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English Composition I: An Effective Predictor of Persistence and Retention at a Community College

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ENGLISH COMPOSITION I: AN EFFECTIVE PREDICTOR OF

PERSISTENCE AND RETENTION AT A COMMUNITY COLLEGE

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

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Indiana University of Pennsylvania
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Title: English Composition I: An Effective Predictor of Persistence and Retention at a
         Community College

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Attrition is a major issue facing nearly all institutions of higher learning. The loss of

students affects colleges and universities on many levels and can have a negative impact on

students. Community colleges often experience greater attrition than other types of institutions

and have an increased need to curb the outflow of students. This study sought to identify an

accurate, effective predictor of persistence that could have a major impact on the ability of the

entire higher education community to reduce attrition and increase retention.

Using archival transcript data from 500 students at a community college, this research

determined that performance in English Composition I does correlate to student persistence to a

point two semesters post completion of the course. English Composition I was selected because

it is required in most, if not all, degree and diploma programs across a wide segment of post-

secondary institutions. The results show that students who earn a grade of C or below are less

likely to persist than those who earn a grade of A or B in the course. This dissertation research

also explored combinations of other variables along with English Composition I performance

including the semester in which the course was taken, the gender and age of the student, and

whether the student completed developmental coursework. Chi-square analysis found that these

additional variables did not have significant correlation with persistence.

This study offers a practical contribution to the study of persistence and an

uncomplicated means to identify students at risk for attrition. Performance in English

Composition I provides a simple measurement for attrition risk which can be used by institutions that lack personnel or other resources necessary to implement a more complex model. The results of this research have numerous beneficial implications for both institutions and students. The ability to categorize students who perform at a level of C or below in this course as being at-risk for attrition creates the opportunity to undertake interventions to improve the likelihood that these students will persist. Increased retention can financially benefit institutions and students by increasing their chances for educational and future success.

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CHAPTER I

PROBLEM STATEMENT

Imagine a world where every student who begins at one institution stays to complete a

degree. In this world, admission professionals would experience less recruitment stress,

faculty could feel more engaged with their students, students would obtain the

educational experience they deserve, and administrators could build plans for continual

improvement through the millions of tuition dollars that would be kept at that institution.

(Hobsons, 2009)

Attrition is a major issue facing nearly all institutions of higher learning. According to

the American College Testing Program, as cited in the ASHE-ERIC Higher Education Report

(2004), 45% of students enrolled in 2-year colleges depart during their first year, and 25% of

students depart from 4-year institutions (The Ill-Structured Problem of College Student

Departure, 2004). After 6 years, only 36% of students who began their education at a

community college (Schuetz, 2005) earn some type of credential. At 4-year institutions, only

58% of students graduate from the same institution where they begin during the same 6 year time

span (Veenstra, 2009).

The loss of students affects colleges and universities on many levels and often has a

negative impact on students as "retention is viewed as a fundamental indicator of student

success" (Kern, Fagley, & Miller, 1998, p. 26). Retention is also viewed as a primary indicator

of institutional success, and all colleges and universities are required to submit retention figures

to federal and state governments. In many cases, an institution's reputation and sometimes its

funding levels depend on the school's ability to retain a significant percentage of students as

proof of academic success. The problem is even more prevalent at community colleges which

have specific concerns regarding attrition and are often referred to as "revolving door institutions" (Derby & Smith, 2004, p. 763).

In today's challenging economic environment, retention has become key to the survival of colleges yet, despite numerous efforts to reduce attrition, the problem remains (Summers, 2003). Little has been done to date to improve retention of college students, especially non-traditional students. This is due "in part because so little reliable information exists about why these students fail to persist and graduate" (Wlodkowski, Mauldin, & Campbell, 2002, p. 2). It remains extremely difficult to predict attrition risk and to perform interventions in a timely manner so that students continue their studies at the college. An accurate, effectively used predictor of persistence would have a major impact on the ability of the entire higher education community to reduce attrition and increase retention.

Theoretical Position

Since the 1970s, theorists on retention and attrition have posited multiple models to identify cause. Some of these theories focus on sociological factors and involve a search for similar behaviors to distinguish between groups of students who stay and those who are lost to attrition. However, because of ever-increasing diversity among the population attending college, it has become more difficult to identify such similar behaviors. Other models link academic-related events and grade performance to retention (Summers, 2003, p. 66-67). For example, the model created by Kuh, Cruce,Shoup, Kinzie, and Gonyea (2008) found that the measure of a student's academic engagement could be used to predict persistence. This study sought to minimize the need to identify sociological factors and instead relied on academic performance as a predictor of persistence.

"There is a consistent relationship between college academic achievement and retention, with higher performing students persisting in their studies to a greater degree than their lower achieving cohorts" (DeBerard, Spielmans, & Julka, 2004, p. 67). A simple extension of this relationship resulted in the assumption that academic performance in a foundation course such as English Composition I could be used as an effective predictor of persistence. English Composition I is required of all college students across all majors and fields of study. This course is generally taken during the first year of study and serves as a prerequisite for many additional courses within the curriculum.

In order to further characterize the correlation between the measured performance and persistence, this study also explored other factors which may have an impact. These factors included the semester in which the student takes English Composition I. Completing this course during the first semester may be indicative of adequate preparation for college-level work and of a desire to follow a prescribed curriculum and progress expediently toward graduation. Students who take control of their education and curriculum plan show initiative at a greater level than those who delay completing the course. First semester completion of English Composition I may be indicative of the theory that "the stronger a person's belief that he or she can achieve a desired outcome through his or her own efforts, the less likely the student will depart from college" (Braxton, Hirschy, & McClendon, 2004, p. 39).

Gender was also compared in relation to persistence and was "selected as a demographic risk factor primarily because it has been shown to be a statistical correlate of first semester grade point average"(DeBerard, et al., 2004, p. 67). Male gender is often related to a lower grade point average, however, "a review of the research literature suggests that gender is not a consistent predictor of overall academic achievement" (DeBerard, et al., 2004, p. 67).

Age of the students is another consideration which was explored. According to Wlodkowski, Mauldin, and Campbell (2002), non-traditional students are more likely to be at risk for attrition, not only because of poor academic performance, but also because of other reasons. More so than their traditional age counterparts, adult students are "drawn to the realities of their full lives, often meeting new challenges or making do with limited resources" (Wlodkowski, et al., 2002, p. 1). Often for non-traditional students, the question exists as to whether they have the time and money necessary to succeed and persist. External commitments, such as employment, finances, and the presence of dependents, can be a predictor variable for success for non-traditional students (Sorey & Duggan, 2008, p. 82).

The prior completion of developmental coursework was the final factor explored. Many students do not enter college with adequate preparation for the level of work involved and are required to complete one or more remedial English courses. In fact, Greene and Forster (2003) found that only 32% of high school graduates are ready to enter college. A study commissioned by the Oklahoma State Regents (Report of the Oklahoma Higher Education Task Force on Student Retention, 2002) found that remediation does impact persistence. According to the study, though remedial work may provide adequate preparation for success in later courses, the more developmental courses a student is required to complete, the greater the risk for attrition.

Operational Definitions

Academic Integration: According to Tinto (1993), academic integration is the "character of the individual's intellectual experiences within the institution" (p. 50). These experiences integrate the student into the intellectual life of the institution. Academic performance is a contributing factor to the degree with which a student will academically integrate with the

institution. For the purposes of this study, the measure of performance is used as the sole measure for the concept of academic integration.

Attrition: For the purposes of this study, attrition is defined as not remaining enrolled in higher education. It could be caused by a multitude of factors and could be merely a pause in education as opposed to a true departure.

Non-traditional Student: A student who was age 25 or greater at the time of completion of English Composition I.

Persistence: "The act or fact of persisting; the quality of being persistent (lasting or enduring tenaciously)"(Random House, 2000, p. 988). In higher education, persistence is defined as remaining enrolled. For the purposes of this study, persistence means that a student remains enrolled to the second semester post completion of English Composition I. In this study, persistence is used interchangeably with the word "retention."

Retention: "The length of time a student remains enrolled at the first institution toward completion of a degree" (Lotkowski, Robbins, Noeth, & A.C.T., 2004, p. 4). In this study, retention is used interchangeably with the word "persistence."

Traditional Student: A student who was age 24 or under at the time of completion of English Composition I and the measured persistence period following.

Hypotheses

1. Students who earn a grade of C or below in English Composition I are a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who earn a grade of B or above.

Null hypothesis: There will be no difference in risk for attrition, as measured by their persistence to the second semester beyond completion of the course, between students who earn a grade of C or below and those who earn a grade of B or above in English Composition I.

2.   Students who took English Composition I in their second semester and earned a grade of C or below are a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who took the course in their first semester and earned similar grades.

Null hypothesis: There will be no difference in risk for attrition, as measured by their persistence to the second semester beyond completion of the course, between students who took English Composition I in their second semester and earned a grade of C or below and those who took the course in their first semester and earned similar grades.

3.   Male students who earn a grade of C or below in English Composition I are a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than female students who earn similar grades.

Null hypothesis: There will be no difference in risk for attrition, as measured by their persistence to the second semester beyond completion of the course, between male students who took English Composition I and earned a grade of C or below and female students who took the course and earned similar grades.

4.   Non-traditional students who earn a grade of C or below in English Composition I are a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than traditional age students who earn similar grades.

Null hypothesis: There will be no difference in risk for attrition, as measured by their persistence to the second semester beyond completion of the course, between non-traditional

students who took English Composition I and earned a grade of C or below and traditional age students who took the course and earned similar grades.

5. Students who took developmental English prior to earning a grade of C or below in English Composition I are a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than students who did not previously complete developmental coursework who earned similar grades.

Null hypothesis: There will be no difference in risk for attrition, as measured by their persistence to the second semester beyond completion of the course, between students who took developmental English prior to English Composition I and earned a grade of C or below and those who did not previously complete developmental coursework and earned similar grades.

Background

As DeBerard, et al. (2004) asserts, "there is a consistent relationship between college academic achievement and retention, with higher performing students persisting in their studies to a greater degree than their lower achieving cohorts" (p. 67). The literature reviewed for this study was replete with descriptions of the positive correlation between academic achievement and persistence. Much of the prior research, including a study done at Nova Southeastern University, has found that a lower college grade point average results in an increased risk for attrition (Fredda, 2000). This theory was also supported by the work of Graunke and Woosley (2005).

