AN EXAMINATION OF STUDENT OUTCOMES IN A DEVELOPMENTAL EDUCATION

LEARNING COMMUNITY FOR ENGLISH LANGUAGE LEARNERS AT A

COMMUNITY COLLEGE IN THE PACIFIC

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A Dissertation

Presented to

The Faculty of the Department of Educational Leadership

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In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

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by

Andrea S. D. Hazzard

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DEDICATION

To Terry, my life partner, thank you for always believing in me and telling me to go and write. I couldn't have completed this dissertation without your support. Well, I could have, but it would have been a harder and lonelier journey.

To any doctoral student who happens to see this page and is experiencing doubt about the doctoral journey or their ability to write a dissertation, to you I say, "You got this. Silence your inner critic. Believe in yourself. Go and write."

ABSTRACT

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Learning communities (LCs) restructure discrete courses into linked courses to promote connections between students, faculty, and course content. LCs are cited as a best practice in developmental education (DE) and a high-impact practice in higher education. With an increasing number of English language learners (ELLs) attending community colleges and over 50% of community college students placing into DE, the use of LCs for ELLs who place into DE appears to be an appropriate pedagogical approach. However, there are a limited number of LC studies which focus primarily on the academic success of DE ELLs.

The purpose of this nonexperimental quantitative study was to utilize a longitudinal explanatory design to investigate the outcomes of ELLs in a DE LC at a community college in the Pacific. Utilizing Tinto's theoretical framework for student departure, this study investigated to what extent ELLs who placed into a DE LC experienced more positive outcomes than comparable students enrolled in discrete courses. This quantitative study utilized institutional archival data to examine the persistence, retention, and academic achievement of the LC as compared to non-LC students.

In terms of the results, the LC students' average retention and academic achievement were higher than the non-LC students'. Conversely, the non-LC students' average persistence was higher than the LC students'. However, the outcome differences

between the LC and non-LC groups were not statistically significant. Demographic

differences between the LC and non-LC groups which may account for the lack of

statistically significant findings are discussed. Also discussed is the extent to which the

LC students' performance was higher than it might have been had the students been

enrolled in discrete courses. When compared to the findings from other LC studies

within the literature, the findings from this LC study appear to be favorable.

Overall, this study showed tentatively positive results for utilizing LCs as a

pedagogical approach for DE ELLs, many of whom enter college academically

underprepared and fail to persist to graduation. Implications and directions for future

research are discussed. Although more research is needed, LCs appear to be a promising

approach for promoting the academic success of DE ELLs.

KEY WORDS: Learning communities, English language learners, English a second
language, Developmental education, Community college students, Persistence, Retention,
Academic achievement

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CHAPTER I

Introduction

With the growing number of immigrants in higher education (Kim & Diaz, 2013; Teranishi, C. Suarez-Orozco, & M. Suarez-Orozco, 2011) and expected increases in the number of English language learners (ELLs) attending college (Office of English Language Acquisition [OELA], 2017; Rolstad, Mahoney, & Glass, 2005), institutions of higher education must appropriately address the needs of ELLs. Providing access to higher education without support is not enough (Casazza, 1999; Engstrom & Tinto, 2008). With over 50% of community college students placing into developmental education (Bailey, Jeong, & Cho, 2010), particular attention needs to be given to developmental education students who are also ELLs. Accordingly, it is incumbent on developmental education programs and community colleges to provide the most responsive educational approaches to meeting the needs of ELLs in higher education.

According to the United States' Office of English Language Acquisition (OELA, 2017), for the 2014-2015 school year, there were 4.8 million ELLs in grades K-12, which comprised 9.6% of the K-12 population. In 2013, 75% of high school graduates who had completed high school in four years enrolled in a postsecondary institution (National Center for Education Statistics [NCES], 2017). Therefore, it stands to reason that many ELLs will continue on to institutions of higher education. With regard to ELLs' college readiness, for the 2014-2015 school year, only 24.6% of ELLs in K-12 scored at the proficient level on standardized English tests (OELA, 2017). Accordingly, many ELLs will likely enter higher education institutions underprepared in terms of their academic English proficiency. In fact, for the 2013-2014 school year, ELLs' high school

graduation rate (62.6%) was lower than that of economically disadvantaged students

(74.6%) and students who identified as Asian/Pacific Islander (89.4%), White (87.2%),

Hispanic (76.3%), Black (72.5%), and American Indian/Alaska Native (69.6%) (OELA,

2017). Collectively, the K-12 data on ELLs suggests that many of these students

experienced academic difficulties during their primary and secondary education. It is

likely that these ELLs will be similarly challenged when they arrive at postsecondary

institutions.

In 1995, Ignash noted the lack of postsecondary national data on ELLs.

Specifically, there was no systematic data collection on ELLs' retention and persistence

through English as a second language (ESL) coursework to credit-level coursework.

Utilizing Belcher's institutional research at Miami-Dade Community College in 1988,

Ignash drew attention to the ESL students' low college completion rates. Ignash (1995)

stated "15% of ESL students who started at [the] advanced level and less than 1% of

those who started at the beginning-level ESL graduated with an associate's degree from

college" (p. 17). In 1997, Kurzet stated:

> It is . . . those with limited English skills that will likely challenge community
>
> colleges most in the coming decades. Taken together, students with limited
>
> English skills provide greater diversity of student backgrounds, need, and goals
>
> than any previous group the community college has educated. (p. 53)

In the twenty plus years since Ignash's (1995) and Kurzet's (1997) observations

of ELLs in community colleges, academics have continued to highlight the numerous

challenges that still exist for ELLs in higher education. These challenges include a lack

of attainment of academic literacy (Curry, 2004), feelings of isolation (Almon, 2015;

Harrison & Shi, 2016; Song, 2006), and difficulties negotiating one's cultural and linguistic identity (Almon, 2015; Jehangir, 2008). Additional challenges, which are common to most college students, include balancing school with full-time employment and family obligations (Almon, 2015; Lorch, 2013; Song, 2006), a lack of finances (Almon, 2015; Lorch, 2013; Song, 2006), and failure to persist to graduation (Tinto, 2012).

Tinto's (1993) research on why students do not complete college highlighted the educational differences between two- and 4-year postsecondary institutions. Tinto stated that students' backgrounds, life circumstances, and reasons for pursing education oftentimes differ between students enrolled at 2-year and 4-year colleges. An additional difference is the manifestation and scope of developmental education at 2-year versus 4-year institutions. According to Boylan (2002), developmental education refers to "courses or services provided for the purpose of helping underprepared college students attain their academic goals" (p. 3). Developmental education courses and services are present at both 2-year and 4-year institutions. The mission of community colleges is to provide higher education access, particularly to nontraditional or minority groups including older adults, students of color, students from lower socioeconomic groups, immigrants, and those who are academically underprepared (Boswell, 2004; Kim & Diaz, 2013). Accordingly, developmental education is more prevalent at the 2-year colleges given the higher number of students who need assistance in attaining their academic goals (Boylan & Saxon, 2012).

The use of learning communities is one pedagogical approach which appears to have promise for promoting the success of developmental education students (Boylan,

2002; Brownell & Swaner, 2010) and ELLs (Engstrom & Tinto, 2008). A learning community is the linking of two or more courses (Tinto, 1997). However, many learning communities go further and embed support services such as counselling, tutoring, and community-based experiences (Smith, MacGregor, Mathews, & Gabelnick, 2004; Weiss, Visher, Weissman, & Wathington, 2015). The extent to which learning communities might be beneficial to ELLs who place into developmental education warrants further examination.

Statement of the Problem

Learning communities are recommended as a best practice to promote the success of developmental education students (Boylan, 2002), underprepared students (Brownell & Swaner, 2010; Engstrom & Tinto, 2008), and first-year college students (Kuh, 2008). With the number of ELLs increasing at community colleges (Kim & Diaz, 2013; Teranishi et al., 2011) and over 50% of community college students placing into developmental education (Bailey, Jeong, & Cho, 2010), the use of learning communities for ELLs who place into developmental education appears to be an appropriate pedagogical approach. However, there are a limited number of learning community studies that focus primarily on the academic success of developmental education ELLs.

A systematic literature review revealed a lack of empirical studies on the efficacy of using learning communities for ELLs who place into developmental education. In the past seven years, there was only one empirical study (Smith, 2010) published in a peer-reviewed journal which focused on ELLs in a developmental education learning community. Smith's (2010) quantitative study found that ELLs who placed into developmental education felt supported in learning communities programs. Smith's

finding has positive implications for the use of learning communities with ELLs who are enrolled in developmental education.

The majority of developmental education learning community studies (e.g., Barnes & Piland, 2013; Butler & Christofili; 2014; Engstrom & Tinto, 2008; Lorch 2013; Schnee, 2014; Tai & Rochford, 2007; Weiss et al., 2015) focus on learning communities where the majority of the participants, if not all, spoke English as a first language. Schnee's (2014) qualitative study of 15 developmental education students included three ELLs. These students shared that they retrospectively valued their developmental education learning community experience once they advanced in coursework. In a wide-scale study of learning communities at five community colleges, Engstrom and Tinto (2008) similarly found that ELLs reported feeling comfortable sharing their ideas in class because of their learning community experience. Jehangir's (2008) learning community study focused on low-income first-generation students; it is likely some of the participants were immigrants and spoke English as a second language. Jehangir found that learning communities with a multicultural focus assisted students in experiencing a sense of belonging and bridging their social and academic lives. Given learning communities' potential to positively impact ELLs who place into developmental education and the current dearth of empirical studies which focus on academic outcomes for ELLs in developmental education learning communities, more research is needed. Because of developmental education's mission to provide comprehensive student support (Boylan, 2002; Boylan & Saxon, 2012) such that students satisfactorily complete their gateway college courses (Boylan & Saxon, 1998; 2012), research on ELLs' persistence,

retention, and academic achievement in developmental education learning communities is needed.

Purpose of the Study

The purpose of this nonexperimental quantitative study was to utilize a longitudinal explanatory design to investigate the outcomes of ELLs in a developmental education (DE) learning community (LC) at a community college in the Pacific. Unlike most learning community studies, which either focus on first language speakers of English or include some ELLs as participants, this study focused on researching a developmental education learning community program where all of the participants are ELLs. Additionally, whereas most learning community studies either focus exclusively on credit-level courses (e.g., Popiolek, Fine, & Eilman, 2013; Ward & Commander, 2011) or pair upper level developmental courses with a credit-level course (e.g., Butler & Christofili, 2014; Garretson, 2010; Lorch, 2013; Schnee, 2014), this study focused on the linkage between three developmental education courses for students who have placed into the lowest level of developmental education for mathematics and English. Utilizing Tinto's (1993) theoretical framework for student departure, this study sought to investigate if ELLs who placed into a DE LC would experience more positive outcomes than their counterparts enrolled in a traditional discrete courses (i.e., nonlearning community). This quantitative study utilized archival data to examine the persistence, retention, and academic achievement of the learning community students as compared to nonlearning community students. Ideally, results from this study will inform the extent to which learning communities are an appropriate pedagogical approach for developmental education students who are second language learners of English.

Definitions

This dissertation includes terminology frequently utilized in higher education literature. To ensure that there is a shared understanding of the terms employed in this study, definitions have been provided. This section focuses on the nomenclature for students' who are learning English as a second language, in addition to the study's variables of persistence, retention, and academic achievement. Because this dissertation focused on developmental education and learning communities, associated terminology is also discussed.

English Language Learners (ELL) and English as a Second Language (ESL). Within the literature, there are various terms used to describe learners of English whose first language is another language. An extensive discussion on the various terminology used to refer to ELLs comprises part of this dissertation's literature review. For this dissertation, the term ELL is primarily utilized when referring second language learners of English. ELL is preferred because it recognizes that although English is not the speaker's mother tongue, English is one of many other languages in which the speaker might be fluent. A secondary term, *English as a second language (ESL)*, is also utilized in this dissertation because of the term's frequency in the literature and ESL's recognition as a field of study. ESL will be the preferred term when referring to courses taken by ELLs and when a modifier is needed to discuss faculty and programs in relation to ELLs.

Persistence. Persistence is usually viewed from the perspective of the student and refers to a student's ability to remain enrolled in college (Tinto, 2012). Even though the terms *persistence* and *retention* are sometimes used interchangeably (e.g., Almon, 2015; Ignash, 1995), in this dissertation, persistence is a short-term marker of student

success in higher education. Persistence refers to the extent to which a student who

began a course completed the course, earning an A, B, C, or No Pass (NP). Said another

way, the student did not withdraw from the course. Within the field of developmental

education, Boylan (2002) employs the term *semester retention*, drawing attention to the

importance of measuring the extent to which students complete their semester courses. In

this dissertation, because retention refers to a longer term marker of success, the term

persistence, as opposed to semester retention, is used to refer to semester course

completion.

Retention. In the higher education literature, retention is considered an

institutional marker of student success associated with graduation rates (Tinto, 2012).

Specifically, retention refers to the extent to which a student remains at an institution as

evidenced by continued enrollment. For the purposes of this study, retention is

operationalized as enrollment in at least one course in the semester succeeding the

learning community semester (i.e., postlevel one semester). For the fall learning

community cohorts, retention refers to enrollment in the spring semester. For the spring

learning community cohort, retention refers to enrollment in either summer or fall, given

that many students at the research site choose not to attend summer classes because of

limited financial support available in summer or a desire to be home during the break.

Academic achievement. Academic achievement and a program's ability to meet

its students' needs are often examined in terms of pass rates and grades (Boylan & Saxon,

2012). For the purposes of this study, academic achievement is operationalized as the

final course grade (based on a 4.0 scale) in the level one developmental education

English course, which is one of the three learning community courses. The level one

developmental English course is a 6-credit course for which there are 10 contact hours. The other learning community courses are mathematics, a 3-credit course with four contact hours, and computers, a 3-credit course with three contact hours. Given the intensity of the developmental English course, the overall importance of literacy for college success (Boylan, 2012), and the relevance of English for ELLs' language development needs, focusing on the English course to measure academic achievement was appropriate.

Developmental education. Developmental education is a holistic approach to education, including both courses and services, to assist underprepared college students achieve academic success (Boylan, 2002). Boylan (2002) explained that the term *underprepared students* denotes students who need assistance developing their academic or affective skills to succeed in college. In this study, the preferred term *developmental education students* is utilized when referring to student who place into developmental education. The term *underprepared students* is utilized when this researcher discusses articles where the focus is on underprepared students, as opposed to developmental education students. Developmental education courses are often considered pre-college noncredit courses (Boylan, 2002). In this study, a distinction is maintained between *developmental* and *credit-level* coursework. At times, the synonym *college-level* is utilized in place of credit-level as a modifier. Similarly, the term *noncredit* level is utilized in place of developmental as a modifier.

Learning communities. Learning communities link two or more courses designed to promote student-student, student-faculty, and student-coursework connections (Tinto, 1997; Zrull, Rocheleau, Smith, & Bergman, 2012). In this

dissertation, learning communities are discussed in relation to independent stand-alone courses. The term *traditional* coursework refers to *discrete* courses (i.e., *nonlearning community* courses), in contrast to linked courses which comprise a learning community. The terms traditional, discrete, and nonlearning community are used interchangeably throughout this dissertation.

Research Questions

Within the context of higher education, markers of academic success include course completion, subsequent semester enrollment, and earning minimum grade requirements. To that end, this quantitative study examined the persistence, retention, and academic achievement of ELLs in a developmental education learning community program. The research questions for this study were as follows:

1. How does the persistence (defined as not withdrawing and earning an A, B, C, or NP in DE level one English course) of ELLs in a DE LC program compare to the persistence of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

2. How does the retention (defined as course enrollment in the subsequent semester after the DE level one semester) of ELLs in a DE LC program compare to the retention of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

3. How does the academic achievement (defined as DE level one English final course grade based on a 4.0 scale) of ELLs in a DE LC program compare to the academic achievement of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

These research questions were framed by Tinto's theory of student departure as it relates to student success and the pedagogical use of learning communities. Tinto's (1993) theory of student departure is discussed further in the next section.

Theoretical Framework

To understand Tinto's positive stance on learning communities, it is helpful to understand Tinto's (1993) theory of individual student departure from higher education, which is described in the second edition of his seminal book *Leaving College*. According to Tinto (2012), he first published his theory of student retention in 1975 in a *Review of Education Research* article. In 1983, he expanded his theory in the first edition of *Leaving College*. Then, in 1993, he modified the theory in the second edition of *Leaving College*. This dissertation uses Tinto's revised theory as described in the second edition of *Leaving College*.

Tinto (1993) devoted a chapter in the second edition of *Leaving College* to explaining the development and parameters of his theory of individual student departure from higher education institutions. Tinto maintained that earlier descriptions about student retention fell short as theories because they lacked an explanatory element linking causes to results. Tinto's theory, in contrast, puts forth a comprehensive overview highlighting the degree of interconnectedness between a student's life and an institution's actions (i.e., causes) and the facets involved in a student's departure from an institution (i.e., results).

Tinto's theory is sociologically-based and maintains that student departure, and by extension retention, is not simply the result of a student's action or failures. According to Tinto (1993), student departure is the result of student decision-making,

institutional actions, and the interplay between the two. In contrast to psychological theories, Tinto's theory does not put the responsibility of student departure solely on individual students and their choices and motivation. Rather, Tinto's sociological theory emphasizes the role of the institution in creating opportunities for students to make academic and social connections. Tinto (1993) maintained that the quality of these connections contribute to students' decisions to persist or depart. According to Tinto, the interconnection between the student and the institution influences a student's retention or departure. To fully understand the scope of Tinto's theory of student departure, it is helpful to examine the two main sociological theories from which Tinto derived his theory.

Background of Tinto's theory of student departure. Tinto's theory development drew heavily from Van Geep's 1960's sociological work with traditional societies and the notion of membership and Durkheim's 1950's sociological study of suicide in different societies (Tinto, 1993). From Van Geep's 1960's work, Tinto obtained the transition process from outsider to integrated member, which parallels a new college student's acclimation to college life. Tinto proffered that just as a society offers opportunities and rituals to mark movement away from old associations to new ones, institutions of higher education should do the same to facilitate students' transition to college life. From Durkheim's 1950's work, Tinto focused on the different spheres that an individual occupies and the notion that the quality of one's membership within a group was pivotal to keeping members of that society engaged. Tinto built upon Durkheim's claim that suicide rates would be higher in societies where members could not find a place to engage and establish membership. Tinto stressed that Durkheim's work was not

meant to be a commentary on suicide among college students. Instead, Tinto maintained

that Durkheim's findings could be adapted to examine students' connections to groups

within an institution and better understand why students leave institutions of higher

education.

      Development of Tinto's theory of student departure. Tinto's (1993) theory

involves three stages: separation, transition, and incorporation. Drawing from Van

Geep's 1960's work, Tinto stated that new college students go through the stages of

separation and transition. During this time, a student likely experiences stress negotiating

old and new relationships and communities. However, Tinto asserted that "the problems

associated with separation and transition to college are conditions that, though stressful,

need not in themselves lead to departure" (p. 98). Tinto stressed that an individual's

willingness to remain enrolled plays an important role, as does the external assistance

they receive. Programs and services, such as first-year programs, designed specifically to

assist students in their transition to college life, can support new students forming of new

relationships (Tinto, 1993). Once students have transitioned into college life, the final

stage is incorporation into college life. Tinto interchangeably used the terms

incorporation and *integration* to refer to this last stage of membership. Tinto maintained

that it is at the incorporation stage where an institution's actions play a crucial role. Tinto

explained, "Without external assistance, many [students] will eventually leave the

institution because they have been unable to establish satisfying intellectual and social

membership" (p. 99).

      Drawing from Durkeim's work, whereby failure to integrate into a society's social

and intellectual communities was hypothesized to lead to suicide, Tinto (1993) put forth

that the communities available to students within higher education institutions affect if students persist or depart. Tinto stated "Specifically, one has to inquire as to the social and intellectual character of an institution, and the student and faculty communities that comprise it, and the mechanisms which enable individuals to become integrated as competent members of those communities" (p. 104). To that end, Tinto asserted that institutions interested in retaining students need to examine the manner and extent to which the institution promoted the integration of students into the college's social and intellectual life.

Despite the fact that Tinto (1993) drew from the sociological work of Durkeim and Van Geep to create his theory, Tinto acknowledged that a college environment is not a society per se. Tinto explained that colleges are comprised of numerous communities whereby a dominant culture prevails over periphery cultures. These communities are found in academic and student services domains. Accordingly, students can integrate into both domains either through the dominant culture or through periphery cultures. Tinto stressed that membership in a community, regardless of that community's location in terms of cultural dominance, was key. However, Tinto acknowledged that in the academic domain, a student's membership requires academic performance to minimum grade standards such that academic progress occurs. This requirement for minimum participation is less so in the social domain. In fact, Tinto stated that the degree of integration and membership in academic and social domains are mutually exclusive and can vary accordingly. Additionally, within the academic and social realms, membership can occur via formal and informal means. Academic formal means include interactions between faculty and students inside the classroom. Academic informal interactions

include encounters with faculty outside of the classroom and might include discussions

about academics during an office visit or mutual attendance at academic campus event.

Social formal interactions include peer interactions within the classroom setting. Social

informal interactions include exchanges with peer, faculty, and staff on campus (i.e.,

outside the classroom setting). Social informal interactions with faculty might include

mutual attendance at a campus social event or informal conversations on campus about a

student's well-being. Impacting students' formal and informal integration into academic

or social communities are external factors, such as family, work, and residence (i.e., on

campus living versus off campus living). However, Tinto emphasized that these external

factors play a secondary role in students' departure, of which there are two types, forced

and voluntary. Forced departure is the failure to retain a student due to the student's

failure to integrate because of institutional or personal reasons which usually involves a

lack of support of some kind. Voluntary departure is failure to retain a student because of

a student's desire to transfer to another institution to pursue their education.

The final aspect of Tinto's theory of individual departure recognizes the role of

the individual student. Tinto (1993) stated: "To move to . . . a theory of individual

departure, one has to take account of the personal attributes of individuals which

predispose them to respond to given situations or conditions with particular forms of

behavior" (p. 110). Tinto referred to these dispositions as *expectations* and *motivations*.

Tinto asserted that expectations are the educational and occupational goals toward which

a student's education is directed. Motivation, on the other hand, is an individual's

willingness to work toward said goals (Tinto, 1993).

Description of Tinto's theory of student departure. Tinto (1993) described his

model of student departure from institutions of higher education as longitudinal,

interactional, and sociological in character. Tinto included elements which impact a

student's decision to depart such as "adjustment, difficulty, incongruence, isolation,

finances, learning, and external obligation or commitments" (p. 112). Furthermore, Tinto

asserted that the model is explanatory in that "the model seeks to explain how

interactions among different individuals within the academic and social systems of the

institutions and the communities which comprise them lead individuals of different

characteristics to withdraw from that institution prior to degree completion" (p. 113).

Returning to his acknowledgement that a student's expectations and motivations play a

role in their decision to leave, Tinto stated that contextualizing a student's desire to leave

is important. That is, according to Tinto, "the impact of individual attributes cannot be

understood without reference to the social and intellectual context within which

individuals find themselves" (p. 113). Revisiting the sociological and interactional nature

of his theory, Tinto posited that an institution shapes its academic and social

communities, which indirectly impacts students' intentions and behaviors.

To summarize Tinto's theory of student departure, it is best to turn to Tinto's own

words:

Broadly understood, [the model] argues that individual departure from institutions

can be viewed as arising out of a longitudinal process of interactions between an

individual with given attributes, skills, financial resources, prior educational

experiences, and dispositions (intentions and commitments) and other members of

the academic and social systems of the institution. The individual's experience in

those systems, as indicated by his/her intellectual (academic) and social (personal) integration, continually modifies his or her intentions and commitments. Positive experiences – that is, integrative ones – reinforce *persistence* [emphasis added] through their impact upon heightened intentions and commitment both to the goal of the college completion and to the institution. . . . Negative or malintegrative experiences serve to weaken intentions and commitments, especially commitment to the institution, and thereby enhance the likelihood of leaving. (p. 113)

Application of Tinto's theory of student departure to learning communities.

Tinto (1997; 2000; 2003; 2012) has long asserted that if institutions of higher education want to promote learning, they would recognize the value of shared learning and restructure discrete courses into linked or themed courses (i.e., learning communities). Tinto (2012; 2003; 2000) explained that learning communities promote connections between students, between students and faculty, and between students and course content. Because students are more engaged academically and socially, they persist at a higher rate than their counterparts enrolled in traditional discrete courses. Tinto's (1993) theory of student departure purports that students will persist and be retained if they feel academically and socially connected (i.e., integrated). Furthermore, Tinto (2012; 1997) stated that students learn more because of the shared academic experiences that learning communities offer.

Tinto (2012; 2000) maintained that the classroom is the primary location of academic and social engagement for students and where faculty shape engagement through their pedagogical choices. The importance of the classroom was discussed by Tinto (1993) in his theory of student departure. For nonresidential students who

commute to campus and have external obligations (i.e., the majority of students at 2-year colleges), the classroom experience is essentially their institutional experience. Therefore, the classroom offers formal interactions and opportunities for academic integration and social interactions. In closing his discussion on the role of faculty and the classroom, Tinto (2012; 2000) argued that pedagogical approaches such as learning communities offer students the ability to connect their academic and social experiences from the classroom outwards toward to the larger college community. Consequently, students are more likely to persist, experience academic success, and be retained by their institutions.

Educational Significance

In terms of this dissertation's educational significance, Kurzet (1997) stated, "Taken together, students with limited English skills provide greater diversity of student backgrounds, needs, and goals than any previous group the community college has educated" (p. 53). A review of the literature highlights that the number of ELLs in higher education is increasing (Kim & Diaz, 2013; Teranishi et al., 2011) and that many of these students face academic, linguistic, and cultural difficulties (Almon, 2015; Harrison & Shi, 2016; Laanan, Jackson, & Stebleton, 2013; Lorch, 2013; Song, 2006), particularly if they arrive academically underprepared and place into developmental education. Therefore, research on the efficacy of learning communities for DE ELLs will allow for more informed decisions regarding the use of learning communities with ELLs who place into developmental education. This study will (a) increase knowledge regarding using a developmental education learning community where all the participants are ELLs, and (b) shed light on a learning community program designed for students who place into the

lowest level of developmental English and mathematics. Furthermore, this study is the first empirical study of the use of developmental education learning communities in U.S.-affiliated Pacific community colleges, where ELLs comprise the majority of the student population.

