Counseling, Developmental Learning Communities, and Student Academic Performance in Community College

by

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ABSTRACT

The purpose of this study was to compare the academic performance of students who participated in a counseling class that was not linked to a learning community to the performance of students who had taken a counseling course as part of a learning community. Academic progress in this study was defined by three performance outcomes: GPA, retention, and persistence. The study focused on archival data made available from Fall 2009 to Fall 2011 from Western Community College (WCC). Comparisons in academic performance were also made between learning community students with a one-unit counseling class, and learning community students with a three-unit counseling class. The study utilized a quantitative methodology. In order to measure learning community students’ perceptions of satisfaction, support and engagement, this study utilized data from a survey tool developed and standardly administered by the institution. Potential benefits of examining the success rate of students who take a counseling course as part of a learning community can have implications as to the number and composition of learning communities that will be offered each semester by community colleges as a means to foster student success.
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CHAPTER 1—INTRODUCTION

Purpose of Study

Students enter community college with varying levels of academic preparation. When initially assessed by colleges for proficiency levels in English, Reading, and Math, some students’ scores place them into coursework for college level, while others place them into developmental levels of coursework that do not qualify for college credit toward an associate’s degree or transfer to four-year programs. Students who assess into lower levels of English, Reading, and Math may require additional assistance when they start college (Illowsky, 2008). Resources are commonly available to assist these students with their academic progress, such as counseling, tutoring, and courses taught by counselors to improve their preparation for college (Grubb, 2001).

Counseling courses include academic, personal growth, and career development subject matter. Students taking developmental education classes are more likely to be under-prepared than students testing into college level English, Reading and Math classes. Providing counseling classes, such as College Success Skills, or Freshman Seminar, is one method of counseling intervention for this group of students (Boylan, Bliss, & Bonham, 1997). Counseling classes are sometimes included in learning communities, where students take linked classes as a cohort. Tinto (2000) described learning communities as linked courses where the same group of students co-register in a cluster of classes for an entire semester. The grouped classes are often taught collaboratively. In California community colleges, learning communities are gaining popularity in hopes that they will increase the success of students in basic skills classes (Center for Student Success [CSS], 2007; Tinto, 2000, 2007).
The purpose of this study was to compare the academic performance of students who had participated in a counseling class that was not linked to a learning community at a large urban community college in Southern California, to the performance of students who had taken a counseling course as part of a learning community. Academic progress in this study was defined by these three performance outcomes: GPA, retention at the end of the semester in which students participated in the learning community, and persistence from the participating semester to the next. This study focused on data available from Fall 2009- Fall 2011. Comparisons were made between the academic performance of the Fall 2009- Spring 2010 learning communities, to the performance of students in learning communities during Fall 2010 to Fall 2011. The first year incorporated a one-unit counseling class (LC1), whereas the learning communities in the following three semesters implemented a three-unit counseling class (LC3).

Problem Statement

Academic success can be challenging for community colleges to measure due to their open door admission policy, their multiple missions, and the diversity of students they serve. Success is measured primarily by graduation and transfer rates. Other variables that are considered are retention and persistence. Success is more difficult to measure than at four-year universities where all undergraduate students enter with the goal to obtain a bachelor’s degree. An examination of outcome measures such as graduation and transfer rates may limit our knowledge of how students progress because community college students represent great diversity in terms of prior academic preparedness, academic goals, and work experience. College Success Skills classes exist to prepare students for academic challenges in college (Bashford, 2008; Tinto, 2000).
Significance of Study

California is currently focusing a substantial amount of money and attention is on the success of students in developmental education at the community college level. Historically, students who enrolled in developmental levels of English, Reading, and Math have had lower retention and persistence rates, which were primary findings in stated in the report titled *Basic Skills as a Foundation for Student Success in California Community Colleges* (CSS, 2007). There are an increasing number of community colleges that are implementing learning communities to assist the students needing developmental education. Many of these developmental learning communities include participation by the Counseling Services in the form of a College Success course. Examining the academic performance of students who take a counseling course as part of a learning community, compared to others that do not, can have implications as to the number of these learning communities that will be offered in the future by community colleges as a means to foster student success. It can also impact how they may be modified in the future to better serve the needs of students.

Coordinating and scheduling learning communities brings logistical and financial challenges. Blocks of linked classes must be set aside for students to participate in learning communities. Classes that are linked together in a learning community are not available to everyone. They are designated specifically for students who volunteer to participate. An unintended consequence of this is that it can decrease availability of classes for other students, which is an undesirable programmatic practice and an especially difficult thing to do during hard economic times when the number of class sections might be reduced. Faculty, especially fulltime, must also be motivated to
volunteer to teach in learning communities. To gain the requisite skills and knowledge to teach in learning communities, faculty must agree to participate in training on collaboration and orientation to learning communities.

In order for institutions to engage in data driven decision making when it comes to learning communities, research must be conducted to assess the impact of counseling services and learning communities on student academic performance. Does the presence of a counseling class in a learning community influence academic outcomes? The answer to this question can provide guidance regarding the ideal number and composition of learning communities. For example, eight learning communities were offered in 2009-2010 at Western Community College (Western Community College [WCC], 2012), all of which included a counseling class, the College Success Skills course. These numbers decreased during the following fall and spring semesters, with five learning communities being offered. Moreover, in the Spring 2011 semester only one learning community was offered that was linked with a counseling class. Research conducted by Vincent Tinto (2000) and Laura Rendon (1994b) indicated that students who participated in learning communities expressed increased levels of confidence regarding their academic potential and preparation. Given these findings, there is a cause for concern regarding a reduction in the number of available learning communities and implications for academic success of learning community participants.
**Guiding Questions**

Accordingly, this study addressed the following research questions:

- What is the impact of the College Success Skills course on a student’s academic performance, including the outcome indicators; GPA, retention, and persistence?

- Is there a difference in the level of academic performance achieved by students who took the College Success Skills course as part of a learning community, and those who did not?

- Is there a difference in the level of academic performance achieved by students who took a one-unit counseling class, and those who participated in a three unit counseling class?

**Research Questions**

Based on the above three guiding questions, a more specific list of research questions are listed below.

- **Question One:** Is there a higher term GPA among students participating in developmental learning communities than among non-learning community students?

- **Question Two:** Is there a higher retention rate among students participating in developmental learning communities than among non-learning community students?

- **Question Three:** Is there a higher persistence rate among students participating in developmental learning communities than among non-learning community students?
Question Four: Is there a higher level of academic performance, as measured by GPA, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Five: Is there a higher level of academic performance, as measured by retention, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Six: Is there a higher level of academic performance, as measured by persistence, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Seven: Do participants in a learning community with a three unit counseling class experience greater levels of satisfaction, engagement, and support than those participants in a learning community with a one unit counseling class?

Question Eight: Is there an association between learning community academic outcomes and the following learning community participant characteristics; age, gender, ethnicity, socio-economic status and first-generation college status?

Hypotheses

Based on the research questions one through eight stated above, the following hypotheses will be tested.

H₁ There will be a significantly higher term GPA among learning community students than among non-learning community students.

H₂ There will be a significantly higher retention rate among learning community students than among non-learning community students.
H₃ There will be a significantly higher persistence rate among learning community students than among non-learning community students.

H₄ Among learning community students, the GPAs of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.

H₅ Among learning community students, the retention rate of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.

H₆ Among learning community students, the persistence rate of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.

H₇ Among learning community participants, those whose participation included a three-unit counseling class would express greater levels of positive impact on student satisfaction, engagement, and support than those whose participation included a one-unit counseling class as measured by the Learning Communities Student Questionnaire.

H₈ There will be statistical associations between the student demographic characteristics of age, gender, socio-economic status, ethnicity and first-generation college status, and the measures of academic outcomes: GPA, retention, and persistence.

**Method**

Institutional Research and Planning office at Western Community College (2012) conducted the data collection activities. Students were classified into four different
groups. The four groups in the study were labeled; LC1, LC3, CS0, and CS3. The first group consisted of students who completed the three-unit College Success Skills class as part of a learning community (LC3). The second group completed a one-unit College Success class that was only offered in the first year of the program (LC1). The third group in the study consisted of students in a comparison group that completed the three-unit College Success (CS3) course as a stand-alone class. The fourth group was a comparison group that consisted of students enrolled in developmental courses, but without a counseling class, nor did they participate in a learning community (CS0).

This study utilized a quantitative methodology. Statistical tools included t-tests for independent samples, One-Way Analysis of Variance (ANOVA) and contingency tables with chi-square analysis. Because the data already existed at the outset of this study, this study was considered to employ an ex post facto design. In accordance with procedures at WCC (2012), the data were provided in a manner that assured student anonymity.

Theoretical Framework

Laura Rendon’s (1993, 1994a, 1994b) Validation Theory focused on exploring the relationship between the concept of validation and its relationship with the academic performance of non-traditional students. Her research found that non-traditional students communicated doubts about their ability to succeed. Success, especially within their first year, was related to whether students became involved in institutional life, and that validation could impact most vulnerable nontraditional students (Rendon, 1993, 1994a). Citing that, validation could be a necessity that precedes, as well as impacts, student involvement.
Learning communities may provide an environment where students can develop a support system and increase their sense of validation if the right conditions are present (Rendon, 1993, 2002; Tinto, 1997, 2000). Highlighted examples of in-class academic validation:

- Faculty who demonstrated a genuine concern for teaching students,
- Faculty who were personable and approachable towards students,
- Faculty who treated students equally,
- Faculty who structured learning experiences that allowed students to experience themselves as capable of learning,
- Faculty who worked individually with students who needed extra help,
- Faculty who provided meaningful feedback to students. (Rendon, 1993, p. 12)

Provided that learning communities are designed by institutions as a method to deliver more student-oriented instruction and student services, then learning communities could influence a student’s sense of validation. Rendon’s (1993, 1994b, 2002) research suggests that an increased sense of validation would impact academic performance.

**Delimitations**

The following delimitations were implemented in the study.

- Students not enrolled after the third week of the semester in all of the classes that are part of the learning community were excluded from the study.
- Learning communities that did not include a counseling class were also excluded from the study. For example, the Fall 2010 semester included a learning community comprised of an ESL and a math Pre-Algebra, and no counseling class.
• Spring 2011 semester included two learning communities with Math 50, English 50, and no counseling class. These learning communities were not included in the study.

• The study was limited to students who participated in a counseling class at one large urban community college in Southern California during one of five semesters between Fall 2009 and Fall 2011.

• Furthermore, only students who took a counseling class as part of a learning community were included in the study, with the exception of a two comparison groups previously described.

• Students who were enrolled in a learning community in more than one term were not included in the study.

Limitations

The following limitations were present study in this study.

• The study was limited to students who participated in a counseling class at a large urban community college in Southern California between Fall 2009 and Fall 2011 at a large community college in an urban setting. Generalizations to other settings may therefore be questionable.

• Only those students who took these counseling classes as part of a learning community were included in study.

• Students self-select into learning communities, and unobservable factors such as student motivation, and prior academic experiences could not be determined from student records.
Findings may not be generalized to returning students, evening students, and students with different demographic characteristics.

Learning communities in this study were considered to be stand-alone in composition where students participated for one semester. Findings may not be directly applied to comprehensive programs in California like Puente and Umoja that work with the same group of students for an extended period of time, and include a case management type of counseling approach.

The learning communities in this study were offered primarily in the early morning. Because of the priority registration given to incoming freshman, the group of learning community participants consisted primarily of incoming students. For these reasons, findings may not be generalized to returning students, evening students, and students with different demographic characteristics.

In order to measure learning community students’ perceptions, this study used data from a survey tool developed by the institution. The psychometric properties of this tool have never been assessed. Another limitation is that student identification numbers were not included in the survey instrument, preventing the investigator from linking academic performance measures with student perceptions.

This study utilized extant data sources and as such, there was no experimental control regarding assignment to the four different treatment conditions.
Data Collection and Analysis

A formal request was made to the Institutional Research and Planning office at Western Community College (2012). Student demographic data were gathered from the admissions application form. Student records were accessed to obtain registration and enrollment information, including term grade point average. These data were stored in the student information database that is maintained by the district. Institutional Research and Planning developed a survey, the Learning Communities Student Questionnaire, that was administered to students from Spring 2010 to Fall 2011. Data from this survey were also included in the research. All data were converted, format and analyzed utilizing version 18 of IBM SPSS Statistics GradPack software program, henceforth referred to as SPSS. Data analysis included descriptive statistics on each of the following groups: LC1, LC3, CS3, and CS0. This information included GPA, persistence rates, retention rates, gender, age, ethnicity, socio-economic status, and first-generation college status.

