The Transition From High School to College: a Single-Case Study

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THE TRANSITION FROM HIGH SCHOOL TO COLLEGE:
A SINGLE-CASE STUDY

A Dissertation
Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by
Margaret R. Hay
May 2005
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THE TRANSITION FROM HIGH-SCHOOL TO COLLEGE: A SINGLE-CASE STUDY

A dissertation presented in partial fulfillment of the requirements for the degree Doctor of Philosophy

by

Margaret R. Hay

APPROVAL BY THE COMMITTEE:

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ABSTRACT

THE TRANSITION FROM HIGH SCHOOL TO COLLEGE:
A SINGLE-CASE STUDY

by
Margaret R. Hay

Chair: Shirley A. Freed
ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University
School of Education

Title: THE TRANSITION FROM HIGH SCHOOL TO COLLEGE: A SINGLE-CASE STUDY

Name of researcher: Margaret R. Hay

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Date completed: April 2005

Purpose

The purpose of this study was to use quantitative and qualitative data to describe the transition recent high-school graduates made to a small, rural community college. Both the students' academic preparation and their own perceptions about their preparedness for college were described.

Method

Data from the transcripts of high-school graduates were examined using Chi square, tests of independent means, and analyses of variance to test the relationship to placement in developmental classes. The data included senior year course selections, the number of units taken in math, English, and textbook-dependent courses, and grade point
averages in math, English, and textbook-dependent courses. Fifteen students were interviewed about their transition experiences.

Results

Students who took math during their senior year were more likely to test out of developmental math. Students who tested out of developmental math were found to have earned higher GPAs in high-school math, English, and textbook-dependent courses, and took significantly more units in math than those students who tested into developmental math. Students who tested out of English and reading had higher GPAs in English and textbook-dependent courses. Students who tested out of all developmental courses had significantly higher GPAs in math, English, and textbook-dependent courses. An analysis of the interview transcripts revealed several themes: students perceived a gap between the academic requirements of the high-school curriculum and those of college; students identified study behaviors and expectations required in college that were not required in high school. Guidance and support, both from the high-school staff and from parents, were identified as important components in a successful transition to college.

Conclusions

High-school and college administrators should work together to address the academic preparation of college-bound high-school students. Future research should include investigating the exit competencies required for high-school graduation and their relationship to entrance requirements of college.
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CHAPTER ONE

INTRODUCTION

Robert Smith reporting: Senior Kaitlyn Greene might be asleep, but it's hard to tell. Her head is down on a table in the high-school counseling office. She's moaning lightly. Here are her symptoms:

Kaitlyn Greene (Senior, Roosevelt High School): I won't go to the third floor ever because it's just too much work, and all the math classes are up there and it just freaks me out. You plan on going to school on Fridays, but just somewhere in between, it just doesn't work out for you.

-All Things Considered, NPR

Background of the Problem

A high-school senior who has seriously run out of steam in the last few months of the school year is in danger of losing some of the basic skills that colleges will expect in the fall, if she ever had them at all. The trend for at least 20 years has been for college and university basic skills classes to be populated more and more with teenagers fresh out of high school, leading to great alarm within political circles and taxpayer concerns about "paying for education twice" (Boylan, 1999, p. 2). In addition, The National Center for Education Statistics in 1996 released a report that stated that over half of new high-school graduates did not even take college preparatory classes in high school (ACT, 2004; Boylan, 1999). Greene and his colleagues found that across the nation, less than half of high-school graduates have earned "college ready" transcripts (Greene & Forster, 2003). Many if not most of these students populate developmental education classes in colleges,
otherwise known as remedial classes, in increasing numbers throughout the country. Because of the concern about this issue, various states have responded in several ways: by eliminating developmental education programs from 4-year institutions—relegating these courses to the community college level—and requiring high schools to certify their graduates so that if students test into a remedial course at the college, the high school would have to pay the tuition. As of 1998, 28 states had raised their college admissions requirements, most to include the successful completion of established high-school coursework units as a condition of admission (Russell, 1998). As of 2004, that number had risen to 31 states; no doubt more states will follow suit (Haycock, Barth, Mitchell, Wilkins, & Somerville, 1999). Moreover, some colleges, such as those in the California State University system, limit the number of developmental courses that incoming freshmen are allowed to enroll in, and “disenrolling” students who do not pass their developmental requirements within their first academic year (Clayton, 2002). Clearly, the pressure is on education as a whole system to solve the developmental needs issue.

The lack of academic rigor in high school is often cited as the reason for under-preparation for college. Kati Haycock, director of a Washington, D.C. research institute, addressed President Bush’s 2004 Economic Summit with the assertion that grade schools and middle schools are making important improvements, but that high schools are still lagging. She shared that based on The Education Trust’s research: “One quarter of the nation’s twelfth graders read below even the basic level.... Standards for the high-school seniors generally don’t reflect the knowledge and skills needed for college and work” (Haycock, 2004, pp. 1-2). Along with The Education Trust, the Thomas B. Fordham Foundation, Achieve, Inc., and the National Alliance of Business created the American
Diploma Project in 2002 whose objective was to discover the minimum competencies for all of the nation’s high-school graduates to be successful in postsecondary education and the workplace. Their research concludes that currently “the high-school diploma represents a ticket to nowhere for too many students, who learn only after they graduate—when it is too late—that they are not prepared for the real world after all” (Creating a High School Diploma That Counts, 2002, p. 4).

Another problem facing high schools is the challenge of keeping students motivated all the way to graduation. The University of California Graduate School of Education and Information Studies provides an annual report entitled The American Freshman, the most recent of which reported that whereas high-school grades have risen in the past year, so has student ennui. Students who shared that they were often bored in their classes during their senior year reached a record 42.8%, up from last year’s 40.1% (Higher Education Research Institute, 2005). If close to half of America’s high-school seniors are bored, they are likely not being challenged and are not learning at their potential. Challenging these students, to be sure, is quite a challenge in itself; the natural propensity for many students is to coast through their senior year, having fallen ill with “senioritis.”

The Problem in Historical Perspective

Harvard University, which has arguably set the highest academic standards in the nation, was the first institution of higher learning to institute a remedial course: English and composition, in 1874. Prior to this event, Harvard had been providing remedial tutoring in Latin because few textbooks used in those days were written in English. By the 1800s, remedial education in colleges and universities was established, with
instruction provided in reading, English, and math (Boylan & White, 1987). According to Arendale (2002), the goal of the College Entrance Examination Board, established in 1890, was to standardize entrance criteria for postsecondary institutions, and set exit criteria for high-school students. Part of the impetus for doing this was to reduce the need for developmental education in the colleges (Boylan, 1999). In other words, within just a few years of the establishment of developmental education, colleges tried to restrict entry into these courses. Remedial education began carrying a social stigma that both students and schools shunned. Breneman and Haarlow (1998) surveyed 50 states and found that many states denied having remedial programs in their colleges, despite the evidence that most colleges do indeed have services and courses designed to assist students who have not yet achieved the academic skills necessary for successful matriculation, whether or not they admit to having “special programs” to assist these students. In his review of the history of developmental education, Arendale found that from the mid-1600s to the present, developmental education has been identified by many different names (perhaps to continuously address the stigma issue) encompassing a number of different activities (Arendale, 2002). By the early 1970s, the word “remedial” was dropped from the lexicon, and “developmental education” became the new identifier of the programs for college students who enrolled in college underprepared for its academic rigor.

The Economics of the Problem

The students who leave high school underprepared for the rigors of college have spurred a debate among legislators and education providers around the issue of accountability—that is, Who is responsible for this gap between high school and college,
and who is responsible to fill that gap? Colleges have largely taken the responsibility of filling the gap, particularly those with an “open-door policy” where students can begin their college experience regardless of their preparedness for it. Developmental education includes such support services as basic skills courses, tutoring, study skills training, counseling, and other assistance designed to help students with these educational gaps to develop their skills and eventually fully matriculate into the college. But, if in response to increasing numbers of students needing these services, state higher education policy makers squeeze developmental education programs out of 4-year institutions (Arenson, 1998; Clayton, 2002; Hebel, 1999), the underprepared students’ choice of college is also squeezed.

The developmental education problem has largely been seen as a matter of economics. Jay Greene, in his 2000 report for the Mackinac Center for Public Policy, estimates that the cost of remedial education in the state of Michigan ranges from $311 million to as high as $1.15 billion, not even taking into consideration the costs that businesses have to incur when their employees lack basic skills or the capital costs colleges incur in order to provide remedial education. Across the country, Greene and his colleagues estimate the cost of underpreparedness to be $16.6 billion each year (Greene, 2000).

A number of states are currently grappling with the matter of too many developmental students and responding in aggressive ways. For example, City University in New York stopped admitting students who failed the basic skills tests for entering freshmen. The University of Georgia regents voted to limit the number of freshmen who could take developmental classes. Massachusetts, Florida, Nebraska,
South Carolina, and Virginia have all begun initiatives to either charge high schools for the remediation or prohibit it altogether (Cresanta, 1998). Arendale (2001) found that in addition to the states previously mentioned, Montana, New Jersey, Washington, and West Virginia were all considering legislation that would require high-school districts to pay for developmental coursework, and in Wyoming, the legislation has already passed. Further, California was considering ending all developmental education on all of the 22 campuses of California State University (Arendale, 2001). In response, the trustees of Cal State established a goal that all freshmen would be ready for college English and math by 2007, but this goal was too ambitious. Instead of shutting down its developmental education departments, the administrators instituted a program entitled The Early Assessment Program (Mills, 2004). The objective of this program is to assess all college-bound high-school students in their junior year so that they will have their entire senior year to work on their skills. The goal is to ensure that all California high-school graduates who are intending to enter the California State University system are fully prepared to begin college-level study (CSU Office of the Chancellor, personal communication, Fall 2004). And, as already noted, the students who are still not fully prepared to begin college-level study are given a limited opportunity in which to become fully prepared (Clayton, 2002).

Whether individual states end developmental education in the 4-year colleges and universities or not, there will always be a segment of the population that needs training and education in order to enter the workforce, some of whom will be high-school graduates who, for various reasons, did not adequately prepare for college. Many developmental students, moreover, are not recent high-school graduates. Some
developmental students never planned to go to college and therefore did not prepare themselves academically. Some are adult students: mothers who through divorce or widowhood must gain skills to enter the workforce, displaced workers who need new skills, and workers looking to improve their job skills, all of whom enroll, often in community colleges, for advanced education and further training. Boylan (2000) and others suggest that underprepared students are not unlike other students except that they are “over-represented among the poor and that many have a past history of academic difficulty or score poorly on standardized tests” (Boylan, 2000, p. 24).

Attempts to Solve the Problem

As student underpreparedness for college has been a concern for some time, high schools, colleges, and legislators have gotten involved in seeking some possible solutions. Some colleges across the nation offer their placement test to high-school juniors so as to help them make wise decisions on their senior class schedule (Boswell, 2000). In addition to providing this assessment service, Southeastern Louisiana University (1998) provides juniors who are assessed as needing developmental coursework with that coursework during their senior year. California State University also has an aggressive high-school junior assessment plan in place in order to assist the high schools in providing remediation in the effort at reducing the number of incoming freshmen who need developmental classes (Mills, 2004). These programs are not “teaching to the test”; rather, they provide high schools with statistical and anecdotal feedback about how well their students are prepared for college. Colleges are the most qualified to provide this feedback and help the schools remedy any issues that arise with regard to these underprepared students.
Dual or co-enrollment has become a very popular means for not only keeping high-school students motivated and challenged, but helping seniors bridge the gap between high school and college (Boswell, 2000). Students who are eligible to be dual enrolled in both high school and college may, for example, take classes at the college that their high school is not able to provide and receive credit both in high school and in college. Other dual enrollment opportunities may include academies that focus on occupational degrees which offer students an opportunity to get a head start on their associate in applied science degrees. Hugo (2001) found that for students who are often neglected in their high schools, that is, average students who are not ready for advanced placement courses but eligible for certain introductory college classes, dual enrollment helps them make the transition to college. Other means for providing challenge to high-school seniors include providing some college courses at the high school taught by college-approved instructors. Successfully completed Advanced Placement courses offered at the high-school level are accepted at the college and are another way for seniors to make progress on their college degrees before graduating high school (Oberjuerge, 1999).