An increased understanding of how best to address the needs of ELLs who place into developmental education will maximize opportunities for these students' success in college, which will lead to improved career and quality of life options after college. According to the National Center for Education Statistics (NCES, 2017), in the United States, the higher a young adult's (aged 25-34) degree, the higher their income level. In 2014, the median full-time salary for those aged 25-34 who held bachelor's degrees was $49,900 compared to $35,000 for those who held associates' degrees (NCES, 2017). High school and GED diploma holders in the same age category had a median salary of $30,000 (NCES, 2017). The reality is that completing college is linked to better job opportunities and standard of living.

It is also hoped that this study will contribute to the literature on the efficacy of learning communities for DE ELLs, on which there is currently a limited amount of information. This study will shed light on learning community outcomes for ELLs who place into developmental education. More specifically, by examining persistence, retention, and academic achievement, this study will assist in determining the appropriateness of learning communities for ELLs who place into the lowest level of developmental education English and mathematics.

Delimitations

This study was delimited by its focus on a learning community program for developmental education English language learners at a community college in the Pacific. Focusing on this particular learning community is a unique contribution to the study of learning communities because the developmental education learning community is comprised of all ELLs. Most other learning community studies focus on students who do not speak English as a second language. If they do include ELLs, then quite often the context is not developmental education.

This dissertation utilized a longitudinal explanatory quantitative research design to gain an understanding of the students' outcomes in a developmental education learning community program for ELLs. The purpose of this study was to shed light on this community college's learning community program and the extent to which the learning community model promoted the success of DE ELLs. Given the context of this quantitative study, generalizations from this study to other contexts should be made with caution.

Limitations

The researcher had insider experience with the learning community program that was studied. The researcher served as the program's coordinator and as a learning community English instructor. Once the researcher decided to study the program approximately three years ago, she resigned from both learning community positions to distance herself from the program. Although the researcher's prior experience with the program gave her valuable insider knowledge of the context of the learning community, she was also aware that any prior experience could be perceived as a limitation were she

to anticipate positive results. As the researcher analyzed and interpreted the findings from this study, she remained cognizant of her past affiliation with the program and worked objectively with the data collected. To that end, she cross-checked her findings and interpretations with an expert quantitative researcher to address any potential bias. Furthermore, because this was a nonexperimental study, the extent to which differences exist was described; however, causality could not be inferred.

This study will contribute the literature on learning communities. Generalizability of this study's findings need to be considered with caution given the importance of educational context. As previously mentioned, the fact that this study was conducted at a community college in the Pacific offers a unique contribution to the field. The developmental education learning community program studied was comprised of all ELLs. In the existing literature, the presence of ELLs in a developmental education learning community was usually limited to a few students. If the learning community was comprised of language-minority students, it was often not at the developmental level, but rather at the credit-level. However, what this study offered in terms of its uniqueness is also linked to the study's limitations in terms of generalizability.

One of the main limitations to be considered was that the population of students in this study share a common Pacific cultural and linguistic background. Therefore, the students' experience in the learning community program could have been influenced by their cultural and linguistic background. That is, the students' experience and outcomes in this study might not be comparable to ELLs from other cultural and linguistic backgrounds. Accordingly, participants in this study were in a relatively homogenous

learning community program, whereas ELLs in the US might be in more linguistically and culturally diverse learning communities.

Another limitation to consider is that this learning community was created for students entering at the lowest developmental level (i.e., with the lowest level English and mathematical skills). It is possible that the experience of these students might differ from upper-level developmental education ELLs and credit-level ELLs in learning communities. Similarly, this study's learning community program linked three specific courses (English, mathematics, and computers). The learning community experience of developmental education ELLs might be impacted if a different number of courses were linked or if the content of those courses varied.

A final limitation to be considered is that this learning community program was specifically for new students entering the college for the first time. It is possible that DE ELLs who are continuing their studies might have different learning community outcomes as compared to students who are new to the college. For example, students' prior experience and existing relationships at the college might affect the extent to which they are willing to form relationships with students in the learning community and engage in activities outside of class.

CHAPTER II

Literature Review

With the rising number of immigrants attending community colleges (Kim & Diaz, 2013; Teranishi et al., 2011) and over 50% of community college students placing into developmental education (Bailey, Jeong, & Cho, 2010), the percentage of English language learners (ELLs) enrolled in developmental education also is increasing. To best meet the needs of these students, it is imperative to understand who ELLs are and what their educational needs encompass. It is also important to understand the scope of developmental education, especially as it relates to English literacy development. Accordingly, it is incumbent to understand why learning communities might be a viable educational approach for this particular student population.

To situate this research study, a comprehensive review of the relevant literature is provided. Specifically, the literature on ELLs in higher education and their corresponding needs is reviewed. An overview of developmental education (DE) is also discussed. Within the context of developmental education, the teaching of literacy, an essential academic competency for ELLs, is also highlighted. The research on learning community studies is reviewed and the extent to which learning communities might be a beneficial pedagogical approach for DE ELLs is explored. The literature as it relates to this study's variables (persistence, retention, and academic achievement) and DE ELLs in higher education is also examined. The literature review begins with an explanation of how the literature review process was conducted.

First Database Search and Establishing a Gap

Key articles for this literature review were first obtained from a systematic search of select academic databases (*Academic Complete, ERIC, and Education Source*) in mid-June through early July, 2014. The initial search terms included variations (with and without quotations) of developmental education and English as a second language. This initial search yielded three key articles which served as impetus for this study:

1. *Quality versus Quantity in the Delivery of Developmental Programs for ESL students* by Kurzet (1997), which focused on ESL program implementation and improvement at Portland Community College.

2. *Immigrants in Community Colleges* by Teranishi, C. Suarez-Orozco, & M. Suarez-Orozco (2011), which discussed the presence of immigrants in the US and the ways in which community colleges can respond.

3. *The Big Picture: A Meta-analysis of Program Effectiveness Research on English Language Learners* by Rolstad, Mahoney, and Glass (2005), an empirical meta-analysis study focusing on K-12, which provided an overview of the increasing number of second language learners in the U.S. population and in U.S. territories and protectorates.

Terminology and literature gaps. In analyzing these three articles, it became apparent that the number of ELLs was increasing in the US and that colleges needed to be able to respond accordingly to the needs of these learners. Additionally, it also became evident that there were multiple terms used to refer to students for whom English was a second language. Further database searches utilizing the terms found in the three articles, including *English language learner* and *immigrant,* were conducted. The term *remedia**

(a wild card search to encompass related terms such as *remediation* and *remedial*) was utilized as a substitution for developmental education. This approach yielded the article entitled *Feeling Supported: Curricular Learning Communities for Basic Skills Courses and Students Who Speak English as a Second Language* by Smith (2010). This article, in conjunction with the prior three articles, helped to identify potential gaps in the literature. In short, there appeared to be (a) a lack of articles on how best to meet the needs of ELLs who placed into developmental education, (b) a lack of studies on the use of learning communities with DE ELLs.

An additional gap that became apparent was the multiple ways in which researchers referred to ELLs. It was difficult to locate a comprehensive review of the various terms used to describe ELLs. These gaps in the literature led to (a) the formation of this dissertation's research questions on the use of developmental education learning communities with ELLs in higher education, (b) the content and organization of this chapter's literature review, with specific attention given to ELLs' needs and the terminology used to refer to this population, and (c) a comprehensive review of persistence, retention, and academic achievement as it relates to DE ELLs.

Inclusion and exclusion criteria. To the extent possible, articles which focused on community colleges were included because researchers have established that language minority students tend to choose community colleges over 4-year institutions (Kim & Diaz, 2013; Kurzet, 1997; Teranishi et al., 2011). Also included were articles that focused on ELLs' presence in the US to establish a rationale for why higher education institutions should be concerned about this particular population. When possible, articles on learning communities and their impact on ELLs, developmental education students, or

community college students were included. The researcher remained open to articles that documented educational approaches other than learning communities that might be beneficial to ELLs in higher education. The researcher's purpose in doing so was (a) to determine if the learning community model might be adapted to include that approach into its framework, and (b) to determine if the approach might be a pedagogical approach commonly utilized in learning communities. Any empirical studies on the study's specific areas of interest or the variables (persistence, retention, and academic achievement) as they related to DE ELLs were included.

In general, articles that did not focus on the study's areas of interest were excluded; however, an article would be considered if it had at least one element of inclusion. For example, although Rolstad et al.'s (2005) article was focused on K-12 learners, the article assisted the researcher in establishing the growing presence of ELLs in the US, many of whom would likely seek higher education opportunities. For the most part, articles that focused on 4-year institutions, community centers, and the K-12 sector were excluded unless they had implications for least one area of the study (i.e., learning communities, ELLs, or developmental education). Studies that solely focused on developmental student success were excluded, unless they were either linked to learning communities or had some connection to ELLs. When possible, articles published within a seven-year time frame were used; however, articles were not excluded solely on the basis of date because of the dearth of articles on this dissertation's areas of interest. Accordingly, relevant articles which met the content criteria but which were written earlier than seven years ago were included.

Second Database Search and Learning Communities Articles

After applying the inclusion–exclusion criteria, 10 articles were obtained and

categorized by the researcher as an empirical study, a conceptual article, or a program

article (see Table 1). Empirical studies included both quantitative and qualitative studies.

For all of these articles, the research methodology was clearly defined. Conceptual

articles presented an author's view on a particular topic. For example, the author

commented on other research studies or advanced a position by linking theory to practice.

Program articles highlighted particular institutional programs and pedagogical

approaches. In these articles, program overviews were presented and observations were

discussed. The program articles, unlike the empirical studies, did not include details on

research methodology.

Table 1

Categorization of Articles from First Database Search

Empirical studies	Conceptual	Program
Nakamaru (2012)	Teranishi et al. (2011)	Tai and Rochford (2007)
Smith (2010)	Shapiro (2008)	Kurzet (1997)
Springer and Collins (2008)	Ward (1998)	
Webb (2006)		
Rolstad et al. (2005)		

Note: Articles presented in reverse chronological order.

Recognizing the value of Smith's (2010) study, which focused on the positive

experiences of ELLs in a learning community (LC), a citation search was conducted. The

purpose of this search was to see which researchers had included Smith's study in their

investigations. This database search occurred in *Academic Complete, ERIC, and*

Education Source, and yielded two articles, one of which met the inclusion criteria. That article was Kibler, Bunch, and Endris' (2011) study on U.S.-educated language minority students, which was germane to the discussion on understanding the scope of ELLs and their diverse needs. To ensure that a comprehensive database search had been completed, the previous search terms and the most recently acquired terms for referring to ELLs were utilized. However, possibly because too many terms were entered at once, the database search yielded zero results. Because no results were found, the database conducted a *smart search* based on the terms which had been entered, including *learning communities*. From the smart search, six additional articles on learning communities were obtained. These articles assisted the researcher in addressing the extent to which learning communities could be helpful to ELLs. Details on the scope of each article can be found in Table 2.

Table 2

Analysis of Learning Community Articles from Second Database Search

Author (Year)	Type of article	Type of study (if applicable)	Population; location	LC features	Indication of ELLs
Schnee (2014, May)	Empirical study	Qualitative longitudinal study	Developmental English students; community college	First-semester; developmental English, psychology, and student success course	3 out of 15 participants
Butler & Christofili (2014, March)	Action research	Case study	Developmental students; community college	First-term; problem-based; reading, writing, mathematics, and college success course	No information given

(continued)

Author (Year)	Type of article	Type of study (if applicable)	Population; location	LC features	Indication of ELLs
Lorch (2013, Nov.)	Empirical study	Qualitative case study	Developmental students; community college	Course details not provided; physical space provided for students to gather	All Latina/o; no language information provided
Popiolek et al. (2013, Sept.)	Empirical study	Quantitative longitudinal 4-year study	Credit-level; community college	Linked ENG 101/PSY 101	20% minority; no details specified
Kibler et al. (2011)	Comment article	n/a	Community colleges	LC proposed as model for US-LM students	US-LM students
Jehangir (2008)	Empirical study	Qualitative multiple case study	Four year university	Multicultural Learning Voices LC: themes of identity, community, agency	First-generation, low-income; students of color and immigrants

Note. US-LM refers to United States-educated language minority students, also known as Generation 1.5 students. Articles listed in reverse chronological order.

Summary of initial database searches. The approach for conducting the initial literature review search was guided by the researcher's desire to learn more about ELLs in higher education, particularly ELLs who placed into developmental education. Of interest were ELLs' academic success and the extent to which developmental education was meeting ELLs' needs. The researcher discovered that there was a dearth of empirical studies on ELLs who place into DE. The researcher also observed inconsistent terminology used to describe ELLs, suggesting that additional studies might be found if alternative search terms were used.

During mid-2016 to 2017, to ensure that this dissertation would reflect a comprehensive up-to-date literature review, the researcher sought the expert advice of her dissertation chairs and the university's academic librarians. The inclusion of these professionals aligned with peer-debriefing in qualitative research, which is the use of experts or peers with whom a researcher can discuss their methodology and findings (Creswell, 2013). With regard to the content and focus of this dissertation, the researcher's chairs were asked for guidance on search terms, which would confirm the appropriateness of the terms used for the previous and current database searches. In terms of search process, the researcher contacted the university's academic librarians to discuss the appropriateness of the databases selected and the methods of searching to optimize results. What follows is a summary of the most current literature review process and findings.

Most recent database search and findings. The researcher's dissertation chairs suggested examining the term developmental education and associated alternative terms, which included *remedial education*, *special education*, and *learning disabilities*. Additionally, the chairs suggested looking at *English for Speakers of Other Languages* and related ESL terms, along with *Pacific Islander*, because these were two distinct characteristics of the population of interest. Finally, it was confirmed that learning communities be included as a search term. With these terms in mind, the researcher contacted a university academic librarian. The librarian suggested beginning with a thesaurus search to identify the actual terms used by the three recommended education databases: *Education Source, ERIC, and Educational Administration Abstracts*. The librarian explained that *Academic Search Complete* is not an education-specific database,

and for that reason it was not included in this most recent search. It should be noted that a thesaurus search had not been utilized in earlier database searches. Table 3 highlights the findings from the thesaurus search for the terms of interest in the three education databases. In addition to the terms recommended by the dissertation chairs, the researcher opted to include *community college* because an initial review of the literature suggested that most DE ELL LC programs would be located at 2-year institutions.

Table 3

Search Terms and Thesaurus Equivalent from Three Education Databases

Terms	Education Source (Thesaurus)	ERIC (Thesaurus)	Educational Administration Abstracts (Index)
English Language Learners (ELLs)	Limited English – proficient students	English Language Learners	—
English as a Second Language (ESL)	English language – study & teaching – foreign speakers	English (second language)	—
English for Speakers of Other Languages (ESOL)	English language – study & teaching – foreign speakers	English (second language)	—
Developmental education	—	developmental studies programs	developmental programs
			developmental programs – research
Remedial education	Remedial teaching	Remedial programs	remedial teaching – colleges and universities
	Remedial teaching – Universities & Colleges	Remedial instruction	
Learning communities	learning communities	—	learning communities

Terms	Education Source (Thesaurus)	ERIC (Thesaurus)	Educational Administration Abstracts (Index)
			learning communities – research
Special education	Special education	Special education	Special education
Learning disabilities	Learning disabilities	Learning disabilities	Learning disabilities
Pacific Islands	Pacific studies	—	—
Community colleges	Community colleges	Community colleges	Community colleges
	community college students		

Note. Em dash indicates no results found for term in specified database. The terms are presented as they appear in the respective databases.

With an increased knowledge of the terminology used by the three main education databases, the researcher conducted additional database searches in February 2017 using combinations of the terms suggested by the dissertation chairs. Of interest was the extent to which empirical studies had been conducted on learning communities designed for ELLs who placed into developmental education. The search results yielded two relevant findings. The first article was a comprehensive quantitative learning community study by Smith (2010), which the researcher had found during the initial 2014 database search. The second article was the description of a collaboration between an academic program and a writing center to assist ELLs who had placed into developmental education by Mohamad and Boyd (2010). The limited database findings allowed the researcher to assert that a gap existed in the literature and more research is needed on the use of learning communities for ELLs who place into developmental education.

The remainder of this chapter reviews the literature relevant to this study's research focus. Four distinct areas are focused upon: (a) ELLs and their needs, (b)

developmental education and literacy development, (c) learning communities and developmental education ELLs, and (d) retention, persistence, and academic success. The chapter concludes with a summary of the literature reviewed.

ELL and ESL Terminology

Arendale (2005) discussed the importance of words and terms as they relate to the field of developmental education. He asserted that vocabulary can become politicized simply because others have assigned a positive or negative status to a word. This concern for terminology can also be applied to ELLs who place into developmental education and the subgroups which they occupy. To conduct a comprehensive literature review for this dissertation, understanding the range of terminology used to describe ELLs was needed. In the initial and most recent database searches, the researcher encountered a variety of ways in which ELLs were referred to directly and indirectly. The purpose of this section is to summarize the various terminology used for ELLs to (a) shed light on the breadth of ELL terminology utilized in the literature, and (b) lay a foundation for understanding these students are and their corresponding needs.

Direct alternative ESL terminology. Carder (2014) provided a historical overview of the debate surrounding the nomenclature for students who speak English as a second language. Twenty years ago, the term *English as an additional language* (EAL) was proposed for use in England, whereas in the US, utilizing the term *Limited English Proficiency* (LEP) was needed for programs to obtain government funding (Carder, 2014). Carder's supposition is supported by Ignash's (1995) article, which focused on encouraging ESL student persistence. Ignash, whose research was situated in the US in the 1990's, utilized the terms ESL and LEP throughout the article. In 2014, Carder stated

that the current preferred term appeared to be ELL, with ESL having lost favor because of its past negative connotations and its inaccuracy given that many English language learners speak multiple languages, often more than two (Carder, 2014).

In reviewing the literature, ELL appears to be preferred over ESL; although, there are additional ways in which researchers refer to second language speakers of English. Among the studies reviewed, Smith (2010), in her examination of students' perspectives on learning communities, used the terms ESL students, ELLs, and *language minorities*. Smith defined language minorities "as people who spoke a language other than English at home" (p. 265). Shapiro (2008), who discussed promoting the academic competence of underserved students, consistently used the term ELL. Similarly, Rolstad et al. (2005) utilized the term ELLs in their meta-analysis study of program effectiveness research. Nakamaru (2012) employed the term ESL in her study of student engagement in a developmental ESL writing class, as did Tai and Rochford (2007) in their action research study on ESL students in a learning community. Kurzet (1997), in discussing the quality of developmental education programs, also used ESL when referring to second language students, programs, and instructors. Similarly, Ward (1998) utilized the term ESL in his discussion on the myths about college English as a second language. Webb (2006), whose research orientation appeared to be more in line with the field of second language acquisition, employed the term *non-native speakers* (NNSs) and *English for speakers of other languages* (ESOL). Springer and Collins (2008), who also appeared to have a second language acquisition orientation, utilized the terms *second language learners* (denoted as L2), language minorities, and *bilingual with ESL*.

Indirect ESL terminology. In contrast to the previous subsection, which discussed alternative terms for ELLs, this subsection focuses on non-linguistic categories that researchers use to refer to ELLs. For these categories, the defining characteristic is not language, but another aspect of identity. In higher education, these non-linguistic categories for ELLs include immigrants, international students, first-generation college students, and various ethnic groups. This section sheds light on the ways in which indirect ESL terminology is used to refer to ELLs.

International students. The National Center for Education Statistics defines *international students* as students who have left their home country, where they received their previous education, for studying (Stephens, Warren, & Harner, 2015). In 2011, international students comprised 3% of the total higher education student population in the US (Stephens et al., 2015). Although 3% might seem like a low percentage, the US had both the highest absolute number of international students compared to other G-20 countries, and the highest percentage (16%) of international students globally for countries who reported data to the Organisation for Economic Co-operation and Development (OECD, 2014). Furthermore, in 2011, international students comprised 28% of the total number of students studying at the doctoral level in the US (Stephens et al., 2015). In 2016 to 2017, there were over 1 million international students in U.S. higher education institutions (Institute of International Education, 2017), representing 5.3% of the student population. According to the Institute of International Education (2017), the top four countries sending students to study in the US are China, India, South Korea, and Saudi Arabia. These are countries where English is not spoken as a first language. In sum, international students who choose to study in the US are diverse in

terms of their language backgrounds. Despite international students' academic

competencies, it is quite possible that students from non-English speaking countries

might need second language support to increase their academic literacy or

communicative competence.

    Immigrant students. Immigrant students in higher education come from a variety

of backgrounds. Kim and Diaz (2013) captured the diversity of the term *immigrant* in

their conceptual model, which include three dimensions which may or may not overlap:

immigrant status, *generation status*, and *nativity*. Kim and Diaz explained that

immigrant status is associated with an individual's legal residence. A person's

generation status is based on where they were born. In contrast, one's nativity refers to

the individual's citizenship when they were born. Kim and Diaz maintained that these

core dimensions are often the focus for reporting purposes or research. However, the

authors asserted that these dimensions are further influenced by the diversity that exists

within immigrant groups. Kim and Diaz stated:

> [I]mmigrant groups are remarkably heterogeneous, varying greatly in race and
>
> ethnicity, country of origin, age at immigration, *language* [emphasis added],
>
> gender, and socioeconomic background – all factors that profoundly impact the
>
> processes and outcomes of adaption to a host country, such as educational
>
> attainment and workforce participation. (p. 5)

    Teranishi et al. (2011) focused on immigrant students in community colleges and

the English language needs of this population of students. Teranishi et al. (2011) stated

"one of the greatest needs of immigrant students is to improve their English-language

skills. If community colleges are to serve immigrant students effectively, they have no

choice but to provide instruction in English-language skill" (p. 157). Kibler et al. (2011)

examined the needs of an immigrant subgroup they termed United States-educated

language minority (US-LM) students. These are immigrant language minority students

who have done some of their primary or secondary schooling in the US. This particular

population is sometimes known as "generation 1.5" because these individuals are not US-

born second-generation immigrants, nor are they recent adult immigrants (Goldschmidt,

Notzold, & Miller, 2003). These students do not fit the typical immigrant profile because

they often have an understanding of American cultural norms and a relatively high degree

of communicative English skills (Kibler, Bunch & Endris, 2011). Furthermore, these

students are often placed into developmental classes because they do not meet the

academic English assessment requirements of the college to which they apply (Kibler et

al., 2011; Teranishi et al., 2011). However, it is equally possible that these students

might place into ESL classes (Goldstein & Ousey, 2011). Paying particular attention to

this immigrant group at the 4-year college level, Goldstein and Ousey (2011) identified

developmental immigrants as a subgroup of generation 1.5 students who appeared to be

more susceptible to failing and would benefit from "even more comprehensive and

intrusive developmental work if they were to succeed in college" (p. 8).

 First -generation college student. The term *first-generation college student*

refers to the student population who are first in their family to go to college (Ward,

Siegel, & Davenport, 2012). Ward, Siegel, and Davenport (2012) asserted that the

definition of first-generation can vary slightly for institutions of higher education. Some

institutions consider a student as first-generation so long as a parent or guardian have

never enrolled in a college course. In contrast, other institutions utilize whether or not a

parent or guardian has a college degree when determining a students' first-generation status. In both cases, underlying the definition of first-generation is the degree to which a parent or guardian can provide guidance to their student about college processes.

In 1995, Ignash noted that there was no national data available about ELLs and their educational outcomes in higher education. A recent review of the literature suggests that data on the ELLs at the postsecondary level is still not systematically collected as it is the K-12 level. Therefore, inferences need to be made about the presence of ELLs in higher education based on characteristics such as generational status, ethnicity, and immigration status. Jehangir (2008) pointed out that many first-generation college students are, in fact, students of color and immigrants. Barnes and Piland (2013) asserted that almost half of all community college students are first-generation. Taking Jehangir's perspective into account, this further supports the supposition that a large proportion of community college population are immigrant students, many of whom likely speak English as a second language. This assertion highlights an important fact for researchers and consumers of research, which is that some student populations are often subsumed within others (e.g., immigrant students with ESL needs might also be first-generation students). Kim and Diaz's (2013) multidimensional model supports generational status as an aspect of immigrant conceptualization. In fact, Hodara's (2015) research on ESL course sequencing versus developmental education course sequencing showed differentiated progression through the sequencing based on generational status, (i.e., first generation versus second generation versus generation 1.5). Hodara's finding further supports the importance of questioning the extent to which (a) first-generation students

might be also ELLs, and (b) language proficiency might be a confounding variable in students' academic progress.

  Ethnic groups. Studies which include ethnic minority groups such as Asian and Hispanic, often include ELLs. In fact, according to the OELA (2017), the top 10 languages reported by U.S. states in 2014-2015 for ELLs included speakers of Spanish/Castilian (3.6 million), Chinese (97,117), Arabic (96, 572), Vietnamese (75, 529), Haitian/Haitian Creole (25,129), Somali (22,043), Tagalog (21,441), Hmong (21,311), Portuguese (11,818), and Russian (11,412). In examining these diverse languages, it is likely that these language speakers would identify ethnicity as Hispanic, Asian, Black, and even White. With regard to Native Americans, Yupik languages was the 13th most common language with 6,567 speakers. When studies or articles focus on particular ethnic groups, those groups potentially include English language learners. Researchers, educators, and policy makers, especially at the tertiary level, need to recognize "language", in addition to "ethnicity", as an important demographic marker (i.e., the current racial/ethnic categorization process needs to be expanded to include language given the diversity present within ethnic groups). For example, in a study of six learning communities which focused on community college student outcomes, Weiss, Visher, Weissman, and Wathington (2105), included language as a participant demographic and reported that over one third of the participants used a language other than English at home. This type of demographic information assists in contextualizing the study's findings and understanding the study's limitations and generalizability, especially in terms of the participants' linguistic backgrounds.

In short, based on the information reviewed for this dissertation, it appears that policy makers have set the expectation for reporting students' language at the K-12 levels but not at the postsecondary level. Numerous reports, such as those by the OELA (2017), offered data on ELLs at the K-12 levels included students' retention and graduation rates as well as language background. Furthermore, at the time of this writing, the National Center for Education Statistics offered a link on their website to learn more about ELLs at the elementary and secondary levels; however, there was no comparable link for ELLs at the postsecondary level. The postsecondary data offered on the NCES site included graduation rates, retention, time-to-degree, employment, and degree choice. For each of these areas, the rates were disaggregated by racial or ethnic group, gender, and age. If language was included at the postsecondary level as a demographic marker, as it is at the elementary and secondary level, then a much fuller picture would be available regarding the number and characteristics of ELLs in higher education. The lack of specific ELL data at the postsecondary level is one reason it is necessary to discuss the presence of this population by examining the various other groups that ELLs occupy. Obtaining numbers for ELLs in developmental education is even more difficult, although ELLs' presence can be speculated upon based on this literature review and familiarity with ESL direct and indirect nomenclature.

