated persistence to the next term. The persistence data were collected the winter and spring of 2002. Persistence information about the entire Metropolitan population was not available; therefore persistence of the paired, developmental learning communities cannot be compared to the general student population.

Primary

Focus groups

A focus group is used to gather “consumer opinion on product characteristics, advertising themes, or service delivery” (Denzin & Lincoln, 2000, p. 651). The purpose of the focus groups was to gather additional data for the research. The focus group interview was directive and had structured questions to involve male and female students participating in a paired, developmental learning community. The students were interviewed during the summer of 2005. The focus groups were conducted to disclose major themes that were established in the students’ responses to help answer questions addressing why learning communities work for students and what characteristics they possess that make a difference in retention. The students were all enrolled at the Downtown campus and varied in racial backgrounds, which included African-American, Caucasian and Japanese.

The advantage of utilizing focus groups for this study was to gain in-depth information that is difficult to obtain from other data collection techniques such as questionnaires or surveys. Respondents stimulated other participants and aided in recall leading to further discussions. The focus group discussions tended to be interactive which enabled the researcher to adjust questions during the sessions obtaining additional information. In addition, the counseling background of the researcher was utilized to build rapport and facilitate the focus groups.

Participants

The sample population consisted of 16 at-risk students (groups of 6 and 10) at Metropolitan Community College who were enrolled in a paired, developmental learning

community. The researcher collaborated with the Metropolitan Community College employees to identify participants who met the criteria for participation in the study. The gatekeepers included the Dean of Learning Design and Support and the Coordinator of Assessment. Since a rapport was established from the capstone project experience conducted by the researcher, a certain amount of knowledge was available on the existing learning communities. The community college was asked to follow specific selection criteria. Given the gatekeepers' current positions at the community college and their involvement in the program, they were able to provide suggestions that helped to determine a list of participants.

Participants for the study were selected from students who had experienced paired, developmental learning communities. The paired learning community was considered a developmental learning community because the regular academic courses were paired with a developmental course. The students were encouraged to participate in the paired learning community if they had received low test scores in all areas on the COMPASS test used for entrance. The students who participated all scored in the developmental range on all three tests in reading, writing and math. The selection process and criteria are discussed in the following section.

Approach

At-risk students selected for the focus groups were defined as those students who qualify for three or more developmental classes (math, reading, and writing) on the Compass Test (a product developed by American College Testing [ACT] designed to determine college readiness). The students were also first generation students and qualified for financial aid. These three criteria established the high-risk concerns that are often associated

with dropping out of school. Several researchers (Barefoot, 2004; Kuh, 1999; Roueche et al., 2001) suggested that many students come to college less prepared to undertake academic course work and need to work on basic skills in education. They also suggested that many of these students are at risk for dropping out or stopping out. The Compass Test scores provide data for administrators and faculty to identify students who are not prepared for their academic work.

Focus group interviews were conducted with at-risk students who were from low-income, underprepared backgrounds and who had participated in a learning community. Low-income students were identified as those who qualify for financial aid (Pell Grant). Underprepared students were defined as those who were first-generation college students and scored low in three areas on the Compass Test. Low scores included students who qualified for all three remedial classes in math, reading, and writing. In the focus group that was audio taped with students, the researcher explored what students know, do, use, and make sense of in a learning community. The focus group began with the researcher introducing herself and explaining the purpose of the study. Introductions were made at the start of each focus group session to ensure that everyone was comfortable with the procedure of the focus group. The questions were read to each group, and comments and ideas started to emerge. Data were recorded by audiotape and then transcribed. The transcriptions were organized according to the date of the focus group. Ten questions guided the discussion during a one-hour focus group session:

1. What are the specific characteristics of the learning community that have been most influential in shaping your learning experience?
2. How has participating in this learning community impacted your view of learning?

3. Have your career goals been impacted by the learning community?
4. Do you feel that the learning community class complements the learning styles of most students?
5. Has the learning community affected your ability to stay in school?
6. Is the relationship with teachers different or the same? How and why?
7. Have your career goals been influenced (reinforced or changed by participating in a learning community)?
8. What are your views of learning now, compared to these before the learning community?
9. Did the learning community connect you with your peers differently than regular classes?
10. What relationships have been built due to the learning community?

Observation

In addition to the focus groups, the researcher conducted observations of learning communities during site visits. Observation was used to represent a first-hand encounter with the phenomenon of interest rather than a secondhand account obtained in an interview (Merriam, 2002). According to Merriam (2002), observation is best practice when an activity, event, or situation can be observed directly, when a new perspective is desired, or when participants are not able or willing to discuss the phenomenon under study. Therefore, one of the data collection procedures was observation of a learning community at Metropolitan Community College whereby students were observed in an active learning community setting.

Two observations were conducted during an actual learning community session and consisted of a total of 12 students (6 in each group). According to Denzin & Lincoln (2000), “Observation has been characterized as the fundamental base of all research methods in

social and behavior sciences” (p. 673). Observation was helpful to note body language and view the natural environment. Open-ended narratives were utilized to collect data on the learning community. The researcher used a design that enabled documentation of observation on one side of the document and an area for personal thoughts and ideas. The observer did not take part in or interfere with the natural setting.

Observation enabled the researcher to look at her own knowledge and judgment of learning communities. The researcher was trained in qualitative observation through her coursework. Field notes from the observation were analyzed and compared for methods of analysis.

Informal interviews

Interviews of college staff and administrators regarding their perceptions of learning communities and connections made in learning communities were another means of data collection. These interviews were used to reveal the essence and meaning of an at-risk student who participates in a learning community. This researcher’s experience participating in a learning community was also examined for personal prejudices, viewpoints, and assumptions. “Ontology raises basic questions about the nature of reality and the nature of the human being in the world. Methodology focuses on the best means for gaining knowledge about the world” (Denzin & Lincoln, 2000, p. 151). Hence, the methodology included a naturalistic approach using a functioning paired, developmental learning community at a community college.

Data Analysis

For this case study the data analysis consisted of secondary data (Likert scale surveys, open-ended surveys, and a persistence study) and primary data (focus groups, observations, and informal interviews). According to Schwandt (2001), data cannot speak for itself; therefore, the qualitative analysis breaks down the entire corpus of data such as transcription and observation.

Likert Scale surveys were collected by Metro and given to the researcher in the form of a report. The report consisted of the questions on the Likert Scale survey and the percentage of student responses in each section. The analytic approach for the Likert Scale reports was to analyze the reports looking for discrepancies, similarities, and outliers.

In addition, a persistence study was analyzed to support the existing data collection findings. The persistence studies were collected by the Dean of Learning Design and Support and presented to the researcher in report form. Persistence was analyzed after one quarter, two quarters and 30 credit hours. Evidence of persistence was counted if they passed courses or had re-enrolled in the course.

The focus groups were conducted and open coding was used to enable the researcher to determine potential themes by focusing on real examples (Denzin & Lincoln, 2000, p. 783). As coding categories emerged, the researcher linked them together in thematic modes. The themes concept was then employed to compare and contrast occurring themes. A conditional matrix was also utilized by creating a set of concentric circles, each level corresponding to different units of influences (Denzin & Lincoln, p. 783). The center represents the actions and interactions. The outer rings focus on the national concerns and influences while the inner rings focus on the individual influences on the action. Notes were

added to summarize the researcher's thoughts. According to Denzin and Lincoln (2000, p.783), "Once a model starts to take shape, the researcher uses negative case analysis to identify problems and make appropriate revision." The focus groups were audio taped and transcribed shortly after the interviews were completed.

Open-ended surveys, observations, and informal interviews were collected and analyzed by using the bracketing method. Denzin and Lincoln (2000) suggested a concept of bracketing, employing the following steps which are designed to analyze the data for common ideas:

1. Look for key phrases and statements that look directly to the concepts in question.
2. Interpret the meanings.
3. Inspect the meanings for what they reveal or tell about the phenomenon.
4. Offer a tentative statement or definition of the phenomenon.

Once the data were collected the research was categorized, grouped, and clustered in order to make meaning of the data. Constant comparative analysis was employed to look for statements and indicators of behavior that occur over time and in a variety of periods throughout the study (Denzin & Lincoln, 2000). Analyzing qualitative data is an act of making sense of, interpreting, or theorizing data (Schwandt, 2001). Analysis began with the process of organizing and reducing the initial data. The conclusions and interpretations were gathered through establishing a pattern of ideas throughout the responses.

Trustworthiness

Trustworthiness is defined as the quality of an investigation and its findings that make it noteworthy to audiences (Schwandt, 2001). Typically, in a naturalistic inquiry there are four areas of concern: credibility, transferability, dependability, and conformability.

Credibility is defined as making sure that the viewpoint of the researcher is being articulated and in a way that the respondents feel they are being heard. In other words, the researcher is accurately reporting the verbal and non-verbal expression of the respondents (Schwandt, 2001).

Transferability is concerned with the “inquirer’s responsibility for providing readers with sufficient information on the case studied such as the case findings which might be transferred” (Schwandt, 2001, p. 244). These concerns are addressed by explaining the research in detail so the reader will be able to apply the research to the appropriate area.

The final two concerns are dependability and conformability. Dependability focuses on the logical flow of the process and ensures that the materials are traceable and well documented (Schwandt, 2001, p. 258). An audit trail was established to ensure dependability and conformability of the study. Careful documentation and filing took place to ensure the information is available and reliable.

Researcher’s Role and Reflexivity

Schwandt explains, “Reflexivity is a term used in qualitative research that refers to the researcher’s self reflection on one’s biases and for critically inspecting the entire research process” (2001, p. 224). The background of this researcher resembled the characteristics of a non-typical student, which was an advantage when working with community college students.

The researcher grew up in a low-income, one-parent family that was similar to that of many community college students. Furthermore, the researcher's Midwest background helped her to build rapport with students who were from similar backgrounds. Since the researcher was currently in a learning community it may have helped establish a foundation for the project. The researcher was a member of a learning community for her doctoral program of study at Iowa State University, and also a white female who grew up and currently lived in a small rural community.