Nationally, these initiatives are receiving a lot of support. In Virginia, Governor Mark Warner has pushed a $5 million plan to have all seniors complete one semester of college before graduating from high school—even those seniors who have no intention of going to college (Hebel, 2003). Warner believes that this jump-start will not only ensure that seniors are more academically prepared for college, he believes that those students who are not college bound will nonetheless be better poised to enter the workforce.
Some writers have referred to a "seamless web" that spans the gap between high school and college (Hodgkinson, 1999; McRobbie, 2001; Roueche & Roueche, 1993). Greater coordination of curricula and better articulation agreements between high schools and colleges will go a long way towards ensuring that students are ready for college-level work (Watson, 1993). As good as this idea may be, however, it does come with some caveats. If the only objective of articulation is to help high-school students earn college credits, the danger of lowering standards to ensure that they can do so exists (for example, allowing non-college-approved teachers to teach college courses in the high school for the sake of selling college credit), and students may still be academically underprepared for college-level work. This is a common criticism of dual enrollment, and researchers recommend that K-16 collaborations work hard to avoid earning it (Koelling, 1997). Lastly, another solution to the problem has been to provide high-school students with a better transition to college experience through collaborations between the teachers of the high schools and the colleges. In some school districts, task forces comprised of faculty from both the high schools and colleges who teach in the same disciplines meet to work on better articulation between curricula. In Long Beach, California, for example, this kind of collaboration has resulted in a markedly smoother transition from high school to college for their students (McRobbie, 2001). College faculty are often the leaders in providing professional development opportunities for their high-school colleagues.

**Statement of the Problem**

The problem this study addresses is that there is no shared understanding of the reason(s) why recent high-school graduates are testing into developmental classes. Did
they take and successfully complete the required college preparatory classes while in high school? Did they take the right classes at the right time in high school? Did they lack support in planning for college? Do they feel prepared for college?

Purpose of the Study

The purpose of this study was to provide a snapshot of a group of students who graduated from high school in the spring of 2002 and enrolled in a community college the following fall semester.

Research Questions

The overall question of this study surrounds the issue regarding the transition that students make from one educational system (high school) to another (college).

Two sub-questions guide this research:

1. To what extent is placement into or out of developmental classes related to senior year course selections; the number of high-school units in math, English, and textbook-dependent courses taken; and overall grade point averages in the subject areas of math, English, and textbook-dependent courses?

2. How do recent high-school graduates experience the transition from high school to college?

General Methods

Both quantitative and qualitative research methods were used in this study. First, I conducted a statistical analysis of the data derived from the transcripts of the subjects and their placement records. I looked specifically for groups of classes (English and composition, mathematics, and textbook-dependent) taken in high school that are aligned
with the placement tests accepted or administered by the college. I looked for differences in mean subject GPAs between those students who placed into developmental classes and those who placed out. Second, I interviewed students from the high-school class of 2002 to learn about their perceptions of their experiences in making the transition from high school to college.

**Conceptual Framework**

A major concept in this study is the concept of "transition." Others have looked at transition experiences from the perspective of "crossing over" or an experience of liminality (Howell, 1991; McCoy, 2003; Samuels, 1997). Periods of liminality are times when people who are undergoing transition are forced to reflect on the differences between the old culture that they are leaving and the new culture into which they are moving. Bridges's (2001, 2003) work has been used as a framework to understand the many different kinds of transitions including changes in business, changes in families, and changes in individual life circumstances. Howell (1991) in her study cites Bridges's work on transitions, which provides a framework that is very helpful in understanding the stages high-school students pass through as they transition to college. Bridges (2001, 2003) describes the transitional experience as having three stages: an ending, a neutral state, and a beginning. It is in the neutral state that the individual undergoing the transition must negotiate the realignment from the ending of one experience to the beginning of the new. Much of this has to do with how a person sees himself or herself. For a high-school student going to college, she no longer sees herself as a high-school student and all that implies with the various activities, behaviors, and ways of being in a high-school setting. She must begin to see herself as a college student and all that
implies with new activities, new behaviors, and new ways of being. To be successful in making this transition, one must have a purpose for the transition (no longer wanting to be a high-school student; wanting to be a college student), have some sovereignty over the process of making the transition, have an image of oneself in the new environment, create a plan for stepping into the new reality, and beginning the new way of being (in college). The process becomes one of realigning one's perspective with one's new environment (Bridges, 2001, 2003). In summary, Bridges’s framework gives us a lens through which to consider the transition of high-school students to college. The notion of high school being an ending, and college being a beginning, with some sort of neutral state between is a very useful image for this study.

Significance of Study

In postsecondary education, sufficient concern exists that colleges are investing too heavily in developmental courses for recent high-school graduates who, it is believed, should not need developmental courses. College administrators would benefit from a greater understanding of the kinds of students who need developmental coursework. If there proves to be an unacceptably large population of recent high-school graduates needing these courses, the administration can begin to address the problem with the local high-school administrators. A long-term goal would be to focus developmental resources more on returning adults whose skills may be weakened by time away from the educational arena, or non-high-school graduates who are seeking to better their employability. An estimated 43% of students in remedial classrooms are aged 22 or older (Boylan, 1999; Hardin, 1988, 1998).
Basic Assumptions

Given my many years of counseling and providing learning support to young high-school graduates who take developmental classes, I used my experiences to make the following assumptions about the cohort group in this study. One, students who successfully complete math, English, and textbook-dependent courses in their senior year of high school are less likely to test into developmental classes in college. Two, college is a significant cultural shift for recent high-school graduates. Many find the expectations of college instructors compared to their high-school teachers shocking and intimidating. As a student once shared with me, "[in college] I learned the difference between homework and studying." Three, many students who test into remedial classes immediately after completing high school feel either cheated by their high school or angry at the college for the remedial requirements.

Delimitations

This study is delimited to the 224 June 2002 high-school graduates who attended a rural community college for the first time and enrolled as full-time freshmen in the fall of 2002.

Definitions of Terms

For the purposes of this study, these are the definitions of the terms used throughout the text.

American College Testing (ACT): The ACT is one of the country’s most widely accepted college entrance exams. It assesses high-school students' general educational development and their ability to complete college-level work.
At-risk students: Those students who because of their previous educational experiences or their level of cognitive functioning are at a high risk for potentially failing or dropping out of college.

Basic skills: May be used instead of the term remedial and refers to college courses in reading, writing, and basic math but sometimes includes study skills, critical thinking skills, and the like.

Compass: An assessment product provided by American College Testing that is used by colleges for placement and diagnostic testing in mathematics, reading, and writing.

Developmental Education: A broad category of programs at colleges and universities that provides learning assistance to at-risk and other students.

Developmental English: A course offered at the community college in this study that covers the basic techniques of writing or composition. It includes a review of basic sentence structure, grammar and editing, plus practice and instruction in essay development and organization.

Developmental Math: Two courses are offered at the community college in this study that comprise the developmental math program: College Arithmetic and Elementary Algebra. College Arithmetic is a review of whole numbers, fractions, decimals, ratios, proportions, percentages, measurement area, perimeter, and signed numbers. The emphasis in this class is on computation skills. Elementary Algebra is a developmental math course that reviews basic algebraic expressions, graphing, polynomial operations and factoring, linear equations and inequalities as well as rational, radical, and quadratic equation solving. The course emphasizes vocabulary, problem-
solving, making connections among tabular, graphical, and symbolic information, and understanding rather than memorizing.

**Developmental Reading**: At the community college in this study, College Reading is a course that uses a content-based approach to teach students how to effectively read and study textbooks and prepare for exams typical of college courses.

**EXCEL**: A federally funded program designed to support first-generation, low-income, at-risk students with various services and programs to impact retention and graduation rates. Known as EXCEL on the campus of the community college in the study, otherwise known nationally as Student Support Services.

**First Time in Any College (FTIAC)**: A classification used to identify freshmen—sometimes also refers to full-time freshmen.

**High School Units**: A unit represents a course taken in high school; i.e., a math course, or a history course. A course is bounded by a term or semester, most high schools conduct two semesters or terms in a school year. An average number of units taken per term is 5-7 units or courses. An average number of units or courses taken in a school year is 10-14.

**Michigan Educational Assessment Plan (MEAP)**: This test is Michigan’s statewide assessment instrument that all students in the public school system must take. The MEAP tests were developed to measure what Michigan educators believe all students should know and be able to achieve in five content areas: mathematics, reading, science, social studies, and writing.

**Remedial**: May be used in place of basic skills and refers to college courses in reading, writing, basic math—sometimes including elementary-level algebra; all of which
are designed primarily for underprepared students, or students who are not prepared for college-level work.

**Scholastic Assessment Test (SAT):** A national standardized test provided to high-school juniors and seniors to measure college readiness in the areas of critical-thinking skills in reading, mathematics, and writing.

**Textbook-dependent courses:** Those courses for which successful completion is at least partially dependent on the students' ability to read and comprehend the textbook required for the course, i.e., history or social studies.

**Summary**

The transition from high school to college for many students is a difficult one, but for those students who are academically underprepared for college-level work, the gap between the skills needed at each level can be a vast chasm. Confounding the problem is the issue that many legislators think that the taxpayers' money has been wasted on these students, and the legislators' response has been to increasingly limit students' educational opportunities. To be sure, there is much to be done to ensure that all high-school graduates are sufficiently prepared for college or entry into the workforce. A study of these students, the classes they took in high school, the support they received for college, their academic and emotional preparation for college, and the experiences they have as they matriculate into college can provide data to serve that purpose.

**Organization of the Study**

This study is organized into five chapters. Chapter 1 is an introduction to the study and provides a background to the study. Chapter 2 outlines the methods used in
conducting the study. Chapter 3 provides the results of the quantitative section of the study. The qualitative results are discussed in chapter 4. Finally, chapter 5 draws conclusions, discusses implications, and makes recommendations on the basis of the study. Scholarly literature is referred to throughout the study but especially in chapters 3 and 4. The results from this study are connected with results from other research reports.
CHAPTER TWO

METHODS

Smith: At Roosevelt High School, one of the most popular classes has the weighty name of Honors Law and Society.

-"Life Is Beautiful," unidentified man speaking Italian

Smith: Today, they're watching the movie "Life Is Beautiful." In fact, they watch a movie just about every day: "Spinal Tap," "The Truman Show." All they have to do is write a short essay about the theme of the film. And as a bonus, their teacher, Jack Ruosso, has filled his room with couches. Seniors like Ellie Cross love this man.

Ellie Cross (Senior, Roosevelt High School): I think of high school as, like, this hard meal full of spinach and broccoli and gross things you don't want to eat. And Rousso's class is like the desserts, you know? It's the chocolate cake that comes at the end. It's like you earn that after all that gross spinach of like, history and AP classes."

-All Things Considered, NPR

Introduction

In this chapter, I discuss the nature of the research questions addressed in the study and explain the use of a two-phase research design that employed both quantitative and qualitative data. A discussion of the use of case study follows, and the quantitative and qualitative data collection strategies are explored.

Case Study Design

A case study approach was used to answer the research questions. Merriam (1998) suggests that case studies may be used when the researcher wants to examine a
specific phenomenon such as a program, an event, a person, a process, an institution, or a social group (Merriam, 1988). The cohort of incoming freshmen at a community college constitutes a social group. That is, these students by virtue of graduating from high school in the spring of the same year and entering the same college in the fall should presumably share some common qualities. These students represent a "bounded system" in that they are part of a group that is the focus of an investigation into the nature of recent high-school graduates' preparedness for college. They are, in other words, bounded by the structure of the inquiry (Merriam, 1988).

The research questions for this study are:

1. To what extent is placement into or out of developmental classes related to senior year course selections, the number of high-school units in math, English, and textbook-dependent courses taken, and overall grade point averages in the subject areas of math, English, and textbook-dependent courses?

2. How do recent high-school graduates experience the transition from high school to college?

In order to answer the research questions, both quantitative and qualitative approaches were used. As Creswell (1994) asserts, "It is advantageous to a researcher to combine methods to better understand a concept being tested or explored" (p.177). In this particular study, the quantitative data of GPAs and the senior year course selections help us better understand the transition to the college experience. But classes and grade data alone do not provide enough understanding. What happens to students in the process of making the transition into college? In studying a "process," qualitative methods are needed. Both the quantitative and qualitative data are needed to make
helpful and appropriate recommendations to high schools and colleges to ease the transition for future students. In deciding to use both quantitative and qualitative data, I used Creswell’s (1994) two-phase design approach in which each part of the study is distinct, though the reader will be able to make connections between the results of the two phases (Creswell, 1994).