Summary of ELL terminology. To summarize, there are numerous terms used to describe ELLs. It appears that researchers select their terminology based on their own academic orientation and nomenclature preferences. For individuals conducting research about DE ELLs, it is important to be aware of the various terminology used so that the full range of articles can be located. Even though terminology plays a role in establishing

a common understanding of a concept, characteristic, or group of reference, Carder

(2014) cautioned on focusing solely on terminology for ELLs: "These 'terminology wars'

do more to show up divisive politics and academic in-fighting than help the students who

need effective programmes" (p. 89). Yet to create effective educational programs, it is

helpful to know the number of students who comprise an institution's ELL population.

Given the increasing immigrant demographic of the U.S. population at large (Kim &

Diaz, 2013; OELA, 2017; Teranishi et al., 2011), language status at the tertiary level

needs to be formally reported by educational institutions and governmental agencies.

Quantifying the number of ELLs in higher education, in general, and in developmental

education, in particular, can assist in establishing the presence of this population and

serve as the first step in identifying these students' needs. Understanding the pedagogical

needs of the ELLs, particularly those who place into developmental education, comprises

the next two sections of this literature review. The first section focuses on the diversity

of needs within the ELLs in higher education. The second section focuses on the

common needs of ELLs in higher education.

Diverse Needs of ELLs in Higher Education

An examination of who ELLs are and the terminology used to describe this

population sheds light on the diversity of the needs of this heterogeneous group. For

example, a well-educated international student arriving to study at a 4-year institution

will have different educational needs than a newly arrived immigrant with little formal

education. The reality of these differences became clear to a community college in

Hawaii during the mid-1990s as global economic changes led to fewer international

students and more immigrant students enrolling (Ford, 2008). Ford (2008) noted that

"the new immigrants seemed to have very different backgrounds, developmental patterns, and linguistic needs from the international students" (p. 91). Accordingly, the institution and program changed to respond to the shifting student demographic (Ford, 2008). If colleges and universities do not take these student differences into account, then the educational programs they create will be empowering to some and disempowering for others. Casazza (1999) asserted "access without the appropriate support is a false opportunity" (p. 8). Engstrom and Tinto (2008) echoed Casazza's stand and emphasized their claim as follows:

> Access without support is not opportunity. That institutions do not intentionally exclude students from college does not mean that they are including them as fully valued members of the institutions and providing them with the support that enables them to translate access into success. (p. 50)

Harrison and Shi (2016) asserted that understanding the needs of adult ELLs "is paramount to providing appropriate instruction and services" (p. 416). This literature review section focuses on the various needs of the diverse ELL student population, particularly those who place into developmental education. Broadly speaking, ELL learners fall into to two distinct categories: international students and immigrant students. What follows is a description of both groups and their corresponding needs. Additional subcategories have been established for the sake of a more nuanced discussion, although it is understood that students might, in fact, occupy more than one subcategory.

International students. The educational needs of international students are often quite different from those of the immigrant students (Richards & Franco, 2007; Teranishi et al., 2011). International students often have had a strong primary and secondary

education in their first language, giving them a foundation of academic literacy from which to develop their English skills (Teranishi et al., 2011). Frequently, these students have been exposed to English grammar learning, although they have yet to fully acquire grammatical accuracy (Ward, 1998). In fact, most international students are required to provide standardized test results demonstrating their academic English proficiency as part of their admissions applications. International students' needs are sociolinguistic and academic in nature (Harrison & Shi, 2016). Harrison and Shi (2016), through a dialogic exploratory conversation between a professor and international graduate student, identified that instructors must know their students' linguistic capabilities, provide opportunities for student interaction, and be aware of instructor language use. Increasing student interactions can help international students to understand the nuances of American custom, culture and how language is used. Communicative English is also important so that international students can interact appropriately in various settings and develop their oral competency.

International students who are planning to pursue advanced graduate study will need to learn academic writing and speaking in their field and refine their grammatical use (Mohamad & Boyd, 2010). For example, an ESL student who was a doctor in Poland, but is now enrolled in a medical technology program, might need specialized vocabulary assistance (Casazza, 1999). Mohamad and Boyd (2010) found that the needs for international students at their university were best met when English was taught with explicit attention to the discourses needed within academic disciplines, coupled with an English for academic purposes lab and support services.

In short, international students' personal and professional goals need to be understood in the context of why they want to study English and where they intend to use English. This includes soliciting information as to how long these students plan to study in the US and whether or not they might be teaching or research assistants. Given that 30% of doctoral students are international students (Stephens et al., 2015), it is helpful to know the extent to which these students will utilize English in the US and when they return to their home country.

Recent immigrant students. Kibler et al. (2011) contended that the needs of recent immigrants differ from those of immigrants who came to the US at a young age or who are second-generation immigrants. Webb (2006) highlighted that the "recent immigrant" is often a diverse group, with some immigrants having had formal education in their home country and others having had very little or no formal education. Webb asserted that depending on when a recent immigrant arrived in the US and where they lived, there may or may not be the opportunity to practice English and to understand their new country's customs. Whereas international students' educational goals often include obtaining a terminal degree, recent immigrants' goals are more diverse and situated within the societies they live.

Both Teranishi et al. (2011) and Ward (1998) underscored that obtaining a certificate or associate degree can have a positive impact on the economic well-being of immigrants. Teranishi et al. drew attention to the fact that in 2008 individuals who had completed some college coursework or obtained an associate degree experienced half the unemployment rates as their counterparts with no higher education experience. Furthermore, in 2009, the median income of those with an associate degree was 40%

more than those with only a high school diploma and nearly double the income compared to those who did not finish high school (Teranishi et al., 2011). Although some recent immigrants might initially seek out community college to enhance their English skills for employment purposes, Ignash (1995) maintained that community colleges could "*heat up* ESL students' aspirations" (p. 33) and encourage students to go on to pursue a degree or certificate program. Accordingly, community colleges need to find ways to respond holistically to the recent immigrant population in understanding their academic English needs in the context of their professional goals and life challenges.

   United States-educated language minorities. Kibler et al. (2011) drew attention to US-LM students and discussed how their educational needs differ from recent immigrants, international students, and second-generation immigrants. Oftentimes US-LM students have fluent conversational skills in English, but lack academic literacy skills in their first language, which consequently affects their ability to develop strong academic skills in English at the secondary level. However, because these students have resided in the US for a number of years, they often do not think of themselves as immigrants or even ESL students (Goldschmidt et al., 2003; Kibler et al., 2011).

   The presence and needs of language minority students have been noted by various researchers. Song's (2006) research, which examined why students failed an upper level ESL course, found that immigrant ESL students who graduated from U.S. high schools often arrived at college with inadequate academic literacy skills. To assist in developing academic literacy, Mokhtari and Sheorey (2002) stated that reading skills could be improved by assessing and raising students' metacognitive awareness of reading strategies. Mokhtari and Sheorey maintained that there were distinct differences between

native English speakers' metacognitive reading strategies and ESL students' reading strategies, which included students making connections between their first and second language. Accordingly, Mokhtari and Sheorey developed an instrument called the *Survey of Reading Strategies* specifically to assess ESL students' awareness of reading strategies. When determining how best to meet higher education needs of these students, students' self-perceptions and self-awareness need to be considered in addition to the student's familiarity with American mores, ease of conversational fluency, and diverse cultural perspective.

Another associated term for US-LM students is *generation 1.5*. Goldschmidt, Notzold, and Miller (2003) explained that generation 1.5 students are ESL immigrant students who are US citizens from birth, naturalization, or the green card process. Despite graduating from U.S. high schools, many generation 1.5 students are academically and socially underprepared for college (Goldschmidt et al., 2003). Goldschmidt et al. (2003) stated that generation 1.5 "tend to 'live' their native culture at home and their adopted culture at school and are usually the first in their family to go to college" (p. 12). Goldschmidt and Seifried's (2008) research with generation 1.5 ESL students found that, in addition to linguistic challenges, these students often lacked an understanding of "the valued practices of higher education, [that they] will usually have difficulty identifying and interpreting these practices, and especially the expectations inherent with them" (p. 2). Furthermore, Goldschmidt and Seifried found that although these students indicated they wanted to succeed, they did not realize the extent to which their academic underpreparedness played a role in their lack of success; many assumed that because they were admitted to college, they would be successful if they worked hard.

Yet another associated term for US-LM is developmental immigrant (DI) (Goldschmidt & Ousey, 2011). Goldschmidt and Ousey (2011) asserted that DIs are first or second generation students who needed extensive developmental education support to succeed as college students. Goldschmidt and Ousey explained DI students' needs in the following way:

> [These students] tend to have weak reading and writing English skills but strong oral skills, they need developmental and academic literacy skills (taught by a teacher with an ESL background) to be able to compete at the college level. In other words within the broad spectrum of Generation 1.5, developmental immigrant students tend to have the greatest number of challenges and the least amount of self-sufficiency. (p. 11)

Crosby (2010) found that in addition to the academic and social needs of DI students, attention needed to be paid to these students' academic identity development and immigrant representation in the curriculum. Crosby maintained that DI students' are better able to negotiate their own identity development when they are able to interact with culturally relevant texts.

Second-generation immigrant. Second-generation immigrants who might place into developmental English courses present somewhat different issues than the US-LM, generation 1.5, and DI student. Second generation students are students who are born in the US to parents who are considered first-generation immigrants (Hodara, 2015). Hodara's (2015) research on progression through developmental and ESL coursework found differences based on students' generational status, which supports distinguishing between second-generation and first-generation immigrant students.

As native-born immigrants, second-generation immigrant students may or may not have had strong primary and secondary educational experiences (Malnarich, 2005). In fact, linguistically, these students' competencies and struggles in English might be similar to native-born English-speaking students. However, second-generation students' educational experience might differ with regard to the connection between their home and school lives, especially if a language other than English is spoken at home (Kim & Diaz, 2013). Quite often second-generation immigrants make up a substantial portion of first-generation college students in higher education. Many first-generation college students often lack the cultural capital to successfully negotiate college (Ward et al., 2012). Similarly, second-generation immigrant students might face challenges in college if family members have limited to no higher education experience. It is quite possible that second-generation immigrant students who are first-generation college students dissonance between their home and academic lives as suggested by Jehangir's (2008) study on first-generation college students. These students' personal or cultural identities may not be valued by the academy, and their academic selves may not be valued by family members at home (Jehangir, 2008; Kim & Diaz, 2013). How students negotiate their home and school lives should be considered when addressing the needs of second-generation immigrant students. If a second-generation immigrant student is considered an ELL based on assessment measures, then particular attention should be paid not only to the student's language ability, but also to their background and the adjustment they must make to college.

Common Needs of ELLs in Higher Education

The needs of ELLs vary depending on the students' reason for seeking higher education, as well as on their academic, social, cultural, and linguistic background. Even though differences must be considered, there are also common needs which should be recognized, especially at the community college level. Magrath (2008) offers a framework for considering the challenges encountered by both international and immigrant ELLs at community colleges. The three areas of the Magrath's framework are interactional needs, instructional tasks, and cognitive awareness. Interactional needs refer to the skills needed for social interactions within the classroom and on the college campus. Instructional tasks refers to classroom practices such as note-taking, summarizing, analyzing texts, writing reports, building comprehension, and understanding procedures; tasks which are present across academic classes which students may or may not find challenging. Cognitive awareness refers to students' familiarity with discipline-specific concepts and vocabulary which must be learned for differing academic areas. Almon's (2015) qualitative study with 28 community college ELLs, who represented the various categories discussed in this section, found that obstacles these students encountered common college obstacles and specific ELL obstacles. The three obstacles common to all college students' persistence in college included: work, family, and finances. Unique ELL obstacles related to the students' language and culture, including feelings of institutional marginalization because of difficulties encountered in ESL and content classes (Almon, 2015). Almon maintained that institutions need to be committed to ELL students' success and that "the college itself has more of a role to play in actively engaging ELLs to participate in their studies,

in interactions with faculty and peers, and in giving them the support they need" (p. 470).

Additional support was also a recommendation from Song's (2006) research on failure in

an advanced ESL course. Specifically, students identified wanted more communication

and one-on-one conferencing with instructors, as well as academic and personal support.

Song (2006) pointed out that even though the college had support services available,

many of the new students interviewed were unaware of the available services. C.

McElroy, V. McEllroy, and Wang (2008) found success in providing professional

development to ESL community college instructors which included an overview of the

college's student support services available to students. Curry (2004) noted that ELL

students at community colleges need to learn more than English; these students "must

also learn the specialized practices of academic reading, writing, and speaking that

characterize college communication" (p. 51). For this to happen, Curry recommended

that institutions consider more holistic educational approaches used at elite institutions

such as the linking of ESL classes with content courses in students' discipline.

To summarize, ELLs in higher education have both diverse and common needs.

The literature reviewed suggests that higher education institutions have a responsibility to

meet students' needs by providing programs that optimize students' success (Crosby,

2010; Engstrom & Tinto, 2008; Harrison & Shi, 2016; Richards & Franco, 2007). At

community colleges, a high portion of the students are first-generation, immigrants, and

from a lower socioeconomic status (Boswell, 2004; Jehangir, 2008). Given that many

immigrants speak English as a second language, it is likely that many community college

students are ELLs. With more than 50% of community college students placing into

developmental education (Bailey, Jeong, & Cho, 2009), it is highly likely that that

number includes students who are ELLs. Boylan (2009) notes that a student's language background is one of the many personal factors that must be considered when assessing and placing students and providing them with the appropriate support. The next section summarizes what developmental education is and how it might be approached to optimize ELLs' academic success. Given the importance of academic literacy development for ELLs, literacy within the context of developmental education is also discussed.

Developmental Education

Boylan (2002) defined developmental education as "courses or services provided for the purpose of helping underprepared college students attain their academic goals" (p. 3). Ideally, developmental education assists students in building their skills in academics and negotiating college such that students can successfully exit precollege courses and be successful in college level coursework. The presence of developmental education in higher education institutions is well-established (Boylan & Saxon, 2012) despite recent controversies about the efficacy of developmental education (cf. Bailey, Jeong, & Cho, 2010). To gain a deeper understanding of developmental education, it is helpful to understand its history and role in today's higher education.

Developmental education's past and present. It would be inaccurate to say that developmental education is a phenomenon of the present that was not needed in the past. Some scholars cite the University of Wisconsin (UW) as having established the first preparatory program in 1849 (Arendale, 2005; Brier 1986; Casazza, 1999); however, White, Martirosyan, and Wanjohi (2009) asserted that other colleges predate UW's effort at creating a systemized approach to developmental education. In fact, in 1630, Harvard

College, the first American college, needed remedial services (i.e., tutoring) for its first students (Boylan & White, 1987; White, Martirosyan & Wanjohi, 2009). In 1879, Harvard conditionally accepted approximately 50% of those who applied because a high number of prospective students did not pass the written entrance exam. Accordingly, the college offered these students extra academic assistance to prepare for them for the rigors of college classes (Casazza, 1999). Although the term developmental education was not utilized during these early years in higher education, support services were provided to students who were not prepared for college-level study.

Hardin (1998) revisited the characteristics of students who place into developmental education and identified seven categories of students. This was one more than the original six categories which she delineated ten years earlier (Hardin, 1998). The seven categories were as followed: poor choosers, adult students, students with disabilities, ignored students, students with limited English proficiency, user students, and extreme case students. For each of these categories, Hardin drew attention to higher education's mission to meet the needs of these students who come from secondary education experiences or life circumstances that were not optimal. Regarding students with limited English proficiency, Hardin distinguished between graduate and undergraduate international students, in addition to immigrant adults and K-12 ELLs. Hardin highlighted that developmental education programs which address students' circumstances holistically have the power to positively impact students in all seven categories.

In terms of how developmental education is conceptualized today, developmental education best practices consider students' cognitive and affective factors, in addition to a variety of personal factors (Boylan, 2002; 2009). Boylan (2009) stated:

These [personal] factors would include information such as the number of hours students are employed per week, their eligibility for financial aid, the extent to which students have other adult responsibilities such as child care, or *whether or not they are native speakers of English* [emphasis added]. (p. 15)

Boylan's explanation of the factors which influence students' success in developmental education aligns with Casazza's (1999) definition of a developmental education approach, which is "a comprehensive process focusing on the intellectual, social and emotional growth and development of all learners. It includes, but is not limited to, tutoring, personal and career counseling, academic advisement and coursework" (p. 4). It is clear from both Boylan's and Casazza's positions that developmental education goes beyond developmental coursework, which traditionally addresses cognitive areas such as reading, writing, and mathematics. Boylan, Calderwood, and Bonham (2017) maintained that focusing solely on developmental education coursework to the exclusion of other support services or programs is the definition of remediation and does not reflect the full scope of developmental education. Boylan et al. (2017) asserted that it is problematic for the field of developmental education when research focused solely on developmental education coursework (i.e., remediation) erroneously concludes that developmental education does not work. Unfortunately, there have been cases where funding for support services associated with developmental education programs have been cut based on large-scale remediation studies (Boylan et al., 2017).

One of the largest advocacy groups for developmental education is the National Association for Developmental Education (NADE). As the professional organization for developmental education, NADE maintains an informational website, organizes an annual conference, provides professional development opportunities, and offers developmental education resources (https://thenade.org). One particular resource offered is the *NADE Fact Sheet*, which outlines key organizational elements such as NADE's mission, purpose, and goals (NADE, 2015). NADE's (2015) definition of developmental education aligns with Casazza's (1999) holistic definition focusing on students' intellectual, social, and emotional growth, as well as comprehensive services and coursework to assist students. NADE's six goals identify critical areas within developmental education: (1) addressing students' needs, goals, and abilities, (2) retaining students, (3) appropriately assessing and placing students, (4) maintaining standards and assisting students in reaching competencies for success in academic coursework, (5) encouraging educators to use cognitive and affective theory, and (6) promoting collaboration between educators and the community (NADE, 2015). Of note are students' needs, goals and abilities and the extent to which developing academic competencies occurs. Based on this dissertation's literature review, language development and academic literacy are especially important for ELLs who place into developmental education. Underscoring the importance of academic literacy for developmental education learners, Boylan (2014) stated:

> Few would argue against the concept that reading is the most basic and essential skill necessary for success in college. . . . Knowing how to read novels, newspapers, and instructions, however, is not the same as being able to perform

the myriad reading comprehension and analysis skills required for academic

work. Furthermore, a large number of high school graduates simply do not

possess the requisite reading skills necessary for college success. (p. 1)

Given the importance of academic reading and writing in college students' success, one

approach advocated for in the teaching literacy in developmental education is

contextualized instruction (Ambrose, Davis, & Ziegler, 2013; Bartholomae & Petrosky,

1986; Perin, 2011). A contextualized literacy approach places emphasis on meaning and

relevance to students' lives. The next section highlights literacy development in

developmental education.

Contextualized instruction in developmental education. Ambrose, Davis, and

Ziegler (2013) situated their discussion of contextualized learning within a constructivist

framework, explaining that learners build upon their knowledge by connecting new

knowledge to what they already know. Ambrose et al. (2013) advocated the importance

of contextualized learning for developmental readers and recommended that instructors

employ content that connects to students' lives by using real-world materials or activities,

(i.e., materials and activities that are meaningful to learners). With regard to

developmental education learners, Ambrose et al. (2013) suggested that instructors move

toward more meaningful instruction by preparing learners for credit-level coursework.

This recommendation to take credit-level course content into consideration is similar to

the literature on ELLs which highlights that understanding what ELLs will need in their

content courses adds meaningfulness to the ESL course content, which often increases

students' motivation to learn (Harrison & Shi, 2016; Magrath, 2008; Shapiro, 2011).

Perin (2011) maintained that a contextualized approach to teaching literacy can increase students' motivation because the meaningful course content increases students' awareness of how to transfer patterns of learning to credit-level classes. Perin highlighted two distinct approaches to contextualization in basic skills instruction (i.e., developmental education): (1) *contextualized instruction*: an approach that uses academic content to teach the academic skills (reading, writing, and mathematics), and (2) *integrated instruction*: an approach where the goal is to teach the academic content, with particular attention given to the development of basic skills (reading, writing, and mathematics). Integrated instruction is often used in content classes where basic skills need to be addressed, whereas contextualized instruction is used to teach basic skills in a meaningful way (Perin, 2011). For contextualization to be implemented, Perin stated that interdisciplinary collaboration is needed between developmental education instructors and the content area instructor. This type of collaboration is a recommended best practice to increase the success of developmental education students (Boylan, 2002). Boylan (2002) underscored the value of developmental education instructors collaborating with credit-level instructors to understand academic tasks and align the developmental course content with college-level requirements. This type of alignment would increase developmental students' familiarity with college-level tasks and increase students' potential success when encountering tasks in credit-level courses.

Bartholomae and Petrosky (1986) put forth that developmental learners require meaningful academic literacy teaching that allows students to bring their experience to their reading and writing encounters. A similar recommendation was made by Crosby (2010) regarding ELLs and the value of students' being able to identify with texts, Cosby

maintained that culturally-relevant texts aided students' linguistic and academic identity development. Bartholomae and Petrosky asserted that a holistic literacy approach, as opposed to decontextualized discrete-skills teaching, is empowering to all students, especially those from disenfranchised backgrounds. White and Ali-Khan (2013) asserted that for many minority students, especially ELLs, acquiring academic literacy is a challenge that requires explicit attention to students' culture and identity. Therefore, a contextualized literacy approach grounded in meeting the students' needs, goals, and abilities is ideal from both a developmental education perspective and a second language learning perspective. In short, there is value in creating meaningfulness and connecting course content to students' lives when teaching literacy in developmental education.

A concern for meaningfulness also underscored the early development of learning communities. With regard to developmental education courses and the need for students to experience a sense of connection to their college courses, Matthews, Smith, and MacGregor (2012) highlighted why they promoted learning communities in the early 1990's. They stated:

> For us, two obstacles to students' academic success stood out: the bone-crushing boredom of developmental courses detached from *meaningful* [emphasis added] college-level content, at worst a series of "skills and drills" exercises separated from their essential context; and the reduction of general education to a series of check-off requirements that too many students trudged though, rarely if ever noting anything of inherent interest or practical use in the smorgasbord of course that their particular higher education made them take, for reasons that often remained unclear. (p. 101)

The next section of this literature review focuses on learning communities, meaningfulness, and literacy. The learning community literature is examined in light of the extent to which student success is promoted, particularly for ELLs who place into developmental education.

Learning Communities

Learning communities have a 100-year history and came into existence in the search for a more meaningful college experience (Smith et al., 2004). More specifically, there was a concern for some type of connection between students' college learning and an application of that learning to the society in which students lived. The earliest learning communities sought to organize learning such that civic engagement and connections between learners, content, and faculty, were part of the overall experience (Smith et al., 2004).

Today's learning communities are diverse in nature, ranging from very basic, with a focus on course co-enrollment, to multi-faceted, where course co-enrollment is supplemented with support services, such as counseling and tutoring (Weiss, Visher, Weissman, & Wathington, 2015). However, all learning communities share a common feature, which is co-registration into two or more linked courses (Tinto, 1997). The three most common style of learning communities are residential LCs, integrative LCs, and curriculum-based LCs. Residential learning communities extend the classroom into residential dorm life to promote peer interactions and discussions regarding academic content (Smith, 2015). Smith's (2015) mixed methods study examined the nature of peer networks and found that residential learning communities promoted supportive peer relationships and were particularly advantageous for students who proactively shared

information and offered assistance to fellow students. In contrast, nonresidential

integrative learning communities and are structured to promote students making

connections between their courses and the world they live in (Schultz, 2013). At Arcadia

University, the learning community goal was to have students "engage not only with each

other, but also with the world outside the classroom as a learning environment" (Schultz,

2013, p. 26). According to Smith, MacGregor, Mathews, and Gabelnick (2004)

attempting to have students connect to their world in a meaningful way and see the world

as a place of learning harkens back to the intention of original learning communities. The

third, and likely the most familiar, learning community type are discipline-centered

curriculum-based learning communities, where two or more courses are intentionally

linked to promote faculty-student connections, student-student connections, and student-

coursework connections (Zrull et al., 2012).

Learning communities and developmental education. In reviewing what

research-based practices promote the academic success of developmental education

students, Boylan, (2002) identified learning communities as one of 30 recommended

practices. Similarly, learning communities have been noted as a high-impact practice for

first-year college students (Brownell & Swaner, 2010; Kuh, 2008). There is a growing

body of research that suggests learning communities positively impact community

college students' success, including developmental education students (for a

comprehensive review, see Popiolek et al., 2013). With a focus on why learning

communities are advantageous for developmental education students, Malnarich (2005)

highlighted key components of learning communities:

Learning communities intentionally restructure students' time, credit, and learning experiences to build community among students and faculty and build curricular connections across disciplines . . . learning communities create the kind of learning environments that *engage* [emphasis added] students in the hard, persistent, and challenging work associated with academic success. (p. 52)

Given that the goal of developmental education is to prepare students for success in college-level coursework (Boylan & Saxon, 1998), and using learning communities is a recommended pedagogical approach (Boylan, 2002), it important to understand the ways in which literacy is approached to promote the success of ELLs who place into developmental education. In addition to considering ELLs' language proficiency, culture, and identity when making pedagogical choices (Jehangir, 2008; White & Ali-Khan, 2013), educators must also consider academic literacy and how it is approached within the context of a learning community. Given the viability of learning communities to promote learning and literacy, particularly for students from linguistic and ethnic minority backgrounds, a more extensive review of learning communities in relation to literacy is warranted.

Learning communities and literacy development. There are discipline-centered learning communities which include literacy components in their design. In an attempt to create a meaningful experience for learners and promote literacy, learning communities can take different approaches. For example, some LCs intentionally focus on the theme of careers and majors (Stebleton & Nownes, 2011). Other learning communities aim to increase students' metacognitive awareness of their learning process (Garretson, 2010; Pacello, 2014). This subsection highlights select learning community

studies which demonstrate a commitment to contextualized instruction with an emphasis on promoting students' success in reading and writing.