This knowledge, though, has not resulted in an effective solution to the attrition problem (Wild & Ebbers, 2002). Even at community colleges, where the issue is considered to be more severe, little has been done to create a theoretical model for explanation (Mohammadi, 1994). "Despite steadily rising enrollment rates in U.S. postsecondary institutions, weak academic

performance and high dropout rates remain persistent problems among undergraduates"
(Zajacova, Lynch, & Espenshade, 2005, p. 677).

According to Lotkowski, et al. (2004) it is tragic that so little progress has been made on
persistence and the causes of attrition considering there has been over 70 years of research on the
subject. The complexity of the issue seems to be rooted in the difficulties inherent in identifying
those students who are at risk for attrition before they actually leave college. As Lotkowski, et
al. (2004) states, "before any retention effort can begin, postsecondary institutions must devise
ways to identify students who need help and assess the kinds of help they need" (p. 11).
Developing a simple, practical method to identify those students at risk would be extremely
beneficial for institutions and the students they serve (Fike & Fike, 2008).

Since it was established through prior research that a low cumulative grade point average
correlates to an increased risk for attrition, there seemed to be a reasonable extension that a
foundation course such as English Composition I would have similar predictive properties.
Perhaps the English course would be an even stronger predictor considering the difficulty
entering freshmen often have meeting college standards in this subject. As Boggs (1984)
reported, "chances are less than even that college-bound high school students will be able to
write English at even minimal college level when they graduate" (p. 1).

English Composition I was chosen for this study as the possible predictor course for a
variety of reasons. As Luna (2003) asserts, "freshman English is one of the few courses required
of almost every college student at almost every college and university in the country" (p. 377).
This requirement makes English Composition I a practical choice and an easy measure for use as
a predictor of persistence. English Composition I is also a required course that is generally taken
in a student's first term. Further, in instances where students have a maximum coursework

choice, overall grade point average may not be an accurate measure of their probability for success since selected courses may enjoy a high level of interest (Mann & Robinson, 2009). English Composition I generally falls outside of this category and may be the best single measure of academic performance (Levy, 2006).

This study attempted to link performance in English Composition I with overall success as measured by persistence. If such a relationship exists, institutions will have an abbreviated method to predict persistence and will be able to validate intervention strategies which attempt to increase retention by improving academic performance.   Therefore, the results generated by this study may have a positive impact and spur additional research to refine and improve efforts for the next seventy years of retention study.

Research Design

This study involved quantitative, causal comparative research and the necessary data were obtained through the review of academic transcripts. The study sample included approximately 500 students from a single community college located in Western Pennsylvania. Randomly selected records of first year students from academic years 2007-2008, 2008-2009, and 2009-2010 were examined. In order to maintain confidentiality, the records were assigned numeric identifiers and the only demographic information revealed was the age and sex of the students. The data extracted from the records review was compiled on an Excel spreadsheet to facilitate statistical manipulation.

Statistics

The strength of the relationship between each variable identified in the hypotheses was measured using chi-square. This inferential statistic is one of the most widely used probability distributions for hypothesis testing and a standard method in introductory statistic texts

(Markowski & Markowisky, 2009). It is a nonparametric statistical technique used to determine if a distribution of observed frequencies differs from the theoretical expected frequencies. Chi-square statistics use nominal (categorical) or ordinal level data to determine frequencies instead of means and variances. Chi-square was determined to be the appropriate statistical measurement for this study because, according to Green and Salkind (2005), it "does not recognize any quantitative distinction among categories, but simply assesses whether the proportions associated with the categories are significantly different from hypothesized proportions" (p. 257).

Limitations

As with any study of this nature, several limitations exist which must be considered when determining the applicability of the study to the *entire* population of all first-year college students. The limitations include:

- An assumption was made that the instruction within all English Composition I courses was equivalent. The sample was not segregated by instructor or by method of delivery (traditional vs. online).

- The sample included students from a single institution only. A multi-institution study may have produced different results, though this possible difference is not supported by any reviewed literature.

- Other factors influencing attrition were ignored (e.g., financial, "life change," transfer to a four-year institution, etc.).

- It was assumed that all subjects in the study had intentions to persist to graduation. It was not determined if any of the students had met their educational goals prior to graduating.

An example of this type of student is one who takes a specific number of courses in order to upgrade skills for employment.

- An assumption was made that all grades assigned for English Composition I were accurate. Any inflation or deflation could have had a major impact on the validity of the results.

- The common practice of non-continual enrollment among community college students was not explored in this study. According to Schuetz (2005):

    About 40% of community college students drop in and out of college, skipping academic terms and then reenrolling, which makes it difficult to determine whether non-returning students have taken a temporary break from classes, transferred to another institution, or dropped out altogether. (Schuetz, 2005)

- The students' past English preparation was considered standard. Students are placed into English Composition I based on the results of their performance on a single standardized test and no comprehensive measurement of previously learned abilities occurs. The possibility that performance was affected by prior knowledge level was not considered in this study.

Summary

A great deal of research has been done identifying attrition as a major issue affecting both institutions of higher learning and students themselves (Fike & Fike, 2008; Sorey & Duggan, 2008; Wild & Ebbers, 2002). Discovering a valid method of predicting risk for attrition may benefit both of these groups. This study attempted to determine the correlation between performance in English Composition I and persistence to the second semester beyond completion of the course.

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The stated hypotheses for the research indicate the belief that better academic performance will equate to increased persistence. If these hypotheses are true, it follows that students who perform poorly may present a greater risk for attrition. As a course that all college students must complete, English Composition I may be beneficial as a predictor of persistence. Institutions across the country could use this information to trigger early alert efforts and, ultimately, to increase retention.

CHAPTER II

REVIEW OF RELATED LITERATURE

"The difficulty of literature is not to write, but to write what you mean; not to affect your reader, but to affect him precisely as you wish."

Robert Louis Stevenson (1850-1894)

Attrition is a major issue facing nearly all institutions of higher learning. The loss of students affects colleges and universities on many levels and often has a negative impact on students as "retention is viewed as a fundamental indicator of student success" (Kern, Fagley, & Miller, 1998, p. 26). The problem of attrition is even more prevalent at community colleges which have specific concerns regarding attrition (Fike & Fike, 2008; Sorey & Duggan, 2008) and are often referred to as "revolving door institutions" (Derby & Smith, 2004, p. 763).

As summarized by Wild and Ebbers (2002):

Community colleges are well known for the creativity and initiative they have brought to higher education. The issue of student retention in the community college must become a priority for community college leaders who will undertake the research on program development necessary to establish the student retention theories needed in the community college environment.

Community college leaders can develop common denominators that aid individual programs and schools in documenting whether they are meeting the student retention goals in accord with student retention theories that are appropriate for community colleges. Student retention will become a major issue in community colleges unless we begin to address the issues and the ways in which we discuss and think about student retention in the community college environment. (p. 517)

Unfortunately, retention and student persistence have already become a major issue for community colleges and all institutions of higher education (Strauss & Volkwein, 2004).

In today's challenging economic environment, retention has become key to the survival of colleges yet, despite numerous efforts to reduce attrition, the problem remains (Summers, 2003). Predicting attrition risk and performing interventions to improve retention in a timely manner are extremely difficult. An accurate predictor of persistence would have a major impact on the ability of the entire higher education community to increase retention. This dissertation study sought to address this need and determine whether performance in English Composition I can be isolated as an effective predictor of persistence and retention. The review of related literature presented herein is intended to summarize the relevant material obtained from research and to provide the reader with sufficient background knowledge to appreciate the various components addressed in this study.

The Problem of Attrition

As this dissertation research attempts to find an effective predictor of persistence, it is important to understand the severity of the attrition problem universally facing institutions of higher learning. Bushong (2009) conveyed the bleak state of attrition in his article which reports data from the most current available academic year:

> In the 2007-8 academic year, 66 percent of first-year college students returned to the same institution for their second year of college, the lowest percentage since 1989. That figure is down from 68 percent in 2006-7, according to ACT Inc., the nonprofit testing-and-research group that conducted the survey. Two-year colleges, however, seem to be exempt from the downward trend. Fifty-four percent of students at two-year public

colleges returned for their second year in 2007-8, up from 51 percent the previous year.

(p. A17)

The depth of the problem is illustrated clearly by the fact that any improvement in retention is heralded, even the improvement for two-year colleges which still results in an attrition rate of 46%.

"Across several decades of research, community college attrition rates have been consistently reported as very high" (Summers, 2003). According to the National Center for Education Statistics (2009), only 49% of students enrolling in a community college had maintained their enrollment or completed a program of study at their first institution after three years. "Nearly one-fourth (23 percent) had left in their first year and had not returned within the 3-year study period" (Horn & Weko, 2009, p. xii). Additionally, the research shows that community college attrition rates continue to be significantly higher than those at baccalaureate institutions (Wild & Ebbers, 2002; Mohammadi, 1994).

In addition to its impact on student success, attrition also affects the institution in a variety of ways. The most notable institutional impact is economic in nature as students who depart from the institution prior to graduation represent a loss of revenue. As Wild and Ebbers (2002) related:

> The financial exigencies in operations that are facing community colleges also make retention a critical matter. For example, what college can ignore the potential revenue of several hundred thousand dollars to be gained by retaining students from year one to year two of their postsecondary education career. (p. 503)

Limiting attrition and increasing persistence is surely beneficial for all involved and is the reason this study, and others related to it, has been conducted. As Sadler, Cohen, and Kockesen (1997)

have so aptly stated, "the ultimate goal is for the college to be able to identify and interact with at-risk students as early as possible, thereby reducing the likelihood that they will leave the institution" (p. 5).

In order to grasp the prospect that the formulation of a persistence predictor is possible, it is essential to digest the great amount of research already conducted on this subject. Multiple theories on persistence and retention have resulted from the efforts of numerous researchers over the past several decades.