The Setting

This study was conducted on the campus of Southwestern Michigan College (SMC), a small rural, non-residential college located in the fruit belt of Michigan near the Indiana and Illinois borders. The college was founded in 1964 in the small city of Dowagiac. A handful of buildings was erected in the pastoral setting of farming fields and woods, and during the 40 years the college has been in existence, it has continued to grow and add additional buildings and programs. Today, visitors to the college remark on the beauty of the campus where all of the main instructional and administrative buildings surround an open grassy area that attracts students in the warmer weather to sit under its shady trees and on its inviting benches. The students and staff also enjoy the groomed hiking trails in the nearby woods surrounding the college as well as a myriad of intramural sports and other fitness activities. The college employs approximately 150 instructors, 50 of whom are full-time faculty members. In addition to the instructional staff, the college employs an instructional and student support staff who work in admissions, advising, counseling, special student support programs, tutoring, computer labs, testing services, and the library, and who serve the average 2,700 students who enroll each fall and winter semester. The institution awards certificates and associate degrees in occupational and transfer curriculums; bachelor and master degree programs.
are offered on campus through a partnership with several 4-year colleges and universities. Two of the most popular programs, an associate degree program in nursing and a transfer baccalaureate program in elementary education draw many students to the college. A number of students are active in the college’s fine arts programs in theatre, dance, music, and art. Whereas most of the students who attend the college live in the college’s legal district (Cass, Berrien, and St. Joseph counties and two townships of Van Buren County in Michigan), many students commute to classes from surrounding communities and from northern Indiana.

The college’s stated mission is “to be the college of first choice for students who have a choice, the college that provides the programs and services to meet the needs of students with limited choices, and the college that serves our community.” A great emphasis is placed on student success, and the administrators of the college dedicate a large part of the college budget to academic support programs such as tutoring, funding the three Teaching and Learning Centers, and faculty professional development. Part of this emphasis on student success includes mandatory assessment and placement for all new students. Developmental courses in composition, reading, math, and English as a Second Language are prerequisites to a large number of college classes for students who pursue either transfer or occupational degree programs.

Another example of the emphasis on student success is the collaboration fostered by the college with high-school writing teachers at a nearby high school. This collaboration included sharing teaching strategies and grading rubrics, and establishing a writing center at the high school modeled after the college’s Teaching and Learning Centers. The outcomes of the project included a decrease in the number of high-school
graduates’ placement into developmental English at the college and an increase in the success rates of students in the college’s freshman composition course.

**Quantitative Methods**

Quantitative methods were used to answer the first research question, “To what extent is placement into or out of developmental classes related to senior year course selections, the number of high-school units in math, English, and textbook-dependent courses, and overall grade point averages in the subject areas of math, English, and textbook-dependent courses?” In this section, I discuss the sample, data collection, variables, hypotheses, and data analysis.

**Sample**

The 224 students who graduated from high school in the spring of 2002 and were subsequently accepted at Southwestern Michigan College were selected for inclusion in the research project. Most of the students graduated from high schools in the college’s service district, although the cohort was not limited to in-district students. In addition, the students were selected without regard to intended major or whether they had participated in either special education or the honors programs in their high schools. All of the students were members of a cohort that the college refers to as FTIACs (First Time In Any College) at the time of their enrollment at the college. These FTIAC students are of great interest to the college administration because they are considered part of the college population most likely to achieve a successful outcome of graduating from the college and/or transferring to a 4-year college or university. Being traditional-aged college students, they are less likely to have life circumstances that must be balanced.
against completing their education such as families to support and children to care for. The high schools that serve the community surrounding the college are small, rural schools, with average graduating classes of 100 or less. Sports such as basketball and football play a major part in the lives of the students, and there exists a healthy rivalry between the high-schools' athletic programs. Because SMC is a rural college, there is no regular bus service to the two campuses, so all of the students commute to their classes.

Data Collection

Every student who attends the college is asked to submit his or her high-school transcript. Whereas each high school has its own method of recording classes and grades, the transcripts are all easy to understand and analyze. Second, the college placement test, Compass, a nationally standardized assessment instrument, is administered to every new student at the college who has not already met the basic skills requirements through the appropriate subject scores on the ACT, MEAP, or SAT test. A computer-based test, "Compass," assesses students on reading, English, math, and algebra skills. The placement results for all students in the sample were also used in this study.

The information collected from the high-school transcripts included what courses were completed in the senior year; how many units or courses in math, English, and textbook-dependent course were taken; and each student's overall high-school GPA in math, English, and in textbook-dependent courses.

Senior Course Selection

First, I examined what courses were taken in the senior year, looking specifically for math, English, and textbook-dependent courses. I did not look specifically at the
levels of classes taken in the senior year, weighting an algebra class the same as a business math class. I assumed that by senior year, the math and English classes should be sufficiently rigorous to ensure that the students place out of developmental classes at the college.

**Number of Units Taken**

The number of subject units taken was arrived at by counting the number of actual classes from Grade 9 through the completion of Grade 12. If, for example, a student took a math class every semester or term of every school year, he would have taken eight math classes or units by the time he graduated.

**Grade Point Averages**

Third, I calculated the subject area GPA for all math classes taken in high school, all English classes taken in high school, and all textbook-dependent classes taken in high school. Each grade in a course, or unit, was assigned a numeric value. The means of the GPAs of the high-school math classes were calculated by adding together the numeric values of each math class and dividing by the total number of math units taken. The same calculation was done for the English or literature courses and for the textbook-dependent courses. Then those GPAs were used to test their relationship to placement in developmental classes. For example, I compared the average mean GPA for each student of all of his or her English composition-based courses with the college placement outcome for English to see whether there was a relationship between GPA and placement. I did the same for students who took textbook-dependent courses and for those who took math courses.
Variables

The independent variables in this study were placement in developmental math, developmental English, and developmental reading. The dependent variables in this study were average GPA of high-school math classes, average high-school GPA of English and/or literature classes, and average high-school GPA of textbook-dependent classes, number of high-school math units taken, number of high-school English and/or literature units taken, and the number of high-school textbook-dependent units taken, and the math, English and/or literature, and textbook-dependent classes taken in the senior year.

Hypotheses

The null hypotheses in the quantitative research section include the following:

Hypothesis 1. There is no relationship between placement in developmental math and having taken/not taken math in the senior year of high school.

Hypothesis 2. There is no relationship between placement in developmental English and having taken/not taken English in senior year of high school.

Hypothesis 3. There is no relationship between placement in developmental reading and having taken/not taken textbook-dependent courses in the senior year of high school.

Hypothesis 4. There is no difference in high-school math grade point average between those who placed into and those who placed out of developmental math.

Hypothesis 5. There is no difference in the number of high-school math units taken between those who placed into and those who placed out of developmental math.
Hypothesis 6. There is no difference in high-school English grade point average between those who placed into and those who placed out of developmental English.

Hypothesis 7. There is no difference in the number of high-school English units taken between those who place into and those who placed out of developmental English.

Hypothesis 8. There is no difference in high-school grade point average in textbook-dependent courses between those who placed into and those who placed out of developmental reading.

Hypothesis 9. There is no difference in the number of high-school units of textbook-dependent courses taken between those who placed into and those who placed out of developmental reading.

Hypothesis 10. There is no difference between those who placed into and those who placed out of developmental math, regarding the number of math, English, and textbook-dependent units taken and GPAs in math, English, and textbook-dependent courses.

Hypothesis 11. There is no difference in the math, English, and textbook-dependent GPAs among those who placed into all three developmental classes, those who placed into math but out of English or reading, those who placed out of math but into English or reading, and those who placed out of all three developmental classes.

Hypothesis 12. There is no difference in the number of math, English, and textbook-dependent units taken among those who placed into all three developmental classes, those who placed into math but out of English or reading, those who placed out of math but into English or reading, and those who placed out of all three developmental classes.
Data Analysis

In order to understand the quantitative data, I used Chi-squares, two-sample $t$-tests of independent means, and one-way ANOVA. The Chi-squares were used to test the null hypotheses 1 through 3. The two-sample $t$-tests of independent means were used to test the null hypotheses 4 through 9. The one-way ANOVA was used to test the null hypotheses 10 through 12. SPSS was used to analyze the data, and the results were organized in table format.

Qualitative Methods

In order to answer the research question “How do recent high-school graduates experience the transition from high school to college?” I used primarily qualitative methods. In this section, I discuss the sample, data collection strategies, data analysis strategies, trustworthiness issues, and ethical issues.

Purposive Sample

All of the students whose transcripts were included in the quantitative data were invited to participate in focused interviews. I organized the students into seven categories based on data gleaned from their transcripts and placement outcomes. Letters were sent to each of these students asking them to participate in a focused interview and offering them a college cafeteria gift certificate as compensation for their time. Follow-up calls to the students ensured that representatives from each of the seven categories were going to participate in an interview. Fifteen students agreed to be interviewed. These students represented the following categories: One category was those students who had taken the college’s assessment test (Compass) and as a result were required to take three
developmental classes: Reading 100, English 101, and either Math 100 (College Arithmetic), or Math 101 (Elementary Algebra). A second category included those students who took a math course in their senior year and yet placed into either Math 100 or Math 101 at the college. The third category of students was those who took an English class in their senior year and yet placed into English 101 at the college. A fourth group took one or more textbook-dependent courses in their senior year yet placed into Reading 100 at the college. The fifth category was those students who did not take math their senior year but placed out of developmental math at the college. Category six was comprised of students who did not take any English or writing course their senior year, yet they placed out of developmental English at the college. The last group—those in category seven—were those students who did not take an identifiable textbook-dependent course their senior year, but they tested out of the college’s developmental reading class.

I chose the first category of students—those who tested into all developmental classes (Reading 100, English 101, and either Math 100 or Math 101)—without regard to what courses were selected in senior year of high school or the overall GPA. The reason I opted to talk with students from this category is that these students are considered the most at-risk students at the college, and I hoped that the interview would provide important information about the circumstances that place students in all three developmental classes. The next three categories represented students who took courses that were expected to prepare them for college, yet they still tested into developmental classes. The last three categories represent the opposite situation: students who did not take the courses in their senior year that were supposedly needed to prepare them for college, yet they tested out of each of the developmental courses. As I reviewed these
students' high-school transcripts, I began to wonder about them. An example of my thinking was thus: "Here is the transcript of a young man who took trigonometry his senior year—did he test into developmental math? He did? I want to learn about his situation. If he took this high level of math, why does he still need basic algebra? And, the transcript of a female student shows that she did not take any English course her senior year, but I see that she tested out of developmental English. I wonder about her experience." By assuring that I spoke with at least one student from each category, I was able to describe a broad spectrum of students who transitioned into Southwestern Michigan College.

Data Collection

The primary source of qualitative data was the focused interview (see Appendix C). The questions asked of all of the students revolved around their perceptions of their high school and college experiences, for example, how well they believe high school prepared them for the academic requirements of college classes. Regardless of which category each student fit into, the questions I asked these students were the same. In addition, each student was provided with a questionnaire with the interview questions listed as a resource to help guide his or her thinking in the interview. At the conclusion of each interview, I collected this questionnaire and compared what the students wrote on the form with what I gathered from the oral interview. Lastly, I reviewed my notes with an assistant researcher who also took notes during the interviews. Prior to the focused interviews, I field-tested the questions on several students at random who fit the profile for selection but who were not asked to participate in the focused interviews to see if the
questions were clear and understandable (Krueger & Casey, 2000). I made no changes to the list of questions as a result of this field-testing.