Stebleton and Nownes (2011) studied a community college learning community, which was comprised of English composition course and a career exploration course. The community college served 8,500 students. First-generation college students comprised 38% of the student population, and minority students accounted for 18% of the student population. The learning community, which was designed for first-generation students of color, was deemed successful because of (a) the higher retention rates for the LC group as compared to the non-LC group, and (b) the positive feedback from the focus group regarding the LC's social and academic activities and interactions. Stebleton and Nownes identified key areas which likely impacted the success of the learning community they studied. First, the researchers recommended that instructors make explicit connections for students between courses, learning objectives, and outcomes to highlight the points of integration and increase students' metacognitive awareness of learning. Secondly, the researchers advised educators to include elements of active learning and have students connect experiences to their lives. Third, Stebleton and Nownes suggested collaboration between faculty and student services support personnel, including those at the writing center and tutoring center. This recommendation echoes the collaborative endeavor by Mohamad and Boyd (2010) who observed similar advantages when co-planning their work with ELLs. In fact, Stebleton and Nownes, suggested student affairs personnel become involved in the teaching of learning communities. Finally, Stebleton and Nownes stressed that successful learning communities require institution-wide support.

In working with 18 ESL developmental education students in a learning community at Kingsborough Community College, Garretson (2010) drew from the students' philosophy course to incorporate elements of Eastern and Western philosophy into the process and content of teaching an integrated ESL reading and writing course. Using mindfulness techniques to raise students' metacognitive awareness about themselves as readers and writers, Garretson sought to "amplify aspects of reading and writing that [were] not addressed in more traditional formalistic or skills-based instructional methods" (p. 63). The concern for metacognitive awareness played a role in understanding students' literacy experiences and the degree to which they find their experiences meaningful.

Pacello (2014) examined students' awareness (i.e., metacognition) in an integrated developmental English course at an urban 4-year college. Utilizing a phenomenological approach, Pacello sought to gain insight into the lived experiences of three students in his developmental education class as it pertained to the students' use of metacognitive strategies. In terms of the students' background, one student was African-American and two students identified as black and grew up in the Caribbean; no language background was given. Pacello paid particular attention to the extent to which students related their integrated reading and writing course to three areas of their lives: academic, professional, and personal. Through the use of interviews and a class blog, Pacello found that the students made connections from their learning in his course to other contexts; for example, the writing process was seen as helpful for navigating writing in other courses. Overall, Pacello's findings support the use of explicit metacognitive strategies within the context of reading and writing courses. Pacello also brought to light that developmental

education students felt uncertain about literacy demands in credit-level courses.

Accordingly, Pacello recommended creating contexts where credit-level faculty can share

their reading and writing activities or expectations with developmental education

students.

Despite many positive findings associated with learning communities (for a

summary, see Brownell & Swaner, 2010), Weiss, Visher, Wathington, Teres, and

Schneider (2010) found that Hillsboro Community College's learning community

program, which focused on developmental reading, did not result in higher student

outcomes. However, Weiss et al. acknowledged that the learning community program

was newly implemented, stating that "curricular integration and faculty collaboration

were generally minimal at the start of the study" (Weiss et al., 2010, p. 223). The

researchers did find that the program became more comprehensive over time. The

findings from the Hillsborough study suggest that coenrollment without intentional

pedagogical practices, such as curricular integration and faculty collaboration, does not

promote the success of learning community students. Accordingly, the learning

community elements that promote student success, particularly for ELLs who place into a

developmental education, need to be further explored. The next section reviews select

learning community studies in hopes of shedding light on the elements that promote DE

ELL student success.

Learning communities and DE ELLs. In addition to the discipline-centered

literacy-focused learning community studies discussed earlier, there are a number of

learning community studies in developmental education (Barnes & Piland, 2013; Butler

& Christofili, 2014; Engstrom & Tinto, 2008; Lorch, 2013; Mohamad & Boyd, 2010;

Schnee, 2014; Smith, 2010; Tai & Rochford, 2007; Weis et al., 2015) which show

varying levels of success or effectiveness. In some of these studies, the participants'

demographics specifically included language as a characteristic (Engstrom & Tinto,

2008; Mohamad & Boyd, 2010; Schnee, 2014; Smith, 2010; Tai & Rochford, 2007),

highlighting the extent to which the study included ELLs. In other studies (Lorch, 2013),

participants' immigration status, generational level, or ethnicity are referred to, allowing

inferences to be made as to whether or not ELLs were included in the study. However, in

these studies, it was difficult deduce what proportion of the participants ELLs

represented. Finally, in some cases, the sparse participant demographic information

provided made it difficult to conclude that ELLs were included in the study. Given that

the ELLs make up a large part of the community college population, it was, therefore,

assumed that learning community studies which involved developmental education likely

included ELLs. This section highlights select learning community studies which are

informative regarding use of learning communities with developmental education

students. When possible, this researcher noted the extent to which the study might have

included ELLs based on the participants' demographics provided by the author.

A high degree of engagement with academic work and the building of community

between students and faculty are hallmarks of a learning community (Engstrom & Tinto,

2008; Smith et al., 2004). Smith (2010) expanded upon these learning community

outcomes and noted that, for ESL students, learning communities help "to reduce self-

consciousness, increase intellectual confidence" (p. 266). Accordingly, learning

communities which encourage the application of what is learned in the classroom to

experiences out of the classroom, and vice versa, can assist students in negotiating their

identity and understanding how they might impact their society. Butler and Christofili (2014) described this kind of societal engagement in their study of a problem-based learning community. Learning communities which attend to students' identities and negotiation of college life are especially helpful to first-generation college DE ELLs who might struggle with balancing their home and academic lives. Jehangir's (2008) found that learning communities with a multicultural focus assisted low-income first-generation college students (some of whom might have been immigrants) in experiencing a sense of belonging and in bridging their social and academic lives. Similarly, Lorch (2013) found that learning communities assisted Latina/o developmental education students in (a) identifying and exploring their personal and academic goals, and (b) offsetting environmental "pulls", such as family and work obligations, which sometimes deters students from their goals. In seeking to understand the impact of learning communities and remedial education from students' perspectives, Schnee (2014) found her participants, three of whom were ELLs, felt their learning community experience challenged them intellectually and helped them to overcome the stigma they initially felt at being placed into a developmental class. Furthermore, the participants also reported that their developmental courses, which were delivered via a learning community structure, assisted them in being successful in credit-level work. Smith's (2010) quantitative study of 13 community colleges found that learning communities assisted ELLs in feeling supported and more connected to their institution. In terms of learning communities promoting the success of DE ELLs, Smith stated "curricular arrangements that foster close relationships and feelings of support may foster greater student learning" (p. 280).

Barnes and Piland (2013) studied the differences in the success (defined as course completion) of community college students in learning communities. Specifically, Barnes and Piland examined the differences between upper and lower level developmental English. They found that learning communities appeared to positively impact the success of students enrolled in upper DE English but had less of an impact on students in the lowest level DE English. Barnes and Piland suggested that learning communities as they were utilized for the lowest level DE students might not be leading to the faculty-student interactions hoped for or that students at this level were unwilling to engage in meaningful interactions with peers and instructors. Also suggested was that the pedagogy used or the curriculum employed might not be appropriate for these learners. This implication was based on the finding that the learning communities appeared to affect the success of African American and Latina/o students to a lesser degree than it did to the comparative group referred to as "all other ethnicities" (p. 958). It is possible, based on this dissertation's literature review, that both the Latina/o group the African American group could have included ELLs and that students' English language proficiency served as a confounding variable for the ethnicity analysis. Barnes and Piland's concern for the curriculum and meeting the needs of students is similar to Crosby's (2010) concern regarding the lack of culturally appropriate materials in developmental education. Crosby maintained that materials which reflect the identities of the students in students' academic identity development were often lacking in developmental education, which could impact the extent to which a student's academic identity was developed. This, in turn, could potentially affect a student's desire or ability to persist.

Laanan, Jackson, and Stebleton (2013) found that learning communities promoted community college students' comfort level at their institution and increased students' sense of belonging as compared to nonlearning community students. The participants in this study included ELLs, who comprised about 28% of the LC group and 15% of the non-LC group. Although the online survey results were generally favorable for the LC group, some caution should be taken when interpreting the results given that reliability and validity were not provided for the research instrument. Instead, Laanan et al. (2013) explained that the survey was developed based on a review of the literature and other similar instruments suggesting that face validity and perhaps content validity were considered. Omitted from this study was a description of the type of learning community utilized by the community college, although Laanan et al. stated that the program's objectives focused on incoming first-generation college students and students of color.

The Variables: Persistence, Retention, and Academic Achievement

Thus far, this literature review has focused on the population of interest, ELLs who place into developmental education, and their corresponding needs. Attention has been paid to the challenges these students experience, the ways in which learning communities might help, and the educational contexts that promote academic success. In this dissertation, academic success is operationalized to include three components which are standard measures in developmental education program evaluations: persistence, retention, and academic achievement (Boylan & Saxon, 2012). These three student outcomes comprise the dependent variables for this dissertation.

For the purposes of this study, persistence is defined as the extent to which a student completes the course in which they enrolled. Boylan (2002) termed this short-

term marker of academic success *semester retention*. In this dissertation, longer term retention is referred to simply as retention and is operationalized as enrollment in the postlearning community semester. Although it is important to differentiate between terminologies, it is also important to note that persistence and retention are related enrollment terms which occupy different points on a continuum toward college completion. Furthermore, as important as these enrollment concepts are, the reality is that for a college student to graduate, minimum academic standards must be also met. For that reason, this dissertation includes academic achievement, which is operationalized as students' final English course grade.

The remaining subsections of this literature review focus on empirical and nonempirical articles which address this dissertation's three dependent variables: persistence, retention, and academic achievement. To the extent possible, articles which directly related to the study's population of interest (i.e., DE ELLs in LCs) were selected. However, because an initial review of the literature revealed a dearth of empirical studies on the population of interest, articles were included if they focused on the variables and one or more characteristics of the population of interest, such as ELLs, developmental education students, learning community participants, and community college students. Of the 21 articles reviewed, eight articles focused on retention, eight articles focused on academic achievement, and no articles focused solely on persistence. Four articles discussed the both retention and academic achievement, and only one article focused on this dissertation's three variables: persistence, retention, and academic achievement. Table 4 delineates the articles and the outcomes on which they focused.

Table 4

Categorization of Variables and Articles

Retention	Academic Achievement	Retention and Academic Achievement	Persistence, Retention, and Academic Achievement
Almon (2015)	Harrison & Shi (2016)	Weiss et al. (2015)	Popiolek et al. (2013)
Butler & Christofili (2014)	Schnee (2014)	Teranishi et al. (2011)	
Laanan et al. (2013)	Barnes & Piland (2013)	Tai & Rochford (2007)	
Lorch (2013)	Nakamaru (2012)	Goldschmidt et al. (2003)	
Engstrom & Tinto (2008)	Mohamad & Boyd (2010)		
Jehangir (2008)	Smith (2010)		
Kurzet (1997)	Goldschmidt & Seifried (2008)		
Ignash (1995)	Song (2006)		

Note. Articles are listed in reverse chronological order.

Of the 21 articles which included this dissertation's variables, 16 articles focused on community college students and five articles focused on 4-year college students. The five articles which did not include community college students were included because each article focused on at least one of this dissertation's variables and some aspect of the population of interest. Specifically, four articles (Goldschmidt & Seifried, 2008; Goldschmidt et al., 2003; Harrison & Shi, 2016; Mohamad & Boyd, 2010) discussed academic achievement as it related to ELLs at 4-year institutions. Jehangir's (2008) research at a 4-year institution included ethnic minority students (89% of participants) who were first-generation college students although language status was not a participant demographic. Based on this dissertation's earlier review of ELLs and the other groups

which subsume ELLs, it is likely that Jehangir's study included participants who were ELLs.

Taken together, these 21 articles offer insights into pedagogical choices and institutional decisions that impact the retention, persistence, and academic achievement of DE ELLs. Furthermore, examining these articles offers a deeper understanding into the extent to which LCs are or are not an appropriate pedagogical approach for DE ELLs. The remainder of this chapter sheds light on the findings from these 21 articles as they relate to retention, persistence, and academic achievement and varying aspects of the population of interest.

Retention and persistence. Retention is an important institutional maker for student success in higher education (Tinto, 2012). How best to retain students is the focus of academic books (e.g., Tinto, 1993; 2012) and articles (e.g., Almon, 2015; Butler & Christofili, 2014; Laanan et al., 2013; Lorch, 2013; Engstrom & Tinto, 2008). Because students must remain enrolled in college if they are to graduate, retention is integral to college completion. Tinto's (1993) seminal work, *Leaving College*, addressed student retention as a multi-faceted issue focusing on students' ability to integrate academically and socially at their institution. Tinto's (2012) later book, *Completing College*, focused on institutional actions which promote student retention. The importance of retaining students is reflected in Tinto's (1993) theory of individual student departure, which serves as the theoretical framework for this dissertation. Tinto (1993) posited that if students feel connected to educational and social communities and view themselves as members of their college, they are more likely to persist, be retained, and achieve academically. Tinto's theory is at the foundation of his support for learning communities

as a pedagogical model which positively impacts students' educational outcomes (Tinto, 1997; 2000; 2003; 2012).

In the literature, the terms persistence and retention are sometimes used interchangeably within one article by a researcher (e.g., Crosby, 2010; Ignash, 1995). There are also instances where the term persistence, as opposed to retention, is preferred (e.g., Weiss et al., 2015). Tinto (2012) distinguished between the persistence and retention by focusing on agency. He stated that persistence is a student metric whereby the locus of control resides within the student. To that end, a student persists or fails to persist. For this dissertation, persistence aligns with Boylan's (2002) definition of semester retention, whereby a student completes the course in which they enrolled. Said another way, persistence is demonstrated by students who did not withdraw from a course. The students' final grade is inconsequential in the measuring of persistence. Of greater importance is whether or not a student demonstrated the determination to complete the course. This determination is akin to grit which is defined by Ducksworth, Peterson, Matthews, and Kelly (2007) as perseverance and passion for long-term goals. Although completing a college course is not a long-term goal that is quantified in years, for many new college students, the first semester is an important academic milestone which requires navigating through personal and academic challenges. Duckworth et al. (2007) state "The gritty individual approaches achievement as a marathon; his or her advantage is stamina. Whereas disappointment or boredom signals to others that it is time to change trajectory and cut losses, the gritty individual stays the course" (p. 1087). Students' ability to stay the course and remain enrolled is often swayed by reasons which are external to them. Tinto (1997) termed these reasons *external challenges* or *pulls*, and

they include a variety of reasons that a student might stop out from school (e.g., finances, employment, and family). These reasons could occur within the course of a semester, which would affect persistence (i.e., course completion). Additionally, the reasons could occur at between semesters which could affect retention (i.e., subsequent semester enrollment). Regardless of the external circumstances and whether or not a student chooses to leave, Tinto (2012) maintained that an institution's commitment to its students can mitigate the effects of the external challenges, thereby supporting students' ability to persist.

The next subsection highlights the eight key articles that focus primarily on examining retention (see Table 5) with regard to characteristics of the population of interest. Following that subsection is a discussion on academic achievement and the corresponding eight articles which focus on academic achievement and characteristics of the population of interest. The subsequent subsection reviews the four articles which focus on retention and academic achievement. The final subsection discusses the Popiolek, Fine, and Eilman (2013) article, which examines persistence in conjunction with retention and academic achievement.

Table 5

Retention Articles and Population of Interest's Characteristics

	DE	ELL	LC	Minority Students
Community College Students				
Almon (2015)		X		
Butler & Christofili (2014)	X		X	
Laanan et al. (2013)		X	X	
Lorch (2013)	X		X	X
Engstrom & Tinto (2008)	X	X	X	X
Kurzet (1997)	X	X		

(continued)

	DE	ELL	LC	Minority Students
Ignash (1995)	X	X		
4-year College Students				
Jehangir (2008)			X	X

Note. The category of minority students includes racial/ethnic minority students, first-generation college students, and generation 1.5 students.

Of the seven retention articles focused on community college students, four articles focused on learning community students. Of those articles, two articles included DE ELLs, one article focused on DE LC students with no reference to students' language background, and the final article focused on DE LC Latina/o students, with no indication of students' first or second language. The four non-LC community college articles, focused on DE ELLs and ELLs who likely placed into DE. The 4-year college article focused on a learning community which included first-generation minority students, a group which often includes ELLs. The remainder of this subsection highlights key findings from the eight retention articles as the findings relate to aspects of this study's population of interest.

Almon's (2015) qualitative research on ELL retention looked specifically at (a) the factors ELLs attributed to their staying or leaving college, and (b) obstacles which inhibited ELLs' program completion or degree completion. Almon found that all nine ELL participants attributed their leaving college due to a lack of finances, full-time employment, or family obligations. Almon noted that these reasons are common to many students who attend community college regardless of first language background. In discussing specific obstacles which affected program or degree completion, the participants identified "linguistic challenges, lack of pertinent procedural knowledge to navigate college processes, perceptions about themselves as multilingual students at the

college, and impact of testing and placement processes" (Almon, 2015, p. 466). Almon

shared that even though some of the participants experienced levels of success due to

student services, such as tutoring, and their personal motivation, the students interviewed

in this study still dropped out from college. Almon, similarly to Tinto (1993), cautioned

that students' personal struggles should not be regarded as the sole explanation for

attrition. Almon maintained that the climate created at community colleges, particularly

by faculty in the classroom with regard to students' linguistic and cultural background, is

crucial to promoting student retention. Additionally, providing explicit college

procedural knowledge in the areas of financial aid, degree attainment, and transfer

options allows ELLs to feel more engaged with their institution.

Utilizing an online survey, Laanan et al. (2013) examined community college

students' experiences in LCs as compared to enrollment in discrete courses (i.e., non-LC

format). Within the LC group ($n = 64$), approximately 28% of the participants were

ELLs. Within the non-LC group ($n = 125$), 15.5% of the participants were ELLs.

Overall, Laanan et al. found that the LC participants reported higher levels of feelings of

belonging at college and feeling part of the campus community. Additionally, the LC

participants reported higher degrees of overall satisfaction with their college experience.

Laanan et al. posited "Ideally, this heightened level of satisfaction will lead to student

persistence and improved graduation rates" (p. 256). Laanan noted et al. noted that the

LC students received sustained support from academic counselors at orientation and

throughout the semester. Laanan et al., recommended that collaboration between

academic and student life personal be encouraged, suggesting that addressing students'

needs holistically and bringing services to the students assists in LC students' overall positive college experience and the likelihood that these students will be retained.

Lorch (2013) conducted a qualitative study to understand the ways in which learning communities promoted Latina/o students' persistence and subsequent retention at a community college. Lorch found that students spoke favorably of many elements of their learning community experience, especially the dedicated student lounge. The lounge was described as a place where students felt a sense of belonging, developed academic goals, and became part of an academic community. Additionally, the study lounge offered technology resources, contact with current and former learning community students, and exchanges with faculty and staff. The learning community elements of precollege outreach to students assisted in fostering positive relationships during the early transition to college. Lorch explained that the retention related issues for Latina/o were addressed via the supportive structure of the developmental learning community. Foremost, Lorch advocated the building of community and establishment of collegial connections for these students as paramount, which assists students in managing obstacles which might lead to attrition. Lorch stated "As Latina/o enter into their first exposure to college through a [developmental learning community], they are in a position to explore personal and academic goals in a supportive environment that offsets the 'pull' of outside obligations known to deter student goal development" (p. 334). In many ways, Lorch's student supports Tinto's theory that students who integrate into the academic and social spheres of a college's community tend to persist and are more likely to be retained.

Engstrom and Tinto (2008) conducted a mixed-methods study that included 13 community colleges in the study's quantitative phase and three community colleges in the

qualitative phase. These researchers studied how to the use of learning communities

impacted the retention low-income underprepared students, a demographic which often

includes to ELLs in DE. Engstrom and Tinto (2008) stated:

> We found that academically under-prepared students in the learning communities
>
> were significantly more engaged in a variety of activities than similar students on
>
> their campuses, including in classroom work and in activities involving their
>
> faculty and classmates in and outside the class. Simply put, students in the
>
> learning communities were more academically and socially engaged . . . . Not
>
> surprisingly, we found that students in the learning-community programs were
>
> more apt to persist to the following academic year than their institutional peers.
>
> (p. 47)

With regard to second language learners in learning communities, Engstrom and Tinto

(2008) noted that "ESL students emphasized how scared and anxious they were and how

participation in the collaborative environment of [a] learning community helped them

overcome their fear" (p. 48). The researchers observed that community college students

enrolled in learning communities, on average, were retained at a rate 5% higher than non-

LC students. At some community colleges, the rate was as high as 15%. Engstrom and

Tinto asserted that for academically underprepared low-income students, a number of

whom are likely ELLs, learning communities need to include support structures that

connect students to each other, to faculty, and to support systems on campus. Even

though Engstrom and Tinto focused on retention in their study, they asserted that

effective learning communities also promoted student achievement.

Jehangir (2008) studied a multicultural learning community, which linked a social science, humanities, and freshman composition course. Eighty-nine percent of the participants who reported their race ($n = 125$) were ethnic minority first-generation college students. Based on this dissertation's earlier review of ELLs and the groups in which ELLs are subsumed, it is likely that Jehangir's study included students who were ELLs in their first year of college. Jehangir's investigation revealed five themes which reflected these students' experiences as first-generation college students. Underlying the five themes were issues of isolation and marginalization and the development of academic identities. Jehangir attributed students' success to "creating learning community environments that allow students to cultivate a sense of belonging and voice in the academy" (p. 48). In terms of retention, the multicultural learning community had a favorable semester retention rate of 82.5% from first semester to second semester (Jehangir, 2008).

Butler and Christofili (2014) presented a case study of a developmental education learning community at a community college where a problem-based approach was used to increase retention. The researchers provided a rich description of the program's implementation for four terms and included lessons learned at the end of each term. Butler and Christofili acknowledged the following: "Because Project Degree is still in its early developmental stages, we have little substantive and quantitative data to provide, although student retention was higher in the third and fourth terms" (p. 647). The researchers attributed the higher retention rate to the inclusion of service-learning as part of their problem-based approach, which was enhanced by the integrated learning

community experience. The four courses which comprised this learning community were developmental reading, writing, mathematics, and a college success course.

Kurzet (1997) examined ESL programmatic choices made at Portland Community College to improve the retention of DE ELLs. Two key areas addressed were improving the quality of ESL instruction and improving the quality of support services to students. Specific improvements advocated for included "improved counseling services, access to college language and developmental education labs, better access, and improved assessment service" (p. 59). Kurzet explained that these efforts increased ELL retention for two years to an average rate of over 87% (Absolute numbers were not provided). Additionally, more students enrolled in advanced ESL courses than in previous years. Kurzet acknowledged that obtaining funding for quality improvements can be difficult for many institutions. Kurzet delineated the three main challenges to improving ESL programs, and consequently retention, as "a lack of understanding of who ESL students are and what they need, outdated assumptions about ESL instruction and student services, and scarce public funding for education" (p. 60).

Ignash (1995), similar to Kurzet (1997), looked at the impact of programmatic decisions on promoting the retention of ELL at the community college level. Ignash reviewed the curriculum and policies of state and local agencies in the six U.S. states with the largest community college ESL programs. Regarding retention, Ignash stated "Policy implications concerning ESL student persistence can be drawn from this study of six ESL programs and the state policies that encourage their development" (p. 30). Ignash found that a truncated curriculum design, where the ESL program is located away from the main college campus, was likely to lead to have the highest student attrition rate.

In contrast, a comprehensive ESL curriculum design, which was located on the main campus, maximized student retention by reducing structural barriers. Ignash highlighted that the ESL programs that were most successful had content-based ESL classes and that counseling and academic support were provided.

Academic achievement. Although retention and persistence are important makers of student success, so too is academic achievement, which is often quantified as grades or pass rates. Students need to achieve satisfactory academic progress to advance in coursework. Ultimately, meeting a program's academic requirements allows a student move forward in their degree program toward degree completion.

For this dissertation, academic achievement is operationalized as students' final course grade (based on a 4.0 scale) in a developmental education level one English course. The examination of the final English course grade is analogous to Boylan and Saxon's (2012) recommendation of examining pass rates as part of a program evaluation. Pass rates have been utilized by researchers in developmental education to determine program effectiveness and to measure the impact of pedagogical initiatives. For example, Wladis, Offenholley, and George (2014) calculated pass rates, inclusive and exclusive of withdrawals, to determine the efficacy of an early alert system, which included mandatory academic support for students at risk for failing developmental mathematics. Table 6 delineates the eight articles which discuss academic achievement in relation to DE ELLs.

Table 6

Academic Achievement Articles and Population of Interest's Characteristics

	DE	ELL	LC	Minority Students
Community College Students				
Barnes & Piland (2013)	X		X	
Nakamaru (2012)	X	X		
Schnee (2014)	X	X	X	
Smith (2010)	X	X	X	
Song (2006)		X		
4-year College Students				
Goldschmidt & Seifried (2008)	X	X		X
Harrison & Shi (2016)		X		
Mohamad & Boyd (2010)	X	X	X	

Note. The category of minority students includes racial/ethnic minority students, first generation college students, and generation 1.5 students.

Of the five articles focused on community college students, three articles focused on learning community students. Of those articles, two articles included DE ELL students and one article included only DE students. Of the two non-LC articles, one included DE ELLs and the other included DE students. Of the three 4-year college articles, one focused on an LC and two did not. The LC article included DE ELLs. Of the two non-LC articles, one focused on DE ELLs and one focused on ELLs only. The remainder of this section highlights key findings from the eight academic achievement articles as they relate to aspects of this study's population of interest.

Barnes and Piland (2013) focused on the academic achievement of DE students in DE English LCs as measured by course grades, term grades, and successful course completion (i.e., passing). Barnes and Piland's quantitative study investigated LC versus non-LC differences and ethnicity differences. On average, African-Americans and Latinos comprised 75% of the participants in the two English levels. The lower English

level included 466 LC and non-LC students. The upper English level included 1,054 LC and non-LC students. First language was not included as a participant demographic, although it is likely that ELLs comprised some portion of this sample based on this dissertation's earlier review of the different groups which DE ELLs subsume. Barnes and Piland found that the upper DE English LC course completion rates were higher than the lower DE English LC. The researchers suggested that the LC approach and curriculum used with the lower DE English students might not have been appropriate, especially in light of the cultural and ethnic background of the students. Additionally, Barnes and Piland advocated that support services, such as tutoring, be included as part of the lower level LC in order for these students to achieve academically. Barnes and Piland's concern for the curriculum and meeting the needs of DE students is similar to Crosby's (2010) concern regarding the dearth of culturally appropriate materials in developmental education. Crosby maintained that materials which reflect students' identities aid in students' academic identity development. Furthermore, the extent to which a student's academic identity was developed could potentially affect a student's desire or ability to persist (Crosby, 2010).