Persistence and Retention Theories

Although much thoughtful work has been dedicated to creating a perfect theory of persistence, it remains the holy grail of enrollment management in higher education. Still, theorists from across numerous disciplines have put forth their best efforts in an attempt to secure this elusive prize. Though their products are far from identical, all of the theories on persistence and retention share the identification, measurement, and combination of variables as common elements (Sadler, Cohen, & Kockesen, 1997). According to the review of the research and literature regarding community college student attrition completed by Summers (2003):

A wide variety of variables have been studied as they relate to student attrition. For example, researchers have examined student characteristics, other student variables, academic ability, noncognitive factors, and availability and use of student services. In addition, institution-related factors, curriculum, faculty-student interactions, and campus climate have been researched in the efforts to understand and predict student attrition. Collectively, researchers have determined that student attrition is a complex phenomenon that cannot be understood or predicted with single variables. However, a large amount of research supports the general observation that community college students are more

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likely to drop out if they have no specific educational goals, work full time, and attend

college part time. Nevertheless, a more thorough understanding of multiple variables and

their interactions is required for the formulation of strategies to reduce attrition. (p. 18)

A description of multiple theoretical models of student attrition and their perceptions of the

variables affecting students' persistence decisions follows.

One model of student attrition, created by Vincent Tinto (1993), takes into account

numerous variables. According to Tinto, "persistence entails the incorporation, that is

integration, of the individual as a competent member in the social and intellectual (academic)

communities of the college" (Tinto, 1993, p. 136). In this model, persistence requires a

successful transition to college and relies on positive interactions between the student and the

institution in various situations. As stated by Tinto (1993):

It is the daily interaction of the person with other members of the college in both the

formal and informal academic and social domains of the college and the person's

perception or evaluation of the character of those interactions, and of those that involve

the student outside the college, that in large measure determine decisions as to staying or

leaving. (p. 136)

The risk for attrition is lowest, according to Tinto's model, when the student experiences both

academic and social integration. It is important to note that Tinto's model was primarily

intended for use at residential institutions where the opportunity for social integration is much

greater than at commuter institutions, such as most community colleges.

The case study conducted by Borglum and Kubala (2000) investigated if Tinto's model

of retention could be applied to two-year institutions. This study found that "students who felt

academically integrated also felt socially integrated" (Borglum & Kubala, 2000, p. 574). The

authors theorized that, since most students view the community college as a place to begin their work on a baccalaureate degree, they do not rely on the institution to provide opportunities for social integration. Their findings indicated that the majority of students spend little time on campus beyond their class hours. Borglum and Kubala (2000) also found that "there was no correlation between academic and social integration and withdrawal rates" (p. 575). Because of this finding, they theorized that the greatest indicators of student success and persistence for this population are the students' goals and intentions.

Spady (1971) created a model which explained the process of attrition through both the impact of single variables and the interrelationships between multiple variables. Spady's model also predicted the likelihood of attrition by rating the level of the student's social integration. Simply put, according to Spady, students who feel socially connected and compatible with the institution are more likely to persist than those who do not establish this type of connection. In this model, social integration is influenced to some degree by other variables including academic performance, intellectual development, and the support derived from friendships (Spady, 1971).

Bean and Metzner (1985) developed a model specifically for non-traditional students which takes into account their decreased level of social integration. This model was built upon an extensive review of prior literature and relies on variables such as academic performance, satisfaction, and utility of the education to determine the likelihood of persistence. In creating their model, Bean and Metzner grouped their variables into categories of academic and psychological outcomes. They found the psychological outcomes to be most important in determining the likelihood of persistence, even when academic outcomes were negative. Specifically they found "intent to leave to be an extremely strong predictor of dropout" (Bean &

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Metzner, 1985, p. 528). In almost all cases, non-traditional students who make the decision to leave do so thereby creating an immediate result of attrition.

Gerkin's (2009) study explored the perceptions of former community college students which affected their persistence. He used "Astin's student involvement theory and Tinto's conceptual model of student persistence" (Gerkin, 2009, p. 7) as his conceptual framework. Gerkin's study employed mixed methods but primarily relied on descriptive case study. His results indicated that academic integration is an important indicator of persistence; those that are engaged in their coursework tend to persist. This theoretical model and others including Spady (1971) and Tinto (1993), which highlight academic integration and outcomes, support the hypothesis that students who perform well in English Composition I are more likely to continue in their studies than those who receive a poor grade.

Since this dissertation measures persistence two semesters post the completion of English Composition I, a point at which most students are considered to be in their sophomore year, it is important to also understand the research specifically related to sophomore persistence. Schreiner and Pattengale (2000) have identified the sophomore year as a "time in which students disengage from academic life, thus creating an adverse affect on their grades" (p. 367). Graunke and Woosley (2005) assert that sophomores may be less likely than students in other classes to be actively involved with their own learning. This lack of involvement could be because many sophomores are transitioning into major coursework and they may be uncertain about their choice. The study completed by Graunke and Woosley (2005) found that commitment of sophomores to major and their level of interaction with faculty and staff had significant correlation with their academic performance.

The research done by Schaller (2005) identified the sophomore year as a tumultuous time in the lives of traditional aged students. She refers to this period as "moving beyond adolescence" (Schaller, 2005, p. 21) and as a time when they "seek meaning and direction in life" (p. 21). In order to achieve success, Schaller asserts that sophomores need to become fully engaged in the learning process or risk becoming overwhelmed which could result in attrition. Students who have not performed well academically in prior semesters most likely lack the high level of engagement necessary to ensure persistence.

The major hypothesis of this dissertation research is based upon a combination of the theoretical positions presented. It relies most heavily on the research conducted by Gerkin (2009) which blended multiple conceptual frameworks and discovered through his research that academic integration and performance are able to effectively predict persistence. Students who earn a high grade in English Composition I are therefore expected to persist at a greater rate than those who do not perform as well. In addition to testing this hypothesis, this dissertation research also explored combinations of other variables along with English Composition I performance including gender, age, and whether the student completed developmental coursework.

Persistence and Gender

Gender was included for consideration in this research as a variable which could impact persistence in combination with performance in English Composition I. According to DeBerard, et al. (2004) gender "has been shown to be a statistical correlate of first semester grade point average" (p. 67). These authors, however, conducted a research review which "suggests that gender is not a consistent predictor of academic achievement" (DeBerard, et al., 2004, p. 67). Existing research in this area indicates mixed results with some authors describing greater

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difficulties with female persistence and others indicating that males are less likely to remain in college. According to Guerriero (2009), however, the fact remains that:

> Men are underrepresented in higher education enrollment, persistence, and degree completion in the United States today. The gender gap is widest in public community colleges despite their mission to provide open access to students who do not meet the entrance requirements of four-year colleges and universities. (p. ii)

In the fall of 2007, U.S. institutions overall had a male population of 43%. At public 2-year institutions this percentage fell to 42 (National Center for Education Statistics, 2009). Guerriero's research concluded that, despite having high aspirations and expectations, men did not display the "college enrollment and persistence behaviors required for degree attainment" (Guerriero, 2009, p. ii). This study hypothesized that male students who perform poorly in English Composition I are at greater risk for attrition than female students who earn similar grades.

Grimes' (1997) study of underprepared community college students found that differences in gender had a greater impact on learning strategies than did academic preparation. In her work, she asserts that improved learning strategies can overcome a deficit in prior preparation and result in academic success. Grimes found that women demonstrated stronger study strategies than men and were therefore more likely to succeed. Men, according to Grimes, "represented a risk in academic achievement as a result of study difficulties, lower interest, and lower grades" (Grimes, 1997).

Robertson (1991), however, found that women were at high risk for attrition because they frequently demonstrated slower progress and noncontinuous enrollment. This theory of female risk is supported by the research done by Kolajo (2004) who found that "on average, the male

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students graduated faster than female students by roughly two semesters" (p. 368). It is important to note that Kolajo's sample population consisted mainly of part-time students.

Although the results of research on gender as a predictor of persistence are mixed, it appears that the majority of studies indicate that females enjoy greater persistence. Based on this data, this dissertation study hypothesized that males who perform poorly in English Composition I are a greater risk for attrition than female students who earn similar grades.

Persistence and Race

Race was not included as a possible factor to impact persistence in this research due primarily to the small minority population at the institution. Research Setting Community College is located in a Pennsylvania county which has a total minority population of 5.0% and a White non-Hispanic population of 94.0% (United States Census Bureau, 2008). The College enrolls a percentage of minority students slightly larger than this number but not a sufficient percentage to be able to produce statistically significant results.

Several studies do indicate race can be a factor affecting persistence. Buenavista (2010) found that, for Filipinos, "negative stereotypes detrimentally influence postsecondary opportunities" (p. 123). Her research also indicated that socioeconomic factors often affect the ability of this ethnic group to persist. Likewise, Gillborn (2008) found that an achievement gap exists for Black students because of fundamental racism which negatively impacts this group's ability to persist.

Simon (2008) also identified achievement gaps between racial groups but found them to be applicable only in instances where students had previously performed poorly on standardized tests. He found that Asian, Black, and Hispanic students who did well on such tests performed as well or better than White students in completing their science requirements for post-secondary

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education. Murugan (2009) also found that academic achievement was the major factor in determining persistence and not racism or discrimination as may have been expected. Though it is possible that race could impact academic achievement, which could then affect persistence, Murugan did not find race to be a major factor in the determination.

These conflicting results, coupled with the small minority population at the institution, led to the determination to eliminate race for consideration as a variable in this study. Though the exclusion of race may not be applicable in all circumstances, it was deemed to be appropriate for this research.

Persistence and Age

Age was included for consideration in this research as a variable which could impact persistence in combination with performance in English Composition I. For the purposes of this study, traditional students are defined as those individuals who were age 24 or less at the time of completion of English Composition I. Non-traditional students were those age 25 or greater at the time of course completion. Age appears to be an important consideration since non-traditional students currently comprise a large percentage of the population enrolled in higher education in the United States. In the fall of 2007 across all institutions, 38% of the student body was age 25 or over. At 2-year public institutions, 40% of students were of non-traditional age during the same semester (National Center for Education Statistics, 2009).