Assumptions

The following assumptions were present when conducting the study:

- The academic potential and level of intrinsic motivation that exists among all learning community students was randomly and normally distributed across all learning community cohorts and comparison groups.
- Students who responded to the Learning Community Student Questionnaire did so in a manner that reflected their true perceptions.
- The students who comprised the cohorts are representative of the cohorts that exist among the community college student populations.
Definitions

Basic Skills – For the purpose of this study, the term *basic skills* refers to “foundation skills in reading, writing, mathematics, and English as a Second Language, as well as learning skills and study skills, which are necessary for students to succeed in college-level work” (CSS, 2007, p. 13). Basic Skills classes do not fulfill general education requirement for an Associate’s degree, nor do they qualify for transferable credit to four-year universities.

Collaborative learning – For the purpose of this study, the term *collaborative learning* refers to “the instructional use of small groups so that students learn to work together to maximize their own and each other’s learning” (CCS, 2007, p. 56).

College Success Skills course – For the purpose of this study, the term *college success skills course* refers to “courses cover study skills, note taking, time management, test-taking strategies, and career exploration in an interactive and supportive environment” (Bashford, 2008, p. 340).

Counselor – For the purpose of this study, the term *counselor* in California community colleges refers to Counseling faculty who are professionally trained to diagnose the difficulties students face in the educational arena, to prescribe solutions for those difficulties, and to support students during their struggle toward success. They possess a Master's in counseling, rehabilitation counseling, clinical psychology, counseling psychology, guidance counseling, educational counseling, social work, career development, California license in marriage, family and child counseling or the
equivalent. (Academic Senate for California Community Colleges [ASCCC], 1995, p. 4)

*Ethnicity* – For the purpose of this study, the term *ethnicity* refers to various ethnic groups consisting of Asian, African American, Hispanic, Mexican, Other Hispanic, and White as self-reported on the institution’s admission application form.

*First-Generation College Status* – For the purpose of this study, the term *first-generation college status* refers to the students who are the first in their family to attend college and the status is based upon the mother’s and father’s highest level of education as self-reported by student on admission application. In order to be considered first-generation, neither parent would have completed a bachelor’s degree as reported on the institution’s admission application form.

*Learning Communities* – For the purpose of this study, the term *learning communities* refers to linked courses (Tinto, 2000) where the same group of students co-register in these classes for an entire semester. The classes are taught collaboratively.

*Non-Traditional Students* – For the purpose of this study, the term *non-traditional students* refers to

Students who come from low-income, working-class backgrounds and are often the first in their family to attend college. Many are students of color, although a high number of white students can be considered nontraditional. (Rendon, 2002, p. 646)

*Persistence* – For the purpose of this study, the term *persistence* refers to enrollment for more than one semester within the three year time span of the study; Fall 2009 to Fall 2011.
Retention – For the purpose of this study, the term retention refers to “maintenance of continued enrollment in classes throughout one semester” (Crawford, 1999, p. 13).

Enrollment was determined upon the census date which occurs on the third week of the semester.

Socio-Economic Status [SES] – For the purpose of this study, the term SES refers to the annual family/household income as self-reported by student on the institution’s admission application form. Income can be reported in one of the following categories:

(a) $14,355 or less
(b) $14,356 to $19,245
(c) $19,246 to $24,135
(d) $24,136 to $29,025
(e) $29,026 to $33,915
(f) $33,916 to $38,805
(g) $38,806 to $43,695
(h) $43,696 to $48,585
(i) $48,586 or more
(j) Decline to state.

Successful Academic Achievement – For the purpose of this study, the term successful academic achievement refers to a student having a 2.0 or above in terms of grade point average at the end of the semester.
CHAPTER 2—LITERATURE REVIEW

Introduction

America’s community college system of education is the largest in the world. California alone has 112 community colleges (California Community College Chancellor’s Office [CCCCO], 2012). Current efforts are in place to improve this system of education. California is investing millions of dollars to in community colleges throughout the state as part of the Basic Skills Initiative (BSI). In the study, Basic skills as a foundation for student success in California community colleges, learning communities are cited as an important component in order to increase student success (CSS, 2007). Counseling is a second component that is also included throughout the report as being a valuable resource impacting student success. The report found that “students in programs with a counseling/advising component are more likely for have higher pass rates than students from programs where a specific counseling/advising connection is lacking” (CSS, 2007, p. 28).

Counselors can play a major role in the academic success of students in community college by proving academic, personal and career counseling. However, little research has been done to document the extent of counseling’s impact (Martinez, 2007). Counselors also teach a variety of courses such as student success, personal growth, and career development. Counseling faculty share a unique relationship with students in the variety of services that they provide. This is particularly important for students in developmental classes because they have the lowest retention and persistence rates (CSS, 2007). However, learning communities have been shown to have a positive impact on this population, especially when counselors are involved (Boylan & Saxon, 2001).
It is difficult for counseling departments to provide adequate services when they are short staffed, and to advocate for more positions when they are not seen as an institutional priority. They are not protected by the 50% law in California, which states that a college must spend half of its budget on instructional costs (CCCCO, 2008). During times of economic crisis, it is important for campus leaders to become aware of the benefits of providing counseling services to students. This is a critical time for counseling services to take the initiative in conducting research that could help support funding for more counselors.

A review of the relevant literature was conducted to become more informed about learning communities, what they are, and how they relate to student academic success. Articles on the collaboration between Student Services and Instructional Services are included because this is one model for learning communities in community college. Two additional subtopics that were researched were college counseling and the Basic Skills Initiative, with the goal to show their relationship to student academic success. The aim of this investigation is to assess the efficacy of learning communities, as well as to examine the role of community college counseling by examining the impact on students, especially when involved in learning communities.

**Development of Community College Counseling**

Although community colleges have been in existence for over one hundred years, community college counseling came about in the early 1930’s. This was in part due to the shift in expectations from students being mature and self-reliant upon entrance to the perception that students may lack some of the essential attributes for success in post-secondary education. Additionally, a 1949 report by the American Council of Education
emphasized the emotional, as well as academic growth of students, “the concept of education is broadened to include attention to the student’s well rounded development—physically, socially, emotionally, and spiritually, as well as intellectually” (Moser & Moser, 1963, p. 11). This “whole person” concept is key to the development of guidance and counseling (Paradise & Long, 1981). Furthermore, the federal passage of Public Law 85-864 mandated guidance in the development of educational programs (Paradise & Long, 1981). This law also provided funding for the development of counseling services and professionals.

Role of Counselors in the Community College

The Academic Senate for California Community Colleges created a report, The Role of Counseling Faculty in the California Community Colleges (ASCCC, 1995). In this report an explanation of the role of counseling in the California community college was provided and a background on challenges within this profession. This action was spurred by the Board of Governors’ recognition for the necessity to provide counseling to all students in the community college. “Despite the fact that counseling is required by law, there is little evidence that it is sufficiently provided” (ASCCC, 1995, p. 4). Counselors play an important role in helping students to succeed in college. The level of effectiveness needs to be documented and assessed. According to the Academic Senate for California Community Colleges report:

Counseling faculty can play many roles to help meet the mission of California Community Colleges. For example, counselors can deter students from disastrous self-placements and impossible workloads—the causes of many of their failures. They can help students develop hope, confidence, and commitment to realistic
aspirations. They can also help students whose academic abilities do not yet match their aspirations. Thus, colleges have the obligation to provide counseling programs to help students decide what they want from higher education, plan their route through the system to achieve these goals, and help them overcome the barriers that may impede progress toward those goals. (ASCCC, 1995, p. 4)

Counselors in California are a unique classification of faculty because they are located in Student Services, but they also teach courses, and are sometimes required to coordinate special services, such as the Transfer Center or Career Center at their respective college (Grubb, 2001). If community college faculty are seen as subject matter experts and practitioners, then counselors must possess an extremely broad scope of knowledge and expertise, including academic, career, and personal counseling. In addition, they are expected to orient the new student to college. Counselors can reasonably expect to deal with a wide range of questions related to academic, personal and career issues. This includes specific information about the programs at the community college, programs offered at universities, and labor market information. Much of this information changes frequently as curriculum and programs are updated. Additionally, university admissions requirements change regularly, and labor trends are not constant. All of these factors can make it difficult to consistently provide the most up to date and accurate information.

In order to better understand the complex role of counselors in the California Community College, it is helpful to look at the qualifications expected for this position. The Academic Senate for California Community Colleges’ report presented an
impressive list of competencies collected by counseling graduate programs in the California State University (ASCCC, 2008). Included in this list were:

…knowledge of human development, both normal and abnormal, understanding of the theories of counseling and personality, knowledge of and sensitivity to social, cultural, and ethnic issues, knowledge of decision making and transition models, ability to diagnose student problems, ability to help students form and clarify their educational values and goals, ability to help students learn problem-solving and decision-making skills…, ability to work with students to develop optimal student…, educational plans…, ability to teach counseling courses effectively…, and ability to provide effective consultation to students, teachers, peers, administrators, and community members. (ASCCC, 1995, p. 7)

The intent of this list of competencies is well meaning, but may be unrealistic. This counseling model is complex and needs reexamination to ensure its effectiveness. Other counseling models currently exist in higher education, but in the California community colleges, the focus on counseling faculty to provide personal counseling is a distinctive characteristic. Other states have used paraprofessionals to provide academic and career advising, in combination with referrals to off-campus mental health agencies (Martinez, 2007).

The Academic Senate for California Community Colleges (2003) also adopted a report titled the Consultation Council Task Force on Counseling. This document reported findings regarding the role of counselors in California community colleges, recommended effective counselor/student ratios. The report defines counseling citing specific language in Title 5 stating that:
(b) The governing board of a community college district shall provide an organized and functioning counseling program in each college within the district. Counseling programs shall include, but not be limited to the following:

1. academic counseling, in which the student is assisted in assessing, planning, and implementing his or her immediate and long-range academic goals;

2. career counseling, in which the student is assisted in assessing his or her aptitudes, abilities, and interests, and is advised concerning the current and future employment trends;

3. personal counseling, in which the student is assisted with personal, family, or other social concerns, when assistance is related to the student’s education; and

4. coordination with the counseling aspects of other services to students which may exist on the campus, including, but not limited to, those services provided in programs for students with special needs, skills testing programs, financial assistance programs, and job placement services.

(c) Counseling services as specified in Subsection (b) (1), (2), and (3) shall provide to first-time students enrolled for more than six units, students enrolled provisionally, and students on academic or progress probation. (ASCCC, 2003, p. 3)
This provides further explanation regarding the types of services that counselors are expected to provide in community college, as well as what services students are legally entitled to receive.

**Counseling and Developmental Education**

Counselors play an important role in the education of students in developmental education, especially if these students have had negative educational experiences in the past (Maxwell, 1997). A variety of ways that counselors can be involved, including staff trainings, supporting students, and co-teaching. Maxwell contended that “…counselors must be an integral part of the developmental program team. They cannot remain stand-alone professionals who work with students behind closed doors” (Maxwell, 1997, p. 2). In other words, this profession demands counselors to be involved in a more intensive approach in program planning.

Maxwell (1997) suggested that counselors stay updated by conducting research regarding the varying problems that students face, noting the importance of courses taught on personal and career development topics. This proactive theme continues as counselors prioritize and plan ahead in guiding students before a crisis occurs. This includes providing workshops to students that give them the tools to navigate the education system.

**California Basic Skills Initiative**

A report, *Basic Skills as a Foundation for Student Success in California Community Colleges* was created as a guide to address the lack of success of students in developmental education (CSS, 2007). It was produced by the Center for Student Success, in collaboration with the System Office of the California Community Colleges.
This is one of the most comprehensive documents regarding the needs of students in developmental education. The study consists of three major parts. First, there is a literature review of Basic Skills practices. This section is subdivided into organizational and administrative practices, program components, staff development, and instructional practices. Second, there is an assessment section. Third, a cost-revenue model is provided as a guide for state funds.

The role of counselors is embedded throughout this document. The report addresses how students in developmental education courses benefit from counseling services. “According to the literature, a strong counseling component is the characteristic of a successful remedial program” (CSS, 2007, p. 28). Learning communities are also praised for their success, as well as the infusion of counseling services within them. “The overall effect of learning communities is strengthened by weaving advising, counseling, tutoring, and other support services into the learning community” (CSS, 2007). This report examines best practices within the areas of developmental education, learning communities, and counseling as a recommendation to address the needs of this population.