Goldschmidt and Seifried (2008) studied factors which influenced DE ELLs' academic success. Of note, was a mismatch between expectations and reality for students and faculty. Specifically, Goldschmidt and Seifried found that many DE ELLs were not performing well in their first semester of college, despite the majority of the students indicating that they were motivated to attend college and excited about their classes. Unfortunately, these learners appeared to be unaware of the role that language and knowledge of college processes played in determining one's academic success. With

regard to the faculty, Goldschmidt and Seifried noted that "one-third (33%) of the faculty

had been trained to work with culturally and/or linguistically diverse students, but

slightly more than half (56%) believed it was necessary" (p. 31). In discussing how the

academic success of DE ELLs could be promoted, Goldschmidt and Seifried stated that

"both the student and the institution have to make it happen" (p. 32). Specifically, the

researchers called on institutions to provide scaffolding in addition to developmental

education courses to assist students. Scaffolding should include additional support from

academic advising and career counseling to ensure that students have a realistic

understanding of the degree paths they have chosen and the demands of the vocations

they are considering (Goldschmidt & Seifried, 2008). Additionally, Goldschmidt and

Seifried called on institutions to define their philosophy of success and to train faculty to

help DE ELLs succeed. Goldschmidt and Seifried stated, "It is only when institutions,

students, [*sic*] and faculty agree on their mission regarding the education of immigrant

students that dreams can be realized" (p. 32).

Harrison and Shi (2016) studied factors which affected ELLs' attainment of their

educational goals. Because achieving one's educational goals usually requires

satisfactory course completion, Harrison and Shi's qualitative research is situated within

this dissertation's discussion on academic achievement. Harrison, an instructor, and Shi,

an ELL graduate student, engaged in a co-generative dialogic analysis of course

assignments. The researchers' purpose was to shed light on steps that instructors and

ELLs can take to promote student success in the classroom. For instructors, Harrison and

Shi recommended knowing students' language levels, providing opportunities for student

interaction, and attending to language use in the classroom. Additionally, instructors

should be aware of their own language use and periodically assume an outsider perspective to understand what their students, who are second language speakers, might be experiencing linguistically and culturally. For students, Harrison and Shi recommended that students (a) get to know their instructors and ask for help when needed, (b) spend time interacting with classmates, and (c) prepare before class to increase confidence inside the classroom. Harrison and Shi maintained that ELLs are more likely to be successful if they encounter supportive college environments which address their linguistic, cultural, and academic needs.

Mohamad and Boyd (2010) reported on a learning community approach they utilized called a distributed resources model. Their model replaced a traditional ESL multi-course program with an English for Specific Purposes (ESP) course, a required English for Academic Purposes (EAP) lab, and campus support services. The distributed resources model resulted in 85% of ELLs passing their basic writing course, which had been reframed as a content-based language course (Absolute numbers were not provided). Mohamad and Boyd explained that to make the ESP course relevant to students' diverse interests, five different tracks were designed based on the majors offered at their institution. The mandated EAP lab focused on academic writing conventions and included a discipline-specific research paper. Overall, the approach taken by Mohamad and Boyd was highly collaborative and included other departments and services at their college. The researchers stated that retention data was not available but reported that "undergraduate students [were] progressing more rapidly through their programs than those under the previous configuration" (p. 95). Qualitatively, the students reported feeling "better prepared to meet academic demands, and they

overwhelmingly convey their intent to continue to utilize university-wide support services, particularly those of the Writing Studio" (p. 95). Students' increased progression rate through their program and the 85% pass rate are positive academic achievement markers of Mohamad and Boyd's innovative LC approach.

Nakamaru (2012)'s study focused on ELLs in an advanced developmental education ESL writing course. Nakamaru found that academic achievement (defined as exit from DE ESL course) was positively associated with out-of-class engagement on a class wiki. Additionally, Nakamaru examined if this engagement would positively correlate to students' passing of the writing course exit exam, which was required to exit DE ESL course). Overall, Nakamaru found that regular wiki use, as opposed to total quantity of wiki use, was more strongly correlated with passing the final course exam. Nakamaru cautioned that the correlation should not be reduced to individual differences in motivation. She maintained that the study was not to examine motivation per se but to study under what conditions students' motivation would manifest as engagement, which she operationalized as time and effort given to wiki tasks. Additionally, similar to Tinto (1993) and Almon (2015), Nakamaru suggested moving beyond the student factors to examine institutional context. She stated, "It is not satisfactory to write off the majority of the class as 'unmotivated' without a careful consideration of the larger institutional conditions that might be affecting motivation" (p. 289).

Schnee's (2014) qualitative study noted positive academic achievement results for the use of a DE LC with community college students, three of whom were ELLs. Schnee focused on first-semester students' retrospective experiences in a learning community. The learning community consisted of three courses: the lowest level developmental

English course, a credit-level psychology course, and a credit-level college success course. Schnee triangulated her qualitative data with quantitative data, which offered information on these students' academic achievement. Schnee found that 14 out of 15 passed their developmental English sequence. Of the 14 who moved on to credit-level English, 11 out of 13 passed their college composition courses, a gateway college course. The passing of gateway college classes is an important marker of developmental education student success (Boylan & Saxon, 2012) because it indicates DE students' preparedness for credit-level work. In terms of other student achievements, Schnee noted, "The students gained college credits, developed their academic reading and writing skills, made intellectual connections across disciplines, and, for better or worse, felt themselves to be part of an academic community" (p. 257). Being part of an academic community indicates a degree of academic integration, which is an important element in Tinto's (1993) theory of student retention. Schnee's findings, similar to Jehangir's (2008) and Lorch's (2013), highlight that minority students' sense of belonging and connection to an academic community contribute to students' ability to achieve.

Smith's (2010) wide-scale quantitative study of DE LCs included 2,972 community college students, 870 (29.3%) of whom were ELLs. Smith's overall finding was that feeling supported contributed the most to students' academic achievement. Smith's study was part of a larger research project whose primary investigators were Engstrom and Tinto (Smith, 2010). To that end, Smith's work supplements Engstrom and Tinto's (2008) research which focuses on retention and persistence. Smith's study examined students' self-reported learning outcomes and the extent to which institutions

facilitated students' knowledge and development in 11 areas. The areas broadly included students' general education and ability to (a) speak, write, think, and learn effectively, (b) use technology, work well with others, and develop confidence in academic abilities, and (c) develop career goals, acquire job or work-related skills, and contribute to one's community. Overall, Smith found that learning community participation was positively associated with students' self-reported outcomes; however, the relationship was influenced by the extent to which students felt supported. The construct *feeling supported* (Cronbach's alpha = .84) included the extent to which students felt the institution encouraged (a) studying, exploring diversity, forming peer relationships, attending class, and utilizing academic support, and (b) provided support to succeed, assisted students with nonacademic responsibilities, promoted thriving socially, and assisted with financial support. Smith's research, like Tinto's (2012), Almon's (2015), and Nakamaru's (2012), brings to light the importance of institutional action as it pertains to students' academic achievement.

Song (2006) examined academic achievement for ELLs by exploring the reasons that students fail to achieve. Specifically, Song examined instructor and student perspectives as they related to failure in an advanced ESL course. Song found that instructors cited family problems, employment responsibilities, literacy deficiencies, affective factors (e.g., negative attitude and lack of motivation), and personal problems (e.g., emotional issues and relationship difficulties) as elements contributing to students' failure. The students identified employment and family responsibility as contributing to their failure. The students also recognize their attitude and effort played a role in their failure to achieve. Additionally, Song found that students had an inaccurate

understanding of the scope of academic literacy required in their advanced ESL course. Song suggested that what instructors considered to be a lack of effort might actually be students "not fully understanding what the tasks of reading and writing in English in academic contexts really entailed and how to approach them" (p. 426). Some students cited an unfamiliarity with the course requirements including the methods of literacy instruction and assessment. The students felt that they could be better assisted via more individual conferencing with faculty. Support services which included tutoring, childcare, and bilingual services were appreciated by students. Many students also valued linkage between ESL courses and content courses. However, students said they were not always informed of these types of dual course opportunities.

Retention, academic achievement, and population of interest. Among the 21 articles reviewed, four articles discussed both retention and academic achievement as they pertain to the population of interest. Table 7 delineates these four articles in terms of the DE ELL characteristics to which they relate.

Table 7

Retention and Academic Achievement Articles and Population of Interest's

Characteristics

	DE	ELL	LC	Minority Students
Community College Students				
Tai & Rochford (2007)	X	X	X	
Teranishi et al. (2011)	X	X		
Weiss et al. (2015)	X		X	
4-year College Students				
Goldschmidt et al. (2003)	X	X	X	X

Note. The category of minority students includes racial/ethnic minority students, first generation college students, and generation 1.5 students.

Of the four articles reviewed, three articles focused on DE community college students, and one article focused on DE ELLs at a 4-year college. Taken together, these articles bring to light aspects of higher education which promote the retention and academic achievement of DE ELLs. The remainder of this subsection highlights key findings from the four articles denoted in Table 7.

Weiss et al. (2015) conducted a large scale study of learning communities at six community colleges. Weiss et al. examined retention in their study, which they defined as postsemester program enrollment. Although they termed this construct persistence, their definition, which examines enrollment after the learning community semester, best aligns with this dissertation's definition of retention. Weiss et al. explained that they focused on credit accumulation, which they felt subsumed persistence (i.e., retention). They found that learning community students averaged approximately half a credit more than the nonlearning community students. Weiss et al. concluded that the effects of learning community was small but positive. In the one learning community program where there appeared to be the greatest impact, Weiss et al. found there was a high degree of student support, more traditionally aged students, and three courses linked as opposed to two. Weiss et al. cautioned that more research was needed before causation, as opposed to estimation error, could be attributed to this finding.

Goldschmidt et al. (2003) found that DE ELLs' academic achievement and retention were positively influenced by participation in a 30-hour precollege summer program. The purpose of the program was to provide academic support to generation 1.5 students who were academically underprepared before beginning their college experience (Goldschmidt et al., 2003). This peer-led program focused on self-paced skill

development in the areas of writing, mathematics, reading, and study skills. The program

required spending 30 hours at the campus' learning center and interacting with a peer

tutor who facilitated students' progress through the skill development activities. In

examining the data for groups who entered in the fall, Goldschmidt et al. found that the

grades and retention rates of the 30-hour program participants were (a) higher than

anticipated (based on past retention rates), and (b) higher than freshmen who did not

participate in the program. At the end of the third semester, on average, the ELLs who

participated in the 30-hour program ($n = 50$) earned 0.34 points above their predicted

GPA, which was calculated from combing high school data with standardized test data.

All other freshmen ($n = 450$) averaged a 0.22 point increase in actual GPA compared to

predicted GPA. The ELLs in the 30-hour program were retained at a rate 15 percent

higher than all other freshmen. Goldschmidt et al. noted that the use of the learning

center—which brought students together on a regular basis in a comfortable

environment—and the structure of the 30-hour program created an experience "somewhat

like [a] 'learning community' or 'living learning center" (p.14). Goldschmidt et al.'s

finding regarding the importance of the learning center for new academically

underprepared ELLs mirrored Lorch's (2013) finding of the value of the student lounge

for Latina/o students. In short, having a dedicated physical space on campus promoted

students' sense of belonging and feeling part of an academic community.

Tai and Rochford (2007) described a learning community program used to

promote the retention and academic achievement of DE ELLs at a community college.

The researchers provided a rich program description of a learning community which

linked a DE ESL reading course, DE ESL writing course, and a credit-level history

course. Tai and Rochford put forth that this type of linkage between a developmental

education skills-based course and a content course allows students to apply the skills they

learn to college content. Additionally, the researchers stated that the active learning style

of the learning community promoted students' learning. Approximately 66% of the

students passed all three learning community courses. Tai and Rochford highlighted that

although the developmental education instructor was concerned that they students did not

prepare adequately for the standardized reading and writing exit tests, the rigorous LC

course assignments gave students requisite skills to pass the exit tests. Tai and Rochford

asserted the following connection between academic achievement and retention:

> [B]y incorporating developmental and credit-bearing courses into a learning
>
> community, the focus of developmental courses moves beyond mere test
>
> preparation and isolated skills development to one of metacognition. Drawing
>
> upon the environment of social and intellectual support provided in a learning
>
> community, students acquire, integrate, and transfer the skills needed to perform
>
> as effective college students who can tackle challenging college-level situations.
>
> As a result, they are more likely to remain enrolled in college. (p. 115)

Similar to Kurzet (1997) and Ignash (1995), Teranishi et al. (2011) discussed

programmatic approaches and institutional actions needed to promote the academic

achievement of immigrant students, many of whom were ELLs who placed into DE.

After reviewing the educational contexts for immigrant college students and their needs,

Teranishi et al. put forth that community colleges should hire more ESL faculty. The

researchers stated, "High-quality faculty are essential to the effectiveness of ESL

programs in terms of student learning gains, retention, and transition into regular

academic classes" (p. 162). Teranishi et al. stressed the importance of understanding demographics associated with immigrant student population, their needs, and the challenges they face. Teranishi et al. proposed that doing so can assist institutions in enrolling more students and helping them to complete an associate's degree. Additionally, Teranishi et al. called for high-quality academic advising and support services to increase ESL students' retention and rate of progress toward a degree.

Persistence, retention, academic achievement and population of interest. As noted in previous sections of this dissertation study's literature review, there is a dearth of studies related to the population of interest and the student outcomes of persistence, retention, and academic achievement. Popiolek et al.'s (2013) 4-year quantitative study was the only study reviewed which focused on the three variables included in this dissertation: academic achievement, persistence, and retention. However, whereas other studies specified participants' language background, it is difficult to ascertain the number of ELLs in Popiolek et al.'s research. The remainder of this section discusses Popiolek et al.'s research as it pertains to other aspects of this dissertation's population of interest.

Popiolek et al. (2013) researched a learning community at a community college where 20% of the student population were minorities. Although language demographic information was not provided, as previously noted in this literature review, it is likely that some of the community college's minority students were ELLs. Popiolek et al. sought to investigate the extent to which controlling for instructor variance would affect persistence, retention, and academic achievement in a learning community which linked two introductory credit-level courses: English 101 and Psychology 101. Although the courses were not developmental education courses, English 101 is considered a gateway

credit-level course. As mentioned previously, student performance in gateway courses is of interest to developmental educators (Boylan, 2002; Boylan & Saxon, 2012) given developmental education's mission to help students succeed in their gateway college courses (Boylan & Saxon, 1998). Additionally, for linguistic reasons, English is an important course for ELLs who are transitioning from DE into non-DE classes. Understanding the degree to which these students are successful in gateway English courses can be useful for developmental education program evaluation and improvement.

Popiolek et al.'s (2013) study defined their variables as grades, attrition, and retention. Course grades were operationalized on a 4.0 grading scale, which is similar to this dissertation's operationalizing of academic achievement. Retention was defined as enrollment in the subsequent semester (i.e., post-LC semester), which is similar to this dissertation's definition of retention. However, Popiolek et al. and this dissertation differ in the examination of attrition and persistence. Popiolek et al. operationalized attrition as earning a final grade of F or withdrawing from the course. This dissertation operationalizes persistence completing a course (i.e., not withdrawing). Unlike Popiolek et al., this dissertation categorizes grade-related information under academic achievement as opposed to subsuming grades as part of persistence.

Overall, Popiolek et al. (2013) found that the LC students ($n = 156$) experienced higher rates of persistence, retention, and academic achievement when compared to nonlearning community students ($n = 205$). Persistence was measured by examining course attrition rates. The 4-year average LC English course attrition rate (17.3%) was lower than the non-LC English course attrition rate (21.6%). Retention was measured by examining subsequent semester enrollment. For the four years, the LC students averaged

an 84.2% retention rate as compared to the non-LC students' retention rate of 74.2%.

The English course grades for the LC students were on average 0.25 grade points higher

for each of the 4-year semesters as compared to the non-LC students' English grades.

Additional analysis for statistical significance showed that there was only one out of four

semesters where the observed differences were statistically significant for attrition and

English academic achievement. Statistical significance was not reported for retention.

Despite the lack of statistically significant differences, Popiolek et al. concluded that their

study supported the utilizing learning communities for community college students.

Popiolek et al. based their conclusion on their finding that when instructor variance was

controlled for, learning community students experience greater positive outcomes than

nonlearning community students.

Thematic Article Analysis of Persistence, Retention, and Academic Achievement

An analysis of the 21 articles yielded six themes related to the persistence,

retention, and academic achievement of ELLs in DE. These themes were determined

based on their frequency of occurrence across the 21 articles. Although there is likely

some overlap between the themes, this researcher attempted to differentiate the themes

based on their focus (i.e., institutions, programs, services, faculty, or students). Of note is

that many articles discussed more than one theme in relation to persistence, retention, and

academic success of ELLs in DE. The six themes identified across the 21 articles

included the following: (a) employing innovative curriculum and instruction to address

the needs of ELLs in DE, (b) providing ELL DE students with support services, (c)

promoting students' sense of belonging within classrooms and on campus, (d) creating

institutional climates supportive of students' diverse linguistic and cultural backgrounds

(e) explicitly teaching college procedural knowledge to promote students' academic

identity development, and (f) utilizing supplemental short term programs to prepare ELL

DE students for college. Table 8 delineates the six themes and their frequency of

occurrence across the 21 articles.

Table 8

Thematic Article Analysis of Persistence, Retention, and Academic Achievement and DE

ELLs

	Frequency of occurrence	
Theme	Number of articles	%
Employ quality curriculum and instruction	12	57
Provide support services	10	48
Promote students' sense of belonging	8	38
Create inclusive institutional climate	3	14
Teach academic procedural knowledge	3	14
Offer short-term pre-college experiences	3	14

The remainder of this section discusses the six themes and key findings and suggestions

from select articles.

        The most prevalent theme to emerge from this literature review was the need to

provide students with quality curriculum and instruction. Of the 21 articles reviewed, 12

articles (57%) discussed the importance of some type of quality curriculum and

instruction for students whose characteristics include ELLs in DE. Of the 12 articles,

three articles (Butler & Christofili, 2014; Ignash, 1995; Kurzet, 1997) discussed quality

instruction and curriculum in relation to retention. Six articles (Nakamaru, 2012;

Mohamad & Boyd, 2010; Barnes & Piland, 2013; Goldschmidt & Seifried, 2008;

Harrison & Shi, 2016; Song, 2006) discussed quality curriculum and instruction in

relation to academic achievement. Two articles (Tai & Rochford, 2007; Teranishi et al.

2011) focused on quality curriculum and instruction in relation to both retention and academic achievement. One article, Popiolek et al. (2013), studied the efficacy of a learning community approach in relation to retention, persistence, and academic achievement.

With regard to quality instruction, emphasis was placed on the faculty being trained in understanding how best to meet the needs of their linguistically and culturally diverse students (Goldschmidt & Seifried, 2008; Harrison & Shi, 2016; Kurzet, 1997; Teranishi et al., 2011). In terms of curriculum, researchers advocated content-based teaching, especially linking ESL and skills-based courses to content courses (Ignash, 1995; Popiolek et al., 2013; Mohamad & Boyd, 2010; Song, 2006; Tai & Rochford, 2007). Barnes and Piland (2013), similar to Crosby (2010), highlighted the importance of using culturally appropriate curriculum. Additional innovative teaching approaches included incorporating service learning as part of a learning community (Butler & Christofili, 2014) and utilizing technology to promote classroom engagement (Nakamaru, 2012). The value of utilizing learning communities as a pedagogical approach for DE and minority language students was also noted (Barnes & Piland, 2013; Butler & Christofili, 2014; Mohamad & Boyd, 2010; Popiolek et al., 2013; Tai & Rochford, 2007). Specifically, Popiolek et al.'s (2013) 4-year learning community study advocated the use and support of learning communities for community college students, many of whom arrive to college underprepared and facing numerous external challenges.

The second major theme to emerge from this literature review on the variables was the need to provide students with support services. Ten of the 21 articles (48%) stated the importance of support services for students whose characteristics include ELLs

in DE. Of the 10 articles, four articles (Engstrom & Tinto, 2008; Ignash, 1995; Kurzet, 1997; Laanan et al., 2013) focused on the importance of support services in relation to retention. Four articles (Barnes & Piland, 2013; Goldschmidt & Seifried, 2008; Mohamad & Boyd, 2010; Song, 2006) focused support services in relation to academic achievement. Two articles (Teranishi et al., 2011; Weiss et al., 2015) focused support services in relation to both retention and academic achievement.

Concerning the types of student services support needed, improved counselling services was recommended by Ignash (1995) and Kurzet (1997). Providing academic support was mentioned by Barnes and Piland (2013), Ignash (1995), Kurzet, (1997), and Song (2006). Also noted was the need for academic advising (Goldschmidt & Seifried, 2008; Teranishi et al., 2011) and career counselling (Goldschmidt & Seifried, 2008). Laanan et al. (2013) and Mohamad and Boyd (2010) both called for collaboration between academic and student support services. Teranishi et al. (2011) drew attention to the need for high quality student services. In addition to the types of services mentioned, Song's (2006) research highlighted that students were appreciative of childcare and bilingual services. Related to learning communities, Engstrom and Tinto (2008) and Mohamad and Boyd (2010) advocated that support services be included in students' learning community experience.

The third major theme to emerge from this literature review on the variables was the need to promote students' sense of belonging, which also included feeling connected. Eight of the 21 articles (38%) mentioned the importance of addressing students' sense of belonging for students whose characteristics included ELLs in DE. Of the eight articles, four articles (Engstrom & Tinto, 2008; Jehangir, 2008; Laanan et al., 2013; Lorch, 2013)

focused on students' sense of belonging as it related to retention. Three articles (Harrison & Shi, 2016; Schnee, 2014; Smith, 2010) focused on students' sense of belonging as it related to academic achievement.

Regarding promoting students' sense of belonging, Lorch (2013) and Goldschmidt et al. (2003) highlighted the value of providing a physical space on campus where students could interact among themselves and with tutors and faculty as needed. Engstrom and Tinto (2008), Jehangir (2008), and Schnee (2014) all noted that learning communities, with their linked courses and sustained connections between students and faculty, promoted students' sense of belonging. Jehangir (2008) found that students' feelings of isolation and marginalization were reduced because of their learning community experiences. Schnee (2014) found that students identified their learning community experience as contributing to their feeling part of an academic community. Engstrom and Tinto (2008) observed that learning communities afforded students the opportunity to receive support from their peers and faculty. Smith's (2010) large scale quantitative study of DE students, many of whom were ELLs, underscored that the degree to which students felt supported, a metric which included their sense of belonging, mitigated students' positive associations between their learning community participation and their self-reported outcomes. Harrison and Shi (2016) found that the classroom was an important venue where students' sense of belonging can be promoted. Time spent interacting with classmates assisted ELLs in feeling connected and achieving academically (Harrison & Shi, 2016).

The final three themes which arose from this literature review on the variables were as follows: (a) creating an inclusive institutional climate, (b) teaching academic

procedural knowledge, and (c) offering short-term precollege experiences. Each of these themes occurred in three out of 21 articles. A brief discussion of these three final themes concludes this article analysis section.

With regard to creating an inclusive institutional climate for students from diverse linguistic and cultural backgrounds, it was noted that supportive college environments promoted feelings of acceptance which impact retention (Almon, 2015) and academic achievement (Harrison & Shi, 2016; Nakamaru, 2012). Almon (2015) and Harrison and Shi (2016) drew attention to the classroom as sites where students' linguistic and cultural backgrounds should be valued, especially by faculty. Nakamaru (2012) brought to light that institutional actions have a ripple effect which can impact students' motivation and subsequent achievement.

In terms of teaching college procedural knowledge and college processes, it was noted that providing these types of information impacted student retention (Almon, 2015) and student achievement (Harrison & Shi, 2016; Song, 2006). Almon (2015) found that providing explicit procedural knowledge in the areas of financial aid, program requirements, and transfer options allowed ELLs to feel more connected to their institutions. Almon (2015), like Tinto (1993) believed that the more connected students felt to their college experience, the greater their likelihood of being retained. Harrison and Shi (2016) advocated for teaching ELLs how to get to know their instructors and the value of doing so. These researchers asserted that teaching explicit sociolinguistic college processes would assist ELLs in feeling more conversant in their second language. The more comfortable ELLs felt, then the more likely they would be to seek help when needed, which would positively impact these students' academic achievement (Harrison

& Shi, 2016). Song's (2006) research highlighted that students did not fully understand the difference between content-based ESL courses and skills-based ESL courses and that this type of information needed to be taught explicitly, especially because of the positive impact that content-based ESL teaching has on students' academic achievement. Additionally, Song found that students needed to be explicitly taught about student support services and how these services could aid in their success. In connection with academic literacy, Song also noted that a lack of understanding of college reading and writing tasks affected students' ability to academically achieve.

Pertaining to the use of short-term precollege programs and experiences, it was noted that both contributed toward retention (Laanan et al., 2013), as well as retention and academic achievement (Goldschmidt et al., 2003; Weis et al., 2015). In Lanaan et al.'s (2013) study of LC students, the students identified their precollege orientation as a positive experience. Weis et al. (2015) found that the learning community program with the greatest impact on credit accumulation offered sessions between semesters to enhance students' academic achievement. Goldschmidt et al. (2003) found that students who enrolled in a 30-hour precollege program had increased levels of retention and higher grades on average when compared to similar students who did not enroll in the program. Overall, efforts to enhance students' academic preparation and acclimation to college life appear to be noteworthy initiatives which contribute to increasing DE ELLs' retention and academic success.

Taken together, retention, persistence, and academic achievement are markers of academic success for a college student's institutional progress and eventual degree completion. A thematic review of the literature on retention, persistence, and academic

achievement and DE ELLs has brought to light the value of utilizing learning communities for this student population. In addition to pedagogical, programmatic, and institutional actions which comprise the six themes identified across the 21 articles, learning communities appear to be a viable approach to increase the retention, persistence, and academic achievement of DE ELLs.

Summary of the Literature

At the foundation of this dissertation's literature review was a desire to identify pedagogical approaches and institutional choices which support DE ELLs' academic success. To do that, a comprehensive literature review was conducted which focused on three key areas: (1) understanding DE ELLs and their corresponding needs, (2) shedding light on developmental education and DE ELLs' literacy development, and (3) examining retention, persistence, and academic achievement as it related to DE ELLs. What follows is a summary of the key findings from this dissertation's literature review.