The relatively small amount of research that appears to exist on the subject of student age as related to persistence focuses only on the persistence barriers for adults, not the factors which support persistence. The research indicates that, characteristically, non-traditional students attend part-time, attend for self-improvement, work full-time, support dependents, take longer to complete their program, and earn better grades due to the seriousness with which they approach

their education (Howell, 2001). Because of the additional barriers they encounter, this study hypothesized that non-traditional students would experience increased risk for attrition as compared to their traditional-aged counterparts.

The study conducted by Owen "concluded that a significant positive relationship exists between age and GPA" (Owen, 2003, p. 181). This relationship was that age increases as grade point average increases and age decreases as grade point average decreases. Owen determined that, among community college students, this relationship was weak and that there are "additional variables responsible for determining the characteristics that accompany age and GPA that prevent segregating student only according to age for the purpose of predicting academic success" (Owen, 2003). The results of Owen's study indicated that non-traditional students should perform better in terms of grade point average than would be expected of traditional-aged students.

According to Donaldson (1999), the classroom is a central and significant influence for adult students. This influence on non-traditional student learning outcomes differs greatly from social involvement, which largely influences traditional student. The work of Donaldson appeared to indicate that academic performance would have a great impact on an adult's decision to persist. This theory is contrasted by the study by Sorey and Duggan (2008) which found that academic performance was the "least significant of all predictor variables" (p. 92) for the persistence of non-traditional students.

The majority of the existing research on age as a factor impacting persistence seems to indicate that poor academic performance is not a major cause of attrition for non-traditional students. Sorey and Duggan (2008) found variables including "social integration, institutional commitment, degree utility, and encouragement and support" (p. 91) to have a much greater

influence on persistence. McGivney (2004) outlines the primary reasons this population fails to persist. Her article cited personal factors, affinity for distance education, gender differences, lack of family or partner support, financial problems, and course-related factors as common reasons for attrition. McGivney also identified inadequate pre-course information and guidance, difficulties managing study time, difficulties in settling in and integrating into the life of an institution, and institutional barriers.

Even though the existing research is contradictory on the impact of age on student persistence, it appears to be generally accepted that non-traditional students are affected by a variety of factors, in addition to those affecting their traditional counterparts, which could influence their persistence. This dissertation research hypothesized that non-traditional students who perform poorly in English Composition I are at greater risk for attrition than traditional age students who earn similar grades.

Persistence and Developmental Coursework

Also included for consideration as a factor which could impact persistence in this research was whether a student was required to complete developmental coursework. Unfortunately, a large number of students enter college each year underprepared to succeed (Fike & Fike, 2007). In fact, Greene and Forster (2003) found that only 32% of high school graduates are ready to enter college (p. 10). "This translates into a high rate of college-level remediation, which strongly correlates with a student's chance to ever finish college" (Herzog, 2005, p. 886). During the 2007-2008 academic year, 72.4% of degree-granting institutions in the United States reported offering developmental coursework. During the same period, 99.5% of public 2-year institutions reported offering remedial programs (National Center for Education Statistics, 2009). These large percentages illustrate the need to consider this variable, especially considering that

the sample population was drawn from a community college. The main objective of these developmental programs is to increase retention by assisting academically under-prepared students to integrate into the college academically and to succeed in college-level coursework (Boylan, Bonham, & White, 1999).

The existing research on the impact of developmental coursework has produced mixed results and more conclusive data is necessary. According to Fike and Fike (2007), academic skills in all basic areas are essential for success. Their study found that passing developmental writing is a predictor of student retention. "A consensus of the research examining remedial programs provides some support that these programs may have a positive effect on student success in college" (Leake & Lesik, 2007, p. 89). "Developmental programs may be successful in helping to keep students retained . . . by creating an atmosphere where students can begin to feel connected and integrated with the university" (Lesik, 2007, p. 605). Conversely, those who do not perform well in courses taken after developmental work may question their ability to succeed in standard college classes.

According to Kolajo (2004), almost two-thirds of community college students require some amount of developmental coursework. This large percentage makes clear the need for these students to succeed in their remedial courses. In their article, Leake and Lesik (2007) identified numerous reasons why the design of developmental English courses lay the groundwork for success. These reasons included an emphasis on writing mechanics, individual attention made possible by small class sizes, and the expertise of faculty assigned to teach remedial courses. The results of their study found that students taking remedial English had a higher first-year grade point average than those who did not take the course.

The results of Linfante's (2002) work contrasts the bulk of the research in this area. Linfante attempted to "determine if students whose skill level requires them to enroll in remedial English courses can eventually succeed in college-level English Composition and if certain variables have an effect on their success" (Linfante, 2002, p. 8). His main research question was "Do significant differences exist in the effectiveness of remediation on student success in English 101 after accounting for student background characteristics and academic preparation?" (Linfante, 2002, p. 8). Linfante's (2002) study relied on previously collected, historical data and employed a "correlational research and multivariate approach in an attempt to distinguish a relationship" (p. 56). His study found that "remediation does not result in a level of English 101 performance equal to those subjects not requiring remediation" (Linfante, 2002, p. 90). Furthermore, it was shown that "demographic variables account for more variance in English 101 grades than does remediation program differences" (Linfante, 2002, p. 90).

Moorer's (2009) research explored the effectiveness of the developmental education program and placement into it at a community college. "The framework that guided this research was a mixed methods mode of inquiry, relying heavily on the case study approach as the primary mode of inquiry" (Moorer, 2009, p. 13). Moorer's data gathering consisted of structured interviews conducted over a six-month period, a cross-sectional survey, and one student focus group (Moorer, 2009). His research found that the subset of students in the developmental program had a higher rate of attrition than was observed in the student body as a whole. And, that those who did persist had "survivor skills" which would most likely enable them to succeed in future coursework (Moorer, 2009, p. 135). This research suggests that students who have previously completed developmental coursework and then succeeded in

English Composition are more likely to persist than those who have not completed developmental studies.

This suggestion is supported by the research of Heslep (2005) regarding whether students who completed intermediate coursework prior to taking freshman level English and mathematics courses performed better in these courses and if they had a higher rate of return for the freshman year. This study found that intermediate coursework did not have a significant impact on the final letter grade received in English Composition I. It did find, however, that "first-time freshman who completed intermediate courses in English or mathematics prior to completing freshman level English or mathematics returned to the university at a significantly higher rate than did the students who did not complete intermediate courses" (Heslep, 2005, p. 2).

The research of Woods (1995) also supports the theory that the completion of developmental coursework, specifically English coursework, positively impacts persistence. His study measured the behavior of students for six years after completion of a community college basic writing course. Woods found that students who completed the basic course had a high percentage of persistence at the point two semesters post course completion and a high percentage of persistence or gradation at eight semesters post course completion as compared to median persistence rates for developmental students (Woods, 1995, p. 356-357).

The dissertation research conducted by Threadgill (2005) was very similar to that of Heslep with the exception that it focused solely on non-traditional students. This study found that no significant difference existed in persistence to graduation between students who were required to complete developmental coursework and those who were not required to take the courses (Threadgill, 2005). This study also found that students who were required to take

developmental coursework did receive significantly lower grades in English Composition I than those who were not required to take the courses (Threadgill, 2005).

A three year cohort study by Waycaster (2001) also found that "retention rates for developmental students are considerably higher than retention rates for nondevelopmental students" (p. 415). Waycaster believes that current developmental courses serve their purpose and "bring underprepared students to an academic level that allows them to compete with other college students" (Waycaster, 2001, p. 415). The research by Waycaster and others appears to indicate that students who complete remedial coursework should persist. However, those who subsequently perform poorly in English Composition I may question their ability to succeed.

The findings of the research on the impact of developmental coursework on success and persistence are conflicting with some results indicating that it has little effect and others showing that the influence of this coursework on retention is either positive or negative. Since mixed results have been obtained, data that is more conclusive is necessary. The intent of this study was to contribute to this realm of knowledge by measuring whether completing developmental English coursework has an effect on persistence coupled with that observed based on performance in English Composition I. To that end, this dissertation research hypothesized that students who completed developmental English prior to earning a grade of C or below in English Composition I are a greater risk for attrition than students who did not previously complete developmental coursework prior to earning similar grades.

Predictors of Persistence

As has been described previously, student persistence is widely accepted to be a complex occurrence influenced by many variables (Grimes, 1997; Strauss & Volkewein, 2004; Summers, 2003). Although it would be difficult to predict persistence using a single variable, a great deal

of research has been conducted to determine the degree to which individual factors and the interaction between multiple variables serve as predictors of persistence. This section is intended to outline some of the existing research and to provide additional rationale for the use of performance in English Composition I as a possible predictor of persistence in this dissertation research.

The dissertation research by Anderson (2009) was designed to facilitate the creation of a model for the prediction of a student's probability of persistence using "different combinations of pre- and matriculation variables along with select demographic variables" (p. xii) during a student's first academic year. Anderson found that, although some individual variables such high school grade point average and the amount of financial aid awarded were found to be statistically significant predictors, institution-specific combinations of variables created the most effective models for predicting persistence (Anderson, 2009). This finding supports the use of secondary variables in addition to performance in English Composition I in this research to determine if an effective combination model can be created for this institution.

The dissertation study by Williamson-Ashe (2009) examined "the degree that community college student persistence could be predicted by social integration, academic integration, educational objectives, and intent to reenroll" (p. v). Her results indicated that, although academic and social integration played no significant role, "educational objectives and intent to reenroll confirmed some correlation to persistence" (Williamson-Ashe, 2009, p. 79). These results support prior research indicating that predictors of persistence do exist for community college students even though Tinto's model, which relies heavily on integration, does not seem applicable to this population.

The dissertation research conducted by Radney (2009) "created a linear discriminant function to predict a broad range of persistence levels of first-time freshmen students at California State University, Bakersfield (CSUB), by identifying pre-enrollment and early enrollment student variables that existed within the database of the University" (Radney, 2009, p. vi-vii). The intent of Radney's research was to assist in the development of support service strategies for incoming students predicted to be at risk for attrition. The variable sets Radney (2009) considered included personal (gender, ethnicity, income level), external (high school performance, SAT scores), and institutional (placement test results, housing status, financial aid awarded). His research concluded that satisfactory academic performance, as measured by high school grade point average, first-year college grade point average, and the number of credits completed during the first year of college, is effective measures for persistence.