**Transition into the College Environment**

The process of acculturation that immigrants go through is also a source of stress. Acculturation is the process of becoming integrated into a new culture. According to Brilliant (2000), acculturation has four phases: contact, conflict, crisis, and adaptation. Counselors can be involved in all of these phases, especially in the middle phases where students are at risk of experiencing depression.
Effective counseling interventions differ with each phase. In the beginning, the task is to identify realistic boundaries while accepting that there will be some resistance to recognizing those boundaries. In the next phase, the student has a great need for support, for encouragement, and for tools to ease feelings of hopelessness. There is a period of mourning as losses are recognized and accepted. When a student has successfully moved through all of these phases, the focus of counseling shifts to enhancing opportunities for optimal performance and progress toward career goals. (Brilliant, 2000, p. 580)

This is an example of the significance of providing personal and career counseling as well as the need for these services in the community college. Ineffectively dealing with the stress derived either from personal problems, or from the anxiety that can result from having unclear academic and career goals could result in weaker academic performance. Counselors are trained to deal with these kinds of issues.

Counselors can be effective in assisting immigrant students to optimize their academic performance. Students can be taught study techniques that compensate for language deficits. For example, techniques that are effective for learning disabled students with language processing difficulties can be effective for students with limited English language proficiency. For students for whom previous teaching and testing styles differ from those required in college, techniques for studying, note taking, and test taking can be provided by counselors. (Brilliant, 2000, p. 584)
This intervention can be provided within the context of counseling appointments, and workshops, as well as being included in the curriculum of college success courses that are commonly taught by counselors in a community college (Bashford, 2008).

Student stressors at a community college range across academic, career, and personal issues. Personal counseling is one of the significant functions provided by community college counselors. There is a tremendous need for this service and the demand is growing, but the funding for community college counseling is decreasing (Bundy & Benshoff, 2000). There are times when students schedule appointments specifically for personal counseling. Other times, personal counseling can be required as a byproduct stemming from a discussion about academic challenges or career goals. However, some colleges refer out to professional mental health services in the community. This may not be the most effective model that is in the best interest of students. Students may not always follow through; accessibility of these services may be limited in certain communities. The stigma related to seeing a therapist may make students more comfortable speaking with a college counselor instead (Bundy & Benshoff, 2000). This is a vital service provided from community college counselors.

**Counseling and Learning Communities**

The Washington Center for Improving Undergraduate Education, located at Evergreen State College, has been hosting the National Summer Institute on Learning Communities since 1998 (Lardner & Malnarich, 2008). Students persist in their education if the “learning they experience is meaningful, deeply engaging, and relevant to their lives” (Lardner & Malnarich, 2008, p. 32). They used learning communities to examine the issue of transforming and improving education for all students. They also
noted that effective learning communities strike a balance between structure and pedagogy. Additionally, participants in the 2008 Institute were very interested in the use of data-driven decision making regarding the purpose for their learning communities. Lardner and Malnarich pointed out that an increase in colleges’ use of the Community College Survey of Student Engagement (CCSSE) and the National Survey of Student Engagement (NSSE) as assessment tools to help increase learning, retention, and persistence.

Hunter (2006) argued that educators must take more responsibility for the college experience of new students, citing that Fortune 500 companies and all branches of the armed forces have long been investing time and money into helping new members in their transition. First-Year Experience (FYE) programs are a type of learning community that strive to do just that. Hunter stated that there is a shift away from retention as a measure of success. “More recently, attention has focused on the simple, comprehensive, and fundamental concept of student learning: students who learn are students who succeed” (Hunter, 2006, p. 5). This is a cultural shift that educational institutions need to make, as well as reexamining their funding priorities.

Tinto (2000) described learning communities as linked courses where the same group of students co-register in classes for an entire semester. The classes are taught collaboratively. In addition, he discussed the impact that learning communities appear to have on students, while noting that most programs are still relatively new. The focus of the article, What have we learned about the impact of learning communities on students? is “the use of learning communities and the collaborative pedagogy that underline them” (Tinto, 2000, p. 1). Tinto provided a description of learning communities, and showed
how colleges may use different models. He also discussed the need for programs to evaluate and assess their progress.

Tinto (2000) cited results from his previous study that examined four major ways that students benefited from learning communities in LaGuardia Community College in New York City. The four areas of impact that he pointed out were: (a) students tended to form extended support networks; (b) students actively participated more in their learning; (c) quality of student learning increased; and, (d) students became more engaged in campus life and their educational experience. His major premise was that although learning communities may not be for all students and faculty, they are a valuable resource for student success. In addition, he recommended that colleges must implement institutional methods to measure effectiveness.

Pitkethly and Prosser (2001) conducted an analysis of Tinto’s six principles to enhance first year student success and retention:

1. students enter with, or have the opportunity to acquire, the skills needed for academic success;
2. personal contact with students extends beyond academic life;
3. retention actions are systematic;
4. retention programs address students’ needs early;
5. retention programs are student-centered; and
6. education is the goal of retention programs. (Pitkethly & Prosser, 2001. p. 186)

These principles address variables that impact a student’s level of engagement. The idea is that the more engaged a student is, the more likely he/she is to stay in school.
Secondly, Pitkethly and Prosser (2001) cited a “basic set of expectations” to address transition issues:

(a) strategies for identifying and predicting the problems of new students;
(b) routine collection, analysis and dissemination of data concerning the experience of new students;
(c) mechanisms for addressing problems related to teaching and learning;
(d) mechanisms for addressing university-wide transition issues;
(e) feedback and monitoring of problems, initiatives and strategies; and

Pitkethly and Prosser’s (2001) recommendations are helpful strategies for colleges to take into consideration when creating programs and services that can help a new student to transition. Learning communities serve as a good example. Learning communities are more likely to receive institutional support if research findings are shared indicating how they address a need. The campus at large must be involved in the process. Learning communities can also increase the visibility of student services when they are involved. McMurray and Sorrells (2007) identified collaboration as a best practice in higher education.

**Validation and Academic Performance**

Rendon’s (1993) research was primarily focused on non-traditional students. Her theory addressed the concern that some non-traditional students doubt their ability to succeed (Rendon, 1992, 1993, 1994a). In her research through the Transition to College Project, Rendon asked two general questions:
(1) How do students become active and involved participants in the academic community? (2) How do students’ out-of-class experiences, particularly their interpersonal interactions, reinforce, augment or attenuate curricular and classroom learning and achievement of boarder general education goals? (Rendon, 1993, p. 6)

Rendon’s (1992, 1993, 1994a) research found that non-traditional students communicated doubts about their ability to succeed. Success within their first year was related to whether students became involved in institutional life, and whether validation could impact most vulnerable nontraditional students (Rendon, 1993, 1994b, 2002). In addition, Rendon provided examples of in-class academic validation:

Faculty who demonstrated a genuine concern for teaching students, faculty who were personable and approachable towards students, faculty who treated students equally, faculty who structured learning experiences that allowed students to experience themselves as capable of learning, faculty who worked individually with students who needed extra help, and faculty who provided meaningful feedback to students. (Rendon, 1993, p. 12)

Central to Rendon’s (1993) theory of validation were the key elements that she identified as being components of validation:

- Validation is an enabling, confirming and supportive process initiated by in- and out-of class agents that foster academic and personal development.
- Validation occurs along a continuum, with a student experiencing differing degrees and forms of validation with distinct validating agents at different times and on different occasions.
• Validation may be seen as a prerequisite to student involvement.
• Validation is developmental in nature. It is not an end itself. The more students get validated the richer the academic and interpersonal learning experiences.
• Validation can be most effective when offered early on in the student’s college experience and when it is offered repeatedly by different agents at different times throughout the college years.
• Validation can be measured both quantitatively and qualitatively.
• Student learning and growth are directly related to the extent that validation is present in their academic and social learning experience.
• Validation is reciprocal in nature. When faculty and counselors validate, the transforming experience of the student in turn validates them. (Rendon, 1993, p. 15)

Rendon’s (1994a, 2002) conclusion was that non-traditional students could be transformed through the process of validation by different institutional agents. In turn, this transformation would result in more positive educational experiences.

**Conclusion**

Student success in community college is influenced by many internal and external factors. In addition, community colleges have a policy of open admission so students enter college with varying levels of prior academic preparation. The majority of students entering community college are testing into developmental levels of English and Math. California Community Colleges provide support services such as counseling to help students in achieving their academic, career, and personal goals. For this reason, research
on the impact of counseling was included in the California Basic Skills Initiative (CSS, 2007). However, there is a lack of research on the effectiveness of counseling as an intervention and funding for counseling services is decreasing. Moreover, counseling services are unique in the California Community Colleges in part because counselors are classified as faculty, in comparison to other states where paraprofessionals are more commonly used to provide similar support services. Much like other faculty, counselors teach courses in their discipline which encompasses a broad range of areas that are intended to assist students in their personal, academic, and career development.

Learning communities provide an avenue for counseling services to gain more positive exposure on campus. This may enhance the impact that counselors have on student retention and success. Administrative support is essential in adequately funding and promoting both learning communities and counselor involvement in these programs. The increased collaboration between instructional faculty and counselors in learning communities is an effective method to serve students (McMurray & Sorrells, 2007). The overall effect on student learning is strengthened by incorporating counseling into the learning community. This inclusion of a counseling component can serve as a validating agent to help improve student academic performance.
CHAPTER 3—METHODOLOGY

Statement of Problem

It can be challenging for community colleges to assess academic success due to their open door admission policy, their multiple missions, and the diversity of students who they serve. The academic success of college students is traditionally measured by grade point average (GPA) and graduation. Additional measures of community college student academic performance also include retention, persistence, and transfer rates. These measures alone may not paint a clear picture of how students are progressing because community college students vary in prior level of academic preparedness, unclear academic goals, and many students also work fulltime. Many community colleges offer College Success Skills classes to prepare students for the academic challenges in college (Bashford, 2008). Students whose academic skills assessments have resulted in placement into developmental levels of English, Math, and Reading can benefit from the academic success strategies that are covered in the counseling class. This is also why some community colleges are implementing learning communities (Tinto, 1997, 2000). Intuitively, if counseling classes and learning communities can improve the academic skills and self-confidence of students, then the presence of both should have a positive impact on student academic performance.

Research Questions

Based on the issue as defined above, the following research questions were posed as the focus of this study:
Question One: Is there a higher term GPA among students participating in developmental learning communities than among non-learning community students?

Question Two: Is there a higher retention rate among students participating in developmental learning communities than among non-learning community students?

Question Three: Is there a higher persistence rate among students participating in developmental learning communities than among non-learning community students?

Question Four: Is there a higher level of academic performance, as measured by GPA, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Five: Is there a higher level of academic performance, as measured by retention, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Six: Is there a higher level of academic performance, as measured by persistence, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Seven: Do participants in a learning community with a three unit counseling class experience greater levels of satisfaction, engagement, and support than those participants in a learning community with a one unit counseling class?
Question Eight: Is there an association between learning community academic outcomes and the following learning community participant characteristics; age, gender, ethnicity, socio-economic status and first-generation college status?

**Hypotheses**

Based on the eight research questions stated above, the following hypotheses were tested.

H$_1$ There will be a significantly higher term GPA among learning community students than among non-learning community students.

H$_2$ There will be a significantly higher retention rate among learning community students than among non-learning community students.

H$_3$ There will be a significantly higher persistence rate among learning community students than among non-learning community students.

H$_4$ Among learning community students, the GPAs of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.

H$_5$ Among learning community students, the retention rate of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.

H$_6$ Among learning community students, the persistence rate of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.

H$_7$ Among learning community participants, those whose participation included a three-unit counseling class would express greater levels of positive impact on student satisfaction, engagement, and support than those whose participation
included a one-unit counseling class as measured by the Learning Communities Student Questionnaire.

H₈ There will be statistical associations between the student demographic characteristics of age, gender, socio-economic status, ethnicity and first-generation college status, and the measures of academic outcomes: GPA, retention, and persistence.