English language learners who place into developmental education are not part of a homogenous group. At a minimum, this diverse population includes international students, recent immigrants, United States-educated language minority students (foreign-born immigrants who have spent a portion of secondary school in the US), and second-generation immigrants (US-born immigrants). In terms of how these students are referred to in research articles, there is a range of terminology, including direct and indirect variations of ESL and ELL. Furthermore, some researchers employ nonlinguistic terminology descriptive of other identity characteristics, such as ethnic background or first-generation status when referring to ELLs. Knowing how DE ELLs are referred to in the literature can assist in locating articles which address the needs of these students.

The overarching concern of the articles reviewed in this chapter was the educational welfare of ELLs who place into developmental education. These learners, particularly those from immigrant populations, are often from the lower-socioeconomic strata, and higher education is a means of ameliorating their life condition (Kim & Diaz, 2013). Accordingly, higher education institutions are tasked to create programs that meet the academic, cultural, social, and linguistic needs of ELLs. Providing access to college without comprehensive support is not enough (Casazza, 1999; Engstrom & Tinto, 2008). Research on learning communities shows favorable results for the use of this model with developmental education students in general (Brownell & Swaner, 2010; Butler & Christofili, 2014; Engstrom & Tinto, 2008) and ELLs in particular (Engstrom & Tinto, 2008; Jehangir, 2008; Lorch, 2013; Schnee, 2014; Smith, 2010).

Because most learning communities have been situated at 4-year institutions (Barnes & Piland, 2013; Laanan et al., 2013), 2-year institutions are poised for learning community development and research (Stebleton & Nownes, 2011). Stebleton and Nownes (2011) stated: "The learning community model is ideal for community colleges and other 2-year institutions because the missions of both are congruent: access, inclusion, engagement, persistence, and ultimately success" (p. 84). In short, learning communities appear to be a viable pedagogical model to address the diverse needs of DE ELLs, especially at the community college level. However, more research particularly at 2-year institutions is needed with ELLs. Kibler et al. (2011) noted the following about research on language minority students, a growing population in higher education:

> [T]he proliferation of descriptive, rather than research-oriented reports, as well as
> the dearth of studies that disaggregate student outcomes by language background,

limits the generalizations that can be made regarding the impact of innovations on U.S. [language minority] students' academic success or language development in community colleges. (p. 217)

Kibler et al.'s assertions demonstrate the need for more research-oriented reports, particularly on the use of learning communities with DE ELLs. Until studies provide participant language background information and detailed analytical information of student outcomes, educational practitioners and researchers will hold fast to anecdotal evidence and personal pedagogies in the absence of data. It is hoped that this quantitative study with its examination of student outcomes (i.e., retention, persistence, and academic achievement) and inclusion of language demographics will assist the field in moving forward toward better understanding learning communities impact DE ELLs.

In the next chapter, this researcher describes this dissertation's learning community study, which was situated at a community college in the Pacific. This learning community program was created to address the needs of ELLs who place into lowest levels of developmental English and mathematics. It is hoped that this study, with its unique focus on a developmental education learning community program designed specifically for ELLs, will contribute to the literature on learning communities and increase understanding regarding the academic success of DE ELLs.

CHAPTER III

Method

To understand the extent to which an educational program is successful, indirect evidence of student learning, such as retention rates, course completion rates, and course grades, plays an important role (Suskie, 2009). In evaluating developmental education programs, similar benchmark data are utilized for program evaluations (Boylan & Saxon, 2012). In short, the collection and examination of quantitative data assists program administrators in determining the extent to which a program has achieved its goals. In the case of developmental education, a primary goal is to promote the success of students through a comprehensive approach addressing students' cognitive, affective, and personal factors (Boylan, 2009; Casazza, 1999; NADE, 2015) so that these students will succeed in their gateway credit-level courses (Boylan & Saxon, 1998; 2012). Accordingly, analyzing student outcome data from a developmental education learning community program can assist in shedding light on the extent to which the program promoted student success.

The purpose of this nonexperimental quantitative study was to utilize a longitudinal explanatory design to investigate the outcomes for developmental education (DE) English language learners (ELLs) in a learning community (LC) at a community college in the Pacific. Utilizing Tinto's (1993) theoretical framework for student departure, this study sought to investigate to what extent ELLs who place into a DE LC would experience more positive outcomes than their counterparts enrolled in traditional discrete courses. Specifically, quantitative data related to persistence, retention, and academic achievement was collected and analyzed. A quantitative approach was selected

because quantitative data offer important baseline programmatic information (Boylan, 2002; Boylan & Saxon, 2012). A quantitative study can also form the foundation for additional qualitative and mixed method studies (Creswell, 2013). Furthermore, a quantitative approach allows for the examining of benchmark data, which compared to national standards or existing statistics can assist in program evaluation and improvement (Boylan & Saxon, 2012). Moreover, when research questions focus on the relationships between variables and the extent to which a theory might inform those relationships, the use of a quantitative approach is appropriate (Johnson & Christensen, 2014).

Tinto's (1993) theory of individual student departure was utilized as a theoretical framework in this study. In applying this theory, Tinto (1993) posited that if students feel connected to educational and social communities and view themselves as members of their college, then students were more likely to persist, be retained, and achieve academically. Tinto's theory is at the foundation of his support for learning communities as a pedagogical model which positively impacts students' educational outcomes (Tinto, 1997; 2000; 2003; 2012). Furthermore, Tinto's theory informed Engstrom and Tinto's (2008) learning community research where positive outcomes were observed for students from low-income and underprepared backgrounds, including ELLs. Therefore, to investigate the persistence, retention, and academic achievement of DE ELLs in a learning community, and the extent to which Tinto's (1993) theory of individual student departure was applicable to this study, a quantitative approach was utilized.

Research Questions

The research questions guiding this study were:

1. How does the persistence (defined as DE level one English course completion regardless of grade) of ELLs in a DE LC program compare to the persistence of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

2. How does the retention (defined as course enrollment in the subsequent semester after the DE level one semester) of ELLs in a DE LC program compare to the retention of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

3. How does the academic achievement (defined as DE level one English final course grade based on a 4.0 scale) of ELLs in a DE LC program compare to the academic achievement of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

Research Design

This quantitative study utilized a nonexperimental longitudinal explanatory design based on Johnson's (2001) research design matrix which juxtaposed time with research objective. Because this dissertation study involved examining an existing educational program and its archival data, a nonexperimental approach was used. This dissertation study was longitudinal in that it sought to investigate the performance of a group of students across multiple semesters. Existing archival data was collected for different points in time (i.e., semesters), and comparisons were made across time and between groups. Persistence and academic achievement data were obtained for one collection

period (i.e., the learning community semester). However, retention data, which required

examining students' enrollment in the subsequent semester (i.e., the postlearning

community semester), necessitated a second data collection period. According to

Johnson and Christensen (2014), the purpose of explanatory research is to test theories

and hypotheses. This study was explanatory in that it sought to determine the extent to

which Tinto's (1993) theory of individual student departure, which underscores his

promotion of utilizing learning communities, applied to this study's research context.

Additionally, the purpose of this dissertation was to examine if Tinto's (1997; 2000;

2003; 2012) assertions and research findings (Engstrom & Tinto, 2008) on the positive

impact of learning communities for underprepared students would hold true for a specific

student population on which there is dearth of empirical studies, namely, DE ELLs.

Informed by Tinto's (1993) theory of student departure, the persistence, retention,

and academic achievement of DE ELLs in a LC program was compared to DE ELLs

enrolled in discrete courses. Persistence, retention, and grades were selected for analysis

because they are often data utilized for developmental education program evaluations

(Boylan, 2002; Boylan & Saxon, 2012) and are recognizable markers of academic

success (Tinto, 2012). In evaluating a developmental education program's efficacy,

Boylan and Saxon (2012) recommended obtaining: (a) course completion rates, which

refers to the number of students enrolled at the end of the class compared to those

enrolled at the census date (minus official withdrawals), and (b) pass rates, which refers

to grades C and above at the end of the course compared to those enrolled by the census

date (minus official withdrawals). For the purposes of this study, course completion was

operationalized as persistence. Rather than utilize pass rates, which are dichotomous and

provide limited information, this researcher utilized final grades, which are intervally scaled and provide richer information. Accordingly, academic achievement was operationalized using final grades. Specifically, the researcher examined students' DE level one English final course grade (based on a 4.0 scale). The English course was selected because all level one students were enrolled in English; therefore, selecting this course optimized the student data included for analytical comparative purposes. Additionally, given the importance of academic literacy development for developmental education students in general (Boylan, 2012), and ELLs in particular, the examination of English achievement is both relevant and meaningful. This study also sought to investigate to the degree to which developmental education students were progressing in their college coursework by examining retention, as measured by a student's subsequent semester enrollment (i.e., enrollment one semester beyond the level one developmental education learning community semester). To contextualize this dissertation's research questions and design, information on the learning community program and the community college in which it resides is provided in the next section.

Research Site Description: Island Community College

Island Community College (ICC), a pseudonym, enrolls approximately 1,000 students and is located on an island nation west of Hawaii. This densely populated developing country is home to approximately 60,000 people. The country's primary official language is part of the Austronesian language family group, and English serves as the country's second official language. Although English is taught in both elementary and high school, most new college students come to ICC fluent in their native tongue but underprepared in their academic English language proficiency.

ICC, which is recognized as the country's national college, is accredited by the US's Western Association of Schools and Colleges. ICC offers associate degrees in liberal arts, education, and nursing, and a bachelor's degree in elementary education. Similar to most community colleges, ICC offers both credit-level and developmental education courses. The developmental education program is housed in two separate departments. Developmental English comprises the Developmental Education Department, which also includes the First Year Experience Program. Developmental mathematics is part of the STEM Department. Both developmental English and developmental mathematics consist of a three-course sequence, with the most basic developmental classes denoted as level one and the highest developmental classes denoted as level three.

To enter ICC, prospective students complete an application and take a placement test, which assesses their English and mathematics skills. New students can place into any of the three developmental-level courses or one credit-level course in English or mathematics; placement for English and mathematics are independent of each other. At ICC, most new students place into level one English and level one mathematics. In fall 2013, the learning community program's first semester, 47% of the new students placed into level one English, and 59% placed into level one mathematics. In contrast, 7% of the new students placed directly into credit level English, and 4% of the new students placed into credit level mathematics.

Historically, only a small percentage of level one students successfully passed level one English and mathematics and continued on to reach the respective gateway credit-level courses. From fall 2004 to 2012, the English level one completion rate

ranged from a low of 51% in 2005 to a high of 74% in 2008, with an average complete

rate of 67%; the level one mathematics completion rates ranged from a low of 51% in

2008 to a high of 74% in 2005, with an average completion rate of 63%. The academic

success rate of level one students, who comprise the greatest proportion of matriculated

students, was a concern for the college.

In spring 2013, critical discussions took place between faculty and administrators

on how to improve the academic success rate of level one students. One proposed idea

was to implement a learning communities program for level one students (i.e., students

who placed into level one English and level one mathematics). The learning

communities program built upon the existing level one program, which already included

a cohort structure, an early alert system, mandatory study halls, and periodic meetings

between faculty to discuss student progress, course content, and opportunities for

integrated projects. The program was piloted in fall 2013.

Learning Communities Program

The learning communities program at ICC was designed in spring 2013 and first

implemented in fall 2013. Utilizing the already established cohort model of the level one

program, four cohorts were selected to be part of the LC program based on class

scheduling. The remaining four cohorts comprised the traditional level one program, and

for the purposes of this dissertation will be referred to as the nonlearning community

(non-LC) program. The learning community program built upon the established level

one program, which was comprised of level one English, level one mathematics, and a

basic computer application course, and included additional elements to create a learning

community experience for the students and to address the goals of the program (details on

the learning community program's mission, vision, and learning outcomes can be found in Appendix A).

To meet the learning communities' program learning outcomes, a curricular theme-based approach was chosen. The program was structured around the three majors offered at the college, and connected to the theme of career exploration. The learning community program was comprised of four cohorts based on the college's majors: a liberal arts cohort, a nursing cohort, and an education cohort. The fourth cohort was a mixed major cohort specifically designed for learning community students who lived at the residence hall. This particular cohort was similar to the living-learning communities where students who reside together study together as a means of enriching both their academic and residential experience. The decision was made to focus on the college majors because it could take a level one developmental student almost two years before they began taking courses in their major at the college. Additionally, many new college students, especially those who are first-generation college students (Ward et al., 2012) or from cultural or linguistic minority backgrounds (Conway, 2010), do not have a great deal of knowledge of college programs and choosing a major. The purpose of the learning community program's curricular theme was to expose students to topics in their selected major, educate them about degree programs and possible careers, and assist them in confirming or changing their major.

In terms of assisting students to connect more deeply to their college experience and to feel a part of the college community, programmatic elements were incorporated into the learning community to bring together the four LC cohorts to eat, socialize, and spend time together. Programmatic events included a welcome event with team-building

activities, a midsemester movie luncheon, and a closing celebration with an overview of the semester's accomplishments. When it was not possible to gather all four cohorts together, the LC faculty were encouraged to pursue extracurricular opportunities with their cohorts, both on- and off-campus, such as attending Students Services' workshops, visiting potential places of employment, or attending the local art exhibition. Some learning community cohorts created their own intracohort academic competitions or community service projects at local schools.

In terms of academics, the faculty spent approximately one week at the end of the spring 2013 semester planning integrated projects and discussing the overall learning community approach for the fall 2013 semester. The integrated projects included elements which applied to the three courses in which the students were enrolled: English, mathematics, and computers. The faculty met for two days at the beginning of the fall 2013 semester to review and refine their planning. During the fall 2013 semester, each LC faculty team met weekly to discuss student progress and content integration. A similar planning schedule was utilized for the subsequent learning community semesters: spring 2014, fall 2014, and fall 2015.

Data Sources

This quantitative study utilized archival data to investigate the differences in course persistence, subsequent semester retention, and academic achievement between LC students and non-LC community students. The data from all of the students who fit the selection criteria for fall 2013, spring 2014, fall 2014, and fall 2015 was included in the study. Table 9 shows enrollment in the DE level one English course, ENG 067, for the LC and non-LC programs for the four semesters of interest.

Table 9

Learning Community (LC) and Nonlearning Community (non-LC) Students in ENG 067

Course

Program	*n*	Fall 2013	Spring 2014	Fall 2014	Fall 2015
LC Program	221	68	55	36	62
Non-LC Program	372	75	59	140	98

Note. N = 593. Two of the non-LC students audited the ENG 067 course. The remaining LC and non-LC students enrolled in the course for a letter grade.

If a LC student was enrolled in this ENG 067, then they were also enrolled in the other two learning community courses, MATH 066 (DE level one mathematics), and CAP 067 (basic computer applications). Accordingly, the LC students in ENG 067 were essentially the students who comprised the learning community program. However, although all non-LC students were enrolled in ENG 067, they were not necessarily also enrolled in MA 066 and CAP 067. Therefore, for purposes of comparison, the data for the non-LC students was selected from the non-LC ENG 067 sections. Further justification for focusing on the English course was the importance of DE students acquiring English academic literacy for college success (Boylan, 2012), especially DE ELLs.

In terms of the characteristics of the students who comprised the data source, on average, 90% of ICC's newly admitted students placed into developmental education. Because three of the four learning community semesters occurred during the fall, the college's fall semester data, which was readily available in ICC's annual *Fact Book*, was

analyzed to shed light on the students whose data were the focus of this study. For the fall semesters during which the learning community program was implemented, approximately 49% of all newly admitted students placed into level one English, and 64% of newly admitted students placed into level one mathematics. Therefore, demographically, the data source was likely to be reflective of ICC's newly admitted student demographics, which were fairly consistent across semesters. Table 10 lists ICC's newly admitted student demographic information for the fall semesters during which the learning community program was implemented. Spring 2014 data was not available at the time of this writing; there was only one spring semester during which the learning community program was implemented.

Table 10

Newly Admitted Students' Characteristics for Fall Semesters

Characteristic	Fall 2013 ($n = 269$)	Fall 2014 ($n = 341$)	Fall 2015 ($n = 243$)
Gender (%)			
Female	49.0	48.0	48.0
Male	51.0	52.0	52.0
Age (%)			
21 and younger	87.0	89.0	92.0
22 - 29	10.0	9.0	7.0
30 - 37	2.0	2.0	1.0
38 and older	0.0	0.6	1.2
Ethnicity (%)			
Pacific Islander	99.3	99.7	100.0
Asian	0.7	0.3	0.5
White	0.0	0.0	0.0

(continued)

Characteristic	Fall 2013 ($n = 269$)	Fall 2014 ($n = 341$)	Fall 2015 ($n = 243$)
Placement (%)			
Developmental level one English	50.0	51.0	45.0
Developmental level one mathematics	68.0	65.0	59.0
PELL eligibility (%)	100.0	100.0	100.0

To address the research question which focused on the extent to which there were persistence difference between the LC and non-LC students, enrollment and grade data from fall 2013, spring 2014, fall 2014, and fall 2015 were examined. To investigate the research question which focused on the extent to which there were retention differences between the LC and non-LC students, enrollment in the postlearning community semester was examined for each of the four LC semesters. For the spring 2014 LC semester, both summer 2014 and fall 2014 data were analyzed for retention. This decision was made because many ICC students do not attend summer session either due to personal reasons such as wanting to go home for the summer or financial reasons such as not having PELL grant funding to pay summer tuition. To examine the extent to which there were academic achievement differences between the LC and non-LC students, data pertaining to students' final course grades was focused upon.

Before the data was acquired, IRB approval from Sam Houston State University was obtained. Regarding the institution of interest, ICC's administration provided a letter of support to verify that research permission had been granted and access would be given for the examination of archival data. ICC's Director of Institutional Research (IR)

provided the required de-identified archival data in a format compatible for importing into the statistical program IBM SPSS Statistics (Version 22). All the data obtained, as noted in the IRB application, was treated as confidential and locked in a secure location. IRB approval is provided in Appendix B.

Quantitative Analysis

Quantitative data analysis requires examining a study's variables to determine the appropriate inferential statistical tests (Johnson & Christensen, 2014). In this dissertation, the research questions focused on examining the extent to which students in a LC program differed from students in a non-LC program in terms of persistence (defined as semester course completion), retention (defined as enrolling in at least one course in the subsequent semester), and academic achievement (defined as final course grade in the ENG 067 course based on a 4.0 scale). The independent variable for this study was program format (i.e., LC or non-LC program); program format was a dichotomously scaled variable. Concerning the study's two dependent variables, retention and persistence, students were either retained or not retained (retained = 1; not retained = 0), and students either persisted or did not persist (persisted = 1; did not persist = 0). Accordingly, both retention and persistence were nominally scaled variables. When the independent and dependent variables are nominally scaled, a chi-squared analysis is the appropriate statistical analysis to use (Johnson & Christensen, 2014). Therefore, to investigate the extent to which there are retention and persistence differences between the LC students and non-LC students, a chi-squared analysis was selected as the appropriate statistical test to use. The third dependent variable in this dissertation is academic achievement, which was operationalized as final course grade in

ENG 067 based on a 4.0 grade point average (GPA) scale. Accordingly, for the purposes

of this study, academic achievement was an intervally scaled dependent variable. To

investigate the mean GPA differences between the LC students and non-LC students, an

independent *t* test was selected as the appropriate statistical test to use. According to

Johnson and Christensen (2014), an independent *t* test is the appropriate analysis to use

when the independent variable is dichotomously scaled and the dependent variable is

intervally scaled.

The statistical program IBM SPSS Statistics (Version 22) was used for all

descriptive analyses, including the testing of statistical assumptions, and inferential

testing. Descriptive statistics were used to analyze demographic characteristics reflected

in the data source. The chi-squared assumptions were tested before proceeding to

inferential testing. The chi-squared assumptions are that (a) the levels are independent of

each other, and (b) each expected cell count is at least five. For analysis purposes, if an

expected cell count was less than five, then a chi-squared assumption had been violated.

If an assumption for the chi-squared test was not met, then the *z* test for proportions was

used. If the assumptions for the chi-squared test were met, then the chi-squared analysis

was conducted. For chi-squared analyses, if the null hypothesis holds true, then the

observed levels will be comparable to expected levels for the variables of interest. For

this study, the null hypotheses purported that there would be no differences between the

LC and non-LC groups in terms of the expected levels of persistence and retention.

Therefore, according to the null hypothesis, the observed persistence for the LC and non-

LC groups was expected to be equal. Similarly, according to the null hypothesis, the

observed retention for the LC and non-LC groups was expected to be the same.

Before an independent *t* test could be used, the assumptions of normality and homogeneity of variance were first tested. The assumption of normality was tested using two indices: (a) a visual inspection of a histogram of the scores with a normal curve overlay, and (b) examining the Shapiro-Wilk statistic. The homogeneity of variance assumption was tested by utilizing Levene's test. Because both the assumption of homogeneity of variance and the assumption of normality were violated, an independent *t* test could not be utilized as planned. An appropriate alternative test, the Welch test, was used instead of the independent *t* test.

For this study, statistical significance was determined at an alpha = .05 level, which is a conventional level for educational research (Johnson & Christensen, 2014). Observed differences were deemed statistically significant if $p < .05$; differences were deemed not statistically significant if $p > .05$. A dichotomous decision was made regarding statistical significance with no meaning attributed to magnitude of *p*.

Two ways to characterize statistically significant results are precision and magnitude, which can be represented by confidence intervals and by effect sizes, respectively (Johnson & Christensen, 2014). Had the *z* test for proportions results indicated a statistically significant difference for retention or persistence, then the appropriate effect size statistic would have been reported. Regarding academic achievement, confidence intervals for the mean were reported for ENG 067 GPA, which was based on a 4.0 scale. If the Welch test results showed a statistically significant difference between the academic achievement of the LC and non-LC group, then the appropriate effect size would have been reported. Ultimately, the meaningfulness of an effect size statistic depends on the research context (Thompson, 2006). For this study, if

persistence, retention, and academic achievement differences between the LC and non-LC group's had been statistically significant, then the effect sizes would have been interpreted within an educational context and situated within the learning community and developmental education effectiveness literature.

CHAPTER IV

Results

The shared mission of learning communities and community colleges is to promote inclusion and engagement such that students are academically successful (Stebleton & Nownes, 2011). A review of the literature brought to light that there is a dearth of studies examining the use of learning communities (LCs) in community colleges, particularly for developmental education (DE) English language learners (ELLs). Kibler et al. (2011) emphasized that more empirically-based studies, as opposed to descriptive reports, are needed in order to investigate the impact of educational innovations on language minority students' success in higher education. Given the positive research findings associated with DE students in LCs (Brownell & Swaner, 2010; Butler & Christofili, 2014; Engstrom & Tinto, 2008) and ELLs in LCs (Engstrom & Tinto, 2008; Jehangir, 2008; Lorch, 2013; Schnee, 2014; Smith, 2010), further research on DE ELLs in LCs would shed light on the impact of utilizing LCs for DE ELLs.

The purpose of this dissertation was to investigate the extent to which a learning community designed for DE ELLs resulted in positive outcomes in students' persistence, retention, and academic achievement. A quantitative explanatory longitudinal design was selected to examine that extent to which there might be differences between the persistence, retention, and academic achievement of DE ELLs enrolled in a learning community program as compared to the DE ELLs enrolled in a nonlearning community program (i.e., discrete courses). The research questions which guided this study's analyses were as follows:

1. How does the persistence (defined as not withdrawing and earning an A, B, C, or NP in a DE level one English course) of ELLs in a DE LC program compare to the persistence of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

2. How does the retention (defined as course enrollment in the subsequent semester after the DE level one semester) of ELLs in a DE LC program compare to the retention of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

3. How does the academic achievement (defined as DE level one English final course grade based on a 4.0 scale) of ELLs in a DE LC program compare to the academic achievement of ELLs in a traditional DE level one program (i.e., non-LC program) at a community college in the Pacific?

This study focused on students enrolled at Island Community College (ICC), a US-accredited community college located in the Pacific region commonly known as Micronesia. The Director of Institutional Research at ICC provided the de-identified archival data used in this study. Two SPSS files were received. The first file focused on the participants' demographic background and the second file focused on this study's variables of interest. This researcher utilized SPSS (Version 22) to analyze the data provided.

Participant Demographics

Island Community College provided enrollment data for the LC and non-LC students for four semesters: fall 2013, spring 2014, fall 2014, and fall 2015. There were 591 students enrolled in the LC program and non-LC program across these four

semesters. Table 11 shows the distribution of LC and non-LC students for the four

semesters of interest.

Table 11

Learning Community (LC) and Nonlearning Community (non-LC) Students Enrollment

Program	n	Fall 2013	Spring 2014	Fall 2014	Fall 2015
LC Program	221	68	55	36	62
Non-LC Program	370	75	59	140	96

Note. N = 591.

The demographic data for the LC and non-LC groups were examined to determine the

extent to which the two groups' characteristics were comparable in age, gender, ethnicity,

and mathematics level.

Age. Age was an intervally-scaled variable; therefore, the assumptions of

normality and homogeneity of variance were examined before an independent *t* test was

employed to investigate the age differences between the LC group (*M* = 20.06 years; *SD*

= 3.05 years) and non-LC group (*M* = 19.36 years; *SD* = 2.91 years). The Shapiro-Wilk

test results for both the LC and non-LC groups was *p* < .01 indicating that the assumption

for normality should be rejected for both groups. This finding was supported by an

examination of the histograms with normal curve overlays for both groups. The

histograms were positively skewed with the most frequent ages clustering around 18 to

20. This data finding was consistent with ICC's student enrollment which shows that

most of ICC's students were traditionally aged. A categorical description of the age

distribution of the participants can be seen in Table 12.

Table 12

Demographics of LC and non-LC Students at ICC

Characteristic	LC (*n* = 221)	non-LC (*n* = 370)
Gender (%)		
Female	55.20	41.35
Male	44.80	58.64
Age (%)		
21 and younger	82.80	92.43
22 - 29	14.93	5.95
30 - 37	2.26	1.08
38 and older	0.00	0.54
Ethnicity (%)		
Pacific Islander	100.00	99.73
Asian	0.00	0.27
Mathematics level (%)		
Could not be placed	0.00	0.27
DE level one	100.00	53.51
DE level two	0.00	28.38
DE level three	0.00	14.86
Credit-level mathematics	0.00	3.00

To examine the assumption of homogeneity of variance, Levene's test was utilized. Levene' test was statistically significant (p = .02); therefore, the assumption for homogeneity of variance was not met. Because both the assumption for normality and the assumption for homogeneity were violated, the Welch test was selected instead of the independent *t* test. The Welch test, which is a robust test to examine the equality of means, was statistical significant, p = .01. This meant that the mean LC age (20.06 years)

was statistically different from the mean non-LC age (19.36 years). This finding aligned

with the results from the independent t test when equal variances were not assumed ($p =$

.01). Thus confidence in the independent t test results was affirmed, despite the

assumption violations, because the findings did not appear to be an artifact of the

statistical analysis implemented. With the Satterthwaite correction, the average LC group

age of 20.06 years, 95% CI [19.66, 20.47] was deemed statistically significantly higher

from the lower average non-LC group age of 19.36 years, 95% CI [19.06, 19.66],

$t(455.59) = 2.75$, $p = .01$, Cohen's $d = 0.24$. Practically speaking, however, young adult

college students who are 19.36 years are developmentally similar to college students who

are 20.06 years.