The study completed by Driscoll (2007) focused on the group she believed had "the highest chance of academic success--recent high school graduates who entered community college with the goal of transferring to a four-year institution in order to earn a bachelor's degree" (Driscoll, 2007, p. 11). Although she defined success in terms of eventual transfer, this achievement was also a measurement of persistence. Driscoll found that students most likely to succeed were those who completed transfer-eligible coursework in their first semester with a high grade point average and those who maintained their original aspirations through the second semester. She theorized that the "associations between early performance and transfer are likely due to the fact that better prepared and motivated students have the confidence to take and manage heavy courseloads of transfer-eligible courses" (Driscoll, 2007, p. 12). Driscoll's findings support the hypotheses of this research which expect that students who perform well in

English Composition I, a transfer-eligible course, will persist at a higher rate than those who perform poorly.

Szafran's (2001) prior study also investigated whether "academic load, as measured by credit load and course difficulty" (p. 27) had an impact on a student's success in the first year. Szafran found that the most successful students were those who took a heavy credit load and easier courses (Szafran, 2001). Students who took a lighter load may not have been well prepared for college and subsequently performed poorly. Students who completed more difficult courses tended to earn a lower grade point average. He also found that the high school class rank was the best predictor of first-year grade point average. Yet, when merging these variables together, no correlation existed. In other words, even after segregating students according to prior academic performance, academic load remained the most accurate predictor of success. Szafran's research also supports the hypotheses of this study which assumes that a student achieving success with an academic load containing English Composition I should have a successful first college year and, therefore, persist.

The research by Strauss and Volkwein (2004) investigated which factors affect institutional commitment, and ultimately persistence, at both two and four-year institutions. The authors found that academic and social integration, age, ethnicity, marital status, and financial aid have the same influence on students at both types of institutions. Between institution-types, the authors found that classroom experience (intellectual stimulation, enjoyment, value, and communication) had the largest influence on two-year college students and that social integration had the greatest influence on students at four-year institutions (Strauss & Volkwein, 2004, p. 218-219). If community college students, then, enjoy their English Composition I course and perform well, they should be predicted to persist.

The study completed by Kuh, Cruce, Shoup, Kinzie, and Gonyea (2008) also found that the measure of a student's academic engagement could be used to predict persistence. After comparing a multitude of variables, their research resulted in two major conclusions: "first, student engagement in educationally purposeful activities is positively related to academic outcomes as represented by first-year student grades and by persistence between the first and second year of college." "Second, engagement has a compensatory effect on first-year grades and persistence to the second year of college at the same institution" (Kuh, et al., 2008, p. 555). These conclusions were found to be especially true for commuting and part-time students since these groups generally rely on the classroom for their interactions with faculty and other students (Kuh, et al., 2008, p. 556). Since all members of the population studied in this dissertation research were commuting students, it follows that a positive experience in the English Composition I classroom and earning a grade of A or B in the course may result in persistence.

Because of the amount of research which exists on factors influencing persistence and the wide range of the factors identified as possibly having impact, it seems it would be beneficial to identify a single predictor. As detailed in this section, most previous studies have measured the impact of a combination of variables. This study, in contrast, attempted to identify a single predictor using the information gathered by previous studies as foundational knowledge. This information includes results indicating that persistence is positively affected by high grade point average, completion of transfer-eligible coursework within a substantial academic load, and academic engagement. Based on this foundation, attempting to use performance in English Composition I as a single predictor appeared to be a logical choice and an extension of the results of these previous studies.

Grading

Because this dissertation relied on the grade received in English Composition I, an essay-writing course, it is important to be able to consider the grades issued to the sample population to be accurate. Correct grading is also important as grades become the building blocks for grade point average which "is the most important factor of student attrition and its effect is the most substantial in the initial semesters of enrollment" (Johnson, 2006, p. 930). Research on the criteria used to grade college essays has been completed to determine if criteria are standardized and if the variables considered when grading are uniform and appropriate. In his dissertation, Wolford (2000) measured the importance placed by English faculty on 20 essay-grading criteria and found that no significant differences existed in importance except for in one measure, topic content (Wolford, 2000). A sample of the criteria measured included mechanics, sentence clarity, logic, word choices, and adherence to assignment parameters (Wolford, 2000). This result indicates that essay-grading criteria are indeed standardized. The single exception can be explained by considering that the quality of writing is not dependent on the topic of the essay.

Levy's (2006) dissertation also addressed this topic by detailing a qualitative collective case study and described the textual elements and criteria used by six instructors when grading freshman English research papers. It is an "exploratory study which seeks to describe and understand the grading practices of community college writing instructors, how they perceive and apply their individual grading schemas when grading Freshman English compositions in their individual classrooms" (Levy, 2006, p. 8). Levy used multiple sources of data to answer her research questions and found that, although the instructors used different approaches to grading, "they considered the product elements and criteria as the first and primary determinants of their final grade choices for the research papers" (Levy, 2006, p. 296). Levy also found that

grading practices were "coherently and logically presented" (p. 300) in the course syllabi. And, although she discovered some negative aspects of English composition grading practices, Levy believes, and her belief is supported by this study, that they are for the most part sound.

In their study of the perception of grading at Jordan University, Al-Hussain, Al-Haidari, Kouri, El-Migdadi, Al-Safar, and Mohammad (2008) found that students believe mistreatment and discrimination occurs in the process of faculty grading. The authors believe an unfair grading system and discrimination among students concerning their marks and grades will have a great impact on teaching, learning, and attitude. This type of system and discrimination could have a negative impact on students' academic success and persistence. The authors found that the majority of students at this institution believe they have been subject to unfair grading practices and suggest that this is something administrators must correct to ensure that both students and institutions are able to reach their goals.

Perception, however, may be just that as evidenced by the research conducted by Blythe, Darabi, Kirkwood, and Baden (2009). In their study, the authors devised a method to have English Composition papers graded independently by three individuals. Graders were selected from a pool of graduate assistants, adjunct instructors, and tenure-track faculty. Their results showed little difference in the grading of the papers by the raters, indicating consistency of valuation among independent evaluators. Based on these results and those from the other studies reviewed, it appears that grading practices are sound. Therefore, for the purposes of this research, it was assumed that the grades received by students in English Composition I were accurate and not subject to discrimination by or variance between faculty members.

English Composition I

"Freshman English is one of the few courses required of almost every college student at almost every college and university in the country" (Luna, 2003, p. 377). This statement holds true for the sample population's institution which requires English coursework in all majors. Students intending to transfer also complete English Composition I during their first semester, or first year if developmental coursework is necessary, as this course is highly transferable and universally required by baccalaureate institutions.

Also, according to Cox (2009):

Across community colleges in different states, English composition courses account for the largest enrollment numbers, yet these courses also generate high rates of noncompletion. The rate of failure is significantly higher than that of most other courses at the college, highlighting the course's gatekeeping role within the college. (p. 79)

For these reasons, English Composition I was chosen as the single course variable to be explored in this dissertation research as a possible predictor of persistence.

Since English Composition I is a required course for all students, concerns regarding selecting a course which may appeal to only a certain percentage of the sample population were eliminated. If an elective course or one required only by certain majors had been chosen it would not have been possible to eliminate these concerns. Although research by Johnson and Newton (2004) found that females reported a stronger preference for English coursework than males, any impact of gender on engagement or performance in English Composition I is considered for the purposes of this research to be negligible.

Summary

The literature reviewed in this chapter provides the reader with a summary of the relevant material obtained from research as well as sufficient background knowledge to appreciate the various components addressed in this study. It is apparent that a great deal of research has been done identifying attrition as a major issue, which affects both students and institutions, and attempting to find a "perfect predictor" of persistence. The theories, variables, predictors, and study-related topics presented in this review were chosen to support the hypotheses of this dissertation research study.

Because it remains extremely difficult to predict attrition risk and to perform interventions to improve retention in a timely manner, it is important to conduct the type of research done in this study. Considering the severity of the current attrition problem, an accurate predictor of persistence would have a major impact on the ability of the entire higher education community to reduce attrition and increase retention. This dissertation study sought to address this critical need and to determine whether performance in English Composition I can be isolated as an effective predictor of performance and retention. It also intended to become a contribution in its own right to the literature which exists on this subject and, hopefully, a useable tool for those in higher education to cause actions which will improve persistence and dramatically reduce attrition.

CHAPTER III

PROCEDURES

"Research consists in seeing what everyone else has seen, but thinking what no one else

has thought ."

Source Unknown

"What is research, but a blind date with knowledge."

William Henry (1775-1836)

Attrition is an issue facing nearly all institutions of higher learning and is even more

prevalent at community colleges (Sorey & Duggan, 2008; Strauss & Volkwein, 2004; Wild &

Ebbers, 2002). These two-year institutions have unique concerns regarding attrition and are

often referred to as "revolving door institutions" (Derby & Smith, 2004, p. 763). Colleges and

universities are affected by the loss of students on many levels and students themselves are

negatively impacted by attrition since "retention is viewed as a fundamental indicator of student

success" (Kern, Fagley, & Miller, 1998, p. 26).

This research was designed to determine whether performance in English Composition I

can be isolated as an effective predictor of performance and retention. Students who earn a high

grade in English Composition I were therefore expected to persist at a greater rate than those

who do not perform as well. In addition to testing this hypothesis, this dissertation research also

explored combinations of other variables along with English Composition I performance

including the semester in which the course was taken, the gender and age of the student, and

whether the student completed developmental coursework.

Many previous studies have found that poor academic performance places a student at

increased risk for attrition (Anderson, 2009; DeBerard, Spielmans, & Julka, 2004). This study

attempted to expand the knowledge base on the topic by isolating performance in a single course. Although it would be difficult to predict persistence using a single variable, a great deal of research has been conducted to determine the degree to which individual factors and the interaction between multiple variables serve as predictors of persistence. For the purposes of this study, it was hypothesized that all factors affecting persistence except performance in English Composition I are negligible.