The researcher's interest was the success of at-risk students. As the research evolved, it became evident that her interest in learning communities was from the perspective of an at-risk student. While growing up, the researcher was unaware that she was considered a low-income, first-generation student, and had a low statistical chance of attending and succeeding in college.

Learning communities work with many types of students and the researcher was curious to understand why they work and what kind of culture is created. The researcher also pondered if learning communities were successful with a student who seems to have at-risk behaviors or characteristics. The researcher may have had particular feelings about learning communities because of her current position. The researcher was aware her background had enabled many connections with peers and faculty that had motivated her to complete her degree. Nevertheless, it was important not to impose these feelings on other students. The researcher was also careful in the interviews not to persuade the students with her own personal view. As a counselor, she was cautious to avoid the role she often plays in counseling situations with students and strictly maintain the role of a researcher. It was also

important to make students feel comfortable with the researcher's presence during observations.

The researcher has a Master's degree in Counseling which empowered her with experience in interviewing people for self-reflections and understanding of self. She has been employed as a counselor for 12 years and uses interviewing skills on a regular basis. She has also utilized other skills that are essential to the counseling field, such as rapport building, trust, and effective listening. Making meaning of a student's experience was the concept; the researcher explored her own past experience as a counselor.

The researcher understood the rights of human subjects and took part in the on line training. The informed consent forms were discussed with students, explaining the reason for the study, the researcher's background, and the intent of the study. Prior to conducting the study, approval from the Human Subjects Research Office at Iowa State University was obtained (see Appendix B).

Summary

The qualitative paradigm was applied to make meaning of the unique experience in a learning community. This research design was used to answer questions about the human experience in a paired, developmental learning community. The methodology employed a naturalistic approach because the research was conducted within the environment of a community college. The data were collected through multiple data sources using the Likert scales collected by the college, focus groups, interviews and observation. Bracketing was used to establish themes in the data.

Multiple data sources included Likert scale and open-ended surveys and persistence which were all collected by Sue Raferty, the Dean of Learning Design and Support at Metropolitan Community College. Additional data sources collected by the researcher included focus groups, observation and informal interviews of administration, faculty and staff.

The students who participated were considered at-risk in some way. They may be low income, first-generation, Pell grant recipients, or scored low on the incoming tests required by the college. The outcomes of the research were to make meaning of the learning community experience for developmental students as well as important information to fellow scholars, educators, and administrators in student personnel offices.

CHAPTER 4. RESULTS

Introduction

The purpose of this study was to examine a paired, developmental learning community at Metropolitan Community College and to understand how it enhances learning. This chapter presents the findings from the qualitative and quantitative data collected for this case study. These data included Likert scale surveys, open-ended surveys, persistence studies, focus groups, observation, and informal interviews. The case study sought to reveal how students' participation in a paired, developmental learning community impacted their view of learning and ascertain the characteristics of developmental learning communities that were most influential in shaping the students' learning experiences. In addition, the study documented persistence from one term to the next. Primary data sources, including focus groups, interviews, and informal observations were collected by the researcher. In addition, student artifacts and surveys collected by Metropolitan Community College were analyzed as secondary data. Three research questions guided this study.

1. How did student participation in a paired, developmental learning community influence the student's view of learning?
2. What are the specific characteristics of paired, developmental learning communities that are most influential in shaping the students' learning experiences?
3. What is the percentage of students who participated in the paired, developmental learning community and persisted to the next quarter?

Likert Scale Surveys

Likert scale surveys were developed and administered by the Dean of Learning, Design and Support at Metro. Fifty-nine Likert scale surveys were completed in the fall and winter of 2004. The first group included 16 students who participated in a paired, developmental learning community on the Downtown campus. The next groups were on the West campus and were comprised of 10 and 16 students per group. The South campus was also surveyed, with groups comprised of 13 and 6 students, respectively. The Likert survey report depicted a learning community as two or more linked classes that consist of a common group of students.

Table 2 provides a summary of the responses to the Likert scale survey administered to the students given by the Dean of Learning, Design and Support prior to this research study. The questions on the survey were categorized by the researcher through a review of Metro's data collection results. Based on this analysis the researcher developed five categories which also linked to the developmental core practice model discussed in Chapter 5. The results are presented based on the perceptions of the students according to the following categories: (1) Collaboration and Community; (2) Connections; (3) Engagement and Motivation; (4) Critical Thinking; and (5) Support.

Collaboration and community

“When students are asked to define community, they describe it as a sense of belonging and connectedness in both the academic and the social contexts of the college or university” (Smith, MacGregor, Matthews, & Gabelnick, 2004, p. 98). Regardless of the campus, the majority of the Metro students generally “felt” a strong

Table 2. Percentage of responses by statement from students in paired, developmental learning communities

Statement	Campus Location	N	Response					
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Uncertain
1. I am a better student as a result of participating in a learning community.								
	Downtown	13	46.2	46.2	0.0	7.7	0.0	0.0
	West (1)*	10	80.0	20.0	0.0	0.0	0.0	0.0
	West (2)*	15	20.0	46.7	33.3	0.0	0.0	0.0
	South (1)*	4	25.0	75.0	0.0	0.0	0.0	0.0
	South (2)*	11	18.2	54.5	27.3	0.0	0.0	0.0
2. The assignments in my learning community challenged me to think in new ways.								
	Downtown	13	38.5	38.5	23.0	0.0	0.0	0.0
	West (1)*	10	60.0	40.0	0.0	0.0	0.0	0.0
	West (2)*	15	6.7	46.7	46.7	0.0	0.0	0.0
	South (1)*	4	25.0	75.0	0.0	0.0	0.0	0.0
	South (2)*	11	9.1	72.7	18.2	0.0	0.0	0.0
3. The class discussions helped me to see a connection between classes and topics.								
	Downtown	12	50.0	41.7	8.3	0.0	0.0	0.0
	West (1)*	10	70.0	30.0	0.0	0.0	0.0	0.0
	West (2)*	14	14.3	64.3	21.4	0.0	0.0	0.0
	South (1)*	4	0.0	50.0	50.0	0.0	0.0	0.0
	South (2)*	11	9.1	90.9	0.0	0.0	0.0	0.0
4. My participation in a learning community has motivated me to take more classes and continue with my education.								
	Downtown	13	38.5	53.8	0.0	7.7	0.0	0.0
	West (1)*	10	70.0	20.0	10.0	0.0	0.0	0.0
	West (2)*	15	26.7	60.0	13.3	0.0	0.0	0.0
	South (1)*	3	33.3	33.3	33.3	0.0	0.0	0.0
	South (2)*	11	18.2	54.5	9.1	9.1	0.0	9.1
5. I received support and encouragement from my instructors in my learning community.								
	Downtown	13	61.5	30.8	7.7	0.0	0.0	0.0
	West (1)*	10	90.0	10.0	0.0	0.0	0.0	0.0
	West (2)*	14	7.1	50.0	42.9	0.0	0.0	0.0
	South (1)*	4	100.0	0.0	0.0	0.0	0.0	0.0
	South (2)*	11	18.2	54.5	27.3	0.0	0.0	0.0
6. My learning community instructor referred me to other college services or services when necessary.								
	Downtown	13	30.8	23.0	30.8	0.0	7.7	7.7
	West (1)*	10	50.0	10.0	40.0	0.0	0.0	0.0
	West (2)*	15	13.3	26.7	46.7	6.7	0.0	6.7
	South (1)*	4	0.0	75.0	25.0	0.0	0.0	0.0
	South (2)*	11	9.1	63.6	27.3	0.0	0.0	0.0

Table 2. (Continued).

Statement	Campus Location	N	Response					
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Uncertain
7. The integrated courses increased my understanding of the subject matter.								
	Downtown	13	30.8	53.8	15.4	0.0	0.0	0.0
	West (1)*	10	80.0	20.0	0.0	0.0	0.0	0.0
	West (2)*	15	20.0	53.3	20.0	6.7	0.0	0.0
	South (1)*	4	25.0	75.0	0.0	0.0	0.0	0.0
	South (2)*	11	9.1	72.7	18.2	0.0	0.0	0.0
8. I applied what I learned in my learning community to other courses at Metro.								
	Downtown	13	23.0	38.5	38.5	7.7	0.0	0.0
	West (1)*	10	70.0	30.0	30.0	0.0	0.0	0.0
	West (2)*	15	20.0	46.7	46.7	0.0	0.0	0.0
	South (1)*	4	25.0	50.0	50.0	0.0	0.0	0.0
	South (2)*	11	18.2	63.6	63.6	9.1	0.0	0.0
9. I felt a sense of community in the classroom.								
	Downtown	13	64.5	30.8	7.7	0.0	0.0	0.0
	West (1)*	10	88.9	11.1	0.0	0.0	0.0	0.0
	West (2)*	15	28.6	28.6	42.8	0.0	0.0	0.0
	South (1)*	4	100.0	0.0	0.0	0.0	0.0	0.0
	South (2)*	11	18.2	63.6	18.2	0.0	0.0	0.0
10. I spent time with students in my learning community outside of class.								
	Downtown	12	41.7	8.3	33.3	16.7	0.0	0.0
	West (1)*	10	30.0	30.0	20.0	10.0	10.0	0.0
	West (2)*	15	13.3	13.3	33.3	33.3	6.7	0.0
	South (1)*	4	75.0	0.0	25.0	0.0	0.0	0.0
	South (2)*	11	9.0	18.2	27.3	27.3	18.2	0.0
11. I attended an ON-campus activity (speaker, cultural event, activity, etc.) with other learning community students.								
			YES	NO				
	Downtown	13	7.7	92.3				
	West (1)*	10	10.0	90.0				
	West (2)*	15	7.3	93.3				
	South (1)*	4	0.0	100.0				
	South (2)*	11	45.5	54.5				
12. I attended an OFF-campus activity (speaker, cultural event, activity, etc.) with other learning community students								
			YES	NO				
	Downtown	13	7.7	92.3				
	West (1)*	10	10.0	90.0				
	West (2)*	15	14.7	93.3				
	South (1)*	4	0.0	100.0				
	South (2)*	11	45.5	54.5				

Table 2. (Continued).