Each interview was conducted on one of the two campuses of Southwestern Michigan College. The interviews took place either in a classroom on the Dowagiac campus, or when on the Niles Area Campus, in a meeting room in the main office. Each interview lasted approximately 1 hour. In all cases, I had not previously met or spoken with any of the students, though I recognized a couple of students from seeing them on campus. The environment in each interview session was warm and friendly, and the students responded positively to the experience. All of the students willingly read and signed a release form, and, often with an attitude of fun, chose their pseudonyms. The assistant researcher did not participate in any discussion, so the students and I addressed our comments to each other exclusively. Often after I asked a question, the students would pause to think and make notes on their questionnaire before responding to me. Occasionally, they would consult their notes during the discussion. Several students indicated, at the end of the interviews, that they appreciated an opportunity to talk about the issues the questions raised and were glad that someone was taking an interest in these issues.

Data Analysis

I analyzed the qualitative data as I collected it. Merriam (1988) suggests that classifying and codifying data should be a natural extension of receiving it. From the focused interviews, I attempted to identify and describe themes and patterns. Initially, I reviewed the interview transcripts in the hope of categorizing the students based on their responses to the questions; for example, I put all the students together who felt that high...
school prepared them for college. Then, I remixed the students into other categories of those who felt supported for going to college, etc. I also developed a color-coded index card file in which I recorded the various themes that emerged from reviews of the transcripts. I transferred the themes that occurred most often onto newsprint, and then I recorded the statements that supported each theme under the name of the theme. Lastly, I remixed the students on the basis of their outcomes: some of the students had dropped out of college; another group of students had successfully transferred and/or graduated; a last group of students was still studying at SMC.

Trustworthiness Issues

One of the challenges in qualitative research is to demonstrate the trustworthiness of one's research. As Hart (2000) observed, a self-reflexive stance serves the researcher in that he or she is more aware of personal biases and how personal history and assumptions impact those biases. The strategy I used to make my study trustworthy included a strong self-reflexive component. I engaged in critical self-reflection throughout the process of data gathering and data analysis to continually attend to my own biases and predispositions. I thought and wrote about the students’ stories, reading the literature that seemed to support or refute what the students told me. In addition, I talked with others at the college about what I was learning in the interviews to see if my conclusions rang true with them as well. Although I have advised and counseled thousands of developmental students over the course of my 17-year career in education and believe that I have a keen understanding of the nature of these students, I maintain a strong respect for each student’s individual story, and I was most willing to suspend my expectations in order to hear what the students had to say.
In addition, I employed investigator triangulation, as discussed by Johnson (1999). A respected colleague who holds a Ph.D. in sociology assisted me during the focused interviews and subsequent transcript analysis to corroborate what I thought I heard in the interviews. After each interview, I studied the notes which included both my questions and comments and each student's words. As I re-typed the notes into a transcript format, I continuously cross-checked between my notes and those of the second observer to make sure that I recorded what the students said rather than the message I thought they were trying to convey. My colleague also analyzed each transcript to ensure that I had interpreted her notes correctly.

The number of interviews conducted resulted in a form of triangulation of data sources. I was able to compare and contrast the experiences of 15 different students.

Lastly, I believe that the written product of this research will result in recognition by others knowledgeable about this subject, so I requested a peer review of my findings from the chair of the Developmental Studies department of the college. She has served this population for most of her professional career; her knowledge base is sound and her scholarship is validated through her educational achievements. In addition, to address the issue of internal validity, I collected data from multiple sources, i.e., interviews, high-school and college transcripts, and placement results.

Generalization

Eisner (1991) discusses the concept of generalization as it relates to learning and asserts that what we generalize about and ultimately learn comes to us in the form of skills, images, and ideas. In other words, we discover an idea, say, about how high-school students behave, and this idea is joined by other ideas that support our notion
about high-school students' behavior, and eventually, we begin to generalize about the behavior of high-school students until we have learned what we think we understand about these students. We then seek out other images that support the notions we have adopted as our own, trusting "the pattern or overall quality more than the individual attributes" (p. 201). In conducting this research, I generalize about the students in the study because I have collected so many images and ideas about them over the course of the 17 years I have been meeting and talking with them, supporting their quest for higher education. It will be the reader, however, who will be responsible for confirming whether the research findings fit amongst his or her own generalizations about this population. Such is the nature of qualitative research—a search for confirmation of what we think we know and a stretch to new learning that fits with what we think we know (Eisner, 1991).

The Researcher's Role

Eisner (1991) suggests that the researcher's role in qualitative research is to seek believability, in other words, to find coherent themes in the stories of the subjects. As I was the primary instrument of data collection, my own biases were addressed before, during, and after the data collection period. No doubt, despite my efforts to remain objective, my personal experiences working with these students, my intuitions developed through these experiences, and my feelings about the students' circumstances most certainly influenced my analysis, but this is to be expected in qualitative research (Lincoln & Guba, 1985). In fact, my understanding of these students may have helped to deepen the richness in the telling of their stories.
Ethical Considerations

The identities of the students in any research study must be protected. In addition, their rights, needs, and values must be respected. I employed the following safeguards to protect the subjects: a) I fully disclosed my research objectives with the students who agreed to participate in the study; b) I obtained written permission to use the material from the focused interviews before proceeding; c) I filed the appropriate research permission form with the Institutional Review Board, a copy of which can be found in Appendix B; and d) the students’ anonymity was ensured through the use of pseudonyms.

Summary

Using a population of FTIACs attending Southwestern Michigan College, I gathered and analyzed qualitative and quantitative data to answer the research questions. I used a mixed methods case study design to clarify the academic preparation and experience of high-school students as they transition into college.
CHAPTER THREE

QUANTITATIVE RESULTS

Smith: [Kaitlyn Greene] wants to plead to the counselor that she has attention deficit disorder, but thinks it might be suspicious that it came on in the last two months of her school career. Kaitlyn is like much of the senior class here. She's done: emotionally, intellectually, academically, yet the state requires that her body show up for all of her classes, and what great senior classes they are.

Greene: Right now I have yoga, speech, secretarial services and the class that I went to South Africa with.

Smith: Do you feel that perhaps you've wasted an opportunity here to take some more interesting classes in your senior year, or harder classes?

Greene: I get to sleep in every day till like 7:30. That's a great opportunity. I get to go home at 1:20. That's a pretty good opportunity. Yeah—no.

>All Things Considered, NPR

Introduction

The quantitative portion of this study examines the relationship between placement in developmental classes and subjects taken during senior year of high school, the number of units taken and grade point averages in those subjects. Two hundred and twenty-four students' transcripts were reviewed to ascertain whether any math, English or literature, or textbook-dependent courses were enrolled in during the senior year of high school. The students' overall high-school GPAs in each of the three subject areas, as well as the total high-school units of math, English, and textbook-dependent courses

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taken, were likewise noted. Finally, for each of the 224 students, college placement results were reviewed.

Research indicates that many high-school graduates are indeed underprepared for college. Most estimates of the number of students needing remediation before pursuing college classes range from 30 to 63% (ACT, 2004; Bush, 2003; Greene & Forster, 2003; Raising Our Sights, 2001; Shults, 2001; Venezia, Kirst, & Antonio, 2003; Wirt et al., 2004; Wirt & Livingston, 2001). ACT, Inc., has set benchmarks on the nationally standardized ACT test indicating college readiness, and of the testers in 2004, only 26% met the benchmark for biology, 40% for algebra, and 68% for English composition; only 22% are ready in all three subject areas (Crisis at the Core: Preparing All Students for College and Work, 2004).

In April of 1993, a report produced for the Department of Education declared “Our nation is at risk.” The report lambasted America’s educational system, boldly stating, “The educational foundation of our society is presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people” (A Nation at Risk, 1983, p. 1). Despite this call to arms, and the resulting attention paid to education, there is little agreement on whether any gains have been made in the ensuing 20 years after the report was published (Coeyman, 2003).

Many variables are likely responsible for the fact that education in the United States has not improved to the extent that anyone paying attention would agree on its success. Responsibility for this situation is placed on high schools, elementary schools, pre-schools, television, video games, processed foods, and working moms, but no one definitive reason has been identified as to why students are not ready for college once
they have graduated from high school. Of all possible reasons, this particular portion of
the study focused on high-school academic preparation. The senior year course
selections; the number of units taken in math, English, and textbook-dependent subjects;
and the overall grade point averages in math, English, and textbook-dependent subject
areas were examined. My assumptions before gathering these data were threefold: (a)
senior year course selections should include designated college prep classes so that
seniors keep their skills fresh. They should not “relax” academically too much their final
year before college; (b) I believed that grading scale and teacher expectation variations
notwithstanding, a higher overall GPA probably indicates a greater mastery of subject
matter, and students with higher GPAs would probably not need developmental classes;
and (c) I believed that the number of units taken in each subject area would have some
relationship to placement into or out of developmental courses.

The quantitative data help us to address the research question: “To what extent is
placement into or out of developmental classes related to senior year course selections,
the number of high-school units in math, English, and textbook-dependent courses, and
overall grade point averages in the subject areas of math, English, and textbook-
dependent courses?” The math, English, and textbook-dependent courses taken in their
senior year, the number of math, English, and textbook-dependent course units taken, and
the students’ overall subject GPAs were entered into SPSS. In each case, I examined
each subject area independently of the others; for example, for each student, I determined
whether a math course was taken in the senior year, how many math classes were taken,
the mean overall math GPA (from all the math classes taken in high school), and the
resulting placement at the college. Then I did the same for English and for textbook-
dependent courses. I did not, however, look at what levels of math or English classes were taken in the senior year, assuming that by the final year of high school, the math and English should have been levels that were academically beyond developmental classes at the college. Moreover, I did not compare the specific grades earned in those senior year classes to the resulting college placement specifically because I believe that there would be too much variability between one math class taught at one high school and the same level of class taught at another high school. I assumed that looking at the overall high-school math, English, and textbook-dependent course GPAs provides a better picture of each student's performance. In addition to the course selections in the senior year, I hypothesized that placement in developmental classes would be related to overall subject GPA and the number of high-school subject units taken.

In summary, as I reviewed each student's transcript, I examined each subject area in turn and noted, for example, how many math units were taken in all 4 years of high school and calculated the grade point average for all of those math units taken. If the student took a math class his or her senior year, I noted that as well. I did the same for English classes and for textbook-dependent classes.

Results

In this section there are three major clusters of hypotheses: one that addresses senior course selection and its relationship to placement outcomes; another that addresses overall subject GPAs and their relationship to placement outcome; and a third that addresses the number of subject units taken in high school and its relationship to placement into and out of developmental courses.
Senior-Year Course Selection and Placement Outcomes

I tested three hypotheses related to senior-year course selection and its relationship to math placement, English placement, and reading placement. Chi-square analyses were used to show the relationship among senior year course selection and placement in developmental classes (Hinkle, Wiersma, & Jurs, 1998).

Null Hypotheses 1

Null hypothesis 1 states that there is no relationship between placement in developmental math and having taken/not taken math in the senior year of high school. The relationship between testing into developmental math and having taken/not taken math in high school is shown by the Chi-square analysis in Table 1. Students may test into developmental math in either basic mathematics or elementary algebra.

Table 1

<table>
<thead>
<tr>
<th>Placed into developmental math</th>
<th>Took math in senior year</th>
<th>Did not take math in senior year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>43 (43.0)</td>
<td>69 (67.0)</td>
<td>112 (55.2)</td>
</tr>
<tr>
<td>No</td>
<td>57 (57.0)</td>
<td>34 (33.0)</td>
<td>91 (44.8)</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>103</td>
<td>203</td>
</tr>
</tbody>
</table>

Note. $\chi^2 = 11.8; df = 1; p = .001.$

Table 1 indicates that 43 (43%) of the 100 students who took math during their senior year placed into developmental math, whereas 69 (67%) of the students who did not take math in their senior year were placed into developmental math. Statistically, there is a significant relationship between whether a student takes a math course in the
senior year of high school and placement into or out of developmental math at the college
($\chi^2 = 11.8; df = 1; p = .001$). The null hypothesis is rejected.

**Null Hypothesis 2**

Null hypothesis 2 states that there is no relationship between placement in developmental English and having taken/not taken English in senior year of high school. The Chi-square test of association to test this hypothesis is shown in Table 2.