**Design and Procedure**

Data file used to test the hypotheses of this study was comprised of student academic records and survey responses. The population included students who participated in a learning community during any semester between Fall 2009 and Fall 2011 (WCC, 2012). The investigator utilized an extant data file for the purpose of the study. The number of learning communities offered per semester is illustrated in Table 1 below. The first two semesters covered in this study included a one-unit counseling class, ‘Counseling 197’. This group was labeled LC1. The learning communities covered in the following three semesters of this study included a three-unit counseling class, ‘Counseling 110’. This type of learning community was labeled as LC3.

**Table 1**

*Number of Counseling Learning Communities Between Fall 2009 and Fall 2011*

<table>
<thead>
<tr>
<th>Semester</th>
<th>Learning Community Classification</th>
<th>Number of Learning Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2009</td>
<td>LC1*</td>
<td>5</td>
</tr>
<tr>
<td>Spring 2010</td>
<td>LC1</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2010</td>
<td>LC3*</td>
<td>4</td>
</tr>
<tr>
<td>Spring 2011</td>
<td>LC3</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2011</td>
<td>LC3</td>
<td>4</td>
</tr>
</tbody>
</table>

*Note: (LC1) Counseling 197, one unit class. (LC3) Counseling 110, three unit class
Students in the study participated in the First-Year Experience learning communities at a large urban community college in Southern California. The college established ten learning communities in the first year of the program; seven of these were included in the study because they all included a one-unit counseling class as part of the learning community.

The college implemented nine learning communities between Fall 2010 and Fall 2011 that included a three-unit counseling class as part of the learning community. Each learning community included one to three other linked classes, which consisted of developmental classes in English, Math, or Reading. The composition of learning communities offered between Fall 2009 and Fall 2011 are listed in Figure 1 below.

<table>
<thead>
<tr>
<th>LC1 offered in Fall 2009</th>
<th>LC1 offered in Spring 2010</th>
<th>LC3 offered in Fall 2010</th>
<th>LC3 offered in Fall 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling 197 Reading 50 Math 15 English 10</td>
<td>Counseling 197 Math 50 English 50</td>
<td>Counseling 110 Math 15</td>
<td>Counseling 110 Math 15</td>
</tr>
<tr>
<td>Counseling 197 Reading 50 Math 15 English 10</td>
<td>Counseling 197 Math 50 English 50</td>
<td>Counseling 110 Math 50</td>
<td>Counseling 110 Math 15</td>
</tr>
<tr>
<td>Counseling 197 Reading 50 Math 15 English 10</td>
<td>Counseling 197 Reading 50 Math 15</td>
<td>Counseling 110 Reading 50 English 10</td>
<td>Counseling 110 English 50</td>
</tr>
<tr>
<td>Counseling 197 Reading 50 Math 15</td>
<td>Counseling 110 Reading 50 English 10</td>
<td>Counseling 110 Reading 50</td>
<td>Counseling 110 Reading 50</td>
</tr>
</tbody>
</table>

*Figure 1.* Learning communities offered between fall 2009 and fall 2011.

Figure 2 below illustrates course descriptions of classes that were offered in a learning community in any semester during Fall 2009 and Fall 2011.
<table>
<thead>
<tr>
<th>LC Course</th>
<th>Title</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 10</td>
<td>English Essentials</td>
<td>Offers basic instruction in grammar, usage, mechanics, sentence structure, and paragraph and essay development. Non-degree applicable</td>
</tr>
<tr>
<td>English 50</td>
<td>Introductory Composition</td>
<td>A writing course for the student who wants to develop fundamental essay writing skills, acquire an A.A. degree, or enter a transfer program, but who needs further preparation in composition skills. Prerequisite: A minimum grade of ‘C’ in ENG 10 or eligibility determined through the English placement</td>
</tr>
<tr>
<td>Reading 50</td>
<td>Reading Improvement</td>
<td>A course designed to improve reading skills. Individual reading problems are diagnosed and improved through a variety of instructional materials and reading techniques. For students who need to remedy difficulties with reading comprehension, vocabulary, and fluency.</td>
</tr>
<tr>
<td>Math 15</td>
<td>Pre-algebra</td>
<td>The basic arithmetic operations, integers, fractions, decimals, percents, ratio and proportion, basic geometric concepts, problem-solving techniques, and an introduction to algebraic thinking. Non-degree applicable</td>
</tr>
<tr>
<td>Math 50</td>
<td>Beginning Algebra</td>
<td>Elementary algebra which emphasizes mathematical reasoning, problem-solving, and real-world applications using numerical, algebraic, and graphic models. Topics include problem-solving techniques, algebraic expressions, polynomials, linear equations, linear inequalities, linear and nonlinear graphs, systems of linear equations in two variables, integer exponents, proportions, and radicals. Prerequisite: A minimum grade of ‘C’ in MATH 15 or eligibility determined through the math placement</td>
</tr>
<tr>
<td>Counseling 197</td>
<td>Topics Class</td>
<td>Freshman Seminar</td>
</tr>
<tr>
<td>Counseling 110</td>
<td>College Success Skills</td>
<td>Provides students with the skills and knowledge necessary to reach their educational goals. Topics include academic learning strategies, college and life skills, diversity awareness and assessment of personal characteristics related to educational success. The role of race, ethnicity, gender, class, sexual orientation and age in higher education and personal identity is a central theme of the course.</td>
</tr>
</tbody>
</table>

Figure 2. Learning community classes and course descriptions.  

Varying developmental levels of English and Math classes were included in the composition of different learning communities. For example, English 10- English
Essentials and English 50- Introductory Composition were the two different English classes that were used in the learning communities. English 10 is two levels below college level and English 50 is two levels below college composition. Reading 50-Reading Improvement was included as a linked class in some of the learning communities. This class is one level below college level reading, and was the only reading level included from the reading department. Math 15-Pre Algebra and Math 50-Elementary Algebra were also included in the composition of some of the learning communities. Respectively, Math 15 and 50 are three levels below, and two levels below transfer level math.

The independent variable in this study was participation in a counseling class as part of a learning community, with two levels. The first level being a learning community with a one-unit counseling class (LC1), and the second with a three-unit counseling class (LC3). A comparison group was identified that consisted of students who enrolled in a three-unit counseling class, College Success Skills, that was not included in a learning community (CS3). A second comparison group consisted of students enrolled in similar developmental courses, but had not taken any counseling classes, nor did they participate in a learning community (CS0).

Three dependent variables were explored for the purpose of this study. The first dependent variable was GPA. The second was retention, which was determined at the end of the semester in which students participated in the learning community. The third variable was persistence, or enrollment in more than one semester within the timeframe of the study.
Delimitations

The following delimitations were implemented in the study.

- Students not enrolled after the third week of the semester in all of the classes that are part of the learning community were excluded from the study.
- Learning communities that did not include a counseling class were excluded from the study. For example, the Fall 2010 semester included a learning community comprised of an ESL and a math Pre-Algebra, and no counseling class.
- Spring 2011 semester included two learning communities with Math 50, English 50, and no counseling class. These learning communities were not included in the study.
- The study was limited to students who participated in a counseling class at one large urban community college in Southern California during one of five semesters between Fall 2009 and Fall 2011.
- Furthermore, only students who took a counseling class as part of a learning community were included in the study, with the exception of the two comparison groups previously described.
- Students who were enrolled in a learning community in more than one term were not included in the study.
- Non-learning community students age 16 and younger were removed from the study to more closely resemble the age composition of learning community students.
Limitations

The following limitations were present in this study.

- The study was limited to students who participated in a counseling class at a large urban community college in Southern California during Fall 2009 and Fall 2011 at a large community college in an urban setting. Generalizations to other settings may therefore be questionable.
- Only students who took these counseling classes as part of a learning community were included in the study.
- Students self-selected into learning communities, and unobservable factors such as student motivation, and prior academic experiences could not be determined from student records.
- Findings may not be generalized to returning students, evening students, and students with different demographic characteristics.
- Learning communities in this study were considered stand-alone in composition where students participated for one semester. Findings may not be directly applied to comprehensive programs in California like Puente and Umoja that work with the same group of students for an extended period of time, and include a case management type of counseling approach.
- The learning communities in this study were offered primarily in the early morning. Because of the priority registration given to incoming freshman, the group of learning community participants consisted primarily of incoming students. For these reasons, findings may not be generalized to returning
students, evening students, and students with different demographic characteristics.

- In order to measure learning community students’ perceptions, this study used data from a survey tool developed by the institution. The psychometric properties of this tool have never been assessed. Another limitation was that student identification numbers were not included in the survey instrument, preventing the investigator from linking academic performance with student perceptions.

- This study utilized extant data sources and as such, there was not experimental control regarding assignment to the four different treatment conditions.

**Data Collection and Analysis**

This study utilized a quantitative methodology. Statistical tools included t-tests for independent samples, One-Way ANOVAs and contingency tables with chi-square analysis. A formal request was made to the Institutional Research and Planning office at Western Community College. Because the data already existed prior to the onset of the investigation, this study incorporated an ex post facto or causal comparative design. The data were provided in a manner that assured student anonymity (WCC, 2012). There were no data that would lead to the disclosure of student’s identification. Student demographic data were gathered from the admissions application form. Student records were accessed to obtain registration and enrollment information, including term grade point average. These data were stored in the student information database that is maintained by the district. The Institutional Research and Planning office developed a survey, the Learning Community Student Questionnaire, that was administered to
students in learning communities from Spring 2010 to Fall 2011. Data from this survey were analyzed to address one of the eight research questions, utilizing SPSS.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Statistical Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H_1</strong> There will be a significantly higher term GPA among learning community students than among non-learning community students.</td>
<td>One tail t-test for independent samples</td>
</tr>
<tr>
<td><strong>H_2</strong> There will be a significantly higher retention rate among learning community students than among non-learning community students.</td>
<td>2x2 contingency table with chi-square analysis</td>
</tr>
<tr>
<td><strong>H_3</strong> There will be a significantly higher persistence rate among learning community students than among non-learning community students.</td>
<td>2x2 contingency table with chi-square analysis</td>
</tr>
<tr>
<td><strong>H_4</strong> Among learning community students, the GPAs of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.</td>
<td>One tail t-test for independent samples</td>
</tr>
<tr>
<td><strong>H_5</strong> Among learning community students, the retention rate of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.</td>
<td>2x2 contingency table with chi-square analysis</td>
</tr>
<tr>
<td><strong>H_6</strong> Among learning community students, the persistence rate of those with a three-unit counseling class will be significantly higher than those with a one-unit counseling class.</td>
<td>2x2 contingency table with chi-square analysis</td>
</tr>
<tr>
<td><strong>H_7</strong> Among learning community participants, those whose participation included a three-unit counseling class would express greater levels of positive impact on perceived satisfaction, support and engagement than those whose participation included a one-unit counseling class as measured by the Learning Communities Student Questionnaire.</td>
<td>One tail t-test for independent samples</td>
</tr>
<tr>
<td><strong>H_8</strong> There will be statistical associations between the student demographic characteristics of age, gender, socio-economic status, ethnicity and first-generation college status, and the measures of academic outcomes; GPA, retention, and persistence.</td>
<td>One tail t-tests for independent samples, chi-squares, and One-Way ANOVAs</td>
</tr>
</tbody>
</table>

**Figure 3.** Inferential tools related to hypotheses 1 – 8.

The inferential tools needed to test Hypotheses 1-8 are listed in Figure 3 above.

Data analysis included descriptive statistics on each of the following groups: LC1, LC3,
CS3, and CS0. This information consisted of GPA, persistence rates, retention rates, gender, age, ethnicity, socio-economic status, and first-generation college status.

All parametric procedures were subject to prior tests of homogeneity of variance. Formulas were employed that adjusted for unequal sample size and variance.

**Summary**

The purpose this study was to compare the academic performance of students who had participated in a counseling class that was not linked to a learning community at a large urban community college in Southern California, to the performance of students who had taken a counseling course as part of a learning community. The study utilized an extant data file of student enrollments between Fall 2009 and Fall 2011. The study sample, research design, data collection and analysis were described. Study limitations and delimitations were noted. The following chapter presents the findings based on the aforementioned quantitative analyses.
CHAPTER 4—RESULTS

Descriptive Statistics

Data were reported on 3,463 students in the study. Descriptive statistics are provided for each of the four demographic variables. These demographic variables included Age, Gender, Ethnicity, and First-Generation College Status. The four groups in the study were labeled defined as follows:

- **LC3** – The first group consisted of students who completed the three-unit College Success Skills class as part of a learning community.
- **LC1** – The second group completed a one-unit College Success class that was only offered in the first year of the program.
- **CS3** – The third group in the study consisted of students in a comparison group that completed the three-unit College Success course as a stand-alone class.
- **CS0** – The fourth group was a comparison group that consisted of students enrolled in developmental courses, but without a counseling class, nor did they participate in a learning community.