English Composition I was chosen due to the likelihood of its appearance in most, if not all, college curricula. "Freshman English is one of the few courses required of almost every college student at almost every college and university in the country" (Luna, 2003, p. 377). Students intending to transfer to a four-year institution also complete English Composition I during their first semester, or first year if developmental coursework is necessary, as this course is highly transferable and universally required by baccalaureate institutions. For these reasons, English Composition I was chosen as the single course variable to be explored in this dissertation research as a possible predictor of persistence.

The research was conducted through a review of historical records, namely academic transcripts, from a community college in Pennsylvania. Performance data were paired with demographic information to answer the established research questions. Chi-squared was used to expose relationships and provide the basis for the examination of results.

Problem Statement

Retention is a major issue in higher education today and has become key to the survival of institutions (Strauss & Volkewein, 2004; Wild & Ebbers, 2004). An accurate predictor of persistence to a specific point in the college career, such as performance in English Composition I, would have a major impact on the ability to reduce attrition and increase retention.

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Research Questions

1. Are students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who earn a grade of B or above?

2. Are students who took English Composition I in their second semester and earned a grade of C or below a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who took the course in their first semester and earned similar grades?

3. Are male students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than female students who earn similar grades?

4. Are non-traditional students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than traditional age students who earn similar grades?

5. Are students who took developmental English prior to earning a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than students who did not previously complete developmental coursework who earned similar grades?

Sample Population

The sample used in this research was identified through simple random selection. Participants included approximately 500 students from a single community college located in Western Pennsylvania. Randomly selected records of first year students from academic years 2007-2008, 2008-2009, and 2009-2010 were examined. This subset of the larger population was

chosen since it included the most current participants available who have had sufficient time to reach their second semester post-completion of English Composition I. These years were valid regardless of whether students completed the course in their first or second (after a developmental course) semester of college.

Research Setting

This study was completed at Research Study Community College, a pseudonym for one of the 14 community colleges in Pennsylvania. The College is small and currently serves approximately 1,500 core credit students per semester. It is diverse in terms of population gender and age but does not enjoy great racial diversity with an approximately 92% White/Caucasian population.

Research Study Community College is located just outside of a city in a Southwestern Pennsylvania county. According to information from the 2000 Census, the county has a population of 152,598 with 35% of its residents between the ages of 18 and 44. The College draws most of its students from the home county with a small percentage attending from contiguous counties. The College does not provide the opportunity for dormitory residence, requiring all students to commute. Approximately 90% of the student body works at least part-time while attending the institution.

The College was founded in 1993 and has enjoyed small but steady enrollment growth since its inception. An open admissions policy affords all the opportunity to attend without requiring the review of prior academic performance or standardized test scores. The majority of attendees complete coursework intending to transfer to a baccalaureate program at a four-year institution. Some, however, do pursue terminal programs, mostly in technical fields, designed to prepare graduates for employment. Although these technical programs consist of more major-

related than academic coursework, all programs contain a minimum of 20 required general education credits.

All programs of study at the College require the completion of English Composition I. A Compass placement test is given to all entering students to determine the need for developmental coursework in English, reading, and mathematics. Students requiring developmental coursework are required by College policy to enroll in these classes during their first semester. Most students take English Composition I during their first or second semester at the College, depending on whether a developmental course is necessary.

Research Procedures

This quantitative study involved a review of academic transcripts. In order to maintain confidentiality, the records were assigned numeric identifiers and the only demographic information revealed was the age and sex of the students. The name, address, and college identification number of the students was not disclosed. The data extracted from the records review were compiled on an Excel spreadsheet to facilitate statistical manipulation.

Information recorded on the spreadsheet included subject age and gender, the semester English Composition I was completed, and whether a developmental course was completed prior to English Composition I. Performance in English Composition I was also recorded along with whether the student persisted to a point two semesters post completion of the course. Performance was recorded using the College's 0.0 – 4.0 scale; 0.0 = F, 1.0 = D, 2.0 = C, 3.0 – B, 4.0 = A, no plus or minus grades are used. All data reviewed were included and no exclusions were made based on demographic, performance, or other information.

Data Analysis

A quantitative approach was used to analyze the data collected for this study and the Statistical Package for the Social Sciences (SPSS) was employed to facilitate examination. The data collected were assigned nominal values for entry into the software program. Chi-square was determined to be the appropriate statistical measurement for this study. "The chi-square test does not recognize any quantitative distinction among categories, but simply assesses whether the proportions associated with the categories are significantly different from hypothesized proportions" (Green & Salkind, 2005, p. 257).

The analysis of data focused on the relationship between the dependent and independent variables. The dependent variable in this study was whether the student persisted to the point two semesters post-completion of English Composition I. The main independent variable was performance in the course, and other independent variables include semester of course completion, gender, age, and whether a developmental course was completed prior to English Composition I. In each instance, the observed data was compared to what would be expected to be obtained according to the hypotheses of this study.

Summary

This study was designed to determine whether performance in English Composition I can be used as a predictor of persistence at a point two semesters post course completion. This study focused on performance in the specific course and explored whether factors such as the semester of course completion, student gender, age of the student, and whether developmental coursework was completed prior to English Composition I had an effect. It did not consider numerous other factors, such as social integration and financial ability to pay, which may influence persistence. A great deal of research has been conducted which shows that poor academic performance can

increase risk for attrition, but limited work has been done to consider a student's performance in specific coursework. The methodology presented in this chapter established the framework for this research and the resulting data which was analyzed in Chapter IV. It is hoped that the data generated from this study will allow the work to become a worthwhile contribution to the literature which exists on this subject. If this is the case, the benefits of the work could be wide reaching and serve to stimulate proactive efforts to reduce attrition.

CHAPTER IV

DATA AND ANALYSIS

"The goal is to transform data into information, and information into insight."

Carly Fiorina

This chapter presents the data and analysis from the research conducted to determine whether performance in English Composition I can be isolated as an effective predictor of performance and retention. The research also explored combinations of other variables along with English Composition I performance including the semester in which the course was taken, the gender and age of the student, and whether the student completed developmental coursework.

The data were collected via a review of academic records from a single community college located in Western Pennsylvania. It included 500 randomly selected records of first year students from academic years 2007-2008, 2008-2009, and 2009-2010. In order to maintain confidentiality, the records were assigned numeric identifiers and the only demographic information revealed was the age and sex of the students. The data extracted from the records review were compiled on an Excel spreadsheet to facilitate statistical manipulation.

A quantitative approach was used to analyze the data collected for this study and SPSS was employed to facilitate examination. The data collected were assigned nominal values for entry into the software program. Chi-square was determined to be the appropriate statistical measurement for this study because it is used to investigate whether a significant association between two categorical variables exists. Chi-square, however, does not provide any information about the strength of the association that exists. Cramer's V was employed in this analysis to measure the effect size, or strength of the relationship between the categorical variables compared.

The analysis of the data focused on the relationship between the dependent and independent variables. The dependent variable in this study was whether the student persisted to the point two semesters post-completion of English Composition I. The main independent variable was performance in the course and other independent variables include semester of course completion, gender, age, and whether a developmental course was completed prior to English Composition I. In each instance, the observed data were compared to what would be expected to be obtained according to the hypotheses of this study.

Sample Population

The 500 records reviewed for this study included first year students who began their studies during one of the following semesters: Fall 2007; Spring 2008; Fall 2008; Spring 2009; Fall 2009; or, Spring 2010. This subset of the larger population was chosen since it included the most current participants available who had sufficient time to reach their second semester post-completion of English Composition I. These years were valid regardless of whether students completed the course in their first or second (after a developmental course) semester of college.

Profile characteristics collected for the sample population included performance in English Composition I, the semester in which they completed the course, gender, age, and whether developmental coursework was completed prior to English Composition I. As shown in Table 1, 128 (25.6%) of the participants earned a grade of A, 160 (32.0%) earned a B, 90 (18.0%) earned a C, 18 (3.6%) earned a D, and 104 (20.8%) failed the course with a grade of F.

Table 1

English Composition I Grade of Participants

English Composition I Grade	Frequency	Percent
A	128	25.6
B	160	32.0
C	90	18.0
D	18	3.6
F	104	20.8
Total	500	100.0

For the purposes of this research, performance was grouped into two categories: grade of A or B; and, grade of C or below. As presented in Table 2, 288 (57.6%) of the participants earned a grade of B or above in English Composition I while 212 (42.4%) earned a C or below.

Table 2

English Composition I Performance of Participants Grouped

English Composition Performance	Frequency	Percent
A or B	288	57.6
C or Below	212	42.4
Total	500	100.00

The semester in which the participants completed English Composition I is presented in Table 3; 318 (63.6%) of the records showed the course completed in the first semester and 182 (36.4%) showed the course completed in the second semester.

Table 3

Participants' Semester of English Composition I Completion

Semester of English Composition I Completion	Frequency	Percent
Semester 1	318	63.6
Semester 2	182	36.4
Total	500	100.00

The gender of the participants is detailed in Table 4; 235 (47.0%) of the records were those of male students and 265 (53.0%) of the records were those of female students.

Table 4

Gender of Participants

Gender	Frequency	Percent
Male	235	47.0
Female	265	53.0
Total	500	100.0

Table 5 lists the age of the participants included in this research; 13 (2.6%) were under age 18 at the time they began their studies. All members of this group were age 17. The largest number of participants, 343 (68.6%), were between the ages of 18 and 20; 44 (8.8%) were between the ages of 21 and 24 and 33 (6.6%) were between the ages of 25 and 29; 22 (4.4%) of the participants were between the ages of 30 and 34 and 45 (9.0%) were age 35 or over. The oldest participant included in this study was 58 at the time coursework began.

Table 5

Participants' Age

Age	Frequency	Percent
Under 18	13	2.6
18 – 20	343	68.6
21 – 24	44	8.8
25 – 29	33	6.6
30 – 34	22	4.4
35 and over	45	9.0
Total	500	100.0

For the purposes of this research, age was grouped into two categories: traditional students; ages 24 or below; and, non-traditional students ages 25 and above. As presented in Table 6, 400 (80.0%) of the participants were traditional students while 100 (20.0%) were non-traditional students.