Statement	Campus Location	N	Response					
			Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Uncertain
13. I would recommend participating in a learning community to other students.								
	Downtown	13	38.5	38.5	15.4	7.7	0.0	0.0
	West (1)*	10	90.0	10.0	0.0	0.0	0.0	0.0
	West (2)*	15	20.0	33.3	33.3	0.0	6.7	6.7
	South (1)*	4	25.0	75.0	0.0	0.0	0.0	0.0
	South (2)*	11	36.4	54.5	0.0	0.0	0.0	0.0
14. I would participate in another learning community.								
	Downtown	13	38.5	23.1	23.1	7.7	0.0	7.7
	West (1)*	10	80.0	20.0	0.0	0.0	0.0	0.0
	West (2)*	15	6.7	46.7	26.7	6.7	6.7	6.7
	South (1)*	4	50.0	50.0	0.0	0.0	0.0	0.0
	South (2)*	11	30.0	40.0	30.0	0.0	0.0	0.0
15. Which of the following had the greatest impact on your decision to join a learning community?								
			Academic Advisor/ Counselor		Friend, Parent/Guardian		Other**	
	Downtown	12	25.0		33.3		41.7	
	West (1)*	10	40.0		20.0		40.0	
	West (2)*	15	6.7		26.7		66.6	
	South (1)*	4	50.0		25.0		25.0	
	South (2)*	11	36.4		27.3		36.3	
	TOTAL	52	26.9		26.9		46.2	

* There were two groups of respondents for some questions on the South & West campuses.

** Other includes:

Metro representative visited the high school
Correspondence from Metro
Learning Community Brochure
New Student Orientation
Learning Community Website
Miscellaneous, other

sense of community in the classroom. Most of the students spent time with their peers in the learning community outside the classroom as shown in the results of statement 10 on the Likert scale survey. Instructors were viewed as supportive and encouraging by the students. They collaborated with other college services when necessary, bringing counselors into the classroom or referring students to special services. As a part of their developmental learning community work, Metro faculty were paid for one extra planning hour per week, and were

expected to collaborate with one another and discuss the class and their students (Smith, MacGregor, Matthews, & Gabelnick, 2004).

Connections

The students agreed favorably that connections were made between classes and topics discovered in class as demonstrated in question 3: “The class discussions helped me to see a connection between classes and topics.” Moreover, the students would recommend participating in a paired, developmental learning community to other students, and would consider participating in another learning community in the future. Connections were made between students and between subjects. Linking of students through ongoing social interactions results in students becoming members of a community focused on academic content, which enables them to develop their own voice and integrate what they are learning into their world (Zhao & Kuh, 2004). These connections are valuable for critical thinking and engaged learning.

Critical thinking

The perceptions of the students regarding their thinking demonstrated a strong belief that their learning community challenged them to think in new ways. The integrated courses increased their understanding of the subject matter and they discussed how they applied what they learned in their learning community to other courses at Metro. These critical thinking skills are often difficult to achieve, however learning communities provide teachers with an environment for such thinking to occur.

In general education, faculty help students to develop their skills and abilities in areas like communication and critical thinking. However, such abilities cannot develop in isolation from disciplinary content. One can learn effective communication and

critical thinking skills only if one has something to communicate and think critically about. Furthermore, faculty should be helping students to communicate and think critically as member of their discipline (Huba, 2002, p. 112).

Based on student responses, it appears that Metro's paired, developmental learning community is providing a forum for open communication and critical thinking. As shown in statement 2 of the Likert Scale survey, the majority of students responded strongly agree and agree to the statement: "*The assignments in my learning community challenged me to think in new ways.*" Statement three, "The class discussions helped me to see a connection between classes and topics," also had a majority of the students' responses as strongly agree and agree.

Engagement and motivation

Question 4 stated, "My participation in a learning community has motivated me to take more classes and continue with my education." A high percentage of students were motivated to take additional courses and continue their education. In addition, the majority of students on all campuses believed they were better students as a result of participating in the developmental learning community. Students in the paired, developmental learning community at Metro participated in field trips, collaborative learning, self-assessment, and projects. This type of "active learning" often involves students' engagement with others—talking and listening, giving and receiving feedback and undertaking collaborative projects (Smith, MacGregor, Matthews, & Gabelnick, 2004, p. 119).

Furthermore, Table 2 also represents some outliers on the West (2) campus. A high percentage of students participating in the paired, developmental learning community on the West (2) campus marked "neutral" when asked if they were referred to other college services.

In addition, most students also indicated “neutral” when asked if they were challenged to think in new ways and made connections between classes and topics. The perception of the paired class having a sense of community demonstrated a neutral belief about the learning community. These outliers suggest that the West (2) campus may have a different culture in their paired learning community. No data or interviews were available to determine why they appeared to be different than the other learning communities

Open-ended Survey Results from Students in Learning Communities

Another part of the secondary data collection included the use of an open-ended survey. The existing Likert scale, created by Raferty, provided the researcher with secondary data; however, additional data helped to establish themes throughout the research. Therefore, open-ended surveys, also conducted by Raferty, were reviewed, adding reliability to the study (see Appendix B). These surveys were collected by Raferty and maintained in her office. The surveys were used to validate the characteristics that effective learning communities possess.

Students responded that they had become better students because of the involvement in learning communities. They discovered new thinking strategies, connected their classroom material to other courses and were inspired to take additional courses. Lenning and Ebberts (1999) discussed how learning communities build connections and take the students beyond themselves. Students in Metropolitan’s learning communities demonstrated that connection and sense of community in their comments. According to Lenning and Ebberts, “It is clear that well-designed and crafted cooperative and collaborative learning

experiences within learning communities—as well as the existence and makeup of the learning communities themselves—greatly benefit both college student and faculty” (p. 60).

Thematic responses

In order to aid in the process of coding the open-ended surveys, colored pencils were used to differentiate between themes and ideas. This color-coding enabled quick visual scanning of the observations to notice repetitions of concepts. Themes described in the findings were prevalent in all the surveys from the past two years. The answers given on the surveys appeared to relate to personal experience, beliefs, classroom experiences, and relationships with faculty. Research findings were drawn by using coding and bracketing. Forty-seven surveys were completed during a two-year process. Each question from the surveys was coded to find major themes that appeared throughout the responses. Developmental students in the paired learning community were surveyed in winter 2003, spring 2003, fall 2004 and winter 2004. Each question enabled the students to describe their acquisition of knowledge in terms of their involvement in the paired classes—learning community.

Question 1: What did you dislike/like about the paired classes?

Students expressed their acquisition of knowledge in terms of their involvement by indicating what they disliked/liked about the paired classes. Comments that directed the themes were:

Being able to work with people that they knew.
The fact that the same faces were in both classes made it more comfortable.
I have gotten to know different people and what I am capable of.
I liked being in the same classes with the same students.

*I liked how both teachers know what we are doing in each class.
I enjoyed being with the same classmates and the teachers worked well together.*

Themes were established if three or more students had similar thoughts or ideas on their surveys regarding what they disliked/liked about the paired classes. Four themes emerged from the data:

1. Students believed there was improvement in their personal and academic self confidence.
2. There was more collaboration amongst peers and faculty that enhanced their learning.
3. The timing of the classes being back to back enabled them to build a stronger understanding of the skills.
4. The skills learned in the learning community helped with other course work in their program.

Question 2: How has the counselor participation in the paired classes assisted you?

Students expressed their acquisition of knowledge in terms of their involvement by indicating how the counselor's participation assisted them. Comments that directed the themes were:

*She[counselor] has helped with classes and answered question for me.
She[counselor] offered any help that I needed at college.
I went in to see the counselor and e-mailed her a couple of times. She [counselor] encouraged me.
She[counselor] stopped in and talked with us about important dates, classes and signing up for classes.
She[counselor] assisted me very much. She kept us updated on what was going on with classes. She assisted me in a lot of ways.
It helped because it made registration a lot easier."*

Themes were established if three or more students had similar thoughts or ideas on their surveys regarding counselor participation. Four themes emerged from the data:

1. Students thought the counselor helped with planning for the future. In addition, the counselor was able to advise students for future course work and careers.
2. The counselors were used for general information about the college, (on-line classes, transfer credit, college advice).
3. Some students indicated they did not need to utilize the counselors.
4. Others indicated the counselors did not help much at all in the classroom.

Although there were few responses in the 3rd theme, it is important to note the information.

The themes included future planning and general information about the college.

Question 3 What suggestions do you have about future counselor participation in these classes?

Students expressed their ideas by offering suggestions regarding future counselor participation. Comments that directed the themes were:

Things are fine the way they are.

The counseling should be continued with the same effort and excellent job.

Keep up the good work.

It was perfect for me.

Come into the class more often.

None, I think everything was fine.

Themes were established if three or more students had similar thoughts or ideas on their surveys regarding suggestions for future counselor participation. Two somewhat divergent themes emerged from the data:

1. Students stated that more support is needed from the counselors in the classroom.
2. Students believed classroom support from the counselors should continue as it is right now.

Many students had no suggestions for the counseling participation in the classroom. When comments were made, the main themes were to add additional support from the counselors and the classroom support should be continued in the paired, developmental learning community.

Question 4: What were some benefits of having the English and reading classes taught by faculty who worked together?

Students expressed their acquisition of knowledge in terms of their involvement by describing the benefits of having the English and reading classes taught by faculty who worked together. Comments that directed the themes were:

The courses go hand in hand anyway so why not, they better the students English skills. To show us the link between reading and writing.

It made it easier to learn.

The instructors knew the assignments and they linked some of the activities together.

Being in a class where I get to know everybody helped me ask questions and learn a lot more.