Data for this study were obtained from the Institutional Research and Planning office and included students who enrolled during a three year time period between Fall 2009 and Fall 2011 (WCC, 2012). Institutional Research and Planning office followed customary procedures that assured the protection of student anonymity.

The average age of the students in this study across all four groups was 21.98. The range in student age was between 17 and 69. The average age of the learning community students was 19.25, whereas the average age of the non-learning community
students was 22.36. Students ages 16 and younger were removed from the data set to more closely resemble the age of learning community college students in the study.

Gender was reported for 3,427 students as shown in the table below. Table 2 below shows the distribution of gender among the learning community and non-learning community groups.

Table 2

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Male</th>
<th>Female</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC Student</td>
<td>202 (48.9%)</td>
<td>209 (50.6%)</td>
<td>2 (0.5%)</td>
<td>413 (100.0%)</td>
</tr>
<tr>
<td>Non – LC Student</td>
<td>1488 (49.4%)</td>
<td>1516 (50.3%)</td>
<td>10 (0.3%)</td>
<td>3014 (100.0%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1690 (49.3%)</td>
<td>1725 (50.3%)</td>
<td>12 (0.4%)</td>
<td>3427 (100.0%)</td>
</tr>
</tbody>
</table>

As is shown in Table 2 above, the gender distribution was almost identical among the learning community and non-learning community groups. Within each of the four groups there was a greater disparity of gender distribution. Table 3 below shows this variation of gender across all four groups in the study.

Table 3

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Male</th>
<th>Female</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>91 (54.2%)</td>
<td>76 (45.2%)</td>
<td>1 (0.6%)</td>
<td>168 (100.0%)</td>
</tr>
<tr>
<td>LC3</td>
<td>111 (45.3%)</td>
<td>133 (54.3%)</td>
<td>1 (0.4%)</td>
<td>245 (100%)</td>
</tr>
<tr>
<td>CS3</td>
<td>748 (51.4%)</td>
<td>703 (48.3%)</td>
<td>5 (0.3%)</td>
<td>1456 (100%)</td>
</tr>
<tr>
<td>CS0</td>
<td>740 (47.5%)</td>
<td>813 (52.2%)</td>
<td>12 (0.4%)</td>
<td>1558 (100.0%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1690 (49.3%)</td>
<td>1725 (50.3%)</td>
<td>12 (0.4%)</td>
<td>3427 (100.0%)</td>
</tr>
</tbody>
</table>

First-generation college status was determined based upon mother and father’s highest level of education as self-reported by students on their admission application.
forms. In order to be considered first-generation, neither parent would have completed a bachelor’s degree as reported by the student on the institution’s admission application form. Using this operational definition, these data were re-coded into three categories by the institution’s research office; First-Generation, Not First-Generation, and Unknown. Table 4 below shows information concerning First-Generation College Status.

Table 4

<table>
<thead>
<tr>
<th>Student Group</th>
<th>First-Generation</th>
<th>Non-First-Generation</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>127 (75.6%)</td>
<td>37 (22.0%)</td>
<td>4 (2.4%)</td>
<td>168 (100.0%)</td>
</tr>
<tr>
<td>LC3</td>
<td>116 (71.2%)</td>
<td>41 (25.2%)</td>
<td>6 (3.7%)</td>
<td>163 (100.0%)</td>
</tr>
<tr>
<td>CS3</td>
<td>903 (70.2%)</td>
<td>335 (26.0%)</td>
<td>48 (3.7%)</td>
<td>1286 (100.0%)</td>
</tr>
<tr>
<td>CS0</td>
<td>885 (65.1%)</td>
<td>410 (30.2%)</td>
<td>64 (4.7%)</td>
<td>1359 (100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>2031 (68.2%)</td>
<td>823 (27.7%)</td>
<td>122 (4.1%)</td>
<td>2976 (100.0%)</td>
</tr>
</tbody>
</table>

As can be seen by Table 4 above, both learning community groups consisted of over seventy percent first-generation college students. The two non-learning community groups also had a high percentage of first-generation college students. Table 5 below displays first-generation college status by comparing learning community to non-learning community students, clearly showing a higher representation of first-generation college students among the LC students (73.4%) than among the Non-LC students (67.6%).

Table 5

<table>
<thead>
<tr>
<th>Student Group</th>
<th>First-Generation</th>
<th>Non-First-Generation</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC Student</td>
<td>243 (73.4%)</td>
<td>78 (23.6%)</td>
<td>10 (3.0%)</td>
<td>331 (100.0%)</td>
</tr>
<tr>
<td>Non – LC Student</td>
<td>1788 (67.6%)</td>
<td>745 (28.2%)</td>
<td>112 (4.2%)</td>
<td>2645 (100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>2031 (68.2%)</td>
<td>823 (27.7%)</td>
<td>122 (4.1%)</td>
<td>2976 (100.0%)</td>
</tr>
</tbody>
</table>
The full descriptions of ethnicity furnished by Institutional Research and Planning office consisted of the following groups; African American, Asian, Filipino, Hispanic, Multi-Ethnic, Native American, Pacific Islander, White, and Unknown. Due to the impracticality of running analyses when numbers were so low for many of the groups, the investigator recoded student ethnicity into three groups; Hispanic, White, and All Other. Table 6 below illustrates demographic information concerning Ethnicity.

Table 6

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Hispanic</th>
<th>White</th>
<th>All Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>96 (57.1%)</td>
<td>47 (28.0%)</td>
<td>25 (14.9%)</td>
<td>168 (100.0%)</td>
</tr>
<tr>
<td>LC3</td>
<td>136 (55.5%)</td>
<td>71 (29.0%)</td>
<td>38 (15.5%)</td>
<td>245 (100.0%)</td>
</tr>
<tr>
<td>CS3</td>
<td>725 (49.8%)</td>
<td>513 (35.2%)</td>
<td>218 (15.0%)</td>
<td>1456 (100.0%)</td>
</tr>
<tr>
<td>CS0</td>
<td>642 (41.2%)</td>
<td>642 (41.2%)</td>
<td>274 (17.6%)</td>
<td>1558 (100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>1599 (46.7%)</td>
<td>1273 (37.1%)</td>
<td>555 (16.2%)</td>
<td>3427 (100.0%)</td>
</tr>
</tbody>
</table>

As can be seen by Table 6 the Hispanic group was the largest group in the study consisting of 46.7 percent across all four student groups. Among the learning community groups, the percentage of Hispanic students was higher than for the non-learning community groups.

Data regarding SES were requested from Institutional Research and Planning office for this study. Family income was self-reported by students on the institution’s application form. As explained by Institutional Research and Planning office however, it was not clear if the income reported by students reflected individual income, or the income of parents. Because there was a concern about the veracity of these data, SES information is not analyzed by Institutional Research and Planning office; hence, was not provided to the investigator.
The preceding descriptive statistics were presented to provide a context for the analyses of data pertaining to the research questions in the study. Having reviewed the descriptive statistics, the following section will discuss the eight research questions listed below.

Question One: Is there a higher term GPA among students participating in developmental learning communities than among non-learning community students?

Question Two: Is there a higher retention rate among students participating in developmental learning communities than among non-learning community students?

Question Three: Is there a higher persistence rate among students participating in developmental learning communities than among non-learning community students?

Question Four: Is there a higher level of academic performance, as measured by GPA, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Five: Is there a higher level of academic performance, as measured by retention, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Six: Is there a higher level of academic performance, as measured by persistence, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?
Question Seven:  Do participants in a learning community with a three unit counseling class experience greater levels of satisfaction, engagement, and support than those participants in a learning community with a one unit counseling class?

Question Eight:  Is there an association between learning community academic outcomes and the following learning community participant characteristics; age, gender, ethnicity, socio-economic status and first-generation college status?

Findings

Research Question One on Academic Performance – GPA

R1:  Is there a higher term GPA among students participating in developmental learning communities than among non-learning community students?

Research question one compared the academic performance of learning community students and non-learning community students, as measured by cumulative GPA.  For the purpose of this study, term GPA records were not provided by Institutional Research and Planning office and cumulative GPA was used instead.  Cumulative GPA was calculated from all classes in all terms that a student was present from Fall 2009 to Fall 2011.  In order to determine if differences in cumulative GPA existed between learning community students and non-learning community students, a one tail t-test for independent samples was utilized.  Results of the analysis showed that there was a significant difference between groups regarding GPA as previously defined; t(3391) = 2.918, p = .004.  Descriptive statistics regarding this analysis are shown in Table 7 below.
Table 7

*Group Statistics for Cumulative GPA of Learning Community and Non-Learning Community Students*

<table>
<thead>
<tr>
<th>Student Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC Student</td>
<td>409</td>
<td>2.01</td>
<td>0.98</td>
</tr>
<tr>
<td>Non-LC Student</td>
<td>2984</td>
<td>2.16</td>
<td>1.00</td>
</tr>
</tbody>
</table>

As can be seen from Table 7 above, the Mean GPA (2.16) of the non-learning community students was slightly higher than the Mean GPA (2.01) of the learning community students.

**Research Question Two on Academic Performance – Retention**

R2: Is there a higher retention rate among students participating in developmental learning communities than among non-learning community students?

Retention was defined as continued enrollment in a class throughout one semester. Enrollment was determined upon the census date which occurred on the third week of each fall and spring semester. Retention was calculated based on the presence of possible grades that a student could earn after the census date for each term, which could include; A, B, C, D, F, P (Pass), or NP (No Pass). Although grades such as F and NP are not conventionally viewed as successfully passing a class, retention could be assumed. In this study, W and FW grades constituted non-retention. A grade of W would be earned by a student who was enrolled beyond the census date, but dropped the class by the middle of the semester. A grade of FW (Failure to Withdraw) would be assigned by an instructor as a way of documenting that a student failed a class as a result of not maintaining continuous enrollment throughout the entire semester. It is important to note that it was possible for students to “drop out” of college but fail to officially withdraw...
from classes. In some cases, this could have resulted in an F grade if a student failed to withdraw from his/her classes, and the appropriate FW of W grades were not assigned.

The grade for each course was re-coded as per the above definition to be classified as either a successful or not-successful retention earning grade. In this manner, all grades earned by all students for all five semesters that are covered by the scope of the study were included in the analysis. In order to determine if there were significant differences in retention rate among groups, a chi-square analysis was utilized. Results of the analysis showed that there was no significant difference between groups regarding retention rate as previously defined; chi-square (1, N=33,215) = 0.189, p = 0.664.

Descriptive statistics regarding this analysis are shown in Table 8 below.

Table 8

Course-by-Course Retention Rates of Learning Community and Non-Learning Community Students

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Successful</th>
<th>Not Successful</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Community</td>
<td>3441 (89.6%)</td>
<td>399 (10.4%)</td>
<td>3840 (100.0%)</td>
</tr>
<tr>
<td>Non-Learning Community</td>
<td>26389 (89.8%)</td>
<td>2986 (10.2%)</td>
<td>29375 (100.0%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29830 (89.8%)</strong></td>
<td><strong>3385 (10.2%)</strong></td>
<td><strong>33215 (100.0%)</strong></td>
</tr>
</tbody>
</table>

As Table 8 indicates, there were 33,215 classes that were taken by both groups. The learning community students took 3,840 of those classes. Of the 3,840 classes taken by the LC students, 3,441 (89.6%) resulted in grades that would support students’ retention in a given semester. The Non-LC students completed a total of 29,375 classes during this same time frame. Of these classes completed, 26,389 (89.8%) resulted in grades that would support a student’s retention in a given semester. There is a
remarkable similarity in the percentages of grades earned by both groups regarding grades that would lead to retention in a given semester.

**Research Question Three on Academic Performance – Persistence**

R3: Is there a higher persistence rate among students participating in developmental learning communities than among non-learning community students?

Research question three examined persistence rates by comparing the persistence rates of learning community students with the persistence rates of non-learning community students. In this study, persistence was operationally defined as enrollment for more than one semester within the three year timespan of the study; Fall 2009 to Fall 2011. The data file provided by Institutional Research and Planning office included for each student, information about whether or not they persisted.

A chi-square analysis revealed that the Non-LC students persisted at a significantly higher rate than did the LC students; chi-square (1) = 69.992, p<.0001. Descriptive statistics are shown in Table 9 below.