Table 2

**Relationship Between Developmental English Placement and Senior Year Course Selection**

<table>
<thead>
<tr>
<th>Placed into developmental English</th>
<th>Took English in senior year</th>
<th>Did not take English in senior year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32 (18.6)</td>
<td>6 (15.4)</td>
<td>38 (18.0)</td>
</tr>
<tr>
<td>No</td>
<td>140 (81.4)</td>
<td>33 (84.6)</td>
<td>173 (72.0)</td>
</tr>
<tr>
<td>Total</td>
<td>172</td>
<td>39</td>
<td>211</td>
</tr>
</tbody>
</table>

*Note. $\chi^2 = 0.23; df = 1; p = 0.637.$

The analysis suggests that, at $\alpha=0.05$, there is no statistically significant relationship between testing into developmental English and whether or not students took English in their senior year ($\chi^2=0.23; df=1; p=0.637$). That is, there is no association between taking senior year English and whether or not students place into developmental English. The null hypothesis is retained.

**Null Hypothesis 3**

Null hypothesis 3 states that there is no relationship between placement in developmental reading and having taken/not taken textbook-dependent courses in senior high school. A textbook-dependent course is one in which it is assumed that the students
must read and comprehend the textbook in order to succeed in the class. Whereas it is possible that some classes were not selected for this study that did indeed employ a textbook (an occupational course for example), the classes selected are those most likely to employ a textbook. The results are shown in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Placed into developmental reading</th>
<th>Took textbook-dependent courses in senior year</th>
<th>Did not take textbook-dependent courses in senior year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>35 (22.0)</td>
<td>13 (25.0)</td>
<td>48 (22.7)</td>
</tr>
<tr>
<td>No</td>
<td>124 (78.0)</td>
<td>39 (75.0)</td>
<td>163 (77.3)</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>52</td>
<td>211</td>
</tr>
</tbody>
</table>

Note. \( \chi^2 = 0.20; df = 1; p = 0.66. \)

At \( \alpha = 0.05 \), the analysis suggests that there is no statistically significant relationship between testing into developmental reading and whether or not students took a textbook-dependent course in their senior year (\( \chi^2 = 0.20; df = 1; p = 0.66 \)). That is, there is no relationship between placing into developmental reading and whether or not students took a textbook-dependent course during their senior year in high school. The null hypothesis is retained.

Grade Point Averages, Number of High-School Subject Units Taken, and Placement Outcomes

I tested three hypotheses related to subject area GPA and developmental course placement and three hypotheses related to the number of high-school units taken in math, English or literature, and textbook-dependent courses and developmental course
placement. For each hypothesis, a two-sample $t$-test analysis was used to show the relationship between placement into or out of developmental classes and the number of units taken and grade point averages. A $t$-test is a test of significance that helps to determine the possibility of a relationship between variables, in these cases, grade point average, high-school units taken, and developmental course placement (Rowntree, 1981). I have organized the hypotheses so that math placement, math GPA, and math units are presented together followed by English placement, English GPA, and English units. Finally, I present the two hypotheses related to textbook-dependent courses and placement.

**Null Hypothesis 4**

Null hypothesis 4 states that there is no difference in high-school math grade point average between those who placed into and those who placed out of developmental math. The result is shown in Table 4.

<table>
<thead>
<tr>
<th>Subject Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placed in</td>
<td>110</td>
<td>2.32</td>
<td>0.63</td>
<td>178.5</td>
<td>5.78</td>
<td>.000</td>
</tr>
<tr>
<td>Placed out</td>
<td>91</td>
<td>2.87</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 4 shows, students who placed out of developmental math at the college had significantly higher high-school math GPAs ($M=2.87$; $SD=0.74$) than those who placed into math ($M=2.32$; $SD=0.63$). The magnitude of the difference between these

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group means is a Cohen’s $d=0.77$, a large effect size (Cohen, 1965). Effect size measurements give the researcher some idea of the magnitude of the differences between the group means (Cohen, 1965, 1988; Thalheimer & Cook, 2002). With $t=5.78$ ($p<0.001$), there is a statistically significant difference in high-school math grade point averages between those who placed into and those who placed out of developmental math. Therefore, the null hypothesis is rejected.

**Null Hypothesis 5**

Null hypothesis 5 states that there is no difference in the number of high-school math units taken between those who placed into and those who placed out of developmental math. The result is shown in Table 5.

<table>
<thead>
<tr>
<th>Subject Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Math Placed in</td>
<td>110</td>
<td>5.98</td>
<td>1.95</td>
<td>201</td>
<td>4.39</td>
<td>.000</td>
</tr>
<tr>
<td>Placed out</td>
<td>91</td>
<td>7.21</td>
<td>2.01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 5 indicates, students who placed into developmental math ($M=5.98$; $SD=1.95$) had taken fewer units of math than those who placed out ($M=7.21$; $SD=2.01$). The magnitude of the difference between the group means is a moderate effect size of $d=0.61$. The standard deviations in both groups represent a wide range of total units taken, from a low of about 2 units to a high of over 11 units given 2 standard deviations from the mean. With a $t=4.39$ ($p<0.001$), the null hypothesis is rejected.
Null Hypothesis 6

Null hypothesis 6 states that there is no significant difference in high-school English grade point average between those who placed into and those who placed out of developmental English. The result is shown in Table 6.

Table 6

<table>
<thead>
<tr>
<th>Subject Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental English Placed in</td>
<td>38</td>
<td>2.48</td>
<td>0.54</td>
<td>69.0</td>
<td>4.22</td>
<td>.000</td>
</tr>
<tr>
<td>Placed out</td>
<td>173</td>
<td>2.91</td>
<td>0.72</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 6 indicates, students who placed out of developmental English at the college had significantly higher high-school English GPAs ($M=2.91; SD=0.72$) than those who placed into developmental English ($M=2.48; SD=0.54$). The difference between the two group means translates into a medium effect size of 0.60. With a $t=4.22$ ($p<0.001$), this result suggests that there is a statistically significant difference in high-school English grade point average between those who placed into and those who placed out of developmental English. The null hypothesis is rejected.

Null Hypothesis 7

Null hypothesis 7 states that there is no difference in the number of high-school English units taken between those who placed into and those who placed out of developmental English. The result is shown in Table 7.
Table 7

*Relationship Between Developmental English Placement and Number of High-School English (or Writing) Units Taken*

<table>
<thead>
<tr>
<th>Subject Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental English Placed in</td>
<td>38</td>
<td>8.54</td>
<td>2.62</td>
<td>209</td>
<td>-0.96</td>
<td>0.34</td>
</tr>
<tr>
<td>Placed out</td>
<td>173</td>
<td>8.12</td>
<td>2.13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As Table 7 indicates, the students who placed into developmental English had taken a higher number of units of English ($M=8.54; SD=2.62$) than those who placed out ($M=8.12; SD=2.13$). However, at $\alpha=0.05$, there is no statistical difference between the group means, and thus, the null hypothesis is retained.

**Null Hypothesis 8**

Null hypothesis 8 states that there is no difference in high-school grade point average in textbook-dependent courses between those who placed into and those who placed out of developmental reading. The result is shown in Table 8.

Table 8

*Relationship Between Developmental Reading Placement and High-School Textbook-Dependent Course GPA*

<table>
<thead>
<tr>
<th>Subject Group</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Reading Placed in</td>
<td>48</td>
<td>2.52</td>
<td>0.76</td>
<td>210</td>
<td>5.09</td>
<td>.000</td>
</tr>
<tr>
<td>Placed out</td>
<td>163</td>
<td>3.07</td>
<td>0.63</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As Table 8 indicates, students who placed out of developmental reading at the college had significantly higher high-school GPAs in textbook-dependent courses ($M=3.07; SD=0.63$) than those who placed into developmental reading ($M=2.52; SD=0.76$). This magnitude of the difference between the group means is an effect size of $d=0.72$, which is large (Cohen, 1965). With a $t=5.09 (p<0.001)$, the null hypothesis is rejected.

Null Hypothesis 9

Null hypothesis 9 states that there is no difference in the number of high-school units of textbook-dependent courses taken between those who placed into and those out placed out of developmental reading.

As Table 9 indicates, the students who placed into developmental reading had taken fewer units of textbook-dependent courses ($M=7.04; SD=1.99$) than those who placed out ($M=7.36; SD=2.36$). However, the difference between these group means is not statistically significant at $\alpha=0.05$. As is the case with the number of English units results, there is no significant difference in the number of textbook-dependent units between those who placed into and those who placed out of developmental reading. The null hypothesis is retained.

Table 9

| Relationship Between Developmental Reading Placement and Number of High-School Units in Textbook-Dependent Courses |
|---|---|---|---|---|---|
| Subject Group | $N$ | $M$ | $SD$ | $df$ | $t$ | $p$ |
| Developmental Reading Placed in | 48 | 7.04 | 1.99 | 2.09 | .85 | .39 |
| Placed out | 163 | 7.36 | 2.36 | . | | |

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Relationship of Units to GPA

In the above sections, I investigated the relationship between placement in developmental courses and GPA and the number of units taken. Table 10 shows the correlations between the number of units taken and the corresponding GPAs. With math, \((r=0.25)\), there is a negligible, though statistically significant, positive correlation between high-school math units taken and the GPA of all the math classes taken (Hinkle et al., 1998). In other words, higher GPA is associated with more math units taken. However, with English, no correlation was found, and with textbook-dependent classes, the relationship between units taken and GPA is negative \((r=0.17)\). This correlation coefficient is negligible, though statistically significant (Hinkle et al., 1998). For textbook-dependent courses, it appears that higher GPA is associated with fewer number of units taken.

Table 10

<table>
<thead>
<tr>
<th>Number of High-School Units Taken</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math and GPA</td>
<td>0.25*</td>
</tr>
<tr>
<td>English and GPA</td>
<td>-0.028</td>
</tr>
<tr>
<td>Textbook-Dependent Courses and GPA</td>
<td>-0.17*</td>
</tr>
</tbody>
</table>

\(^*p \leq 0.05.\)

I was interested in how well the number of units taken and GPAs in math, English, and textbook-dependent courses differentiated between those who placed into developmental math and those who did not, particularly because the correlation
coefficients shown in Table 10 suggest that GPA is somewhat independent of the number of units taken. It has already been shown that there are significant differences between those who place into and those who place out of developmental math in the number of math units taken and overall math GPA (see Hypotheses 4 and 5).

**Null Hypothesis 10**

Null hypothesis 10 states that there is no difference between those who placed into and those who placed out of developmental math, regarding the English and textbook-dependent units taken and the mean GPAs in English and textbook-dependent courses.

The results in Table 11 indicate that those students who tested out of developmental math earned significantly higher overall GPAs in English ($M=3.09; SD=0.69$) and textbook-dependent courses ($M=3.21; SD=0.63$) than those who tested into developmental math: English ($M=2.63; SD=0.66$) and textbook-dependent ($M=2.72; SD=0.69$). At $\alpha=0.05$, there were no statistical differences in the number of units taken in English and textbook-dependent courses between those who tested into and those who tested out of developmental math. The null hypotheses for GPAs in English and textbook-dependent courses are rejected. However, the null hypotheses for the number of units of English and textbook-dependent courses taken are retained.
Table 11

Relationship Between Placement in Developmental Math, GPA, and Units Taken

<table>
<thead>
<tr>
<th>GPA and Units Taken</th>
<th>Tested Out of Math</th>
<th>Tested Into Math</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
</tr>
<tr>
<td>English Units</td>
<td>91</td>
<td>8.19</td>
<td>2.25</td>
<td>112</td>
<td>7.98</td>
</tr>
<tr>
<td>Textbook-Dependent Units</td>
<td>91</td>
<td>7.27</td>
<td>2.72</td>
<td>112</td>
<td>7.30</td>
</tr>
<tr>
<td>English GPA</td>
<td>91</td>
<td>3.09*</td>
<td>0.69</td>
<td>112</td>
<td>2.63</td>
</tr>
<tr>
<td>Textbook-Dependent GPA</td>
<td>91</td>
<td>3.21*</td>
<td>0.63</td>
<td>112</td>
<td>2.72</td>
</tr>
</tbody>
</table>

*p ≤ 0.05.

In the next section, I conducted a series of one-way analysis of variance to examine if there are differences in the number of units taken and overall GPAs in math, English, and textbook-dependent courses among four groups of students: those who placed into all three developmental courses; those who placed into a developmental math course but placed out of the English or reading course; those who placed out of developmental math but placed into the English or reading course; those who placed out of all developmental courses.