You can use things from one class for other courses.

We got a lot of benefits. We have writing and reading teachers who taught us together in the beginning. It helped me use my reading skills when writing.

I got to know my faculty member a lot better and I got lots of help from her.

Just all over awesome benefits. This is a great teacher so you were encouraged, helped, and critiqued in a great way.

Themes were established if three or more students had similar thoughts or ideas on their surveys regarding the benefits of having the English and reading classes taught by faculty who worked together. Six themes emerged from the data:

1. The students developed a deeper understanding of the course material because they had two instructors explaining the information.
2. The students thought the instructors were more willing to help them on their assignments and in the classroom.
3. The course work seemed more enjoyable and doable compared to regular course work.
4. Students were able to critically think and link their course work with other courses.
5. Students observed different teaching strategies and cooperative learning in the learning community courses.
6. A closer relationship with the teachers was developed compared to a regular classroom.

Question 5: Please describe how having the same students in both classes did or did not work for you?

Students voiced their thoughts about their involvement by describing how having the same students in both classes worked or did not work for them. Comments that directed the themes were:

*We knew everyone better so we were able to work together better.
 I liked having familiar faces.
 I like it better, much more comfortable.
 Being in a class where I get to know everybody helped me ask questions and learn a lot more.
 Having the same student in both classes helped me to be less shy. If I miss one of the classes, I can still ask one of the students for the assignments I missed.
 It was great we became sort of a small family. I loved having the same people.
 It was wonderful. Getting to know them better helped me with coming to school.
 I liked having the same students because you really get to know them, feel more comfortable in class.*

Themes were established when three or more students had similar thoughts or ideas on their surveys regarding how having the same students in both classes worked or did not work for them. Three themes emerged from the data:

1. The students indicated they were able to make friends, ask questions and develop deeper relationships (similar to family relationships) in the Paired, developmental learning community.
2. The students expressed a higher level of comfort in the classroom compared to their other course work because they were with the same students and instructors.
3. Students discussed that it was easier to get help from their peers or notes from them if they were absent.

Question 6: What have you enjoyed about the paired classes?

Students articulated their ideas by telling what they enjoyed about the paired classes.

Comments that directed the themes were:

*I liked everything about it.
 The teachers are wonderful.
 I really enjoyed a lot of things like Latin and Greek.
 That we had class with people we know and teachers that worked together.*

Themes were established when three or more students had similar thoughts or ideas on their surveys describing what they enjoyed about the paired classes. Four themes emerged from the data:

1. Students said that the learning community was a wonderful experience and they enjoyed the activities, friends and teachers.

2. Students observed teachers working together and utilizing new, effective learning strategies.
3. Students were able to apply their knowledge to other courses.
4. Students developed friends and a high level of comfort in the classroom.

Question 7: What suggestions would you have for the faculty or counselor to help improve the paired classes?

Students offered suggestions for the faculty and/or the counselor to improve the paired classes. Comments that directed the themes were:

A little longer for English and explain the papers a little more.

Maybe a little longer classes and explain the paper better so we are able to understand them.

It's fine the way it is, leave a good thing alone.

To continue the cooperation and the effort.

I think it was good and I don't have any suggestions.

Keep up the good work.

Themes were established when three or more students had similar thoughts or ideas on their surveys related to providing suggestions for the faculty or counselor to help improve the paired classes. Two themes emerged from the data:

1. Students wanted the classes to be taught in the same manner.
2. Students also preferred that the homework be explained in more detail so it is easier to understand.

Persistence

The researcher examined the persistence rates of students who participated in the paired, developmental learning communities program at the Metropolitan Community College during the 2002 academic year. The paired learning community was considered to be a developmental learning community. The academic progress reports of the paired, developmental learning community students were evaluated and analyzed for the report. The following categories were created and utilized to measure students' persistence:

1. The data were analyzed by looking at the percent of paired learning community students who received a pass or re-enrolled in the course the following quarter after the student participated in the developmental learning community.
2. In addition, two quarters/one academic year of the data were analyzed to see if students persisted after the paired, developmental learning community. The students were counted if they passed courses or had re-enrolled in the course.
3. The data also showed the total number of quarters a student persisted after the paired learning community experience. Persistence was recorded as continuous enrollment and passing grades.
4. Students were then analyzed to see if they were still enrolled at the 30 credit hours after the paired, developmental learning community.

The progress report for the 2002 academic year is shown in Table 3. The total number of paired learning community students was 20, and the average number of quarters persisted after the program was 2.25 (see Table 3).

Table 3. Number and percentage of students persisting following paired, developmental learning community experience

Length of persistence	Number	Percent
1 quarter	19	95%
2 quarters	9	45%
30 hours	5	25%

Focus Groups – Themes

On May 16, 2005 and July 26, 2005, focus groups with students were conducted to understand paired, developmental learning communities at Metropolitan Community College. Following are the themes that emerged from each question.

Question 1: What specific characteristics of the learning community have been most influential in shaping your learning experience?

Themes:

1. The students experienced connections with fellow students which helped them with homework, missed assignments and added support.
2. The classes were intertwined with each other and supported each student academically and socially.
3. There was a high level of comfort with other students.
4. Teachers were open and willing to listen to all their [students] concerns and collaborated with other teachers.

Examples of student comments leading to the themes:

You feel like you can ask them questions. You know some teachers don't make you feel like you can ask questions. They sit there. Melissa would like what you got on your mind. She would get it out of you. A teacher really brings some people out and opens them up.

I found something really interesting since I came over here to study. I am studying English. Well in Korea we have community that is very strong and in my class in chemistry, basically we are all taking the same major classes like chemistry and mathematics so that is a community that is very strong. Then every year we have kind of a Festival or something and the unit (class) meets all the time, we meet every day in the same classroom. But in America they have some different kind. Probably they have same course. They meet the same time and same class. So the paired ones, that class was very good, we got to study with partners and that is really important to study together and they go to themselves and each other. I think that is the best thing about the paired classes.

We had somebody to ask about homework or some class material, that is really an important thing.

We had somebody I can ask about homework or some class material, that is really an important thing.

It helped me out, it opened my mind more, I only talked to people that I know. But then when I had these two classes it like opened me up and I can talk to people and the teachers showed that even though people don't speak to you all the time just hurt them with kindness. Still speak, show them that you are a better person. So I really kind of opened up since I took these classes.

Question 2: How has participating in a learning community impacted your view of learning?

Themes:

1. Students were more comfortable in the learning environment (in a learning community).

2. Students indicated there was no impact on how they think about learning.
3. Students discussed how the learning community strengthened how they already thought about learning

Examples of student comments leading to the themes:

I really haven't gotten any impact.

When you see the importance, once you have been in the work force and you see that if you have a piece of paper (diploma) you don't have to subject yourself to their (employers) rules and regulations and low pay and you see the importance of education.

Question 3: Have your career goals been impacted by the learning community?

Themes:

1. Students' current career aspirations had been supported.
2. Students stated the learning community offered more support to reach their academic goals.

Examples of student comments leading to the themes:

In my position it has strengthened me because my field is criminal justice and I have always volunteered in that field and I can be more productive if I get inside the circle and be more effective.

It helped me because I am a better writer.

Absolutely, it was my first class here and actually the reason I haven't going to school here was to improve my English. Before I start my masters, I will study English education for my masters, I want to teach English in Korea when I go back. I need probably a Ph. D. So just start with the very basic one and that has been helping me get the idea. English writing or English reading for Americans well that is obvious that they come from Korea, different language and different things but the American it is their own language but still some students have some difficulties in writing. I will worry about that later.

It helped me become a better writer.

The writing class like I said I did have to retake it but I hate writing, I have always hated writing and I don't think I will ever start liking it.

Question 4: Do you feel that a learning community class compliments the learning style of most students?

Themes:

1. Students developed better learning strategies for future course work.

2. Students participated in more activities such as engaged learning, modeling, hands-on experiences are offered to meet many “intelligences”.

Examples of student comments leading to the themes:

I think there are a lot more students involved.

In our reading class we did a Greek and Latin world. We did it like around the world but then with the writing class the teacher more like told us in certain areas what to write about and what had to be included instead of letting us, maybe try to figure out what we should write on our own.

I have seen with my own eyes everybody progress and do better, I think.

More activities.

Yes, it has.

It is easier for me, instead of being in a big old college with a whole bunch of students and not be able to have that [teachers who teach to different learning styles].

Question 5: How has the learning community affected your ability to stay in school?

Themes:

1. Creates avenues for students to be successful in college.
2. Helps with retention and positive peer pressure to complete the program of study.

Examples of student comments leading to the themes:

It is easier for me, instead of being in a big old college.

See before I came to school I had a couple of friends that got killed and all that so it kind of made me look at something bigger, so that kind of made me change my life.

(Researcher) So it kind of made a smoother transition to college? (Student) Yes, definitely.

Made me more mature.

Do more writing, maybe write a book or something.

(Researcher) It really developed your writing style. Your love for learning.

Yea.

For me I have been working so I come to school almost every day but if I don't have anything in my classes I think I would come because from the learning community I have some friends over there. Oh, I have friend over there and I can see her or see him or something.

Question 6: Is the relationship with teachers different or the same? How and why?

Themes:

Instructor/student interaction was more positive, understanding and respectful.

1. Students discussed a high level of comfort in the classroom because relationships were built and an understanding of the teachers' expectation was established.
2. The students felt accountable to two teachers who are collaborating.
3. The students observed more passion and concern for learning.
4. Some students sensed no differences in the relationship between learning community teachers and teachers of a typical course.

Examples of student comments leading to the themes:

I really like the teachers, I think that they do a really good job working together and working with all of us. I really like them as people.

Like the teachers we have they share a lot of their personal life, plus we are all adults. I am 42 so we are almost at the same age. That is encouraging because we know what we all go through. Family, husband, wife, children, school just to balance everything, teach you how to balance everything. (Researcher) – Do you feel like they have more respect for the fact that you do have a family? (Student) – yes, because they go through the same situation that we go through. So we learn from each other.