Gender. Gender was tested to see if the observed levels of male and female

students in the LC and non-LC groups would align with the expected levels. The

expected levels were based on the gender distribution across the total sample (i.e., the LC

and non-LC groups). There were 275 female students out of 591 total students, which

meant that 46.5% of the sample were female. Accordingly, this meant that 53.5% of the

students were men. Therefore, for the LC group, it was expected that the number of

women would comprise 46.5% ($n = 102$) of the group. The observed number of female

students was 122 (55.2%), which was 20 students higher than expected. Regarding the

male students in the LC group, it was expected that the number of men would comprise

53.5% ($n = 118$). However, the observed number of male students in the LC group was

88 (44.8%), which was 19 students lower than expected. Because the assumptions for a

chi-squared analysis were met (i.e., expected cell count of five or more and independent

levels), a chi-squared analysis was run to examine the extent to which the gender

differences between the LC and non-LC groups were statistically significant. The chi-squared analysis yielded the following finding: $\chi^2 (1, N = 591) = 10.67$, $p < .01$, $\varphi = .13$.

Ethnicity. The LC and non-LC groups were also examined on the characteristic of ethnicity. Out of the 591 total students, only one student in the non-LC group identified as Asian. The remaining 590 students identified as Pacific Islander. Because an expected cell count was less than five and an assumption of the chi-squared analysis had been violated, the z test for proportions was utilized. The z test for proportions showed no statistically significant differences across the LC and non-LC groups for either the Asian category or the Pacific Islander category; therefore, with regard to ethnicity, the LC and non-LC groups were comparable.

Mathematics level. The LC and non-LC groups were also examined to determine the extent to which students' mathematics levels differed statistically. As a requirement of the LC program, all 221 LC students were enrolled in developmental education level one mathematics. For the non-LC group, the 370 students ranged in their mathematics levels (see Table 12 for a categorical breakdown of the five levels). A chi-squared analysis was selected to investigate the extent to which the differences across the five mathematics levels were statistically significant. However, because an expected cell count was less than five and a chi-squared test assumption had been violated, the z test for proportions was used. The z test showed that there was no statistically significant difference at the "cannot be placed" level (lower than DE level one mathematics) for the LC students ($n = 0$) and the non-LC students ($n = 1$) at this level. The z test for proportions showed statistical differences across the remaining four mathematics levels for the LC and non-LC groups. It was expected that the mathematics levels between the

LC and non-LC groups would be statistically significantly different given that the LC

program was designed only for students who placed into level one DE mathematics. In

contrast, the non-LC program needed to accommodate students who placed into other

mathematics levels, in addition to DE mathematics level one students who were not

enrolled in the LC program. Accordingly, the observed effect size was consistent with

the data.

Dependent Variable Analyses

Before statistical analyses were conducted on this study's dependent variables

(persistence, retention, and academic achievement), the assumptions for each statistical

test were first examined. The categorical nature of the variables persistence and retention

necessitated utilizing a chi-squared test. Before the test was employed, the assumptions

for chi-squared analysis were first tested. Namely, no expected cell count could be less

than five and the levels were independent of each other. With regard to academic

achievement and the interval nature of the variable, an independent t test was selected as

the appropriate analysis. Before the independent t test was utilized, the assumptions for

the independent t test were examined. Namely, the assumption for normality was

investigated by examining two indices: (a) the Shapiro Wilk test statistic and (b) a

histogram with a normal curve overlay. The assumption for homogeneity of variance

was investigated by utilizing Levene's test.

Persistence. The assumptions for the chi-squared test were met for persistence.

Namely, no cell count was less than five, and the levels were independent of each other.

Therefore, a chi-squared test was conducted to determine the extent to which there might

be persistence differences between LC and non-LC groups. Out of the total 591 students

in the LC and non-LC programs, 558 (94.4%) students persisted. That is, 94.4% of the

students who enrolled in ENG 067 completed the course and earned a letter grade of A,

B, C, or NP. For the LC group, 207 out of 221 (93.7%) persisted. For the non-LC group,

351 out of 370 (94.9%) persisted. Although the non-LC group had a slightly higher

persistence rate than the LC group, a chi-squared test showed that the difference in

persistence between the LC and non-LC groups was not statistically significant: χ^2 (1, $N =$

591) = .38, p = .54.

Retention. The three assumptions for the chi-squared test for retention were met

(i.e., no cell count less than five and independent levels); therefore, a chi-squared test was

utilized to assess the extent to which there might be retention differences between the LC

and non-LC groups. Out of the 591 students in the LC and non-LC groups, 447 (75.6%)

students were retained. That is, 75.6% of the students who were enrolled during the LC

semester went on to enroll in the subsequent semester at ICC. For the LC students, 176

out of 221 (79.6%) were retained. For the non-LC group, 271 out of 370 (73.2%) were

retained. Although the retention rate was higher for the LC students than the non-LC

students, a chi-squared test showed that the difference in retention between the LC and

non-LC groups was not statistically significant: χ^2 (1, N = 591) = 3.07, p = .08.

Academic achievement. The dependent variable academic achievement was

intervally scaled. This variable was operationalized as students' ENG 067 final grade

based on a 4.00 scale. The LC group had a mean final grade of 2.00 (*SD* = 1.26), 95% CI

[1.83, 2.16]. The non-LC group's mean final grade was 1.90 (*SD* = 1.39), 95% CI [1.75,

2.04]. To investigate the extent to which the LC and non-LC groups' mean academic

achievement scores were statistically significant different, an independent *t* test was

selected. Before the independent *t* test was employed, the assumptions for normality and the homogeneity of variance were examined.

The assumption for normality was investigated by examining the Shapiro-Wilk test results and assessing histograms with normal curve overlays. The Shapiro-Wilk test results for both the LC and non-LC group's scores was $p < .01$. The *p* value was less than .05, which indicated that the assumption for normality for both group's scores should be rejected. To confirm the rejection of normality findings from the Shapiro-Wilk test, a histogram of each group's scores with a normal curve overlay was examined. Both the LC and non-LC groups' histograms lacked a normal distribution due to the fact that final grades of 1.00 were not possible in the ENG 067 course. Students enrolled in developmental education courses at ICC could earn the following course grades: A, B, C, and NP, which corresponded to 4.00, 3.00, 2.00, and 0.00. An examination of the right side of the histogram showed normality for grades 2.00 and higher; however, the left side of the histogram did not show normality due to the lack of 1.00 scores. Therefore, based on the histograms' lack of a normal distribution and the Shapiro-Wilk test results, the assumption for normality was rejected for the LC and non-LC grades.

In addition to the normality assumption, homogeneity of variance for the LC and non-LC groups' grades was also investigated before the independent *t* test could be conducted. Levene's test for homogeneity of variance was statistically significant ($p = .02$). Therefore, the assumption of homogeneity of variance was rejected. Because the assumptions for normality and homogeneity of variance were not met, an independent *t* test could not be used. Accordingly, a Welch test was selected to investigate the extent to which the mean grade differences between the LC and non-LC groups were statistically

different. Although the LC group had a higher average ENG 067 final grade ($M = 2.00$;

$SD = 1.26$; 95% CI [1.83; 2.16]) than the non-LC group ($M = 1.90$; $SD = 1.39$; 95% CI

[1.76; 2.04]), the Welch test indicated that mean difference between the groups was not

statistically significant ($p = .38$).

Summary

In this study, academic success was defined in terms of three student outcomes,

namely, persistence, retention, and academic achievement. Statistical analyses of the

study's three variables focused on the extent to which the LC group differed from the

non-LC group. To investigate the LC group and non-LC group differences in retention,

persistence, and academic achievement, two main steps were taken. First, the LC and

non-LC groups' demographic characteristics were examined to determine how

comparable the groups were across age, gender, ethnicity, and mathematics level.

Second, the appropriate statistical analysis was employed to examine each dependent

variable (i.e., persistence, retention, and academic achievement) and the corresponding

differences between the LC and non-LC groups. For all statistical tests, the appropriate

assumptions were first investigated. In cases where assumptions were violated,

alternative statistical tests were utilized.

Demographically, the LC and non-LC group were similar in terms of ethnicity

and differed across age, gender, and mathematics level. Practically speaking, the age and

gender differences appear to be within the scope of ICC's traditionally-aged college

student population. With regard to mathematics level, due to the different course

requirements between the LC and non-LC groups, it was expected that the mathematics

levels would be statistically significant different.

In terms of this dissertation's variables of interest (persistence, retention, and academic achievement), the LC group had higher rates of retention and academic achievement when compared to the non-LC group. However, the LC group's higher retention rate (79.6%) was not statistically different from non-LC group's lower retention rate (73.2%). Similarly, the LC group's higher mean GPA of 2.00, 95% CI [1.83, 2.16] was not statistically different from the non-LC group's lower mean GPA of 1.90, 95% CI [1.75, 2.04]. In contrast, the non-LC group had a higher persistence rate (94.9%) when compared the LC group's persistence rate (93.7%). However, the persistence difference between the LC and non-LC groups was also not statistically significant.

Overall, the LC group experienced higher rates of retention and academic achievement than the non-LC group; however, the difference was not statistically significant. Conversely, the non-LC group experienced higher persistence than the LC group, but this difference was also not statistically significant. In the next chapter, the findings from this chapter are discussed within the context of the literature and other research findings. Additionally, this study's limitations and directions for future research are shared.

CHAPTER V

Discussion, Implications, and Recommendations

The overarching goal of this dissertation was to determine the extent to which

learning communities are an appropriate pedagogical model to use with English language

learners (ELLs) who place into developmental education. To investigate the

appropriateness of utilizing a developmental education (DE) learning community (LC)

for ELLs, this dissertation study focused on evaluating three student outcomes:

persistence, retention, and academic achievement. A nonexperimental longitudinal

explanatory quantitative design was selected to examine the extent to which ELLs in a

DE LC would experience more positive student outcomes than their counterparts enrolled

in discrete courses (i.e., non-LC program). Informed by Tinto's (1993) theory of student

departure, this researcher hypothesized that the LC students would experience more

positive student outcomes than the non-LC students because of the LC's structure and

mission in promoting student-student connections, student-faculty connections, and

student-content connections. In this chapter, the results from this dissertation study are

discussed and situated within the context of Tinto's theoretical framework and the

broader literature. Implications for policy and practice are explored. Recommendations

for future research are shared. The chapter concludes with a summary.

Summary of the Results

In this study, it was hypothesized that the LC students would experience higher

rates of persistence, retention, and academic achievement than the non-LC students

because of the LC's integrated course format. According to Tinto (1997, 2000, 2012),

learning communities promote connections between students, faculty, and course content

such that academic success is achieved. A summary of this study's findings can be seen

in Table 13.

Table 13

Island Community College's (ICC) Learning Community (LC) and Nonlearning

Community (non-LC) Student Outcomes

	Persistence		Retention		Academic Achievement	
Groups	%	*n*	%	*n*	*M*	*SD*
LC (*n* = 221)	93.76	207	79.64	176	2.00	1.26
non-LC (*n* = 370)	94.86	351	73.24	271	1.90	1.39

Note: *p* > .05 for all variables of interest.

Overall, ICC's LC students had higher rates of retention and academic

achievement than the LC students; however the differences were not statistically

significant. Conversely, the non-LC students had higher rates of persistence than the LC

students; however, the difference was also not statistically significant. It is interesting to

note that both the LC and non-LC groups' persistence (93.76% and 94.86% respectively)

was higher than previous English level one course completion rates. According to ICC's

2014 *Fact Book*, the English level one persistence rates ranged from a low of 51% in

2004 to a high of 74% in 2008. To understand why this study's LC and non-LC groups

might have had similar outcomes given the different instructional formats, this researcher

examined the demographic variables associated with the two groups.

Discussion of Demographic Variables

When designing this study, it was important to identify how one might know if

the LC course format would lead to improved outcomes when compared to the traditional

course format (i.e., non-LC program). To determine the extent to which there would be differences and to maximize sample sizes, two groups were decided upon: the LC group and the non-LC group. The LC group was comprised of all students enrolled in the LC program across four semesters. The non-LC group were the remaining level one DE English enrolled in the non-LC sections of ENG 067. The ENG 067 course was focused upon because it comprised 10 out of 17 contact hours in the LC group, which meant that course outcomes would ideally be representative of the LC program outcomes. Additionally, because this study focused on DE ELLs for whom academic English development was an important (Boylan, 2009), examining the ENG 067 course outcomes was contextually relevant for this population of learners.

Given the archival nature of this study and the desire to maximize sample size, all the LC and non-LC students were included in this study. Accordingly, demographic characteristics were not controlled for beyond ENG 067 course enrollment. The demographic variables were analyzed and differences between the LC and non-LC groups were examined. The remainder of this section discusses demographic variables which might have influenced the study's results.

Age, gender, ethnicity, and mathematics level. This study included four demographic variables: age, gender, ethnicity and mathematics level (see Table 12 in chapter four for a summary of results). With regard to age, the LC group ($M = 20.06$ years; $SD = 3.05$ years) and non-LC group ($M = 19.36$ years; $SD = 2.91$ years) were statistically significantly different. However, a practical examination of the average ages (20.06 years versus 19.36 years) showed them to be similar for young adult college students. Therefore, it is doubtful that age played a role in affecting this study's

outcomes. A similar conclusion was made about statistically significant gender

differences between the LC and non-LC group. That is, practically speaking, it does not

appear likely that the gender differences between the LC group (55.5% female students;

44.8% male students) and non-LC group (41.4% female students; 58.6% male students)

influenced the study's results. In contrast to age and gender, there were no statistically

significant differences found across ethnicity; all students identified as Pacific Islander

except for one non-LC student who identified as Asian. With regard to mathematics

levels, approximately 50% of the non-LC group took DE level one mathematics and

100% of the LC group were enrolled in DE level one mathematics. The statistically

significant differences found across the four mathematics levels (DE level one, DE level

two, DE level three, and credit-level) were expected because the non-LC group had to

accommodate students who placed into mathematics levels higher than DE level one.

Furthermore, the non-LC group had to accommodate DE level one mathematics students

who were not in the LC program. The variation in mathematics course enrollment

indicated other ways in which the LC and non-LC groups might have differed, which

could account for this study's results. These demographic variables are discussed in the

next subsections.

Course load and course variety. In this study, course load and course variety

were not controlled for. That is, it is possible the LC and non-LC groups differed on

these two characteristics such that variation could have affected the findings in this study.

In terms of course load, the LC students were enrolled in three courses totaling 12 credits

and 10 contact hours. Because the only requirement of the non-LC group was enrollment

was in ENG 067, it is possible that the non-LC could have included students who were

enrolled for as few as three, six, or nine credits. The course load difference could impact persistence and academic achievement in meaningful ways. For example, a non-LC student with a lighter course load might be able to persist more easily in the ENG 067 because their time and attention was not being given to a 12-credit course load. Similarly, these non-LC students might have been able to earn higher grades in ENG 067 because they had more time to dedicate to studying and homework than if they were taking 12-credit course load. Said another way, the non-LC group's mean ENG 067 final grade and persistence rate might be higher than expected because the non-LC group was taking fewer than 12 credits.

With regard to course variety, the LC program consisted of English, mathematics, and computer applications. All three courses were taught by English-speaking faculty who did not share the students' first language. At Island Community College (ICC), there are courses focusing on students' first language and culture, which are taught by faculty who share the students' first language. It is possible that some non-LC students might have enrolled in these courses where they were able to study in their first language as opposed to the more challenging situation of studying in their second language (i.e., the learning condition of the LC program). Similarly, it is possible that some non-LC students might have been enrolled in electives or content courses which were less rigorous than the LC courses, which focused on English, mathematics, and computer applications. In short, non-LC students' enrollment in courses which used students' first language or where the rigor was less, might have positively impacted the non-LC group's persistence and academic achievement because these students had more time and attention to give to their ENG 067 course. Said another way, even if a non-LC student

had a credit load of 12, the nature of those courses might have played a role in the students' ability to complete the ENG 067 course with a passing grade. More data on ICC's non-LC group's course load and course variety would assist in understanding the extent to which these two variables might have affected this study's results.

  Registration status. Tinto's (1993) theory of student departure discusses the transition and acclimation process a new college student goes through as they become a member of their college's community. ICC's LC program was designed to assist new students who entered and placed into DE level one English and mathematics. This researcher was part of the planning team for the LC program. The planning team met in spring 2013 and discussed LC program's mission and structure. The team focused on the needs of entering ICC students with the greatest need in mathematics and English (i.e., those who placed into DE level one in both courses). The hope was that the LC program would increase the success of new level one students in both developmental education courses, which historically had low pass rates.

  In contrast, ICC's non-LC program needed to accommodate returning students who might be repeating DE level one English or mathematics. Tinto's (1993) theory of student departure into account, which focuses on student acclimation, posits that new students undergo a different transition process than returning students. Therefore, ICC's returning students' prior enrollment would have facilitated these students' transition from being a new college student into an integrated college student. In contrast, ICC's new students were more focused on becoming part of academic and social communities having had no prior campus experience. The difference in registration status between new students and returning students might have affected this study's results. That is, if

the non-LC group included a substantial number of returning students, then these students were not engaged in the same transition process as the LC group, which included all new students. Said another way, it is noteworthy that the LC group which was comprised only of new students achieved comparable rates of persistence, retention, and academic achievement to the non-LC group which might have included returning students who were already familiar with ICC's campus, personnel, and processes. Obtaining additional data on the registration status of ICC's LC students as compared to non-LC students would aid in interpreting the study's results.

Placement and academic abilities. Both the LC and non-LC students were placed accordingly to ICC's placement process, which included cognitive assessments in English and mathematics. All of the LC students placed into DE level one English and mathematics. Although all of the non-LC students placed into DE level one English, it is possible that some of the non-LC students had higher mathematics skills and placed into upper DE mathematics courses and credit level courses. If the non-LC group included students who were more highly skilled in mathematics, it is possible that these students experienced less mathematics anxiety or cognitive challenges in mathematics when compared to the LC students whose low placement likely indicated these students needed substantial mathematics knowledge and support. Accordingly, in order for the LC students to achieve academically in ENG 067, they had to balance their time and energy with improving their level one mathematics knowledge. Similar to the argument made for credit load and course variety, the fact that the LC students obtained comparable persistence, retention, and academic achievement to a group who might not have struggled to the same degree mathematically would show the positive impact of the LC

program on students' ability to achieve in DE level one courses. More data on ICC's

mathematics course enrollment and achievement would allow for a fuller understanding

of the degree to which the LC students and non-LC students were comparable in their

skills levels and consequent achievements.

Relationship to Theoretical Framework

This study utilized Tinto's (1993) theory of student departure as its theoretical

framework. Tinto's theory posited that students who were engaged in a college's

academic and social spheres and were able to establish meaningful membership in

various college communities would have more positive academic outcomes than students

who did not. Tinto (1997, 2000, and 2012) was a proponent of learning communities

because he believed learning communities maximized opportunities for students to

develop academically and socially and thereby be retained and be successful.

In this study, the desire to investigate the efficacy of utilizing DE LCs with ELLs

led to utilizing an explanatory quantitative design where the academic outcomes of LC

students could be compared to the academic outcomes of non-LC students. This design

was selected because of this researcher's familiarity with ICC's DE level one program

and the existence of both an LC program and non-LC program (i.e., discrete course

format) which could be used for comparative purposes. Given the importance of

academic English language development for ELLs and the desire to maximize the sample

size, the ENG 067 course was focused upon. The results from this dissertation study

showed no statistically significant differences between the LC and non-LC students'

persistence, retention, and academic achievement. A more nuanced exploration of the

findings pointed to the possibility of demographic differences between the two groups.

These differences could account for increases in the non-LC students' persistence, retention, and academic achievement, thereby reducing the likelihood that the LC and non-LC outcome differences would be statistically significant. Informed by Tinto's theory of student departure, it was discussed that the LC students at ICC arrive as new students with the greatest academic needs in mathematics and English. For these LC students to achieve comparable rates of persistence, retention, and academic achievement to non-LC students, some of whom were already familiar with ICC, had stronger mathematics skills, and possibly were taking less credits or had a less demanding courses suggests that the LC format promoted the success of these DE ELLs. To that end, Tinto's theory that students are more likely to be retained and academically successful if they are integrated into the academic and social spheres of a college appears to be tentatively supported by this learning community study. More research on the demographic characteristics of ICC's non-LC students would assist in understanding the degree to which Tinto's theory of student departure is supported by this LC study, which focused on DE ELLs who placed into the lowest levels of DE English and mathematics. How the findings from this study relates to the literature is the focus of the next section of this dissertation.

Relationship to Literature

A review of the literature showed a dearth of empirical studies on DE ELLs in learning communities. To determine the extent to which DE ELLs would benefit from learning communities, the learning communities' literature and articles which included students with characteristics similar to DE ELLs were analyzed. To situate this

dissertation study's findings in the broader literature, the following subsection focuses on the study's main variables of interest: persistence, retention, and academic achievement.

      Persistence. For this dissertation, persistence was conceptualized as students' ability to remain enrolled for the semester. That is, students who persisted did not withdraw from the ENG067 course, a level one developmental English course. Students who persisted completed the course and earned a letter grade of A, B, C or NP. Grades of D were not awarded, and NP denoted not passing (i.e., failing). Boylan and Saxon (2012) recommend that developmental education program evaluations include an assessment of semester retention, which aligns with the definition of persistence in this study. An investigation of persistence was conducted because it was considered an important component in determining the learning community program's effectiveness. Additionally, investigating student persistence gave insight into the degree to which students demonstrated *grit*. Duckworth et al. (2007) explained that one important aspect of student success was the ability to stay the course despite setbacks and hardships. In the context of a new students' first semester in college, the ability to remain enrolled and not withdraw therefore demonstrates what Duckworth et al. (2007) describe as grit.

      In this broader literature, Popiolek et al.'s (2013) learning community study was the only study which examined persistence. In their study, Popiolek et al. discussed persistence of community college students by examining attrition rates. Similar to this dissertation study, Popiolek et al. examined the attrition rates of an LC English course and compared it to the non-LC course. Unlike this dissertation, which focused on level one DE English, Popiolek et al.'s study focused on credit-level English courses. Popiolek et al. found that across four years the LC students had a lower average attrition rate

(17.3%) than the non-LC group (21.6%). In this dissertation, the non-LC students

demonstrated a high rate of persistence (94.86%) than the LC students (93.76%);

however that difference was not statistically significant. In terms of attrition rates, the

ICC's non-LC group had an attrition of 6.24% and the LC group had an attrition rate of

5.14%. It is interesting to note that ICC's LC students had a lower attrition rate (6.24%)

than the LC students in Popiolek's study (17.3%). The observed difference could be due

to the fact that ICC's LC program linked three courses instead of two. Within the context

of Tinto's theory of student departure framework, the interconnection of three courses, as

opposed to two, could have led to richer student-student, student-faculty, and student-

content connections, which resulted in a higher persistence (i.e., lower attrition) rate.

With regard to statistical significance, Popiolek et al. found that there was only one out of

four semesters where the differences between the LC and non-LC attrition rates were

statistically significant. Unlike Popiolek et al., this study did not examine statistically

significant differences across individual semesters. Instead this study looked at LC and

non-LC differences holistically across four total semesters. Overall, ICC's LC and non-

LC groups demonstrated very high persistence rates and very low attrition rates compared

to the community college LC program studied by Popiolek et al. Given that only 20% of

the students at the community college studied by Popiolek et al. were minority students

and possibly ELLs, ICC's LC program which consisted of 100% minority ELLs appears

to be successful in keeping students enrolled from the beginning of the semester to the

end. At ICC approximately 94% of the LC students who began the semester remain

enrolled and completed the semester.

Retention. The extent to which students will graduate depends on their ability to be remain enrolled in a college. Although some students stop out or voluntarily transfer, the expectation is that the students enrolled at an institution will graduate from that institution. Examining subsequent semester retention rates can provide a snapshot of students' completion trajectory. Furthermore, retention rates, like completion rates, are valuable metrics for institutions (Tinto, 2012).

In this dissertation study, ICC's LC students enrolled in the post-LC semester at a rate of 79.46%. The retention rate for the non-LC students was lower at 73.24%. Statistical analysis showed that although the LC group's retention rate was higher than the non-LC group's, the difference was not statistically significant.

In the broader literature, limited studies were found that examined the retention of ELLs in a DE LC. To understand the retention of these students, the literature was expanded to include nonlearning community studies which focused on minority students. This subsection includes a discussion of this dissertation's retention findings as they relate to the broader retention literature on students who share DE ELLs' characteristics.

Popiolek et al. (2013) also examined retention rates of community college students in an LC program which linked a credit-level English course to a credit-level psychology course. These researchers found that across four years, the LC students had an average retention rate of 84.2% and the non-LC students had an average retention rate of 74.2%. The authors did not report if they ran statistical tests to determine if the LC and non-LC retention rates were statistically significantly different. In this dissertation study, ICC's LC students experienced a lower retention rate (79.46%) than the students in Popiolek et al.'s study but a higher retention rate than ICC's non-LC students (73.24%).

The difference between ICC's LC and non-LC retention rates was not statistically significant.

Weis et al. (2015) examined learning community student retention by analyzing credit accumulation across six community colleges. They found that LC students earned approximately 0.5 credits more than the non-LC students, indicating that the LC students were retained at a higher rate. Weis et al., described the effect of the LC program as small but positive. The higher retention rate of ICC's LC students compared to non-LC students could be subjectively described in a similar manner: small but positive. At the one community college, where Weis et al. saw the greatest LC program impact on retention, the researchers noted that the program linked three courses instead of two, the students were more traditionally aged, and there was a high degree of student support. Interestingly, this researcher has suggested that the linking of three as opposed to two courses might have led to higher persistence rates based on Tinto's (1993) theory of student departure. Although Weis et al. cautioned that more research is needed before causation can be assumed, this dissertation study supports the supposition that the number of classes linked could positively impact both retention and persistence rates. Similar to the community college where Weis et al. noted the highest LC program impact, the majority ICC's LC students were traditionally-aged and the program included student support via mandatory academic tutoring.