Table 9

*Persistence Rate of Learning Community and Non-Learning Community Students*

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Persisted</th>
<th>Did Not Persist</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Community</td>
<td>237 (57.4%)</td>
<td>176 (42.6%)</td>
<td>413 (100.0%)</td>
</tr>
<tr>
<td>Non-Learning Community</td>
<td>2308 (76.6%)</td>
<td>706 (23.4%)</td>
<td>3014 (100.0%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2545 (74.3%)</strong></td>
<td><strong>882 (25.7%)</strong></td>
<td><strong>3427 (100.0%)</strong></td>
</tr>
</tbody>
</table>

As can be seen from this table, the persistence rate of the LC students was 57.4 percent while the persistence rate of the Non-LC group was 76.6 percent.
Having compared the LC and Non-LC groups in the three previous questions, the following three questions examine differences between the LC1 and LC3 groups regarding the three academic outcomes targeted in the study.

**Research Question Four on Academic Performance – GPA**

R4: Is there a higher level of academic performance, as measured by GPA, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Research question four compared the academic performance, as measured by cumulative GPA, of learning community with a three-unit counseling class (LC3) to the performance of learning community students with a one-unit counseling class (LC1). For the purpose of this study, cumulative GPA as previously described was calculated from all classes in all terms that a student was present from Fall 2009 to Fall 2011. A t-test for independent samples revealed that the LC3 group earned a significantly higher GPA than the LC1 group; \( t(395.8) = 5.361, p<.0001 \). Descriptive statistics regarding this analysis are shown in Table 10 below.

Table 10

<table>
<thead>
<tr>
<th>LC Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>167</td>
<td>1.72</td>
<td>0.83</td>
</tr>
<tr>
<td>LC3</td>
<td>242</td>
<td>2.21</td>
<td>1.02</td>
</tr>
</tbody>
</table>

As can be seen from this table, the Mean GPA of the LC3 group was 2.21, while the Mean GPA for the LC1 group was 1.72.
Research Question Five on Academic Performance – Retention

R5: Is there a higher level of academic performance, as measured by retention, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Research question five compared the academic performance, as measured by retention rate, of learning community with a three-unit counseling class (LC3) with the performance of learning community students with a one-unit counseling class (LC1). For the purpose of this analysis, retention rate was defined in the same manner as described for research question two.

A chi-square analysis revealed that there was no significant difference between the two groups regarding retention rate; chi-square (1, N=3,840) = .056, p = .798.

Descriptive statistics regarding this analysis are shown in Table 11 below.

Table 11

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Successful</th>
<th>Not Successful</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>1774 (89.7%)</td>
<td>203 (10.3%)</td>
<td>1977 (100.0%)</td>
</tr>
<tr>
<td>LC3</td>
<td>1667 (89.5%)</td>
<td>196 (10.5%)</td>
<td>1863 (100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>3441 (89.6%)</td>
<td>399 (10.4%)</td>
<td>3840 (100.0%)</td>
</tr>
</tbody>
</table>

As can be seen by the table above, the LC1 students completed 1977 classes during the time period covered by the study. Of those 1977 classes, they earned grades in 1774 (89.7%) that would lead to retention in a given semester. The LC3 students completed 1863 classes during this time frame. Of those, 1667 (89.5%) earned grades that would lead to retention in a given semester. This was a remarkably similar performance level.
Research Question Six on Academic Performance – Persistence

R6: Is there a higher level of academic performance, as measured by persistence, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Research question six compared the academic performance, as measured by persistence, of learning community students with a three-unit counseling class (LC3) with the performance of learning community students with a one-unit counseling class (LC1). A chi-square analysis indicated that the LC1 group persisted at a significantly higher rate than the LC3 group; chi-square (1) = 54.943, p < .0001. Descriptive statistics regarding this analysis are shown in Table 12 below.

Table 12

<table>
<thead>
<tr>
<th>Student Group</th>
<th>Persisted</th>
<th>Did Not Persist</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>133 (79.2%)</td>
<td>35 (20.8%)</td>
<td>168 (100.0%)</td>
</tr>
<tr>
<td>LC3</td>
<td>104 (42.4%)</td>
<td>141 (57.6%)</td>
<td>245 (100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>237 (57.4%)</td>
<td>176 (42.6%)</td>
<td>413 (100.0%)</td>
</tr>
</tbody>
</table>

As can be seen by the above table, of the 168 LC1 students included in this analysis, 133 (79.2%) persisted as defined by the study. Conversely, of the 245 LC3 students, 104 (42.4%) of these individuals persisted. This reveals a considerable difference in persistence rate which will be discussed in more detail in the following chapter.
Research Question Seven on Satisfaction, Engagement, and Support

R7: Do participants in a learning community with a three unit counseling class experience greater levels of satisfaction, engagement, and support than those participants in a learning community with a one unit counseling class?

In order to measure learning community students’ perceptions this study used data from a survey tool, the Learning Community Student Questionnaire, developed and standardly administered by the institution. The psychometric properties of this tool have never been assessed. Data that were utilized for this analysis were generated by this instrument. This instrument contained three scales that were of interest in this study. They were Satisfaction, Engagement, and Support. This survey was administered by Institutional Research and Planning office to students in learning communities during Spring 2010, Fall 2010, Spring 2010, and Fall 2011. What follows is a description of the findings of analyses related to the Satisfaction, Engagement, and Support scale data. A copy of the survey is included in Appendix A.

The survey instrument included a series of questions regarding student’s perceived level of satisfaction with different aspects of the learning community, which included components such as; counseling, tutoring, and faculty availability. The survey instrument used a scale of 0 to 10 for each question, where 0 represented “not at all satisfied,” and 10 represented “completely satisfied.” Regarding the Satisfaction scale, mean scores could range between 0 and 10 points. A t-test for independent samples was conducted to determine if there was a significant difference between the LC1 and LC3 groups regarding their scale scores. Results of the analysis revealed no significant
difference between groups on the Satisfaction scale score; \( t(38.533) = 0.145, p = .886 \).

Descriptive statistics regarding this analysis are shown in Table 13 below.

Table 13

*Satisfaction Scale Scores for LC1 and LC3 Groups*

<table>
<thead>
<tr>
<th>LC Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>22</td>
<td>8.00</td>
<td>0.97</td>
</tr>
<tr>
<td>LC3</td>
<td>161</td>
<td>8.02</td>
<td>1.59</td>
</tr>
</tbody>
</table>

As can be seen by this table, the Mean scale scores for Satisfaction were very similar. Mean Satisfaction scale score for the LC3 group was 8.02, while the Mean Satisfaction scale score for the LC1 group was 8.00.

The survey instrument included a series of questions regarding student’s perceived level of engagement in various in-class and out-of-class activities. Examples of these activities included; class discussions, working with students, and talking with faculty. Mean scores on this scale could range between 0 and 10 points. Regarding the Engagement scale, a \( t\)-test for independent samples was conducted to determine if there was a significant difference between the LC1 and LC3 groups regarding their scale score. Results of the analysis revealed no significant difference between groups on the Engagement scale score; \( t (27.349) = 0.543, p = .592 \). Descriptive statistics regarding this analysis are shown in Table 14 below.

Table 14

*Engagement Scale Scores for LC1 and LC3 Groups*

<table>
<thead>
<tr>
<th>LC Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>22</td>
<td>6.0379</td>
<td>2.07</td>
</tr>
<tr>
<td>LC3</td>
<td>161</td>
<td>6.2940</td>
<td>2.12</td>
</tr>
</tbody>
</table>
As can be seen from Table 14, the Engagement scale score of both groups was very similar. The Mean Engagement scale score for the LC3 was 6.29, while the scale score for the LC1 group was 6.03.

The survey instrument included a series of questions regarding student’s perceived level of awareness of services and support available at Western Community College, such as counseling, tutoring, and feeling encouraged by instructors. The Mean scores on this scale could range between 0 and 10 points. Regarding the Support scale, a $t$-test for independent samples was conducted to determine if there was a significant difference between the LC1 and LC3 groups regarding their scale score. Results of the analysis revealed no significant difference between groups on the Support scale score; $t(35.027) = 1.753$, $p = .088$. Descriptive statistics regarding this analysis are shown in Table 15 below.

Table 15

<table>
<thead>
<tr>
<th>LC Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC1</td>
<td>22</td>
<td>8.71</td>
<td>1.33</td>
</tr>
<tr>
<td>LC3</td>
<td>161</td>
<td>8.15</td>
<td>1.96</td>
</tr>
</tbody>
</table>

As can be seen by Table 15, the mean scale scores for Support were very similar. The Mean Support scale score for the LC3 group was 8.14, while the Mean Support scale score for the LC1 group was 8.71.
**Research Question Eight on Association Between Learning Outcomes and Demographics**

R8: Is there an association between learning community academic outcomes and the following learning community participant characteristics; age, gender, ethnicity, socio-economic status and first-generation college status?

In addressing the above question, it is again noted that the Institutional Research and Planning office declined to furnish data on socio-economic status, stating that they did not trust the veracity of the information as it was gathered through the institution’s standard enrollment process.

While the first six research questions focused on the three specific academic outcomes of GPA, retention and persistence by comparing LC to non-LC groups and comparing LC1 to LC3 groups, none of these six questions sought to explore possible differences in the three targeted academic outcomes that might be associated with age, gender, ethnicity or first-generation college status. The following analyses will therefore explore associations between each of the three academic outcomes of GPA, Retention and Persistence, and the demographic characteristics of Age, Gender, Ethnicity, and First-Generation College Status.

The following four analyses will explore the association between the academic outcome of GPA with these demographic variables; age, gender, ethnicity, and first-generation college status.

Regarding the relationship between student age and GPA, a Person Product Moment correlation found no significant relationship between the two; \( r(409) = .070, p = .155 \).
Regarding gender, a *t*-test for independent samples found no significant differences in GPA between LC males and LC females; $t(402.579) = 1.889$, $p = .06$. Descriptive statistics related to this finding are shown in Table 16 below.

**Table 16**

*Group Statistics for GPA Regarding Gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>199</td>
<td>1.92</td>
<td>0.91</td>
</tr>
<tr>
<td>Female</td>
<td>208</td>
<td>2.10</td>
<td>1.03</td>
</tr>
</tbody>
</table>

Regarding ethnicity, a One-Way ANOVA revealed no significant differences among the three ethnic groups regarding GPA $[F(2, 406) = 2.523$, $p = .081]$. Descriptive statistics associated with this analysis are shown in Table 17 below.

**Table 17**

*Group Statistics for GPA Regarding Ethnicity*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>229</td>
<td>2.02</td>
<td>0.94</td>
</tr>
<tr>
<td>White</td>
<td>118</td>
<td>2.12</td>
<td>0.97</td>
</tr>
<tr>
<td>All Others</td>
<td>62</td>
<td>1.78</td>
<td>1.096</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>409</strong></td>
<td><strong>2.01</strong></td>
<td><strong>0.98</strong></td>
</tr>
</tbody>
</table>

Regarding first-generation college status, a *t*-test for independent samples found no significant differences in GPA between the first-generation and non-first-generation college students; $t(316) = 1.376$, $p = .170$. Descriptive statistics for this analysis are shown in Table 18 below.
Table 18

*Group Statistics for Cumulative GPA Regarding Generation Status*

<table>
<thead>
<tr>
<th>Generation</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>241</td>
<td>1.92</td>
<td>0.93</td>
</tr>
<tr>
<td>Not First Generation</td>
<td>77</td>
<td>1.75</td>
<td>0.85</td>
</tr>
</tbody>
</table>

The following four analyses will explore the association between the academic outcome of retention with these demographic variables: age, gender, ethnicity, and first-generation college status. As previously defined, the dependent variable is not whether a particular student was retained; rather, it is an indication of whether the grade earned for a specific course was high enough to lead to that student’s retention for a given semester. In that regard, the dependent measure to be examined in the following four analyses is retention rate. Retention rate is reported as a percentage.

An analysis was conducted to determine the association between the age of learning community students and their grade earning retention rate. A Pearson Product Movement correlation was used to examine the relationship between the two variables. Results of the analysis showed that there was no significant relationship between students’ age and the degree if their retention rate; \( r(3,840) = .024, p = .142 \).

Descriptive statistics regarding this finding are shown in Table 19 below.