Yes. You know what to expect when you come to this class. You go there so many times you already start getting comfortable with everybody around there so you are like okay I know who is in this class, I know who the teachers are going to act and you are comfortable with all that but the other classes you might walk in there and be like what are you going to do today. Let me sit back and see what they are going to do today. Go back to your strategy.

Different, that is a good thing.

For me not really. Because usually I can get to know all my teachers pretty easily. Usually I end up having to ask a lot of questions about some stuff.

The paired class has more positive teachers.

Question 7: Have your career goals been influenced, reinforced or changed when participating in the learning community or has it had actually no effect?

Themes:

1. Students said teachers act as role models for career aspirations.
2. Students believed teachers had no influence on their career decisions.

Although this question seemed valuable, it appeared that we had already answered the questions, so students commented they felt the same or again with, “No, not really.”

Examples of student comments leading to the themes:

The same thing I just told you, well I don't know but I have some math and I just want to be very passionate. I don't know what I am going to do with that passion but I just want to keep it. That looks good and that is how teacher do. Some of my teachers were really passionate and I took an astronomy class and the teacher was absolutely kind of really, really passionate. This is what I want to do; he is a model teach, I want to copy him. Actually, it has had an impact but it kind of negative. I respect those two teachers but not that way as a teacher.

I was kind of in-between [career choices]. I am always open to learn something so it really didn't change me or have any effect because I am always open minded to learn things.

No effect.

I think it [career choices] is an import part [of the learning community].

Question 8: What are your views of learning now compared to before the learning community?

Themes:

1. Students said the learning community had improved their learning.
2. Students stated that they already knew learning would improve them as people.

Examples of student comments leading to the themes:

I think it is excellent because each one of us we have to write a paper on our fears and each one of us wrote a paper on fear about coming to college and now that fear is gone and fear has become our friend so we don't have that fear. We can go and do it basically; you know we have that mentality of teachers.

I think we are more involved.

We are closer, we are able to share. Like Sister Ruth she had a great deal of mental issues when she first came here. Now her mental issues are between her friends she is able to complete her classes so we don't let each other fail in here. We hold each other up. We are able to share our personal experiences and past and we don't make fun of them. We pray about them and we are able to share because we all come from something and to be created into something.

I was kind of in between not hating it and not liking but I am always willing to learn something. I am always open to learn something so it really didn't change me or have any affect because I am always open minded to learn things.

Question 9: Did the learning community connect you with your peers differently with your peers than a regular class would?

Themes:

1. I am more open to learning than I was in the past
2. It improved my self-confidence in learning.
3. Less pressure in the learning community and you enjoy coming to class to see everyone.
4. We are closer than a regular class; we are like family.

Examples of student comments leading to the themes:

It is like when you go to paired classes you know everybody here that do the same thing. (Researcher) – So, maybe there was less pressure? (Student) – Maybe the first day I walked in I had a little pressure but after a while it was all right.

In a regular class I sat in class and looked and picked out who I wanted to talk to or say something to. I just looked a person and would be like man that person I don't know. But when I got these paired classed they opened me up to learn. I can say hi to anybody. Even if they don't say hi to me, I can still say hi and feel good about myself even though they didn't say hi. I can just keep going about my business. So it kind of helped me out a little bit.

Observation

Two observations of the developmental learning communities were completed on May 16, 2005. The first observation took place in the English course and the second in the speech course. There were six at-risk students who participated in each class. The classroom setting included desks that were bolted down to the floor. A computer lab that was being utilized by three other students was located at the back of the classroom. The students who were in the focus group as well as a visual narrative (observation group) are shown in Figure 2.



Figure 2. Focus group and visual narrative participants

Field notes on the behavior and activities of the students in a learning community were recorded by the researcher. The observation was unstructured and the researcher remained a non-participant (Creswell, 2003). The researcher used a journal to document conversations and informal interviews with administrators, faculty and staff. Notes in the journal were kept on the right side of the paper to allow space on the left side for researcher notes, thoughts and questions that developed throughout the informal process (Brunning, 2004). The researcher began by identifying themes that emerged from the observation data which helped to build an understanding of the students without predefining the categories for the process. From the process, themes emerged and a picture was built based on the observational data. Repeated readings of the narrative resulted in additional coding of the observation. The observations enriched the data collected by the researcher. The researcher was able to gain insight as to how the students viewed their own learning in a paired, developmental learning community. The key themes are listed as follows, with examples of excerpts from the observation.

1. Instructor gave constant positive reinforcement and continued to remind the students of up-coming due dates for the assignments to the students.
 - a. Teacher: *"...anything else? Okay let's recap."*
 - b. Teacher: *"Okay, you have two outstanding papers here."*
2. Students were connected to each other and believed they had a sense of obligation to each other.
 - a. Four students sat close together, they occasionally touch each other. They eat snacks, laugh, take notes, use each others notes and ask questions.

- b. Student discussing her peer pressure paper – I take that back, here I feel peer pressure to come to school.
- 3. Student's personal experience was valued by the instructor and fellow students.
 - a. Teacher: *"When you think of fear you think of what?"* Student: *"I feared going to prison so I stayed out of trouble."* Teacher: *"So a fear is a response to a situation. Tell me more..."*
 - b. Students discuss the topic of procrastination. Student: *"I just had a baby and I could not get the time together."* Teacher: *"Personal definition could be mixed with a universal definition for your paper."*
- 4. Open communication occurred with teacher and peers.
 - a. The topic is racism. An African American student turns to another African American student and asks, *"Are you a racist?"* Response, *"No that is why I am around you even though your have lighter skin."* Student, *"Yea I understand."*
 - b. At one point a student disagrees with the teacher. She discusses the assignment again and does not appear to be upset but clarifies and moves to the next student.

The observation provided primary data to gain insight to the students' perception of their learning and experience as well as the characteristics that enhance the learning experience. The teacher was supportive of the students in their progress, even when the assignment was past due. She gave constant feedback reassuring, encouraging, and validating the students about their work and participation in class. She actively listened to the students, engaging them in their learning through questions, suggestions, and reinforcement. The instructor had a genuine positive demeanor towards the students and acted more as a facilitator than a college professor. In addition, students seemed connected and comfortable in talking about difficult subjects such as racism. Open communication occurred between the students and the teacher during the observation which enabled the students to interact, and feel validated and comfortable in their learning. Topics during the observation included procrastination, fear, and peer pressure. The students were preparing a

paper with a speech. Finally, students were encouraged to build on their own learning through their own personal past experiences.

Informal Interviews

Ideas were expressed by faculty and administrators that added considerable meaning to understanding the learning communities at this community college. Throughout the study the researcher was able to have informal conversations and e-mails with the Dean of Learning Design and Support, Coordinator of Assessment and faculty members at the Metropolitan Community College. Notes were kept in the researcher's journal to use for recall of the conversations.

The initiatives of the learning communities program included adapting the curriculum to meet the changing needs of students and development of an academic intervention system to support them. The main goals were improving success and retention. Learning communities also provided an avenue for counselors to work closely with students throughout the academic term. Counselors and faculty members worked together to empower students to achieve their academic goals. Counseling services were built into the program to enhance the learning experience and retain the student population. The goal of the Metropolitan Community College was to increase enrollment in their learning communities each year. Currently 20 learning communities are being offered that utilize up to 35 faculty members. Themes that emerged from the informal conversations were:

1. Students received added support through counseling and collaboration among faculty teams.
2. Students would be in smaller class sizes allowing them to feel more comfortable and at ease in their learning experience.

3. Retention rates were better with learning community students compared to students who enrolled in regular course selection.

Although there were themes for the learning communities, in general, they also emerged for the specific learning community being researched. On May 16, 2005, an informal interview was arranged with two faculty members and two counselors at Metro. The initial interview lasted for an hour, however, the conversation continued through lunch. The faculty members noted that the paired, developmental learning communities enabled the students to learn skills in one subject and apply them to the other paired course. The developmental Reading and English courses were paired which enabled students to comprehend the information and then apply it in a writing project. The goal was to have the students work on one project that reflected both reading and writing. The faculty and administrators stressed that stronger relationships with students were developed in the learning community environment, and the collaborative approach to learning strengthened the students' overall experience.

Faculty members also supported the learning community concept and had a keen interest in its success. At the time of the research, Metro was offering a one-time stipend to faculty for the development of learning communities. However, there was some fear raised by faculty and administrators that this would be put on hold because of budget cuts.

Synthesis of Themes

Through the surveys, focus groups, observations and informal interviews, themes blended with some dominating the research. The colored pencil strategy mentioned previously was utilized to establish themes. The findings of the study revealed several factors that influence an effective paired, developmental learning community for at-risk

students. The themes that were merged contributed to the findings of the proposed five core practices model presented in the next subsection. The five core practices included: (a) accountability, (b) collaboration, (c) connection, (d) engaged learning, and (e) critical thinking. The merged themes were identified through the same colored pencil technique used for theme identification in the open-ended surveys, focus groups, observation, and informal interviews. After the themes were identified the researcher connected the core practices to the themes.

The merged themes included:

1. Students and faculty perceived there was more collaboration among peers and staff compared to typical courses (collaboration, engaged learning).
2. The skills taught were designed to learn a subject from different points of reference and utilized in all subjects (collaboration, engaged learning, accountability).
3. The learning communities made students feel more comfortable with themselves and others in an academic environment (connections).
4. The involvement of counselors assisted the students in their college endeavors (connections).
5. As the learning community was developed the students considered they were part of something larger than themselves (connections).
6. Participants believed they were better students because of the learning community (engaged learning, accountability).
7. Connections between courses were built that helped students think critically about their subjects (engaged learning, critical thinking, connections).

Moreover, the students, faculty, and administrators expressed the same feelings and thoughts about learning communities. Although the other themes were not insignificant, these themes seemed to be established throughout the research.