Table 6

Participants' Age Grouped

Age	Frequency	Percent
Traditional	400	80.0
Non-Traditional	100	20.0
Total	500	100.0

The final characteristic of the population was whether developmental coursework was completed prior to English Composition I. Table 7 displays this descriptor of the population; 155 (31.0%) of the participants completed developmental coursework and 345 (69.0%) did not take a preparatory class prior to English Composition I.

Table 7

Completion of Developmental Coursework

Developmental Coursework Completed?	Frequency	Percent
Yes	155	31.0
No	345	69.0
Total	500	100.0

The dependent variable in this study was whether the student persisted to the second semester beyond completion of English Composition I. Table 8 illustrates that 253 (50.6%) of the participants persisted to this point while 247 (49.4%) failed to persist.

Table 8

Persistence

Participant Persisted to the Second Semester Beyond Completion of English Composition I?	Frequency	Percent
Yes	253	50.6
No	247	49.4
Total	500	100.0

Research Questions

This study was intended to answer five specific research questions. These questions appear below for reference purposes, as the subsequent section on data analysis presents findings according to question number:

1. Are students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who earn a grade of B or above?

2. Are students who took English Composition I in their second semester and earned a grade of C or below a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who took the course in their first semester and earned similar grades?

3. Are male students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than female students who earn similar grades?

4. Are non-traditional students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than traditional age students who earn similar grades?

5. Are students who took developmental English prior to earning a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than students who did not previously complete developmental coursework who earned similar grades?

Results

A quantitative approach was used to analyze the data collected for this study and SPSS was employed to facilitate examination. Chi-square was used as the statistical measurement for the data to determine if a significant association existed between the dependent variable and several independent variables. Cramer's V was employed to measure the strength of the observed associations. The dependent variable in this study was whether the student persisted to the point two semesters post-completion of English Composition I. The main independent variable was performance in the course and other independent variables include semester of course completion, gender, age, and whether a developmental course was completed prior to English Composition I.

The analysis of the data included a test of significance to determine if a sufficient amount of evidence exists to accept that the effect of each independent variable on persistence is unlikely to have occurred by chance. A p-value was calculated for each variable and those with values less than 0.05 were considered to be significant. Variables for which the value of p was greater than 0.05 were determined not to have a significant effect on persistence. Cramer's V was also determined for each variable to measure the strength of the association between the variable and

persistence. An r-value was calculated for each variable and those with values between 0.01 and 0.29 were considered to have a small effect on persistence. Those with values between 0.30 and 0.49 were considered to have a medium effect on persistence; and those with values between 0.50 and 0.99 were considered to have a large effect on persistence. Since this study involved a review of archival data, all information from each participant was included and therefore the value of N for the main research question was 500. Questions 2 through 5 involved only those participants who earned a C or below in English Composition I and therefore the value of N for these questions was 212.

The cross-tabulations of the independent variables versus the dependent variable of persistence appear in Table 9 and Table 10.

Table 9

Performance in English Composition I versus Persistence

English Composition I Performance	Failed to Persist	Persisted	Total	Percentage of Students Who Persisted
A or B	102	186	288	64.6
C or Below	145	67	212	31.6

Table 10

Other Independent Variables versus Persistence*

		Failed to Persist	Persisted	Total	Percentage of Students Who Persisted
Semester of English Composition I Completion	First	84	42	126	33.3
	Second	61	25	86	29.1
Gender	Male	75	30	105	28.6
	Female	70	37	107	34.6
Age	Traditional	128	63	191	33.0
	Non-Traditional	17	4	21	19.0
Developmental Coursework Completed?	Yes	56	21	77	27.3
	No	89	46	135	34.1

Note. *Includes only participants who earned a C or below in English Composition I.

The results of the statistical tests conducted on the data appear in Tables 11 and 12.

Table 11

Chi-Square Test for Performance in English Composition I versus Persistence

Chi-Square value	df	p-value (1-sided)	Cramer's V r-value
53.134	1	.000	.326

Table 12

Chi-Square Test for Other Variables versus Persistence

	Chi-Square value	df	p-value (1-sided)	Cramer's V r-value
Semester of English Composition I Completion	.430	1	.256	.045
Gender	.885	1	.174	.065
Age	1.700	1	.096	.090
Developmental Coursework Completed?	1.049	1	.153	.070

Note. Zero cells in all tests had an expected count less than five.

Data Analysis – Question 1

The first research question examined whether students who earn a C or below in English Composition I are a greater risk for attrition than those who earn a grade of B or above. The results in Table 11 show a p-value of .000 indicating that a significant correlation exists between

this variable and persistence. Of the variables measured against persistence in this study, performance in English Composition I was the only one determined to be significant.

The Cramer's V of course performance displayed in Table 11 is .326 indicating that earning a grade of C or below has a medium effect on a student's ability to persist to the second semester beyond completion of English Composition I.

Data Analysis – Question 2

The second research question examined whether students who completed English Composition I in their second semester and earned a grade of C or below are a greater risk for attrition than those who completed the course in their first semester, earning similar grades. The results in Table 12 show a p-value of .256 indicating that no significant correlation exists between this variable and persistence.

The Cramer's V of the semester of course completion displayed in Table 12 is .045 indicating that the semester during which English Composition I is completed has an almost negligible effect on a student's ability to persist to the second semester beyond completion of English Composition I.

Data Analysis – Question 3

The third research question examined whether male students who earned a grade of C or below in English Composition I are a greater risk for attrition than female students who earn similar grades. The results in Table 12 show a p-value of .174 indicating that no significant correlation exists between this variable and persistence.

The Cramer's V of gender displayed in Table 12 is .065 indicating that gender has an almost negligible effect on a student's ability to persist to the second semester beyond completion of English Composition I.

Data Analysis – Question 4

The fourth research question examined whether non-traditional students who earned a grade of C or below in English Composition I are a greater risk for attrition than traditional students who earn similar grades. The results in Table 12 show a p-value of .096 indicating that no significant correlation exists between this variable and persistence.

The Cramer's V of age displayed in Table 12 is .090 indicating that age has an almost negligible effect on a student's ability to persist to the second semester beyond completion of English Composition I.

Data Analysis – Question 5

The final research question examined whether students who completed prior developmental coursework and then earned a grade of C or below in English Composition I are a greater risk for attrition than those who did not complete developmental coursework and earned similar grades. The results in Table 12 show a p-value of .153 indicating that no significant correlation exists between this variable and persistence.

The Cramer's V of developmental coursework displayed in Table 12 is .070 indicating that whether developmental coursework was completed has an almost negligible effect on a student's ability to persist to the second semester beyond completion of English Composition I.

Summary

The research performed in this study was intended to determine whether performance in English Composition I can be used as a predictor of persistence at a point two semesters post course completion. The results obtained confirmed that performance in this course, at a grade of C or below, does have a significant correlation with persistence. In other words, a student who earns a grade of C or below in English Composition I is less likely to persist to a point two

semesters post course completion than a student who earns a grade of B or above. Further, course performance was found to have a medium effect on persistence.

Other variables were also measured against persistence including the semester of course completion, gender, age, and whether developmental coursework was completed prior to English Composition I. The correlation of each of these variables with persistence was found to be non-significant. Further, the effect of each of these variables on persistence was found to be almost negligible.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

"The conclusion is the place where you got tired of thinking."

Arthur Bloch

"Finally, in conclusion, let me just say this."

Peter Sellers

Introduction

According to Wild and Ebbers (2002);

Student retention is an important consideration in the life of community colleges today.

Whoever references it—internal administrators, faculty, taxpayers, legislators, state

policy makers, and so forth—student retention is significant for measuring institutional

effectiveness in the prevailing environment of accountability and budgetary constraints.

(p. 503)

Attrition is an issue at nearly all institutions of higher learning, affecting colleges and universities on many levels. Identifying an effective predictor of persistence would be beneficial to both institutions and students by improving retention and increasing success.

This research determined whether performance in English Composition I could be isolated as an effective predictor of persistence and retention. Students who earned a high grade in English Composition I were expected to persist at a greater rate than those who did not perform as well. In addition to testing this hypothesis, this dissertation research also explored combinations of other variables along with English Composition I performance including the semester in which the course was taken, the gender and age of the student, and whether the student completed developmental coursework.

Many previous studies have found that poor academic performance places a student at increased risk for attrition. This study expands the knowledge base on the topic by isolating performance in a single course. Though it is nearly impossible to predict persistence using a single variable, this research was conducted to determine the degree to which individual factors and the interaction between multiple variables can serve as predictors of persistence. The research was conducted through a review of historical records, namely academic transcripts, from a community college in Pennsylvania. Chi-square was used to expose relationships and provide the basis for the examination of results. This chapter presents a summary of the study limitations, research findings, implications, recommendations, and conclusions.

Study Limitations

This study had several limitations which must be considered when determining the applicability of the research to the *entire* population of all first-year college students. The identified limitations include assumptions made that the instruction within all English Composition I courses was equivalent and that all grades assigned for English Composition I were accurate. The sample was not segregated by instructor or by method of delivery (traditional vs. online). And, any grade inflation or deflation could have had a major impact on the validity of the results.

The students' past English preparation was also considered to be standard. Students are placed into English Composition I based on the results of their performance on a single standardized test and no comprehensive measurement of previously learned abilities occurs. The possibility that performance was affected by prior knowledge level was not considered in this study. In addition, other factors influencing attrition were ignored (e.g., financial, "life change," transfer to a four-year institution, etc.).

It was assumed that all subjects in the study had intentions to persist to graduation. In addition, no determination was made regarding whether any of the students had met their educational goals prior to graduating. An example of this type of student is one who takes a specific number of courses only to upgrade skills for employment. Also, the common practice of non-continual enrollment among community college students was not explored in this study. According to Schuetz (2005):

> About 40% of community college students drop in and out of college, skipping academic terms and then reenrolling, which makes it difficult to determine whether non-returning students have taken a temporary break from classes, transferred to another institution, or dropped out altogether. (p. 66)

Lastly, the sample for this study included students from a single institution only. A multi-institution study may have produced different results, though this is not supported by any reviewed literature. These limitations do not diminish the importance of the results of this study but, rather, provide context for the meaning of the results when applied to other institutions and student populations.