Regarding Gender, a *-test for independent samples revealed a significant difference between males and females on course retention rate; \( t(32299.623) = 2.909, p = .004 \). As can be seen from Table 19, the course retention rate for females was 90 percent as opposed to 89 percent for males. While this difference of one percent is significant from a statistical perspective, it questionable as to whether a percentage difference this slight is significant from a practical perspective.
Regarding ethnicity, a One-Way ANOVA revealed no significant difference among the three ethnic groups regarding the course retention rate earned by each [F(2,3312) = 1.084, p= .338]. Retention rates for by the three ethnic groups were remarkably similar, ranging between 89 and 90 percent. Descriptive statistics for this analysis are shown in Table 20 below.

Table 20

**Group Statistics for Retention Rate Regarding Ethnicity**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>14594</td>
<td>90%</td>
<td>0.30</td>
</tr>
<tr>
<td>White</td>
<td>13053</td>
<td>90%</td>
<td>0.30</td>
</tr>
<tr>
<td>All Other</td>
<td>5568</td>
<td>89%</td>
<td>0.31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33215</strong></td>
<td><strong>90%</strong></td>
<td><strong>0.30</strong></td>
</tr>
</tbody>
</table>

Regarding Generation Status, a t-test for independent samples revealed a significant difference in retention rates generated by the two groups; \( t(19658.365) = 3.575, p < .0001 \). The first-generation students showed a slightly lower course retention rate (89 %) than the non-first-generation students (91%). While this difference of two percent is significant from a statistical perspective, it questionable as to whether a percentage difference this slight is significant from a practical perspective. Descriptive statistics related to this finding are shown in Table 21 below.
Table 21

*Group Statistics for Retention Rate Regarding Generation Status*

<table>
<thead>
<tr>
<th>Generation Status</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Generation</td>
<td>20915</td>
<td>89%</td>
<td>0.31</td>
</tr>
<tr>
<td>Not First-Generation</td>
<td>9604</td>
<td>91%</td>
<td>0.29</td>
</tr>
</tbody>
</table>

The following four analyses will explore the association between the academic outcome of persistence with four demographic variables: age, gender, ethnicity, and first-generation college status. Persistence was expressed in terms of the persistence rate within each group. In other words, if an entire group persisted, then the persistence rate would be 100 percent and expressed as a numerical value of “1.0.” If, within a group, no one persisted the persistence rate would be expressed as a numerical value of “0.00.”

Regarding the association between age and persistence, a Pearson Product Moment correlation revealed no significant finding regarding the relationship between these two variables; \( r(413) = 0.093, p = 0.060 \).

Table 22 below illustrates the association between gender and persistence, in which a t-test for independent samples revealed a significant finding regarding the association between these two variables; \( t(408.998) = 2.409, p = 0.016 \). The persistence rate among males was significantly higher than females.

Table 22

*Group Statistics for Gender Regarding Persistence*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>202</td>
<td>63%</td>
<td>0.48</td>
</tr>
<tr>
<td>Female</td>
<td>209</td>
<td>52%</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Regarding the association between ethnicity and persistence, a One-Way ANOVA revealed no significant association between ethnic group membership and persistence rate...
[F(2,410) = .082, p = .921]. Descriptive statistics related to these findings are shown in Table 23 below.

Table 23

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>118</td>
<td>57%</td>
<td>0.50</td>
</tr>
<tr>
<td>All Others</td>
<td>63</td>
<td>56%</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>413</td>
<td>57%</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Regarding the association between persistence and first-generation college status, a \( t \)-test for independent samples revealed no significant findings between groups on persistence rate; \( t(319)= 0.327, p = .744 \). The persistence rate among both groups was very similar. Descriptive statistics regarding this analysis are shown in Table 24 below.

Table 24

<table>
<thead>
<tr>
<th>Generation Status</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Generation</td>
<td>243</td>
<td>72%</td>
<td>0.45</td>
</tr>
<tr>
<td>Not First-Generation</td>
<td>78</td>
<td>71%</td>
<td>0.46</td>
</tr>
</tbody>
</table>

**Summary**

The purpose of this study was to compare the academic performance of learning community and non-learning community students using pre-existing data available from Fall 2009 to Fall 2011. Academic progress was defined by these three performance outcomes: GPA, Retention, and Persistence. Comparisons were made between the academic performance of the LC1 and LC3 learning communities. In order to measure learning community students’ perceptions, regarding Satisfaction, Engagement, and
Support, this study used data from the Learning Community Student Questionnaire developed by Institutional Research and Planning office. Regarding persistence, non-learning community students’ persistence rate was significantly higher than that of learning community students. LC1 students had a significantly higher (79.2%) persistence rate than LC1 students (42.4%). Regarding GPA, LC3 students had a significantly higher (2.21) GPA than LC1 students (1.72). No significant findings were observed between LC1 and LC3 groups regarding Satisfaction, Engagement, and Support. Regarding the association between student demographics and academic outcomes, significant findings were discovered between Retention and Gender, Retention and First-Generation College Status, and Persistence and Gender. Findings will be discussed further in the following chapter.
CHAPTER 5—DISCUSSION

Introduction

The purpose of this study was to compare the academic performance of students who had participated in a counseling class that was not linked to a learning community to the performance of students who had taken a counseling course that was part of a learning community. The setting for this study was a large urban community college in Southern California. Counseling courses included academic, personal growth, and career development subject matter. Academic performance in this study was defined by these three performance outcomes: GPA, Retention, and Persistence.

Students taking developmental education classes are more likely to be under-prepared than students testing into college level English, Reading and Math classes. Providing counseling classes, such as College Success Skills, or Freshman Seminar, is one method of counseling intervention for this group of students (Boylan et al., 1997). Counseling classes are sometimes included in learning communities, where students take linked classes as a cohort. Tinto (2000) describes learning communities as linked courses where the same group of students co-register in a cluster of classes for an entire semester. The grouped classes are often taught collaboratively. In California community colleges, learning communities are gaining popularity in hopes that they will increase the success of students in basic skills classes (CSS, 2007; Tinto, 2000, 2007).

A substantial amount of money and attention is currently being focused on the success of students in developmental education at the community college level in California. Historically, students enrolled in developmental levels of English, Reading, and Math have had lower retention and persistence rates, which was a primary reason for
the release of a report titled *Basic Skills as a Foundation for Student Success in California Community Colleges* (CSS, 2007). There is an increasing number of community colleges that are implementing learning communities to assist these students. Many of these developmental learning communities include participation by the Counseling Services in the form of a College Success course. Examining the academic performance of students who take a counseling course as part of a learning community, compared to others that do not, can have implications as to the number of these learning communities that will be offered in the future by community colleges as a means to foster student success. It can also impact how they may be modified in the future to better serve the needs of students.

**Data Analysis Strategies and Findings**

Learning community students were compared to non-learning community students to assess differences in the three academic outcome measures; GPA, Retention, and Persistence. Within the learning community cohorts, further comparisons were drawn between the learning community students who took a one-unit counseling class (LC1), to students who took a three-unit counseling class (LC3). This study focused on data available from Fall 2009 through Fall 2011. This study utilized a quantitative methodology. Because the data already existed at the outset of this study, this study was considered to employ an ex post facto design. Statistical tools included $t$-tests for independent samples, contingency tables with chi-square analyses, and One-Way ANOVAs. In addition to the three academic outcomes previously mentioned, an assessment of student perceptions was conducted by using the Learning Community Student Questionnaire. This tool was developed and standardly administered by the
Institutional Research and Planning office. The survey contained three scales that were of interest in this study, Satisfaction, Engagement, and Support. Comparisons were made between the LC1 and LC3 groups on their responses to this scale. Finally, the demographic characteristics of Age, Gender, Ethnicity, and First-Generation College Status were examined to determine if there were significant associations with the three academic outcomes for the learning community groups.

The following eight research questions were addressed in this study:

Question One: Is there a higher term GPA among students participating in developmental learning communities than among non-learning community students?

Question Two: Is there a higher retention rate among students participating in developmental learning communities than among non-learning community students?

Question Three: Is there a higher persistence rate among students participating in developmental learning communities than among non-learning community students?

Question Four: Is there a higher level of academic performance, as measured by GPA, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Five: Is there a higher level of academic performance, as measured by retention, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?
Question Six: Is there a higher level of academic performance, as measured by persistence, of students in a learning community with a three-unit counseling class than with a one-unit counseling class?

Question Seven: Do participants in a learning community with a three unit counseling class experience greater levels of satisfaction, engagement, and support than those participants in a learning community with a one unit counseling class?

Question Eight: Is there an association between learning community academic outcomes and the following learning community participant characteristics; age, gender, ethnicity, socio-economic status and first-generation college status?

A synopsis of the findings related to these eight research questions is as follows. The first three questions focused on a comparison of the learning community students to the non-learning community students who resulted in these findings:

- The mean GPA of the non-learning community students was significantly higher (2.16) than the mean GPA for the learning community students (2.01).
- There was no difference between the learning community and non-learning community students in terms of performance in their coursework that led to their semester-to-semester retention rate.
- The non-learning community students persisted at a significantly higher rate (76.6%), than did the learning community students (57.4%).

Research questions four through six drew comparisons between the LC1 and LC3 students and resulted in these findings:
• The LC3 students earned a significantly higher GPA (2.21) than the LC1 students (1.72).
• The retention rate for the LC1 and LC3 groups was identical.
• The persistence rate of the LC1 group was significantly higher (79.2%) than the LC3 group (42.4%).

Perceptions of the LC1 and LC3 students were assessed with the Learning Community Student Questionnaire which yielded three scale scores; Satisfaction, Engagement, and Support. Regarding these three scale scores, the findings were:
• There was no difference between the LC1 and LC3 groups regarding the Satisfaction scale score.
• There was no difference between the LC1 and LC3 groups regarding the Engagement scale score.
• There was no difference between the LC1 and LC3 groups regarding the Support scale score.

In order to determine if the three learning outcomes targeted in this investigation were associated with characteristics other than learning community participation, these three learning outcomes were measured to determine their statistical association with Age, Gender, Ethnicity, and First-Generation College Status.
• Regarding GPA, no significant statistical association was found between GPA and Age, Gender, Ethnicity, or First-Generation College Status.
• Regarding Retention, a statistically significant finding was observed for the association between Retention Rate and Gender as well as Retention Rate and First-Generation College Status.
• Regarding Persistence, a statistically significant finding was observed for the association between Persistence and Gender.

Discussion of Findings

In comparing the academic performance of learning community and non-learning community students, as measured by GPA, the GPA of non-learning community students was significantly higher. This was an unexpected finding. Speculation about possible factors related to this finding suggests a number of issues. First, there is a concern regarding the veracity of the data. It was possible that the cumulative GPA of learning community students may have included grades earned from classes taken prior to participation in a learning community. Second, regarding the average age, the learning community students tended to be younger (19) than the non-learning community students (22). Maturity level and level of academic preparedness typically improve over time which could explain why the older group, the non-learning community students, performed better than the younger group, the learning community students. Third, many of the learning community students had recently graduated from high school and immediately began their post-secondary education experience. Their GPA may therefore have reflected a level of difficulty adjusting to the academic rigor and college culture.

First-Generation College Status was another factor that may have accounted for unexpected findings regarding the performance of learning community students. Regarding First-Generation College Status, the learning community students were comprised of a higher percentage of first-generation college students (73.4%), compared to non-learning community students (67.6%). First-generation college students face greater challenges, and are more likely to be underprepared when starting college.
Parents who are college graduates have already successfully maneuvered through the educational system, and have a certain level of understanding regarding the system of higher education in this country. They are able to share with their children valuable lessons that they learned along the way, especially about applying for financial aid, scholarships, or utilizing campus support services such as tutoring. Parents who were not college graduates may not be as familiar with the educational system or campus support services, especially if they emigrated from another country. Because the degree level that one possesses is correlated with earning potential, it can be speculated that first-generation college students are more likely to come from lower income households, than households where one or both parents are college graduates. Thus, first-generation college students are more likely to be employed while attending college, in which case employment demands and financial stressors are more likely to interact with the challenges of school.

Regarding the composition of the learning communities, many Basic Skills students who are new to college tend to struggle with English, Reading, and Math classes. In particular, English and Math classes can be viewed as “gate keeper” courses. It is not uncommon for students to attempt developmental English and Math classes multiple times before successfully passing, and moving to the next level. Multiple failing grades in English and Math could have contributed to a lower GPA of the learning community groups.