Core Practices in Developmental Learning Communities

Based on the themes identified in this study and the model developed by Smith et al. (2000) for core practices in learning communities (see Figure 1 in Chapter 2), a new model

was proposed in this study for core practices in paired, developmental learning communities (Figure 3). Like the model by Smith et al. (2000), the new model has five interlocking circles (Accountability, Collaboration, Connection, Engaged Learning, and Critical Thinking) that are shared subsets of the center—Developmental Learning Communities (Smith et al., 2004). The Core Practice Model for Developmental Learning Communities is a combination of attributes derived from the Likert survey, open-ended surveys, focus groups, observations,

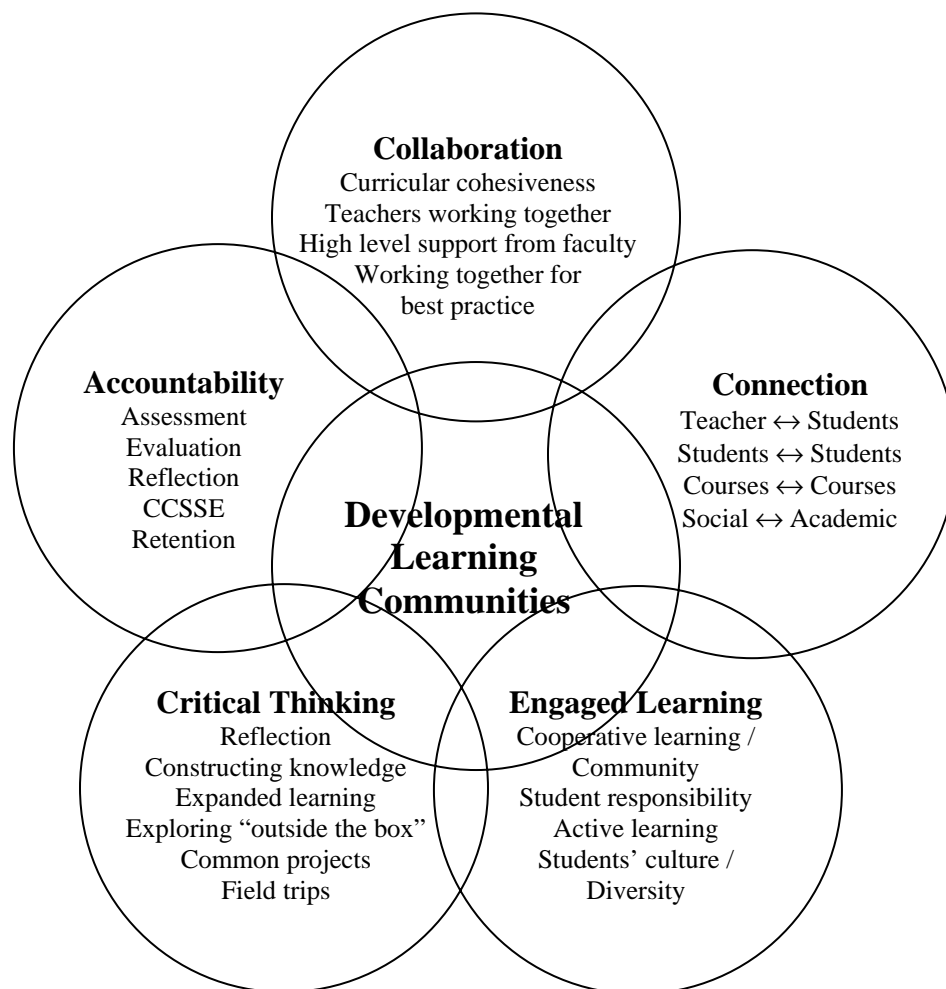


Figure 3. Core practices in developmental learning communities (Faga, 2006)

informal interviews and literature review for this case study. The model was developed by the researcher using the primary and secondary data. Table 4 provides a summary of the attributes and the five core practices of developmental learning communities established by the researcher. The new model provides additional subsets in each circle compared to the Smith (2004) model that describe the title of each of the subsets.

When appropriately designed, a developmental learning community provides opportunities for students to engage in learning and take responsibility for their educational experience. It is recommended that developmental learning communities are planned by incorporating all five core practices: (a) accountability, (b) collaboration, (c) connection, (d) engaged learning, and (e) critical thinking. The five interlocking circles demonstrate the close relationships between and among the attributes. A discussion of each attribute follows. *Collaboration* should occur between and among the faculty to build and maintain a developmental learning community. It also occurs between an instructor and the student throughout the college experience. They work together to communicate, solve problems, listen, think critically, and develop skills needed for their professional and personal lives. Rendón's (1993) validation model included faculty sharing knowledge with students and showing support for the student in their learning. Rendón demonstrated that instructors validated the student as a life-long learner by acting as partners, rather than all-knowing beings, by employing active learning such as demonstrations, field trips and collaboration. Gabelnick et al. (1990) also discussed the importance of collaboration and felt educators should shift from competition in education to teaming and collaboration. In addition, this case study collaboration increased students' self-confidence and created a feeling of

Table 4. Model formation of core practices in developmental learning communities developed in this research

Developmental learning communities core practices	Attributes identified in the literature review	Metro Likert scale & open-ended surveys	Metro focus groups, observation, informal interviews
Collaboration <ul style="list-style-type: none"> • Curricular cohesiveness • Teachers working together • Working together for best practice 	Collaboration Collaboration between faculty Improved retention rates Positive culture Team teaching Persistence Support	Student felt support by faculty Improvement in self-confidence Positive environment Students were accountable to more than one teacher	Collaboration among students and faculty working together to achieve goals. High level of support from the faculty.
Connection <ul style="list-style-type: none"> • Teacher – students • Students – students • Courses – courses • Social – academic 	Teachers and students working as partners Connections between students Connections between courses Bringing together academics and social aspect	Connections made with faculty and support staff Connections between courses High comfort level with teachers Connected with on-campus resources “Family” type atmosphere Links made between courses High level of comfort	Connections between courses High level of comfort with faculty and students. Students felt they were part of something larger than themselves.
Engaged Learning <ul style="list-style-type: none"> • Cooperative learning / community • Student responsibility • Active learning • Students’ culture/ diversity 	Appreciating diversity Building community Engaged learning Active engagement Students become more responsible.	More motivated to learn Students worked in groups to prepare speeches Students discussed diversity issues Students practiced both written and oral assignments	High level of engaged learning through group projects.
Critical thinking <ul style="list-style-type: none"> • Reflection • Constructing knowledge 	Critical thinking occurs Deeper learning Expanded learning Common projects Constructive knowing	Created a better understanding of subject matter Deep thinking about difficult topics	Critical thinking occurs from course to course and in the classroom.
Accountability <ul style="list-style-type: none"> • Assessment • Evaluation • Reflection • CCSSE • Retention 	Feedback Educators being accountable Responsibility of faculty Improved retention rates	Higher persistence to the next term Students demonstrated responsibility to peers	

community in which they were working with their instructors to achieve their education goals. Collaboration is intertwined with other attributes of the paired, developmental learning community as it establishes connections that occur among students, faculty, course work, and academics.

Connections are created in a learning community atmosphere. When developing a learning community for at-risk students, their social backgrounds and academics are intertwined, appreciated, and valued. These findings are demonstrated in Tinto's (2005) current research on developmental educational learning communities. Tinto's (personal communication, June 2005) findings are not complete, but he has observed that students value active learning and integration of course content. This case study also revealed a high level of comfort with faculty and peers in the classroom. Students spoke freely about difficult topics such as racism, offered help to others in the classroom, and asked questions that motivated deep thinking among the students.

Engaged learning is a key element in the paired, developmental learning community. Social learning theory supports learning through observing others. The theory supports the importance of learning experiences at school (Krumboltz, 1986). Creating academic and social opportunities for students actively engages them and leads to positive outcomes. Greater intellectual richness and intellectual empowerment are two components demonstrated in learning community students (Lenning & Ebbers, 1999).

Critical thinking is another attribute that contributes to the core practices of developmental learning communities.

In general education, faculty help students to develop their skills and abilities in areas like communication and critical thinking. However, such abilities cannot develop in isolation from disciplinary content. One can learn effective

communication and critical thinking skills only if one has something to communicate and think critically about. Furthermore, faculty should be helping students communicate and think critically as members of their discipline. (Huba, 2000, p.112)

In addition, this case study demonstrated that students embrace opportunities to critically think in the classroom.

Accountability is valued in learning institutions nationwide. Nevertheless, assessment is often misused or gathered and not used in appropriate manner. National instruments can provide reliable data to assist educators in determining best practice for their institutions. As mentioned previously, CCSSE uses grounded research to determine what works in strengthening student learning. Each year CCSSE publishes research that recommends best practice for community colleges (CCSSE: Community College Survey of Student Engagement, retrieved February 26, 2006, from <http://www.ccsse.org/>). Assessment, evaluation, feedback, and reflection are successful strategies to implement change and best practice.

Summary

This chapter presented findings from the qualitative and quantitative data collected in this case study exploring developmental learning communities. The chapter included an overview of the study, an institutional profile, participant selection process, qualitative analysis, thematic responses of the surveys, themes of Likert scale surveys, focus group themes, observation themes, persistence information, and a proposed model for Core Practices in Development Learning Communities.

The next chapter presents a summary of the findings and implications of the study. Recommendations are offered to the research community, college educators, and at-risk students in learning communities.

CHAPTER 5. SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

Although there are numerous studies on learning communities, in general, very little research exists regarding developmental learning communities at community colleges. This research was an in-depth exploration of a paired, developmental learning community at one community college. This case study revealed how students perceived their experience in a paired, developmental learning community, and the characteristics of the learning experience that made their educational endeavor a success.

In response to the paucity of research on learning communities at community colleges, the purpose of this qualitative case study was to examine one specific paired, developmental learning community to understand how it influenced the students' views of learning. This research explored characteristics of developmental learning communities that were most influential in shaping the students' learning experience. Finally, the study explored persistence of the students.