Summary of Findings

This study included five research questions:

1. Are students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who earn a grade of B or above?

2. Are students who took English Composition I in their second semester and earned a grade of C or below a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who took the course in their first semester and earned similar grades?

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3. Are male students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than female students who earn similar grades?

4. Are non-traditional students who earn a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than traditional age students who earn similar grades?

5. Are students who took developmental English prior to earning a grade of C or below in English Composition I a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than students who did not previously complete developmental coursework who earned similar grades?

For Research Question 1, the data analysis indicated that earning a grade of C or below does relate negatively to a student's ability to persist to the second semester beyond completion of English Composition I. The association between course performance and persistence in this question, with a p-value of .000, was found to be the most significant of any of the variables measured against persistence in this study. The r-value of .326 obtained for this question indicated that performance had a medium effect on persistence. This variable had the only effect beyond negligible of those measured.

The data analysis for Research Question 2 indicated that no significant correlation exists between the semester of course completion and persistence. The p-value obtained for this variable versus persistence was .256, which is greater than the value of .05 necessary to indicate significance. The r-value of .045 obtained for this question indicated that the effect of the semester of course completion on persistence was almost negligible.

Research Question 3 data analysis indicated that no significant correlation exists between gender and persistence, with a p-value of .174. The r-value of .065 obtained for this question indicated that the effect of gender on persistence was also low enough to be considered negligible.

For Research Question 4, the data analysis indicated that non-traditional students who earned a grade of C or below in English Composition I are not a greater risk for attrition than traditional students who earn similar grades. The correlation between age and persistence in this question, with a p-value of .096 and an r-value of .090, indicated no significance and that the variable had a negligible effect on persistence.

The data analysis for Research Question 5 indicated that no significant correlation exists between the completion of developmental coursework and persistence. The p-value obtained for this variable versus persistence was .153, which is greater than the value of .05 necessary to indicate significance. The r-value measured for the completion of developmental coursework versus performance was .070, which indicated that the variable had a negligible effect on persistence.

Conclusion and Discussion

The findings for Research Question 1 were consistent with the original hypothesis, that students who earn a grade of C or below in English Composition I are a greater risk for attrition, as measured by their persistence to the second semester beyond completion of the course, than those who earn a grade of B or above. The correlation between persistence and the variable of performance was found to be significant and the effect of this variable on persistence was found to be medium. This means that students, as a whole, who earn a grade of C or below in English Composition I are less likely to persist than those who earn a grade of B or above to

the point two semesters post completion of the course. Since the effect of this variable was not found to be strong, other factors influencing attrition must continue to be considered when attempting to predict persistence.

The findings for the other research questions were not significant and indicated these variables had little effect on persistence. In each instance, however, the percentage of students, expected to be a greater risk for attrition in the hypotheses, which did persist was less than the percentage of those who were expected to be more likely to remain in school. A larger sample size may have produced different results, but in each chi-square test there was a sufficient count in each cell with the population studied herein.

The findings for Research Question I also showed consistency with some of the literature reviewed for this study. The medium effect of performance indicates that this variable did indeed influence the results observed in this study where 64.6% of students who earned a grade of A or B persisted but only 31.6% of those who earned a grade of C or below remained in school at the point two semesters post course completion. Students who earn a grade of C or below in English Composition I are less academically integrated than those who perform at a higher level. This weak integration puts them at greater risk for attrition according to Tinto (1993), whose model indentified students most likely to persist as those who experienced both academic and social integration. The resuls of Gerkin's (2009) research also indicted that academic integration is an important indicator of persistence. Spady's (1971) model was also based on integration, although of a social nature and influenced by academic performace.

The results of this study also supported the research of both Donaldson (1999) and Driscoll (2007). Donaldson (1999) found that academic performance has a great influence on an adult's decision to persist. Driscoll (2007) found that the students most likely to succeed were

those who earned a high grade point average. The results of this research do not agree with the work of Sorey and Duggan (2008) and Willaimson-Ashe (2009). Sorey and Duggan (2008) found that academic performance is not significant in predicting the persistence of non-traditional students. Williamson-Ashe (2009) found that academic and social integration do not play a significant role in predicting persistence.

The findings of this study on other variables including semester of course completion, gender, age, and the completion of developmental coursework were not significant and therefore cannot be used to support existing research in those areas. Considering that the effect of these variables was found to be negligible but not absolute indicates that the observed results may have been influenced in some minor way by their effects.

Implications

The results obtained in this study support the findings of other researchers who discovered that poor academic performance, and the subsequent lack of academic integration, increases the risk for attrition. This study further explored the topic by narrowing the view to academic performance within a single course, English Composition I. This course is required in most, if not all, degree and diploma programs across a wide segment of post-secondary institutions. Performance in English Composition I also provides a simple measurement for attrition risk, which can be used by institutions that lack personnel or other resources necessary to implement a more complex model. Much of the reviewed literature suggested models for persistence that would be difficult for institutions including community colleges to assess, such as social integration. This study offers a practical contribution to the study of persistence and an uncomplicated means to identify students at risk for attrition.

The results of this research suggested that students who perform at a level of C or below in English Composition I are less likely to persist to a point two semesters post course completion than students who perform at a level of B or above. The results also showed that performance is the significant factor while other variables, including the semester of course completion, age, gender, and whether developmental coursework was completed prior to the completion of English Composition I, can be disregarded. These results have implications for higher education administrators, students, and others concerned with the issue of retention.

First, these findings provide critical information for higher education personnel in predicting student persistence. Using the information obtained from the results of this study, students at risk for attrition can be identified at the point of completion of English Composition I and interventions can be performed to increase the likelihood of persistence. These actions can include student counseling, academic support services, and other activities designed to improve retention.

Second, faculty who teach English Composition I can benefit from this information as it can assist them in categorizing students who struggle with the course as being at-risk for attrition. In addition, faculty often function as academic advisor and can use these findings to intervene in situations where their advisees perform poorly in the course. In some community colleges, the role of faculty advisors, and the importance of advising itself, can be minimal. In other instances, where institutions have a well-functioning faculty-advising model, faculty can play a critical role in influencing a student's decision to persist and therefore could use the results of this study to assist both their institutions and students themselves by improving retention.

Third, students can benefit from the results of this study by developing an understanding of the need to perform well in their coursework. Attrition affects students as well as institutions and increased persistence is beneficial to both. Using the information gained from this study does not predispose any student to attrition based on a determined set of criteria. Rather, it is centered in performance, meaning students who put forth the necessary effort and acquire the necessary skills will increase their likelihood of success and persistence.

Fourth, both institutions and students benefit financially from increased persistence. Using the results of this study to increase retention will benefit both groups. Institutions that retain more students are required to spend less on recruitment. Students who earn a degree without transfer save because they do not experience credit loss between institutions. Those who proceed continually toward degree completion do not experience delay, which can result in increased tuition costs, as well as wage loss due to delayed entry into the job market.

Fifth, these results can also be beneficial to institutions, in financial terms, as implementing a method to identify at-risk students based on performance in English Composition I does not require additional financial or human resources. Most institutions already have models in place, as part of advising and retention efforts, to identify and assist students likely to leave the institution. Adding performance in English Composition I to the list of possible risk factors should require little effort and result in increased retention, which can improve the institutions' revenue stream.

Lastly, this study suggests that coupling certain variables with performance does not increase the likelihood of attrition risk. Student affairs professionals, faculty, and others should not limit their focus to students within certain groups, including males and non-traditional

students, when encouraging persistence. The performance of all students should be monitored and appropriate actions should be taken to promote efforts toward academic success.

Recommendations for Future Research

This study provided evidence that performance in a single course, English Composition I, has a significant correlation with persistence to a point two semesters post course completion. Though the results of this study supported the identified main hypothesis, further research is suggested to confirm the findings and address the limitations of this effort. The following considerations are proposed as topics to be addressed in future research:

1. Additional research is needed to confirm the validity of this study. Data from other sample populations should be collected and statistical analysis conducted to determine whether the results obtained herein can be duplicated.

2. This study used a sample from a single institution with a very homogenous population in demographic terms. Additional research could be conducted using a sample drawn from an institution with a more diverse population or from multiple institutions to confirm the applicability of the results of this research to the population of college students as a whole.

3. A qualitative study could measure the emotional impact of poor performance in English Composition I and its affect on the decision to persist or leave college.

4. Additional research is necessary to confirm that performance in a course is indeed the cause of, rather than merely correlated with, attrition. This study should measure affects of other variables including finances, "life change," transfer to a four-year institution, intent to persist, etc. in combination with performance.

5. A duplicate study with a larger sample size would further validate the results obtained on the main hypothesis and may reveal additional information regarding the other hypotheses explored herein.

Summary

A significant number of research studies have identified attrition as a major issue affecting both institutions of higher learning and students themselves. It would surely benefit both of these groups to discover a valid method of predicting risk for attrition. This study was designed to discover any correlation between performance in English Composition I and persistence to the second semester beyond completion of the course.

The stated hypotheses for the research illustrated the belief that better academic performance equates to increased persistence. It therefore follows that students who perform poorly present a greater risk for attrition. English Composition I can be beneficial as a predictor of persistence since it is required in most, if not all, degree and diploma programs across a wide segment of post-secondary institutions. Performance in English Composition I also provides a simple measurement for attrition risk, which can be used by institutions that lack personnel or other resources necessary to implement a more complex model. According to the findings of this research, the course does indeed have a correlation with persistence in that students who earn a grade of C or below in English Composition I are less likely to persist to the second semester beyond course completion than students who earn a grade of A or B.

The results of this study have numerous beneficial implications for both institutions and students. The ability to categorize students who perform at a level of C or below in this course as being at-risk for attrition creates the opportunity to undertake interventions to improve these

students' likelihood to persist. Increased retention will benefit institutions financially, while the students may benefit by increasing their chances for educational and future success.

Though further research is necessary to confirm and validate the results presented herein, this study is intended to be a positive contribution to the literature which exists on retention. These results provide a simple and useful tool in the arsenal of higher education to stimulate proactive efforts to improve persistence and dramatically reduce attrition. Most institutions battle regularly to increase retention, this study arms them with a new weapon; one that is straightforward, cost-effective, and has the potential for wide-reaching benefit.

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