Engstrom and Tinto (2008) looked at the learning community data for thirteen community colleges. These researchers were especially interested in the use of LCs for students from minority backgrounds, including ELLs. Engstrom and Tinto found that on average, LC students were retained at a rate 5% higher than non-LC students. The

retention results in this dissertation study align with Engstrom and Tinto's finding. Island Community College's LC students' retention rate (79.46%) was 6.22% higher than the retention rate of ICC's non-LC students (73.24%). Although this difference was not statistically significant, it is interesting to situate the higher LC retention rate within Engstrom and Tinto's comprehensive LC study which encompassed 13 community colleges and included ELLs. Engstrom and Tinto noted that the LC versus non-LC retention difference was as high as 15% at some community colleges. It would be beneficial to ICC's LC program to learn more about the LC program characteristics at the community colleges with higher retention rates and to see how ICC's LC program compares.

Kurzet (1997) described programmatic changes at Portland Community College (PCC) to improve the retention of DE ELLs. By addressing quality ESL instruction and quality support services, PCC was able to increase their ELL retention rate to an average 87% for two years. PCC's ELL retention rate (87%) is higher than ICC's LC retention rate of 79.46%. To aid in increasing student retention, Kurzet described PCC's efforts to improve counselling services and access to labs. The recommendation to give attention to counselling services was also echoed by Ignash (1995) who noted that the most successful ESL programs included content-based ESL courses, counselling services, and academic support. ICC's LC program had a mandatory study hall but did not include counselling component or dedicated LC space. ICC's LC program might benefit from learning more about how other institutions incorporate counselling and structure a dedicated learning community space. The importance of a dedicated campus for culturally and linguistically diverse students was echoed by Lorch (2013) and

Goldschmidt et al. (2003). These researchers found providing a dedicated campus space for ethnic minority students and ELLs increased students' sense of belonging which has positive implications for retention, persistence, and achievement (Jehangir, 2008; Laanan et al., 2013; Lorch, 2013; Schnee, 2014).

Jehangir (2008) found that a multicultural learning community which linked three credit-level courses had a post-LC semester retention rate of 82.5%. The multicultural learning community included 89% ethnic minority first generation students. Given that ELLs are often subsumed into ethnic minority and first-generation student groups, it is likely that ELLs were part of Jehangir's study. Accordingly, ICC's LC retention rate of 79.46% appears to be comparable to 82.5% retention rate in Jehangir's study. This is comparison is of note for two reasons. The first reason is that both LCs were designed for ELLs. The second is that Jehangir describes the 82.5% retention rate as favorable allowing this researcher to subjectively consider ICC's retention rate in a similar light.

Academic achievement. Another important aspect of college completion is the extent to which students earn passing grades and are able to move forward in their degree program. To that end, academic achievement plays an important role in tandem with retention when considering college completion as an institutional metric (Tinto, 2012). For educational programs such as developmental education programs or new initiatives such as learning community programs, the extent to which students are academically successful is an important part of a program's evaluation (Boylan, 2002; Boylan & Saxon, 2012). Similarly, from an instructional perspective, examining quantitative data such as grades and pass rates, contributes to understanding the extent to which pedagogical approaches are appropriate (Suskie, 2009).

In this dissertation, academic achievement was operationalized as students' final grade in the level one DE English course. The results of this study showed that the LC students' mean final grade of 2.00 ($SD = 1.26$) was higher than the non-LC students' mean final grade of 1.90 ($SD = 1.39$). The difference was not statistically significant.

Within the broader literature, academic achievement is discussed in terms of grades and pass rates. For the purpose of discussing this dissertation study in the context of the broader literature, pass rates were also calculated. Pass rates for ICC's developmental education program include grades of C or higher (2.0 or higher on a 4.0 scale). The letter grades of D or F are not given, but rather comprise the grade of NP (0.0 on a 4.0 scale), which denotes that a student did not pass. ICC's LC program's pass rate was 75.6% and the non-LC program's pass rate was 70.3%. The remainder of this section discusses this dissertation's academic achievement results in the broader literature focused on learning community studies and students which include students who share DE ELLs' characteristics.

In Popiolek et al.'s (2013) study of community college students in a learning community which linked credit-level English to credit level psychology, the LC students earned an average of 0.25 grade points higher than the non-LC students in their English course. Similar to the students' in Popiolek et al.'s study, ICC's LC students also earned a higher final grade in their English course than the non-LC students; however, the difference was an average of 0.10 grade points higher. Popiolek et al. examined statistical significance across four semesters and found that the grade difference was statistically significant for only one semester. Similar to the findings of Popiolek et al.'s, this dissertation study did not find a statistically significant grade difference between the

average LC's final English grade and the non-LC's. It is difficult to discuss this dissertation's academic achievement results more fully in relation to Popiolek et al. study because Popiolek et al. did not provide mean grades or pass rates.

Similar to Popiolek et al. (2013), Goldschmidt et al. (2003) analyzed academic achievement in terms of grade point average differences. Although Goldschmidt et al. did not conduct a learning community study, they studied the extent to which DE ELLs' participation in a 30 hour pre-college program would lead to increased academic achievement results when compared to comparable students who did not participate in the program. Interestingly, the DE ELLs who participated in the program earned an average of 0.12 grade points higher than their predicted GPA when compared to DE ELLs who did not complete the program. The predicted GPAs were based on a combination of high school data and standardized test data. This dissertation's LC higher mean difference of 0.10 appears to be similar to the grade point difference in Goldschmidt et al.'s study (0.12) which focused on DE ELLs. Although this dissertation utilized a learning community program instead of a pre-college program to promote the success of DE ELLs, it is interesting to note that the increased grade point differences are similar. A deeper examination of the course differences between the two studies would be informative.

Tai and Rochford (2007) provided a descriptive program report for a community college LC program designed for DE ELLs. The LC program linked three courses: a DE ESL reading course, a DE ESL writing course, and a credit-level history course. Tai and Rochford reported that 66% of the students passed all three LC courses. This dissertation study focused only on the DE English course which was an integrated reading and

writing course which comprised 10 out of 17 contact hours for the LC program. The pass rate for the ENG course for ICC's LC students was 75.6%. Although it is somewhat difficult to compare the pass rates of these two LC studies, it appears that ICC's LC pass rate can be viewed in a favorable light given that Tai and Rochford drew positive pedagogical conclusions from their study's findings where the pass rate was 66%. One way in which this current dissertation study could be expanded would be to study the pass rates for all of ICC's LC courses such that holistic LC pass rates can be discussed within the context of the broader literature in a manner similar to Tai and Rochford.

Mohamad and Boyd (2010) reported the pass rates for a content-based learning community program for ELLs at a four-year college. These researchers found that 85% of ELLs passed their basic writing course. Their learning community was described as highly collaborative and included other departments and services at the college. ICC's LC pass rate (75.6%) was not as high as the pass rate (85%) for students in Mohamad and Boyd's study. It is possible that the lower pass rate could be due to demographic differences between ELLs attending community colleges versus ELLs attending four-year colleges. Additionally, it is possible that the explicit inclusion of campus-wide support services into LC program described by Mohamad and Boyd could account for the increased pass rate. Given that other studies (e.g., Engstrom & Tinto, 2008; Ignash, 1995; Kurzet, 1997) have mentioned the importance of student support services for LC programs and ELLs, it might be beneficial for ICC's LC program to scale up their utilization of support services such that increased pass rates can be realized. This recommendation is supported by Barnes and Piland's (2013) study which compared a lower DE English LC course to an upper DE English LC course. Barnes and Piland

found course pass rates to be lower for the lower DE English course. These researchers recommended including support services and examining the cultural and academic relevancy of the lower DE English course's content for diverse learners. ICC's LC program's pass rates have the potential to increase if their support services and course content are examined and adjusted accordingly.

Implications for Policy and Practice

In the previous section, ICC's LC program's student persistence, retention, and academic achievement were discussed within the context of the broader literature. Embedded in that discussion were ways in which ICC's LC program might benefit from the findings from other studies. In this section, implications for policy and practice are outlined based on the findings from this dissertation study and the study's relationship to the literature.

Programmatically, ICC's LC students did not show statistically significant higher rates of persistence, retention, and academic achievement when compared to the non-LC students. However, a careful analysis of the findings, especially in regard to the demographic variables suggested that ICC's LC students might actually have done better than expected given that they were new to ICC and entered with the greatest academic needs in English and mathematics. Without the LC program, these students might not have achieved comparable rates of persistence, retention, and academic achievement to students who may have been carrying less credits, were enrolled in less rigorous class, were better skilled in mathematics, or were already familiar with ICC's campus, personnel and college processes. Given the tentative positive results of this study, there

are recommended actions that ICC can take with regard to their institutional policies and practices which could positively impact their LC program.

ICC administrators should examine their enrollment data to answer some of the questions raised about the demographic variable differences between the LC and non-LC students. This would allow the administration to better contextualize this study's findings and understand the degree of the LC students' success. Also, ICC administrators would benefit from becoming familiar with other learning community programs such that they can compare to their LC student outcomes to other institutions. Boylan and Saxon (2012) discuss the benefit of comparing program evaluation data to national benchmarks as a way to contextualize program performance. This type of comparison can be the first step toward LC program improvement as ICC considers the scope of other LC programs, their outcomes, and how other institutions' LC programs might be adapted to better meet ICC's students' needs.

An important aspect of this dissertation was its review of the literature as a means of informing this study and its findings. A systematic analysis of 21 articles which focused on persistence, retention, and academic achievement, led to the identification of six themes (see Table 8 in chapter two). These themes underscore the actions an institution can take to promote the academic success of its culturally and linguistically diverse students, especially their DE ELL population. Of note are the three main themes: employing quality curriculum and instruction, providing support services, and promoting students' sense of belonging. Each of these three themes was touched on in the previous section of this dissertation as this study's results were situated in the broader literature. ICC's administrators would benefit from considering each of the three themes as it relates

to programmatic improvement, not only for the LC program, but for its developmental and credit-level programs, both of which serve an ELL student population. How each of these three themes could impacts ICC's policy and practices are discussed in the remainder of this section.

Key aspects of employing quality curriculum and instruction (theme one) included using content-based ESL and DE courses (Ignash, 1995; Mohamad & Boyd, 2010; Song, 2006; Tai & Rochford, 2007; Teranishi et al., 2011), incorporating culturally-relevant course materials (Barnes & Piland, 2013), and ensuring that faculty have training in working with culturally and linguistically diverse students (Goldschmidt & Seifried, 2008; Harrison & Shi, 2016; Kurzet, 1997). The increasing the qualifications and expertise of the faculty has implications for ICC's hiring practices and faculty professional development. Similarly, ensuring that faculty are skilled in incorporating culturally-relevant materials and developing content-based materials for DE courses will require training and collaboration between ICC's DE and credit-level faculty. ICC's administrators would do well to set forth the expectation and provide the support for core DE and credit-level faculty to regularly meet to collaborate on curriculum development. Boylan (2002) highlights that DE and credit-level faculty collaborations are a best practice for improving developmental education within in institution.

It has been previously noted that institutions that serve culturally and linguistically diverse students should ensure that quality support services (theme two) are provided. Although ICC's LC program does have mandatory tutoring, ICC administrators might want to consider other ways in which its student services department might support the LC program. Kuk (2009) noted that institutions are served

best when student services and academic affairs partner in their approach to serving

students. Similar to supporting DE and credit-level collaborations, ICC administrators

should set the expectation and provide the logistical support for key student affair

personnel to regularly meet with ICC's faculty. Attention should be given to how ICC's

LC program might benefit from increased support services. Additionally, these meetings

can be the first step in addressing the needs of all of ICC's students such that ICC's

student services department and faculty work as partners in promoting student success.

Another avenue for exploration by ICC's administrators, student services

personnel, and faculty is understanding and improving ICC's students' sense of

belonging (theme three). Researchers (Almon, 2015; Nakamaru, 2012; Tinto, 2012) have

pointed out often student persistence, retention, and academic achievement are influenced

by an institution's environment and the extent to which students feel they belong. To

gain an understanding of students' sense of belonging, ICC can establish a regular

practice of soliciting students' feedback regarding the campus milieu, classroom

environment, and programs and services offered. Similar to the online survey used by

Lanaan et al. (2013) to understand LC students' experiences, ICC can include LC and

non-LC specific questions to improve the educational experiences of both its LC and

non-LC students.

Recommendations for Future Research

As with many studies, this dissertation study brought to light areas for further

investigation. With regard to ICC, there are additional studies that can be conducted

from their archival data to better control the demographic variables of the LC and non-LC

group. Creating more evenly matched groups demographically would allow for more

definitive conclusions to be drawn from the results about the efficacy of ICC's LC

program. This dissertation study could also be extended longitudinally to examine how

the LC students' long-term retention compares to the non-LC students' retention. That is,

instead of examining only the post-LC semester as this dissertation study did, retention

could be investigated across multiple semesters up through the current semester at ICC

(Spring 2018). In fact, given that the first LC program was in fall 2013, it might even be

possible to examine the graduation rates between the LC and non-LC students. Another

possible study is to extend the data analysis to all three LC courses, going beyond the

ENG 067 course, which was the focus of this study. This richer analysis would include

the mathematics and computer applications courses and would allow for a total LC

course pass rate to be calculated. This type of holistic LC data would allow for

comparisons to other LC programs which assessed all linked courses and provided LC

program pass rates.

Earlier in this study it was suggested that both the LC and non-LCs students'

academic achievement and persistence might be affected by the cognitive demand placed

on them and the extent to which anxiety regarding one course (e.g., mathematics anxiety)

might affect students' ability to give time and attention to other courses. This hypothesis

is informed by Smilkstein's (1993) brain research which found that learning is inhibited

when neurochemicals are released because anxiety or fear. Another area for future

research is to further investigate the ways in which noncognitive factors such as anxiety,

motivation, and family demands affect persistence, retention, and academic achievement

within the context of a learning community. Specifically, if a learning community is

designed to promote connections to positively impact student outcomes, to what extent

does a learning community ameliorate noncognitive challenges faced by students such that positive outcomes are realized?

Qualitative studies can be designed to supplement this current quantitative study. For example, Schnee's (2014) retrospective qualitative study where credit-level students were interviewed about their DE LC experiences could be adapted for a study at ICC. Former LC and non-LC students at ICC could be interviewed about their DE level one experiences to better understand how the program impacted their persistence, retention, and academic achievement as the students advanced in their program of study. If the qualitative study utilized Tinto's (1993) theory of student departure, the interview questions could be structured to explore the extent to which students' acclimation to college mirrored to trajectory described by Tinto, which involved membership in the college's academic social spheres. Additionally, interview questions could be designed to explore the extent to which LC students experienced student-student, student-faculty, and student-content connections. This data would add insight into areas which ICC might need to specifically address to improve the LC experiences' of its students. ICC could then study how implemented changes affected students' persistence, retention, and academic achievement. This dissertation's results could serve as a baseline for future studies conducted on student outcomes at ICC.

In addition to future studies which would benefit ICC, this dissertation has elucidated the dearth of empirical studies on the use of LCs with DE ELLs. One possible area for future research is to investigate developmental education programs being implemented outside of the U.S. to predominant ELL populations. The focus of these studies could be to investigate the pedagogical approaches used to teach DE ELLs and

the extent to which learning communities are used. If LCs are not being used a deeper investigation of pedagogical approaches and student outcomes would be insightful in understanding how DE ELL success is being promoted. In this age of international education with more U.S. institutions establishing campuses outside of the U.S. and partnering with institutions outside of the U.S., understanding how DE ELLs needs are being met globally can be informative. Furthermore, ICC's status as a non-US institution accredited by a US agency is not unique. An investigation of the academic programs and outcomes of institutions similar to ICC would be insightful. Ideally, more studies which focus on ELLs would enrich educators' understanding of how best to meet these students' needs.

Summary

The purpose of this study was to determine the appropriateness of utilizing learning communities with DE ELLs. Although the findings did not reveal statistically significant differences in favor of the learning communities, an examination LC versus non-LC demographic differences assisted in interpreting the findings. Furthermore situating the findings within the broader literature of learning communities and studies which included students who shared DE ELL characteristics helped to show that ICC's LC program did have positive student outcomes in persistence, retention, and academic achievement. Although more research is needed to further examine LC and non-LC outcome differences at ICC, it does appear that LCs are a favorable pedagogical approach in meeting the needs of DE ELLs.

This dissertation is a contribution to the literature because it is an empirical study focused on the DE ELLs. Currently, there is a dearth of empirical studies focused on this

particular population. In reviewing the literature for this study, two salient issues became

clear. The first was the need to for language background to be included as participant

demographic in higher education studies. A deeper understanding of how studies relate

to ELLs is difficult if consumers of research do not know how many ELLs were included

in a study. Additionally, when researching ELLs and their needs and outcomes, it is

necessary to familiarize oneself with the terminology used to refer to this population

directly and indirectly. When language background is not provided, suppositions can be

made about the inclusion of ELLs by examining the participants' ethnic background,

generational status, and whether or not the student identifies as an international or

immigrant student. Said another way, it should not be assumed that ELLs are not part of

a study simply because language background is not included as a demographic.

The presence of ELLs is in higher education is growing (Kim & Diaz, 2013;

OELA, 2017; Rolstad et. al, 2005; Teranishi et al., 2011) and understanding how these

students' needs are identified, addressed, and assessed is paramount. This study has

shown tentatively positive results for utilizing learning communities as a pedagogical

approach for DE ELLs. It is the hope of this researcher that innovative pedagogical

approaches can be used with DE ELLs, many of whom enter college academically

underprepared (Curry, 2004; Kurzet, 1997; OELA, 2017) and fail to persist to graduation

(Tinto, 2012). Although more research is needed, learning communities appear to be a

promising approach for promoting the persistence, retention, and academic achievement

of DE ELLs.

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APPENDIX A

Island Community College
Academic Affairs

Learning Communities Program (selected parts)

Description

Learning communities are to encourage integration of learning across courses and to involve students beyond the classroom. Students will take linked courses as a group and work closely with one another and with their faculty. The learning communities will explore a common topic or degree major. They will also feature service learning.[1]

Vision Statement

Learning Communities at ICC will include all levels of students, explore diverse interests and majors through integrative learning, best practices, fully integrated co-curricular activities and collaboration across college units.

Mission Statement

The purpose of learning communities is to promote quality student-centered education through integrative learning by creating multiple intentional learning environments and co-curricular activities that are sustainable, purposeful, collaborative, relevant and empowering.

Background Information

Learning Communities at ICC have been conceptualized since the early 2000's, and the practice has been evolving since that time. Early-on, the concept was simply to link the content of two courses, but this lacked proper planning and ultimately, did not succeed.

Cohorts were recognized by the Developmental Program to benefit the students, and in 2007 Developmental Education began cohorting its students through its First Year Experience program, so all students took the same courses in cohorted groups and had co-curricular opportunities which corresponded to class work. As the program became more coordinated, all new students were cohorted their first semester, but what this lacked, in terms of Learning Communities was the advanced planning and coordination of lessons across disciplines.

In 2011, The First Year Residential Experience (FYRE) grew out of a residential vocational carpentry program called Toolkit (pseudonym). The FYRE Learning Community was housed at Arran (pseudonym), but unable to coordinate the services and courses in a way that made a maximum impact. There also was an isolation issue due to the distance between the two campuses. During the Developmental Education Program Review of May 2011, the Developmental Program made programmatic changes based on the FYRE pilot. Most specifically, the Developmental Program underwent a course redesign which created the ENG 067 class and included in weekly mandatory study halls and mandatory tutoring.

Spring 2013, discussions began on developing a full Learning Communities Program to be instituted on the Ocean (pseudonym) campus in order to serve the entire student population. As part of the pilot, the residential portion will move to the Ocean Campus. The first Learning Communities will be piloted in Developmental Level 1 and centered on the students' chosen course of study/major.

Rationale

Extensive research shows that community-college students benefit from being placed in "learning communities (LC)" where they take classes together and give each other support. Learning community students are more likely than non-LC students to report feeling engaged in their studies and are more positive in progressing intellectually. Research also shows that learning communities often lead to better student retention rates, curricular cohesion, integrated, high-quality teaching and learning, and collaborative knowledge-construction. Furthermore, in many learning community models, the skills and knowledge learned in the classroom are transferred to the community at large through service learning or a community-based project.

Target Groups

This program initially will target Level I developmental students. It is expected for this program to expand and to include other developmental levels and credit level students.

Program Learning Outcomes

Students who complete the Learning Communities Program will:

1. Be successful in academic culture
2. Develop a self-awareness in order to make informed decisions regarding their personal, academic and professional lives
3. Become aware of and personally involved in civic action that benefits the community
4. Demonstrate critical thinking across disciplines

[1] Adapted from High Impact Educational Practices, AAC&U

APPENDIX B

Institutional Review Board
Office of Research and Sponsored Programs
1831 University Ave, Suite 303, Huntsville, TX 77341-2448
Phone: 936.294.4875
Fax: 936.294.3622
irb@shsu.edu
http://www.shsu.edu/dept/office-of-research-and-sponsored-programs/compliance/irb/

SAM Houston
STATE UNIVERSITY
A Member of The Texas State University System

DATE:	March 13, 2018
TO:	Andrea Hazzard [Faculty Sponsor: Dr. Susan Skidmore]
FROM:	Sam Houston State University (SHSU) IRB
PROJECT TITLE:	*An Examination of Student Outcomes in a Developmental Education Learning Community for English Language Learners at a Community College in the Pacific [T/D]*
PROTOCOL #:	2018-02-35411
SUBMISSION TYPE:	INITIAL REVIEW
ACTION:	DETERMINATION OF EXEMPT STATUS
DECISION DATE:	March 13, 2018
REVIEW CATEGORY:	Category 4—research involving existing, publicly available data usually has little, if any, associated risk, particularly if subject identifiers are removed from the data or specimens.

Thank you for your submission of Initial Review materials for this project. The Sam Houston State University (SHSU) IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

* What should investigators do when considering changes to an exempt study that could make it nonexempt?

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research. In this case, please make available sufficient information to the IRB so it can make a correct determination.

If you have any questions, please contact the IRB Office at 936-294-4875 or irb@shsu.edu. Please include your project title and protocol number in all correspondence with this committee.

Sincerely,

Donna Desforges
IRB Chair, PHSC

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Sam Houston State University IRB's records

VITA

Andrea S.D. Hazzard

<u>Education</u>

Doctorate in Education	**Developmental Education Administration**
	Sam Houston State University (Huntsville, TX)

Dissertation: <u>An Examination of Student Learning Outcomes in a Developmental Education Learning Community for English Language Learners at a Community College in the Pacific</u>

Developmental Education Administration Program Scholarship, Office of Graduate Studies Scholarship, Sam Houston State University Travel Award, and Excellence in Writing Award

Certification   **Developmental Education**
Kellogg Institute, Appalachian State University (Boone, NC)
Project: <u>Utilizing evaluation to determine the appropriateness of learning communities for developmental ESL students: A case study</u>
Exemplary rating on practicum project

Master of Arts   **English as a Second Language**
University of Hawai'i at Manoa (Honolulu, HI)
Thesis: <u>Language issues and education in the Marshall Islands: An ethnographic approach to an ESL needs analysis for high school students</u>
Harry Whitten Prize for Scholarly Excellence (for outstanding thesis of the year), Full Graduate Assistantship, Pacific-Asian Scholarship, Ruth Crymes Award for Research Support, and Graduate Student Organization Travel Grant for Research

Bachelor of Arts **Psychology**
Case Western Reserve University (Cleveland, OH)
Minor: Medical Anthropology; Concentration: Pre-med
Magna cum laude

<u>Recent Professional Experience</u>

Instructor, First Year Experience Coordinator, Learning Communities Coordinator, Level One Coordinator, Developmental Education Department, College of the Marshall Islands**,** Majuro, Marshall Islands

Instructor (present): Currently teach *First Year Experience* with a writing intensive focus. Serve as academic advisor. Taught intensive *Basic English Communication* - an integrated skills course focusing on reading, writing, listening, speaking, and study skills, as well as *Introduction to Listening and Speaking* and *Introduction to Reading and Writing*. Supervised supplemental instructors. Assisted in creating a study hall initiative to offer integrated academic support to students. Developed curricula and materials for courses. Served as acting chair.

First Year Experience Coordinator: Oversaw First Year Experience Program. Recruited and trained faculty. Initiatives included resource development of culturally relevant materials, building cross-campus connections, and working collaboratively with developmental education department chair

Learning Communities Coordinator: Co-developed and oversaw new learning communities program (72 students, eight faculty, and two tutors) for incoming developmental education students. Integrated projects involve three courses (English, Math, and Computers), as well as extracurricular activities and community exploration opportunities   Recruited and trained faculty for beginning and end-of-semester planning sessions. Developed and oversaw administration of student survey to evaluate program.

Level One Coordinator: Oversaw the collaborative efforts of faculty in Developmental English, Math, and Computers, a student advocate, and tutors to integrate, monitor, and support the learning experience of students who entered at the lowest developmental education level. Coordinated with department chair and dean to discuss program progress, policy change, and new initiatives.

Professional Membership
- National Association for Developmental Education
- National Center for Faculty Development and Diversity
- American Association of Colleges and Universities
- Kwajalein Educators Association
- Teachers of English to Speakers of Other Languages
- Hawai'i Association for Teachers of English as a Second Language

Conference Presentations
Hazzard, A.S. D. (2015, July). *Meaningful teaching and learning: Understanding and creating learning communities*. Workshop facilitated at the Pacific Educators Conference, Majuro, Marshall Islands.

Hazzard, A. S. D. (2014, July). *Developmental education at the College of the Marshall Islands: Understanding placement, process, and programs.* Presentation given at the Ministry of Education Conference, Majuro, Marshall Islands.

Hazzard, A. S. D. (2009, July). *Life after high school: How a senior career exploration program can help.* Presentation given at the Pacific Educators Conference, Agana, Guam.

Dasrath, A.S. (1998, September). *Language issues and education in the Marshall Islands: An ethnographic approach to an ESL needs analysis*. Paper presented at thesis oral defense at the University of Hawai'i, Honolulu, HI.

Dasrath, A.S. (1998, March). *English language needs of high school students in the Marshall Islands: A critical ethnographic approach*. Paper presented at the Hawai'i Association of Teachers of English as a Second Language, Honolulu, HI.

Dasrath, A.S. (1997, August). *What are the English language needs of high school students and teachers in the Marshall Islands and throughout Micronesia?* Presentation given at the Pacific Educators Conference, Majuro, Marshall Islands.