Three research questions guided this study:

1. How did student participation in a paired, developmental learning community influence the student's view of learning?
2. What are the specific characteristics of paired, developmental learning communities that are most influential in shaping the students' learning experiences?
3. What is the percentage of students who participated in the paired, developmental learning community and persisted to the next quarter?

To understand the effects of learning communities on developmental students, a research design was selected that was qualitative in nature. However, the study included some secondary quantitative data gathered previously by Metro to enhance the researchers understanding of their developmental learning communities.

The theoretical framework that guided the study was Astin's theory of involvement. Involvement theory purports that a student who is involved in both the academic and social aspects of college has a better chance of being retained (Astin, 1984). During the focus group conducted as a part of this study, at risk students reported a high level of empowerment.

In this chapter, the results are summarized based on the research questions that guided the study. Conclusions are drawn based on the purpose and questions of the study. The findings and implications are revealed, recommendations are established, and the direction for future researchers is discussed. Then a new developmental learning community model is introduced based on the themes uncovered from the literature review, the secondary data provided by Metro focus groups, observation, and informal interviews.

Findings and Conclusions

The purpose of this case study was to examine one specific paired, developmental learning community and to understand how students' perceive learning differently. The study examined the specific characteristics of paired, developmental learning communities that are most influential in shaping the at risk students' learning experience. The study also explored persistence information which enabled the researcher to visualize the number of

paired, developmental learning community students per quarter who persisted to the next quarter, at one-year, and after 30 credit hours.

Surveys, observations, focus groups, and informal interviews revealed students utilized critical thinking skills in the paired, developmental learning community. In addition, the students demonstrated a higher level of comfort in the classroom which enabled them to express their thoughts and ideas more freely. The students revealed they made connections between classes and topics, and they were able to link subjects which enabled them to connect assignments and the skills learned from one class to the next.

Analysis of the data revealed collaboration among faculty and peers in the paired, developmental learning community, a higher level of support and encouragement from fellow peers and faculty during the experience, and a strong sense of community and commitment from both the faculty and fellow students. This reinforces the research of Dodge and Kendall, (2004) who stated that collaboration is one of the keys to learning community success through promoting, connection, and deeper concepts.

In response to research question 1, “How did student participation in a paired, developmental learning community influence the student’s view of learning?” the students reported that the paired, developmental learning community offered them a strong academic experience to link knowledge from one course to other courses. The students utilized their critical thinking skills. Many of the students already had a positive view of learning but felt that the experience in a paired, developmental learning community strengthened their current beliefs.

A higher level of comfort in the classroom existed for many of the paired, developmental learning community students. The students shared excitement about being in

a learning community where they knew the other students and their teachers. The students' backgrounds, experience, and cultures were respected and established in the classroom setting, which brought about a sense of acceptance of each student as an individual.

Research question 2 asked: "What are the specific characteristics of paired, developmental learning communities that are most influential in shaping the students' learning experiences?" Students revealed many of the characteristics that enhanced their learning experience in the paired, developmental learning communities. One of the themes established throughout the research was the collaboration among the students and faculty. The students worked together, talked to each other, completed assignments that complimented each other's work, and demonstrated a passion for learning in the learning community. Connections were also made with peers when the learning community was established. The students felt comfortable getting notes from each other, asking questions, and seeking help from other students who were at the same level as they were in the community college.

Increased support and encouragement from peers and faculty was another characteristic which made the paired, developmental learning community successful. Additional support from the counselors was also successfully utilized by students. The students requested an increase in support from the counselors because they felt they could utilize their assistance more in the college system. It was also established that students felt being part of the paired, developmental learning community made the path to college a smoother and more manageable transition.

Open, honest communication was another key to the support the students experienced in the paired, developmental learning community. Students often seemed aware of their

areas of concerns and were open to other students' and faculty suggestions, particularly in writing. Out of this open communication style emerged a sense of community and commitment. Students felt obligated to come to class because they did not want to disappoint their peers. More specifically, students referred to each other as a family which enabled them to develop a high level of comfort. In addition, the students participated in outside activities together and developed friendships beyond the classroom.

The final research question (3) asked, "What is the percentage of students who participated in the paired, developmental learning community and persisted to the next quarter?" Twenty students were examined over a two-year period to determine persistence. Nineteen of the 20 remained enrolled through the next quarter. Nine students were still enrolled and passing their course work one year after the paired, developmental learning community experience, and 5 students had completed and passed 30 or more credit hours.

These findings contribute to the existing literature related to developmental learning communities at community colleges by recommending that the learning community phenomenon holds true for at-risk students in a paired, developmental learning community. Students who come from low-income, poor academic backgrounds, benefit from strategies applied in a learning community context. The "sense of community" concept established that students feel the need for outside support to succeed at college. The paired, developmental learning community gave students the opportunity to be part of something larger than themselves.

Furthermore, the research indicates that characteristics such as increased support from faculty and counselors, and collaboration among peers and faculty offer students a sense of

security and commitment. This characteristic makes the path through college more manageable and builds lasting relationships outside the classroom.

Finally, these findings support the need for community colleges and 4-year colleges/institutions to make changes in education to better meet the needs of the students. The learning community phenomenon appears to increase retention rates and works for at risk student populations. This research provides additional information and support for future research in a paired, developmental learning communities at community colleges.

Implications

Research on developmental learning communities is slowly expanding. Many students arrive at community colleges academically unprepared, come from low income backgrounds, and lack parental support. Because developmental learning communities provide students with effective strategies for learning, build connections, and improve collaboration with faculty, more research is necessary to better understand the characteristics developmental learning communities and at-risk students.

The following are implications for research, policy, and practice:

1. The developmental learning community offered more ways of learning in the classroom.
2. In a developmental learning community, a higher level of comfort was experienced because of the connections made with peers and faculty. Students shared their excitement about knowing other students and feeling obligated to attend class because they knew others in the classroom were depending on them. Cultures, backgrounds,

- and personal experiences were part of the students' experience which enabled a higher comfort level.
3. Successful developmental learning communities increased support and encouragement among faculty and peers.
 4. Counselors enabled students' easy access and knowledge about the campus and provided overall career planning.
 5. Students were able to utilize higher order thinking through linkage of course material and connections from courses to other courses outside the paired, developmental learning community.
 6. Open communication with peers enabled students to discuss sensitive topics and think critically about their own learning. A sense of community was created where students felt as if the fellow students were part of their family.
 7. A core practice model was created that may be used for developmental learning communities. The paired, developmental learning communities' model includes five core practices: (a) accountability, (b) collaboration, (c) connection, (d) engaged learning, and (e) critical thinking. The model evolved from this research and was derived from the data collected the Likert surveys, open-ended surveys, focus groups, observations, informal interviews and the literature review conducted for this study.

Recommendations for Metropolitan Community College

Several recommendations for Metro were developed based on this study:

1. *Metro should review the services that are available to their learning communities.*

Through the focus groups and student surveys it was obvious that students appreciated the time spent with counselors for future course and career planning. However, students made comments that they wanted more time to utilize the community college's services. Providing counseling services will enable students to learn and understand the campus. At-risk students may not know the appropriate questions to ask or the procedures to follow to achieve a successful college career. Giving students the opportunity to meet and build a foundation for understanding campus life will enable them to better grasp college procedures as well as provide services that will enable them to stay in college.

Along with services, Metro should take into account the experiences that students will have in a learning community. Considering the fact that students stressed the importance of community, it would be beneficial to offer team building activities or inventories such as the Myers-Briggs Type Inventory (MBTI) to build the learning community family.

2. The paired, developmental learning community should continue beyond one term.

Although students persisted to the next term, a major dropout rate occurred after that term. Metro faculty and staff need to study why this occurred.

3. Professional development is key to a successful learning community.

Metropolitan Community College faculty had extensive training by Evergreen State College in Olympia Washington, and established several procedures, forms, and policies to ensure success of the learning communities. Although "Learning Communities" is becoming a common term on many college campuses, most faculty and administrators do not have an understanding of what a learning community is or how it can benefit their student population. Metro educators need to establish and have an understanding of both learning communities and at-risk students.

4. *Additional support services are needed if Metro plans to continue the paired, developmental learning community.*

The students at Metro who were studied in this research had low scores on all three of their COMPASS tests. Therefore, these students were determined to be at risk for dropping out of college. At-risk students are a unique population and need special services to stay engaged in college. These students have fewer resources and less constructive knowledge about how to succeed in college. At-risk students come to college with different academic abilities and cultures than the typical student (Barefoot, 2004, p. 15). Metro students discussed their lack of knowing where to go to get the services needed to succeed in college. They came from low-income homes, single parent homes, and first generation families. Hence, Metro needs to provide services to enrich the academic experience of these at-risk students. More specifically, Metro is encouraged to provide additional student support services; such as counseling, student health, and registrar assistance.

5. *Metro should utilize the five core practices in their paired, developmental learning community model.*

The model developed by this researcher is a combination of characteristics derived from the Likert scale surveys, open-ended surveys, focus groups, observations, informal interviews, and a literature review. The core practices include Accountability, Collaboration, Connections, Engaged learning, and Critical thinking. Application of the model will provide an opportunity for Metro to enhance their learning communities and move forward in their program.

6. *Metro needs to adopt a “culture of evidence” model.*

Metro collected large amounts of data and compiled the information for reports. However, their assessments did not include a national instrument nor were they systematic in

nature. The assessment should also involve an assessment cycle of formulating goals, designing and planning a learning community, implementing the program, collecting data and analyzing it, interpreting and reflecting on the data and, finally, using the results for decisions and revisions of the program (Smith, MacGregor, Matthers, & Gabelnick, 2004).

The Community College Student Survey of Engagement (CCSSE) is a tool that is highly recommended to determine good educational practice and assess one's own college environment. Metro has collected data, developed reports and made few changes in their paired, developmental learning community program but further evidence would be helpful. Therefore, Metro should be encouraged to revisit their data collection procedures and instruments, and reaffirm their support to develop new strategies for their learning communities.