Null Hypothesis 11

Null hypothesis 11 states that there are no differences in the math, English, and textbook-dependent GPAs among those who placed into all three developmental classes, those who placed into math but out of English or reading, those who placed out of math but into English or reading, and those who placed out of all three developmental courses.
Table 12 shows that 74 (34.7%) placed out of all three developmental courses whereas 20 (9.4%) placed into all developmental courses. One hundred and eight students (50.7%) placed into developmental math but out of English or reading. The remaining 11 students (5.2%) placed out of developmental math but into English or reading. Table 12 also shows the analysis of variance results. With $F_{(3,209)}=17.6$, $p<0.001$ for math GPA, $F_{(3,209)}=12.31$, $p<0.001$ for English GPA, and $F_{(3,209)}=13.91$, $p<0.001$ for textbook-dependent GPA, there are significant differences among the four groups of students. Post hoc multiple comparison procedures using Student Neuman Keuls (SNK) suggest that mean GPAs for those who tested out of all three developmental courses are significantly higher than mean GPAs of the other three groups. No differences in mean GPAs among the other three groups were found. The null hypotheses for GPAs in math, English, and textbook-dependent courses are rejected.

Table 12

<table>
<thead>
<tr>
<th>GPA</th>
<th>Placed into all 3 Developmental Classes $(n=20)$</th>
<th>Placed into Math, but out of English or Reading $(n=108)$</th>
<th>Placed out of Math but into English or Reading $(n=11)$</th>
<th>Placed out of all 3 Developmental Classes $(n=74)$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Math GPA</td>
<td>2.17</td>
<td>0.60</td>
<td>2.37</td>
<td>0.62</td>
</tr>
<tr>
<td>English GPA</td>
<td>2.29</td>
<td>0.53</td>
<td>2.73</td>
<td>0.64</td>
</tr>
<tr>
<td>Textbook-Dependent GPA</td>
<td>2.67</td>
<td>0.77</td>
<td>2.76</td>
<td>0.65</td>
</tr>
</tbody>
</table>

*p $\leq$ 0.05.
Null Hypothesis 12

Null hypothesis 12 states that there is no difference in the number of math, English, and textbook-dependent units taken among those who placed into all three developmental classes, those who placed into math but out of English or reading, those who placed out of math but into English or reading, and those who placed out of all three developmental classes. See Table 13.

Table 13

<table>
<thead>
<tr>
<th>Units Taken</th>
<th>Placed into all 3 Developmental Classes (n = 20)</th>
<th>Placed into Math, but out of English or Reading (n = 108)</th>
<th>Placed out of Math but into English or Reading (n = 11)</th>
<th>Placed out of all 3 Developmental Classes (n = 74)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Math Units</td>
<td>6.35</td>
<td>2.03</td>
<td>6.01</td>
<td>1.87</td>
</tr>
<tr>
<td>English Units</td>
<td>8.05</td>
<td>2.35</td>
<td>8.22</td>
<td>2.15</td>
</tr>
<tr>
<td>Textbook-Dependent units</td>
<td>6.55</td>
<td>2.35</td>
<td>7.38</td>
<td>1.74</td>
</tr>
</tbody>
</table>

*p ≤ 0.05.

The analysis of variance results shown in Table 13 show that there are significant group differences in the number of units taken in Math \(F_{(3,209)}=7.22, p<0.001\), but not for English or textbook-dependent courses. Post hoc multiple comparison procedure using SNK indicates that those who tested out of all three developmental courses had taken significantly more units in Math \(M=7.38, SD=1.94\) than the other three groups. No differences were found among these other three groups. There were also no statistical

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differences among the four groups for the number of units taken in English and textbook-dependent courses. The null hypothesis for the number of units in math is rejected, but not the null hypotheses for the number of units in English and textbook-dependent courses.

**Major Findings**

1. Students who took math during their senior year were more likely to test out of developmental math.

2. Students who placed out of developmental math had significantly higher overall GPAs in high-school math than those who placed into developmental math.

3. Students who placed out of developmental math had taken significantly more units in high-school math than those who placed into developmental math.

4. Students who placed out of developmental English had significantly higher overall English GPAs.

5. Students who placed out of developmental reading had significantly higher overall GPAs in textbook-dependent courses.

6. Students who placed out of developmental math had significantly higher GPAs in math, English, and textbook-dependent courses, and had taken significantly more units in math.

7. Students who placed out of all three developmental courses had significantly higher GPAs in math, English, and textbook-dependent courses, and had taken significantly more units in math.
Discussion

It is possible that the level of math a student takes in the senior year has an impact on college placement; however, by senior year, most students would have taken basic arithmetic and introductory algebra, which comprise the subject matter in developmental math. Does it really matter whether the student takes a pre-calculus class or a business math class in the senior year if both pre-calculus and business math are equivalent or beyond the level of developmental math? In her study of high-school students in North Carolina, Mosley-Jenkins found that there is no significant difference between the math achievement of students who take an applied math and those who take a college prep algebra course based on outcomes on the Stanford Achievement Test (Mosley-Jenkins, 1995). In my study, it seems more important that seniors take any math course, perhaps to keep their math skills fresh and the part of their brain that understands math supple. In another study, Burns found that students in the Mississippi community college system who took a high-school senior mathematics course scored significantly higher in their college algebra grades. Presumably, students who take math their senior year have a better chance at success in college math because they have maintained their math skills closer to the college challenge (Burns, 1990; Kirst, 2001; Kirst & Venezia, 2001).

Much of the discussion around the problem of poor high-school preparation revolves around the importance of math and science skills, which seem to be greater indicators of college success than other variables (ACT, 2004; Porter, 1998; Wirt & Livingston, 2001). The development of math skills is considered a sequential and cumulative process, and whereas taking a math class in senior year likely keeps math skills fresh, good math instruction prior to the senior year is crucial as well. In fact,
Goycochoea (2000) found that being placed in a college track mathematics course in eighth grade is a better predictor of success in college math than any other factors such as the availability of tutoring and other academic support. Students who begin the sequential and cumulative development of their math skills early in their academic career prepared them for success in college math.

With regard to comparison of GPA and academic achievement, it may seem an intuitive conclusion that the higher one's GPA, the greater their knowledge and skills, but a lot of variability in grading standards likely exists in high-school classes. Because of this, it is important to note that the students in this study were graduates of at least 10 different high schools. The differences in grading standards from school to school, from class to class, are likely ameliorated by the number of transcripts from different schools. Again, the GPAs in this study represent all of the high-school math courses, all of the English composition courses, and all of the textbook-dependent courses in each student's high-school academic transcript. There was no accounting for variability from one kind of class within the discipline to another; i.e., an applied math class was given the same consideration as an Algebra II class.

Much research has been conducted to connect high-school GPAs to postsecondary enrollment and achievement (Beecher, 1998; Coppola, 1999; Johnson, 2002; Liou, 1998; Taylor, 2003). Liou (1998), for example, found that the higher a high-school student's GPA, the more likely he would pursue postsecondary education. Coppola (1999) found that high-school GPAs positively correlated with persistence at a community college. Johnson's (2002) study had similar findings. Taylor (2003) found that high-school GPA was the strongest predictor of test scores on the Commonwealth
Accountability Testing System of five possible predictors: ACT score, race, sex, socioeconomic status, and high-school GPA. Although, potentially, there are many predictors of academic success for high-school graduates, clearly GPA is an important one that many colleges with admissions standards use for acceptance criteria.

The unique contribution of this study to the literature, however, is that GPAs of content subject areas are closely associated with placement and “non placement” in a developmental college class in that subject area. For example, students who have a higher GPA in math—regardless of the number of high-school math classes taken—will likely test out of developmental math in college. The same is true for English and reading placement. Moreover, students who have a higher grade point average in math and placed out of developmental math had higher GPAs in other subject areas.

**Summary**

To answer the research question “To what extent is placement into or out of developmental classes related to senior year course selections, the number of high-school units in math, English, and textbook-dependent courses, and overall grade point averages in the subject areas of math, English, and textbook-dependent courses?” Chi-square tests of association, two-sample t-tests, and one-way ANOVAs were used to analyze 224 recent high-school graduates’ high-school transcripts and college placement results.

The results of data analyses indicate that developmental math placement is associated with taking math in the senior year of high school, overall GPA in high-school math, and the number of math units taken in high school. Further, developmental math placement is associated with GPA in English and textbook-dependent courses. Third, English and reading placements were found to be associated with overall GPAs in
English and textbook-dependent courses. Lastly, those students who placed out of all three developmental courses were found to have higher high-school GPAs in math, English, and textbook-dependent courses and taken more math units in high school.
CHAPTER FOUR

QUALITATIVE RESULTS

Smith: So, what are you learning in class today?
Unidentified Student #1: In this class?
Smith: Yeah.
Unidentified Student #1: Is that a trick question? I—not much.

-All Things Considered, NPR

Introduction

How do students experience the transition from high school to college? Interviewing the students was the only way to begin to grasp the answers to the second research question in this study. Other researchers have concluded that the best way to determine how well students feel prepared for college is by talking to them (Sokol, 2000). The students' perceptions of their own experience is the closest we can come to identifying what is really happening in the lives of these students who chose to attend Southwestern Michigan College.

Student Selection Process

Of the students fulfilling the criteria for inclusion in the quantitative study (224 June 2002 high-school graduates attending college for the first time), all were invited to participate in the interview portion of the study. Of those students, 15 accepted the invitation. When each student arrived for the focused interview, he or she was requested
to choose a pseudonym to be identified by in the resulting documents. I made them all aware that I would be sharing, in general, their experiences with the rest of the college community and ultimately with their high schools.

The list of interview questions used in the focused interviews is presented in Appendix C. These questions were intended to answer the following research queries: Of those students who placed into developmental classes, did any of them recognize their need for remediation? What are the students’ perceptions about their high-school education and of their first semester of college? How much support for college preparation and advance planning did these students experience while still in high school?

The students interviewed responded both verbally and using a questionnaire form that listed all of the interview questions to help guide their thinking and represented several categories of students. One category was those students who had taken the college’s assessment test (Compass) and as a result were required to take three developmental classes: Reading 100, English 101, and either Math 100, College Arithmetic, or Math 101, Elementary Algebra. These students are most intriguing because they successfully completed their high-school diploma yet were lacking in all of the basic skills required for successful matriculation in postsecondary education. I was interested to know if any of these students were either learning disabled or had other circumstances in their lives that allowed them to graduate but did not ensure that they were college ready. A second category represented those students who took a math course in their senior year and yet placed into either Math 100 or Math 101 at the college. A third category represented those students who took an English class in their senior year
and yet placed into English 101 at the college. A fourth group took textbook-dependent courses in their senior year yet placed into Reading 100 at the college. These three groups of students are especially interesting to study because they did what most college-bound high-school students are supposed to do: take classes to support their advancement to postsecondary education. Yet, for some reason, the classes they took their senior year, whether it was the fault of the class, the general high-school environment, or the students' personal circumstances, did not prepare them adequately for college. The next three categories of student represent the opposite situation. They did not take math, English, or a textbook-dependent course their senior year, but they tested out of the college's developmental classes.

The Interview Stories

In this section, I tell the stories of the students who participated in the focused interviews. In telling the students' stories, I organize the interview results into general categories beginning with the students' placement at the college, their perceptions of their preparation for college, and their senior year experience. A second category deals with the perceptions the students' had about the quality of guidance they received for going to college and the support they received for going to college. A last category deals with the students' experience after graduating from high school (i.e., how they responded to their first semester classes in college, and where they are as of this writing).

Cara is from the group of students who tested into all three developmental classes at the college.
Cara

Cara swung her long blonde hair behind her shoulder and frowned when asked if she was surprised at the results of the placement test she took at the college. In a rather indignant tone, she stated that she was both shocked and surprised at the results of her placement test at the college. "I was an honor student!" Yet, Cara's scores on the college's assessment placed her into basic math, reading, and developmental English, which placed her in the first category of students discussed previously. Her scores on the Compass were similar to her scores on the ACT, which she had taken the previous February. None of her ACT scores were high enough to exempt her from the college assessment, and none of her college assessment scores were high enough to exempt her from developmental classes. What happened? "I don't test well" was Cara's explanation for her placement results.