Overall persistence was greater for non-learning community students than for learning community students within the three-year timeframe in this study. This again was an unexpected finding. Limitations in the accuracy of the persistence data could
have adversely influenced the investigation of the academic outcome of persistence. Persistence could not be determined for Fall 2011 learning community students because enrollment data were not provided for Spring 2012. This was the largest of all learning community groups in the study. Also, regarding the manner in which the data were developed by Institutional Research and Planning office, persistence also could not be determined from semester to semester. As previously stated, it was a limitation of this study that a ‘returned’ value was determined by Institutional Research and Planning office, and used as a variable to determine overall persistence within a three-year timeframe.

An additional factor of self-selection into learning communities may also have played a role in influencing the academic outcome of persistence. As previously stated, the learning communities were made up of younger students, and most were first-generation college students. It may be reasonable to assume that the students who enrolled into learning communities because they were starting college underprepared and needed the additional academic institutional support.

Persistence Rate of LC1 and LC3 Students: Persistence rates for the LC1 groups were significantly higher (79.2%) than the LC3 group (42.4%). This again was an unexpected finding. As previously stated, persistence was operationally defined as enrollment for more than one semester within the three year timespan of the study; Fall 2009 to Fall 2011. It should be noted that for the purpose of this study, Returned constituted Persistence, and Not Returned represented Did Not Persist. The LC1 students were first enrolled in 2009-2010, whereas the LC3 students were enrolled on or after 2010-2011. Persistence rates could not be determined for LC3 students who participated
in a learning community during Fall 2011, whereas the LC1 students had more opportunities to be included in the dataset as persisting. This may have contributed to the LC1 group persisting at a higher rate. Other factors that may have influenced persistence could have been the recruitment, selection, and training for learning community faculty in the LC1 and LC3 learning communities. The composition of fulltime and part-time faculty, as well as experience level of learning community faculty were not addressed in this study, but may have influenced persistence rates.

**Recommendations for Practice**

The findings in this study regarding learning community academic performance were unexpected as previously stated. It was not clear if the results had more to do with the quality of the data file, or if it was an accurate assessment of the effectiveness of learning communities as an intervention strategy for students enrolled in developmental classes. This section will discuss two recommendations that might facilitate the improvement of the program. The first recommendation involves the learning community model used at this college. The second recommendation involves the recruitment, selection, and training for learning community faculty.

First, the college may want to consider implementing an alternative model for learning communities. The learning communities in this study were an example of the “stand-alone” model. In the stand-alone model, students typically volunteer to participate for only one semester, with no follow up or future intervention. The classes in each learning community were linked by enrollment, but the integration of curriculum and collaboration among faculty may have varied in each learning community. The students in each learning community cluster of courses may have had little to no interaction with
students in the other learning community clusters, and there may have been no orientation for these students to explain requirements and benefits of the learning community. The level of curricular integration and integration of student services may not have been very high or consistent.

In contrast, this stand-alone model is an alternative to more comprehensive programs in California such as Puente and Umoja that work more intensively with the same cohort of students for an extended period of time. This time commitment may span from the time a student begins college until he/she graduates or transfers to a university. Along the way, students in these programs work more closely with counselors and faculty, which may increase the student’s sense of engagement and validation. These programs include a learning community component as well as a case management type of counseling where students work with an assigned counselor multiple times per semester.

As part of their participation in comprehensive programs, students may attend on-campus and off-campus educational and cultural activities, such as forming a student club, attending university trips, or student leadership conferences. Participating in these activities may also increase student’s sense of engagement and validation. In many cases, students are also assigned mentors that they meet with from one to two semesters. Many of the benefits stated above are not present in stand-alone learning community programs. Comprehensive programs such as these can be more expensive for community colleges to implement, and may require re-assigned time for faculty to coordinate program and student activities. This requires a higher level of administrative and faculty support. Stand-alone learning communities may not provide the same level of intensive
support services, and therefore, may not be as effective as more comprehensive programs.

A second recommendation would be to examine and improve the recruitment, selection, and training for learning community faculty. Learning communities in this study involved faculty from Math, English, Reading, and Counseling. Teaching in a learning community should involve higher levels of collaboration between instructors in each cluster than would typically be seen in a non-learning community class. A different set of faculty resources would need to be developed to train instructors on coordinating assignments in multiple classes that address common themes, and integrating these assignments into their syllabi. Teaching in a learning community should give instructors an opportunity to experiment with new collaborative teaching methods where a topic is introduced in one LC class, and continued in the other. For example, students in a counseling class may discuss stress, how it influences their academic progress, and how to manage test anxiety. This class discussion could be followed up in a linked Math class, where the instructor reinforces the application of strategies to reduce anxiety when taking exams. Specialized training and resources should be available to facilitate and encourage this type of collaboration such as in the example above.

**Recommendations for Future Research**

Recommendation One: There were issues encountered in obtaining the data for this investigation. It should be noted that the Institutional Research and Planning office was very supportive and cooperative in its efforts to provide data in a format that allowed a straightforward approach to addressing the research questions of this study. In spite of this degree of cooperation and support, obstacles were encountered. For example, the
institution’s method of defining, capturing and coding data on retention and persistence differed somewhat from those two variables as defined in this study. Concerns were previously expressed that GPA data may have included grades that were earned prior to participation in a learning community. Rather than using cumulative GPA, the semester GPA may have been a more accurate variable to analyze. Semester GPA could then be compared to the semester GPA of students enrolled in comparable non-linked classes.

Regarding persistence, this variable may not have accurately assessed the impact of counseling and learning communities in this study. Concerns were previously expressed that overall persistence within a three year term may not have been as accurate as assessing persistence from one semester of learning community participation to the next. While it is reasonable to assume that sufficient steps were taken to modify the original data set to address the research questions in a valid manner, questions remain about some of the variables for some of the cases in this study. For reasons cited above, it is recommended that future replications of this area of research be conducted with a data file that has been verified for compatibility of definitions of the three academic outcome measures that were used in study.

Recommendation Two: The current study utilized a quantitative methodology, thus it did not generate data that speaks to whether or not student’s lack of persistence had more to do with outside factors such as employment, or relocating to another community college. Therefore, a qualitative study is recommended to complement these findings, and address this limitation. The qualitative study could also be replicated to assess student perceptions regarding the long-term impacts of learning community
participation. In addition, access to a state-wide student records database would improve the accuracy of persistence data for students who relocated.

Recommendation Three: Another recommendation for future research would be to include SES data for learning community and non-learning community students. It is further recommended that the institution collaborate with Institutional Research and Planning office to develop valid measures to include SES measures in future studies. SES information could then be applied in the selection of a more representative comparison group.

Recommendation Four: This study only had data available regarding learning community students’ perceptions regarding Satisfaction, Engagement, and Support. Therefore, it is also recommended to assess non-learning community students’ perceptions regarding Satisfaction, Engagement, and Support. This information could assist in determining how these scales may have had a statistical association with the academic outcomes that were analyzed in this study.

Recommendation Five: Future studies should include data regarding the self-efficacy of learning community students. Providing student perceptions about their confidence level could have complemented the other scales used in this study. Statistical associations between self-efficacy, student confidence levels, learning community successful completion and persistence could then be analyzed.

Recommendation Six: This study could be replicated to include data for student participation in campus support services such as counseling tutoring and counseling appointments. The degree of counseling influence and tutoring were not assessed in this study.
Summary of Study

The purpose of this study was to compare the academic performance of students who had participated in a counseling class that was not linked to a learning community to the performance of students who had taken a counseling course that was part of a learning community. Academic performance in this study was defined by these three performance outcomes: GPA, Retention, and Persistence. Students taking developmental education classes are more likely to be under-prepared than students testing into college level English, Reading and Math classes. The theoretical framework for this study was based on Rendon’s (1993) Validation Theory which explored the relationship between the concept of validation and its relationship with the academic performance of non-traditional students. Rendon’s (1994a) conclusion was that non-traditional students could be transformed through the process of validation by different institutional agents. In turn, this transformation would result in more positive educational experiences. The investigator viewed participation in learning communities linked with a counseling class as the institution’s attempt to increase validation and improve student’s academic performance. This study yielded unexpected results, and additional research was recommended in order to more accurately assess the impact of this model of learning communities. The investigator further recommended that the institution consider implementing an alternative model for learning communities, from a stand-alone model to a more comprehensive model.
REFERENCES


http://www.ncde.appstate.edu/resources/reports/documents/Outstanding_JDE_V2 5-2.pdf


Thank you for providing feedback regarding the learning communities at Palomar College. We are asking learning communities students to tell us about their experiences. Your participation is very important because it allows us to make improvements to the learning communities for other Palomar students. Please take a few minutes to complete the survey.

• Your responses are completely confidential.

• The survey will take approximately 5-10 minutes.

• Please do not use the "Back" button on your browser. To back up to previous questions, use the "Back" button provided at the bottom of each page.

To begin the survey, please enter the 6-digit password provided to you by your instructor.

Password:
Satisfaction

First we have some questions regarding your satisfaction with different aspects of the learning community. For each question, please use a scale of 0-to-10, where 0 means not at all satisfied and 10 means completely satisfied.

S1. Considering your experience in this learning community as a whole, how satisfied are you with the learning community that you are in?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S2. How satisfied are you with the advising in your learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S3. How satisfied are you with the counseling you have received in your learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S4. How satisfied are you with the tutoring in your learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S5. How satisfied are you with the availability (outside of class time) of the faculty in your learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S6. How satisfied are you with your educational experience as a member of a learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S7. How satisfied are you with the integration of material across courses in your learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S8. How satisfied are you with the social activities of the learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10

S9. How satisfied are you with being with the same students in all of the classes in the learning community?

☐ 0    ☐ 1    ☐ 2    ☐ 3    ☐ 4    ☐ 5    ☐ 6    ☐ 7    ☐ 8    ☐ 9    ☐ 10
Helpfulness of Learning Community Components

For each of the following elements of the learning community, on a scale of 0-to-10 where 0 means not at all helpful and 10 means extremely helpful, please indicate how helpful you found it to be.

H1. Counseling
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

H2. Tutoring
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

H3. Integration of material across courses
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

H4. Social activities
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

H5. Being with the same students in all of the classes in the learning community
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

Activities

This set of questions asks about various activities you might have engaged in during this semester. Please respond to the questions using a 0-to-10 scale where 0 means never and 10 means very frequently.

During this semester, how often have you …

E1. participated in class discussions?
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

E2. worked with other students during class time?
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

E3. worked with other students outside of class?
☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10
E4. discussed assignments, grades, ideas, or other matters with faculty outside the classroom?

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

E5. talked to faculty about assignments, grades, ideas, or other matters with faculty in class?

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

E6. made use of student support services such as tutoring and counseling?

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

**Services and Support**

For each statement, please indicate the extent to which you agree or disagree (using a scale of 0-to-10, where 0 means *strongly disagree* and 10 means *strongly agree*).

**U1.** Being part of a learning community has helped me become aware of the services and support available at Palomar.

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

**U2.** Being part of a learning community has made it easier for me get access to support services (advising, counseling, tutoring).

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

**Education Plans and Goals**

Now we’d like to ask a few questions about Education Plans and progress toward your educational goals.

P1. Have you completed an Education Plan (that is, a form completed a counselor that outlines a sequence of courses to help you obtain your educational goal)?

   a. Yes

   b. No

   c. Don’t know

[If P1=yes]

P2. Did you complete the Education Plan prior to starting in the learning community?

[If P1<> yes or P2=no]
P3. Did your participation in the learning community help you make progress on an Education Plan?
   a. Yes
   b. No
   c. Don’t know

P4. For the statement below, using a scale of 0-to-10, where 0 means *strongly disagree* and 10 means *strongly agree*, please indicate the extent to which you agree or disagree.

Participating in a learning community has helped me progress toward my educational goals.

☐ 0  ☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

**General**

G1. In general, how beneficial has it been for you to participate in this learning community?
   a. Not at all beneficial
   b. A little beneficial
   c. Moderately beneficial
   d. Very beneficial
   e. Extremely beneficial

G2. How beneficial would you say it would be for you to participate in another learning community after you have completed this one?
   a. Not at all beneficial
   b. A little beneficial
   c. Moderately beneficial
   d. Very beneficial
   e. Extremely beneficial
G3. What would you say has been the greatest benefit of participating in a learning community?


G4. Do you have any recommendations about how to improve the learning communities?


G5. Do you have any other comments about the topics addressed in this survey?