Direction for Future Research

The purpose of this study was to examine one specific paired, developmental learning community and to understand how it acts as a tool to connect students with their peers and build closer relationships with faculty. The study explored how at-risk student participation in a paired, developmental learning community changed the students' outlook of learning, and ascertained the specific characteristics of developmental learning communities that are most important in shaping the students learning experience.

Case study methodology was used to understand a paired, developmental learning community at Metropolitan Community College. This study offered insight into student perceptions and helped explore the students' points of view. The study researched how participating in a paired, developmental learning community influenced students' learning,

self-esteem and career goals. The methodology included a naturalistic approach using an actual paired, developmental learning community at a community college. Based on the findings of the study, the following recommendations are made for the direction of future research.

- Further research is needed on developmental learning communities. More specifically, a quantitative study incorporated with the qualitative study would broaden the perspectives of the effects of developmental learning communities and at-risk students. Furthermore, a survey could be developed to understand the students' perceptions year after year. The survey should be consistent and ask questions that relate to the learning community goals of the community college. Persistence and achievement of students should also be a part of the study to understand student success and success of the program. When incorporating a persistence study it would be important to have a larger sample size for reliability issues.
- This researcher recommends the use of the Community College Survey of Student Engagement (CCSSE) which documents student engagement in the learning process. In addition, the researcher recommends the use of a companion survey that measures faculty perceptions of student engagement.
- The study was a case study, which can be limiting in nature to one institution. Therefore, in future studies, researchers may consider cross-case analysis of developmental learning communities at other institutions.
- Additional research is also needed to enhance the finding of this case study. Moreover, researchers need to examine developmental learning communities in other

community college settings. Characteristics of learning communities need to be examined to determine why learning communities are more successful than typical course work.

Final Thoughts

The purpose of this study was to observe one specific paired, developmental learning community and to comprehend how it acts as an instrument to connect students with their peers while building closer relationships with faculty. Understanding these connections is a deep concept that is often difficult to measure. As I reviewed the data and built an understanding of the characteristics of a learning community, it became apparent certain strategies and ideas should be considered.

- ***Educators should consider incorporating learning communities throughout the community college experience.***

The paired, developmental learning communities that were studied took place in the first quarter of the college students' experience. However, as time progressed and the students moved from quarter to quarter, retention dropped significantly. *My thoughts:* At-risk students lack many of the support systems that most students take for granted—financial, family, peers, living and learning strategies, time management skills, encouragement, and constructive knowledge builders in their lives. These support systems can be created in a developmental learning community to open a successful path in education for all students. Paired, developmental learning communities provide an avenue for at-risk students to succeed and have the same opportunities as students who are not at-risk.

- ***Assessment data should be collected and used to determine changes, additions, and continuations.***

A process should be established to maintain records, understand goals, and determine the future of the learning community experience. Developing a culture of evidence provides reliable data to determine future changes, additions, and decisions about the learning communities. Through my doctoral capstone experience, which evaluated and recommended the data collection and assessment procedures for Metropolitan Community College, I recommended that Metro refine their objectives to enable the evaluation to be an effective tool. Effective strategies include: building a learning community team, developing research questions to better understand information, consider using a national instrument for evaluation and consider using a model, such as the logic model, to align the evaluation tools. These recommendations would empower Metro to develop a strong learning community system. *My thoughts:* Assessment is a vital tool that provides reliable feedback, giving the institution a method to make an educated decision about the change. Data should be collected, understood, and utilized. In addition, hearing the voices of the students through surveys and focus groups enables the institution to guide their decision making about program development.

- ***The faculty who engage in the learning community experience should be studied and understood.***

Although positive comments were made in the focus group regarding teacher/student connections, it was also noted that one focus group responded that they believed one of the teachers at the downtown campus did not have a passion for teaching. *My thoughts:* Faculty are instrumental as role models and, in some cases, mentors of at-risk students who have few educational mentors in their personal lives. These educational leaders tend to inspire at-risk students to visualize their goals realistically and map a path toward success with checkpoints

along the way. They also provide healthy “self-talk” to deal with distractions, especially failures, which might be better termed as “missed steps” or “boulders” in the pathway.

Faculty members need to be hired according to the culture of the institution as they possess the power to either create life-long learners or stifle learning. Employing faculty who are a good fit for the institution also creates success for students. [true about the missed steps & boulders]

- ***Institutional culture needs to be considered when implementing a learning community.***

The culture of the Metropolitan Community College seemed positive in nature. The fact that students and faculty were willing to have their assessment process reviewed and have a case study completed demonstrated their willingness to seek improvement. *My thoughts:* A positive culture promotes learning and provides the support for students, especially at-risk students, to be valued as individuals and their learning differences as part of the package—the whole person who can and will be successful. Students are at risk because of their environment. Providing opportunities for at-risk students to develop their own intelligences and pathways through college empowers them in their own learning and life experiences.

- ***Cooperative learning strategies need to be encouraged as a part of the learning process***

Engaged learning, field trips, and connected assignments were all praised by the students. We, as educators, often research best practices yet provide traditional pedagogy as our style of teaching. Learning communities enhance engaged learning and enable students to continue their quest for a better way to learn. *My thoughts:* Teaching is a gift. Teachers who are passionate about students, understand how students learn best long before the

research is developed. It takes considerably more work to initially prepare for cooperative learning, yet once mastered, it's like a well-oiled machine that continues easily. Teachers who demonstrate best practices will model life long-learning, engaged learning, and cooperative learning.

Finally, this case study demonstrated that many students want to learn and they enjoy learning, but are often disadvantaged when they come to college. Society benefits when all students are learning—when each student sees himself/herself as an important contributor. Developmental learning communities provide opportunities for students who may not have the chance to succeed in a traditional college environment. Developmental learning communities offer connections, collaboration, critical thinking, engaged learning, cooperative learning, and faculty working together to prepare students to be future life-long learners. Allowing students to have a voice through engaged learning, assessment and developmental learning communities empowers them to develop a passion for education and believe in their own abilities which, in turn, builds a better society.

APPENDIX A. HUMAN SUBJECTS APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office of Research Compliance
Vice Provost for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

DATE: May 4, 2005

TO: Kelly Faga

FROM: Human Subject Research Compliance Office

RE: IRB ID # 05-202

STUDY REVIEW DATE: May 4, 2005

The Institutional Review Board has reviewed the project, "The Power of a Learning Community" requirements of the human subject protections regulations as described in 45 CFR 46.101(b)2. The applicable exemption category is provided below for your information. Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

The IRB determination of exemption means that this project does not need to meet the requirements from the Department of Health and Human Service (DHHS) regulations for the protection of human subjects, unless required by the IRB. We do, however, urge you to protect the rights of your participants in the same ways that you would if your project was required to follow the regulations. This includes providing relevant information about the research to the participants.

Because your project is exempt, you do not need to submit an application for continuing review. However, you must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if you have stated in your application that you will do so or required by the IRB.

Any modification of this research must be submitted to the IRB on a Continuation and/or Modification form, prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

cc: Education
Larry Ebbers

APPENDIX B. OPEN-ENDED SURVEY QUESTIONS

Ten questions guided the discussion during a one-hour focus group session:

1. What are the specific characteristics of the learning community that have been most influential in shaping your learning experience?
2. How has participating in this learning community impacted your view of learning?
3. Have your career goals been impacted by the learning community?
4. Do you feel that the learning community class complements the learning styles of most students?
5. Has the learning community affected your ability to stay in school?
6. Is the relationship with teachers different or the same? How and why?
7. Have your career goals been influence (reinforced or changed by participating in a learning community)?
8. What are your views of learning now, compared to these before the learning community?
9. Did the learning community connect you with your peers differently than regular classes?
10. What relationships have been built due to the learning community?

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ACKNOWLEDGMENTS

There are many individuals who have been instrumental in my educational endeavors. My committee members: Drs. Larry Ebbers, Frankie Santos Laanan, Sharon Drake, Virginia Arthur, and Doug Gruenewald have guided my journey and empowered me to become a better educator. Their mentoring, high expectations and passion for education have greatly influenced me. I am also thankful to Pat Hahn, my editor, for leading me to my own excellence through her kindness and teaching ability.

Thank you to two excellent educators, Kelly Lawler and Susan Raftery, who took the time to gather data, answer questions, and arrange focus groups. Their support made this study possible.

I appreciate Metropolitan Community College for allowing me to meet with their students, explore their data and understand their learning communities. I am grateful for the welcome feeling I had on campus and the enthusiastic instructors and students who made the study possible.

I would like to acknowledge my sister, Jackie, for inspiring and expecting me to go to college, my sister, Brenda, for caring about me and listening and my sister, Karen, for always believing and loving me. My sisters have inspired me to be a better person, make wise decisions and always expect the best. They are my inspiration.

I would also like to thank my hero, my mother, Betty Krogh, who spent time with my children, loved me, and taught me a tremendous work ethic. She is a woman who did a tremendous job in raising four bold young ladies. I appreciate how she stuck by all of us and taught us to achieve.

Heartfelt appreciation goes to my husband, Mike, for his commitment to me, his love, and his generous gift of time and energy that was needed to pursue my goal. His never ending support, understanding, and kindness kept me going. I thank him for being there and reminding me of our greatest gifts, our three children: Madison, Conner and Josie. His unconditional love has been amazing. I thank him for being my best friend and husband.

I am indebted to my children—Madison, Conner, and Josie—for their understanding and support. They inspire me with their own passion for learning and love for their mom and dad. I am thankful to them for giving me the time to achieve my goal. They are wonderful, caring individuals, and I am a lucky mom!

It's in Christ that we find out who we are and what we are living for. Long before we first heard of Christ,...he had his eye on us, had designs on us for glorious living, part of the overall purpose he is working out in everything and everyone [Ephesians I:II (Msg)]. I am grateful to God for shaping my life, helping me learn, and especially for the privilege of being around so many inspiring people.