High-School Preparation

A review of Cara's high-school transcript indicates that in her senior year, she took and passed a "college English" class, an independent study course in English, a "college" economics class, and advanced algebra. Her overall GPA in high school was a 2.971, just shy of a B average. No wonder she was shocked and surprised at her placement results. In addition, Cara seemed to do everything she should have done to prepare for college, taking 4 years of both English and math classes. Her class rank was 55 out of 134 graduates. She rarely missed school, and she participated in extra-curricular activities. An engaging, attractive young woman, Cara is a person who likes school so much so that she intends on being an elementary school teacher.
When asked whether she considered her high-school curriculum “college prep” Cara was evasive, or either unsure. She said that at her high school, students could choose a college prep track or not—it was not assumed that everyone was going to go to college. In addition, regardless of what track students chose, they could take classes “off-track” as long as they had the approval of their teachers. How did Cara decide which classes to take? “I talked with friends.” Overall, at least from Cara’s perspective, it seemed that students at her high school did not have much structure determining their high-school career. In Cara’s opinion, the only difference between classes that were college prep and those that were not was the speed with which the teachers covered the content. And did Cara feel that high school prepared her for the whole college experience? “Not really. I think they babied students. You could turn in stuff late with no consequences. They’d give you lots of reminders. There was not enough of a challenge. More busy work, and work sheets rather than having conversations about the subject.” Although Cara is a person who likes school and wants to be challenged, high school did not seem to provide that challenge.

Senior-Year Experience

Cara said that she was tired her senior year. She still had some required courses to take: math, English, and a social science course. She said, “I didn’t take all blow off courses.” She felt that her senior year was her “last chance” to make good. She reported that she was “highly motivated” during her senior year because of the C she earned in her junior year. That C was going to keep her from graduating with honors, something Cara desired very deeply. She asked her sophomore English teacher to let her re-write some papers she wrote in that class in an effort to bring up her grade. Overall, Cara felt that
she studied harder and worked more in her senior year than in her previous 3 years because it was important to her to “start on a good path so that I could be successful.”

**Guidance in High School**

In high school, Cara did not feel supported by the guidance office, though she reported that she did not require much support. She explained, “The guidance counselors are really nice people, but students who know what they’re doing don’t get much assistance.” Cara had already settled on SMC, and she applied, tested, got advised, and registered successfully all on her own. I confirmed with Cara that whereas support was available to students, she did not take advantage of it because she did not think she needed it: “No one questioned your decisions about college. They let you decide.” Cara did not disagree with me. She was a student who was clearly motivated to go to college, yet she did not attract the attention of the guidance office of her high school.

**Support for College**

Many of the students interviewed indicated that their parents were supportive of their decision to go to college, and some reported that their parents helped them in some way, financially or emotionally. Few students received the kind of support Cara had. Her parents pay her tuition, buy her books, support her so that she does not have to work while going to school, and even help her study, taking her to the library and working with her. Cara said with some measure of pride, “They push me to achieve my goals.” One wonders if this kind of support does not make a tremendous difference in the academic life of someone who is otherwise largely ignored by the high school. This is conjecture, of course; perhaps Cara assured the guidance counselor early on that she had all the
support and direction she needed, so the counselors assumed she did not need help and left her alone. The only other support Cara reported was a particular teacher who administered a personality test to her and gave her some ideas for careers based on the outcome of that test.

**First Semester in College Experience**

Cara indicated that her first semester in college was an eye-opening experience. The expectations of her college instructors differed greatly from those of her high-school teachers. For example, her college instructors expected assignments to be turned in on time, but as mentioned before, in high school, her teachers were lax about assignments. Students could turn in assignments late with no consequences, and teachers repeatedly reminded students about their late assignments until they turned those assignments in. College instructors gave the assignments once and often did not mention them again. After her initial shock about her placement in developmental classes, Cara decided to take advantage of the opportunity to work on her skills and learn how to meet the different expectations that her college instructors had of her. She said that her reading class helped her with test-taking skills; she felt that she had never been a very strong test-taker. She believed that her math teacher really cared about whether she learned math; in high school, she did not feel this kind of caring. Another difference between high school and college for Cara was the expectation that the student figure out answers to questions. In high school, her experience was often that students could easily complete homework worksheets by consulting the answers in the back of every book. By contrast, in college, Cara had to discover answers for herself. In summary, Cara regarded her first semester in college appreciatively; she worked on some weak skills, the classes were not too
demanding, and she made the Dean’s list and went on to continue a successful college career.

Where Is Cara Now?

As of the end of fall semester, 2004, Cara has completed 62 credits with a 3.45 GPA and is intending to pursue her elementary education bachelor’s degree through Western Michigan University. WMU’s program is offered on the campus of SMC and because of that, it is an extremely popular program; some 400 students are pursuing their degrees through this arrangement. Most students see an advisor individually to assist them in choosing their classes. A few highly organized and motivated students complete a self-advising contract which means that they are able to manage their education on their own without assistance. Cara is one of those students.

From a fully developmental student, to a person well on her way to becoming a teacher, Cara typifies those students for whom developmental education bridges the gap between high school and college.

Bridgette

The second category of students is comprised of those who took math their senior year in high school but tested into a developmental math class at the college. Whereas 60% of the students who took math their senior year tested out of developmental math, this small group represents those whose math skills perhaps were not strong enough to meet the competency level established by the assessment. Three of these students were interviewed; Bridgette’s story is the first to share.
Bridgette took the assessment at the college and tested out of the developmental reading and English classes, but math tripped her up. "I'm not good at math," she explained. Indeed, she scored high enough on the Compass test to bypass the basic arithmetic class, but not high enough to test out of the basic algebra class. While in high school, Bridgette also took the ACT and the MEAP test. Her scores indicate a strong literary aptitude, but math just is not her strength.

High-School Preparation

A review of Bridgette's high-school transcript reveals a strong aptitude for the arts and humanities. She earned A's in art classes and English composition classes; math and science grades were all B's and C's after her strong start in freshman introductory algebra. In that first class, she earned an "A" her first semester and an "A+" her second semester, but after that her grades began to slip. A pretty, petite blonde, Bridgette seemed irritated by the discussion about math, as if she did not want to think about her performance in algebra.

Senior-Year Experience

For Bridgette, senior year was fairly easy. She had only two required courses left, a chemistry course and a language course. Otherwise, she enjoyed taking electives. It did not occur to her to slack off in her senior year; she said she had to study, but she was not particularly challenged. Senior year was neither a time for slacking off for Bridgette, nor was it a time for ramping up in preparation for college.
Guidance in High School

When asked about the rigor of her high-school classes, Bridgette explained that her high school required its students to follow “career pathways.” She said that these pathways were supposed to “help you try out something before going to college and spending the money.” She said that her plan was to major in education, and that education was her career pathway. Bridgette talked about the career pathways as an overarching choice that encompasses both the college prep path and the vocational path. “I have a friend who does co-op in mechanical shop who is not college bound but following career pathways, and I’m going into education which is for college and it’s a career pathway—so there’s not a difference.” Bridgette appreciated that regardless of what pathway students were following, teachers referred to the skills needed for college, as in, “You’ll have to know this in college.” For Bridgette, there was never any question that she would go to college; the question has been what she would do with her college education. She considered herself lucky, however, to have had a personal relationship with her guidance counselor—someone who was a friend of her family. This counselor took a special interest in Bridgette, assisting her with filling out financial aid forms and engaging her parents in discussions about college that helped them support Bridgette. As neither of Bridgette’s parents was a college graduate, this extra attention made a difference to the family.

Response to First-Year Classes

Bridgette was challenged in her first semester of college by her elementary algebra class, and in her second semester, by a chemistry course in which she struggled to earn a “D.” Bridgette’s college transcript looks much like her high-school transcript—
mediocre grades in math and science, and "A's" and "B's" in humanities and English. She was recruited by the EXCEL program, a federally funded program designed to provide academic and personal support for first-generation and/or low-income college students. The program utilizes intrusive advising; that is, the advisors and counselors reach out to the students, check with their instructors about their progress, and require them to participate in counseling sessions in order to monitor their adjustment to college more closely. One of the highlights of the program is the support provided to undecided students. Career assessments and personality tests are administered to any EXCEL student who desires this assistance; however, Bridgette never took advantage of the career services. She declared a major in early childhood education when she applied to the college, changed to elementary education, and ultimately declared that she was indeed undecided.

Where Is Bridgette Now?

Bridgette graduated at the end of fall semester, 2004, still undecided about her major which is not uncommon among associate degree-seeking students who focus most of their course selections in liberal arts. Students are assured that they will be able to declare a major at the 4-year college or university they transfer to, and there is no stigma to graduating from the community college "undecided." For Bridgette, graduating with a high "B" average ensures that she will be accepted at most any college she chooses where hopefully she will find the career pathway she was meant to follow all along.
Tucker

A heavyset, affable blonde, Tucker came to the interview with his girlfriend. The two were often seen on campus walking together from building to building, holding hands. Although the girl did not meet the criteria for inclusion in this focused interview and had not been invited to the session, she was welcomed to respond to the interview questions. She was told, however, that her answers would not be used in the study. Tucker said that he was very surprised to have placed in an elementary algebra class in college. He took pre-calculus in his senior year of high school and passed with a “C” average. Tucker took math every semester of high school and had decent grades throughout, but his performance on the ACT, the MEAP, and the Compass math portions of the tests was mediocre. Otherwise, Tucker did not have to take the Compass assessment for reading or English because his ACT scores were high enough to exempt him from testing.

High-School Preparation and Senior-Year Experience

An inspection of Tucker’s high-school transcript reveals an extremely well-rounded young man. He played football, participated in a number of clubs, and was inducted into the National Honor Society. Though he seemed to enjoy school, certain circumstances caused Tucker to have some regrets about his senior year. He shared that two of the teachers he had for his college prep courses were absent most of the year, but the teachers who substituted for the regular teachers did not challenge him, and he felt that he did not learn as much as he should have. Indeed, Tucker signed up for a very challenging senior year, with math, science, advanced placement history, a language
course, and a computer class. He graduated with a 3.4 GPA and 27th in his class, but senior year was still a bit of a disappointment. Tucker found it hard to keep himself motivated: "When I started my senior year, I started to push myself, but then about half way through, senioritis kicked in. I wanted to be lazy. Having those two new teachers contributed to the problem. I just spun my wheels." And yet, Tucker knew that senior year was important, and he chose not to blow off his classes "like the rest of my buddies who were slackers." He explained: "I knew that if I wanted to pursue other colleges [besides SMC] they would look at the last year’s grades—they would accept me depending on how I did senior year.”

Support for College

Tucker experienced that guidance and support from the high-school staff were not forthcoming unless students asked. He said that he wanted to go on some college visits, but he was discouraged from going because the school required students to make up the work they missed during the college visit. Luckily, Tucker’s mother took an interest in helping him get started in college. She went with him on his first visit to SMC in the summer after graduation and helped him plan his first semester schedule, though she herself was not a college graduate.

Response to First-Year Classes

Tucker experienced a difficult transition to college. He found the freedom in college “shocking.” In high school, he said that his teachers were very strict in what they allowed, but in college, it was “anything goes.” Having been the first male in his family not to enter into military service upon graduation from high school, Tucker grew up with
an appreciation of rigorous and challenging experiences. His first semester in college did not fulfill his need for rigor and challenge. He referred to his developmental algebra class as “agonizing—I hated going to class; it didn’t prepare you for anything higher. Nothing left to learn there.” Despite this unhappiness in the developmental math class, Tucker did well in his classes at SMC. With regard to his major, however, he lacked direction. When he first applied to the college, he declared his major as biology, but by the fall he began his freshman year, he had declared himself undecided, changing to business administration, then elementary education, finally settling on secondary education. Like Bridgette, Tucker went to the high school that required all students to declare a major in a career pathway, but also like Bridgette, Tucker groped around in college for the right major. Outside of school, Tucker could be seen working many hours at a home-improvement store. He seemed to be a very responsible person, both in school and in his personal life. Given the number of times he changed his major, Tucker finally decided to sign a self-advising contract so that he would not have to go over a new curriculum with an advisor each time he changed his mind. Tucker came across as a “no nonsense” person who has high expectations for himself.

Where Is Tucker Now?

Tucker graduated from SMC at the end of fall semester of 2004 and transferred to a college in Indiana to study secondary education. He still works at the home-improvement store.
Gracie Lynn

Gracie Lynn was the third student in the category of those who took math their senior year but tested into a developmental math; however, she shared some other characteristics with the other students in this category. On the basis of her ACT scores, Gracie Lynn did not have to take the college’s assessment for reading and English. She was not surprised about her placement into elementary algebra; she shared that she had failed Algebra II in her second semester of her sophomore year, an event that seemed to discourage her from taking any further college preparatory math in high school. Her last math class in senior year was a consumer math class which she passed with an “A.”

High-School Preparation and Senior-Year Experience

Gracie Lynn took a quarter credit course entitled “College Preparation” in her senior year for which she earned an “A,” but she still did not feel as though high school prepared her for college. She gave her high school credit for trying, however: “I think they tried, but you don’t really understand it until you experience it, to understand what they were talking about.” In other words, her teachers tried to help students prepare for college, but Gracie Lynn admitted, “They tried, but I blew it off.” By Gracie Lynn’s second semester of senior year, she was ready to move on from academics and her last semester of high school was spent entirely in co-op, working in the community. She had completed all of her credits by the end of her first semester in senior year with a high “B” average. When asked whether senior year was harder or easier than the previous 3 years, Gracie Lynn felt that there was no difference between any of the years of high school, but
that co-op allowed her to relax a little because she could not fail co-op. She also believed that “Every year you run out of steam at the end.”

Support for College

Gracie Lynn shared that she did not feel supported by the guidance office at her high school. She said that college visits were available, but not encouraged. She did not share any stories about support from her parents either.

Response to First-Year Classes

Gracie Lynn did well her first year at SMC, though she had difficulty settling on a major. Though she had followed a career pathway in high school and had to declare a major, Gracie Lynn said that she changed this major every year. This lack of surety about what to study continued in college where she left her major as “undecided” during her first year while she reviewed her options.

Where Is Gracie Lynn Now?

Gracie Lynn did not complete her associate degree at SMC. She completed three semesters and transferred to a school in a nearby community that awards occupational certificates.

Cheyenne

The next three students, Cheyenne, John, and Mark, are of the group of students who took an English class their senior year but placed into developmental English in college. Cheyenne was really “steamed” about her placement into developmental English. She felt that she had been a good writer in high school. She was a reporter for the school.
newspaper and she took a number of journalism classes in her senior year. Cheyenne felt that she “did not learn anything” in the developmental writing course at the college, describing the course as “the most boring thing in the world.” Whereas she felt herself capable of an “A” in the class, Cheyenne attributed the “B” she earned in the class to her lack of motivation and attendance; testing into a basic skills English class was so disappointing to her that she did not put as much effort into the class as she might have if she had accepted her placement.

High-School Preparation

Cheyenne believed that high school did not prepare her for the rigors of college. She named a number of advanced classes that she took in high school to prepare her for college, but in each case, she said that college prep courses were anything but. She considers herself a visual learner, but in her words, she “got away with not reading often,” relying on class discussions and lectures to learn information. Moreover, she admitted that if she does not care to learn the material in a certain class, she does not put much effort into succeeding in the class. While in high school, Cheyenne participated in the Upward Bound program, an intensive federally sponsored program designed specifically to ease the transition between high school and college. The program served only 50 students, which meant that students received a lot of individual support in the way of tutoring, career counseling, assistance with college selection, completing applications, and preparing for different expectations of college. The program participants spent several afternoons a week at the college as well in order to feel more comfortable with the campus. The Upward Bound program is for students whose parents did not graduate from college, and Cheyenne admitted that “I felt totally unprepared. No
one in my family has ever been in college. High school didn’t prepare me. Upward Bound helped because I knew my way around here.”

Senior-Year Experience

Cheyenne enjoyed her senior year of classes, and so she was motivated to do well in them. She planned to have more fun her senior year than in previous years, taking all of her hardest classes between her freshman and junior year so that she would have more choices on what to take her senior year and could participate in more extracurricular activities.

Guidance in High School and Support for College

Cheyenne perceived that her teachers were not supportive of her college plans. She believed that teachers “focused more on those with straight “A’s”—they were mostly concerned with those going somewhere like Michigan State University.” She felt that no one took an interest in her because she was planning on attending the local community college. At home, too, Cheyenne initially felt that there would be no support for her to go to college. “My sister dropped out of high school, and they didn’t expect me to go to college.” The support from home did come, however, when she enrolled in her freshman year, but her mother’s interest in her success became overwhelming and oppressive. “Well, they lecture me.”

Response to First-Year Classes

Despite her disappointment over having to take a developmental writing course, Cheyenne adjusted her attitude and benefited from her freshman courses. She
appreciated instructors who were “hard graders.” Upon reflection, she realized that despite her many writing experiences in high school, there was still a lot she needed to learn to be a good writer. Cheyenne had intended to complete an associate degree to transfer into a bachelor degree program in elementary education, but the pressures of her life changed those plans. She was well on her way in her elementary education curriculum when her job required her to take computer and administrative assistant classes instead. She planned to be married soon as well, and had to adjust her long-term goals to make allowances for the new family she was creating.

Where Is Cheyenne Now?

Cheyenne completed only 1 year of college, and because her second semester classes were primarily occupational ones, she would have a lot of credits to take to return to her goal of transfer to a bachelor degree program in elementary education. As of this writing, she has not re-enrolled at the college.

John

John is the second participant who took English in his senior year of high school but placed into developmental English in college. He arrived at the interview nearly an hour late, saying he had been waylaid by a tutoring appointment. John was not surprised or annoyed that he tested into English 101 at the college. He actually expected to need to take some developmental classes because he had attended an alternative high school and believed the standards for achievement were lower than in regular high school.
High-School Preparation

John believed that students in the alternative education school were expected only to graduate from high school, not go on to college. Indeed, the structure of the classes at the alternative education was based on completing the high-school requirements. Classes were what John termed “self-instructional.” Students worked out of workbooks and asked for assistance when needed. A wiry, slight young man, John was eager to talk about his experiences in high school and his perceptions about his educational experiences. He dropped out of high school in the ninth grade and continued his education at the alternative school for the next 3 years. While glad for the experience to finish his high-school credential in a less structured manner than traditional high school, John was fully aware that he was less prepared academically for college than his colleagues at the high school.

Guidance in High School

John participated in the Educational Talent Search (ETS) program through the college—another program very much like the Upward Bound program but with many more participants. Chiefly, the students in ETS receive tutoring assistance and a connection to the college. It was through ETS that John was able to take a summer course at the college through a “Summer Spotlight” program that paid for his books and tuition. By the time he started his fall freshman semester, he was comfortable with the college environment, had signed up for the EXCEL program, and was eager to work hard and learn business administration, his selected major.
Support for College

John lived with his mother who was very proud of her son and supported him fully. John said that his mother considered school his job and did not ask him to take a part-time job to help pay his expenses, though John was fully supported through financial aid for his tuition, fees, and books.

Response to First-Year Classes

John had no illusions about how difficult college would be compared to his alternative education high-school experience. He said simply, “College should be hard.” High school was an experience of “just getting by.” It was in college that John realized that “there is a difference between homework and studying.” John worked hard his first semester, but the English class was too difficult for him. He failed it, took it the next semester, failed it again, took it a third time, and failed a third time. It seemed that English Composition was a class that John could not master.

Where Is John Now?

John failed his entire second semester which indicates that he stopped attending all of his classes; it is unusual for students to fail all of their classes if they are actively participating in them until the end. John returned the following fall semester and attempted English again as well as a math class that he had also failed in a previous semester. He did, however, earn two “A’s” his last semester in college—in Tae Kwon Do and a world religion class. Since he has not asked that his transcripts be sent to another college, it appears that John is not in school.
Mark

Mark also took English classes his senior year in high school, one entitled Literature and Life, and the other a creative writing course. He took English every year of high school, but with marginal grades. His ACT composition score was very low, so he was required to take the Compass assessment at the college. The test results, however, were inconclusive, so Mark was given an opportunity to write an essay to be graded by several English instructors at the college to make the final placement decision. Ultimately, it took three faculty members to decide that Mark needed the developmental English class which indicates that his writing skills were not too deficient. Indeed, Mark thought that the developmental English class he took at the college was a “refresher” of what he had already taken in high school. “I didn’t think I would be on top [his scores], but I didn’t expect to test so low as to need this class.”

High-School Preparation

Mark said he had “no idea” what to expect in college. He felt that high school did not prepare him at all for what he had to face in college. In high school, he said that he took only classes that interested him, such as automotive and engineering, and in these classes, he did not have to study. Mark also felt that his high school did too much for students; he was not prepared for the level of responsibility he had to take for making up his own schedule, choosing his classes, etc. Mark felt that his high school should have offered a required course on study techniques because he did not know how to handle the academic demands of his classes in college.
Senior-Year Experience

Mark did not think his senior year was particularly challenging, perhaps because he spent half days in co-op. Sometime during senior year, he decided that he had better stop trying to "skate by because college was coming." Thinking about what he might do after high school motivated him to work a little harder in his last semester, and he brought up his grade point average slightly. He also lived with his dad his senior year, which was a new environment for him. Whereas his dad wanted him to graduate from high school and go on to college, Mark was pretty much left on his own to follow through on those plans. This increased responsibility made him realize that he would have to motivate himself to finish strongly and make future plans.

Guidance in High School

Mark met with his guidance counselor regularly for scheduling, and in one of these meetings, he was encouraged to take the ACT if he was planning on going to college. The counselor did not actually talk to Mark about college, however. The first semester anyone talked with Mark about college was his senior year when recruiters from two technical schools talked to his auto shop class. Even his auto shop teacher neglected to talk with Mark about his plans after graduation. Initially, Mark was impressed that someone (the recruiter) would take an interest in his future, but ultimately, he decided not to study automotive technology and applied to SMC to study business administration.

Support for College

Threats sometime work to get someone motivated to do something, and, in Mark's case, it worked. He had relaxed all summer after graduation, working on his car
at home and working at a local business. He decided in August that he was not going to
go to the technical college, but he had not made any alternative plans. One day, his
employer made him leave work to come to SMC to get information and an application.
His supervisor jokingly told him that either he went to college or he was fired. His dad
was also insistent; he told Mark to decide—go to college or pay rent. Mark got the
message and hustled down to the college to get tested and enrolled within a couple days
before the fall semester began.

Response to First-Year Classes

It took Mark two semesters to pass the developmental English course earning a
“Continuous Progress” grade his first semester, which was equivalent to a “C” but
indicates that the student has not met the minimum competency for the class. Initially,
Mark believed that the English class was just a refresher of the English he took in high
school, but it turned out to be more demanding than he expected. Mark ultimately
realized that he never actually learned how to write compositions in his high-school
English classes. Otherwise, he enjoyed his freshman year at the college; he said that
everything felt more “easy-going” to him and that he enjoyed being treated as an adult.

Where Is Mark Now?

Mark did reasonably well at the college, and he transferred to another community
college after finishing about half of his associate’s degree, presumably to continue his
studies in business administration.
Katie

One student, Katie, fit the criteria of having taken one or more textbook-dependent classes in the senior year but tested into College Reading. It was difficult to get Katie to talk during her interview. A chubby, short girl, she had long, stringy, dishwater-blonde hair and gold wire-rimmed glasses through which she stared blankly at me. She only answered direct questions, never offering additional information; her facial expressions rarely changed, and she did not smile. Katie represented a fourth category of students: those who took one or more textbook-dependent courses in their senior year but tested into the developmental reading class at the college. Katie shared that testing on the computer made her “uneasy,” but she fully accepted her placement in developmental reading.

High-school Preparation and Senior-Year Experience

Katie graduated with a C+ GPA in high school. Her transcript revealed that in her senior year, Katie received all “A’s” but her classes did not appear to be very demanding, and in fact, Katie said that she specifically planned her curriculum so that she could take easy, low-demand classes that she could do well in to offset the poor grades she received in the first 3 years of high school. To her knowledge, she had not taken any college prep courses, and the classes she did take did not require much homework or very frequent tests. It was during this comment that I thought to ask Katie if she had been in special education classes in high school. Her behavior was so awkward and she was so reticent to talk, that I thought perhaps there was more to Katie than her placement records and transcript revealed, but she said she had not been in a special education program.
Guidance in High School and Support for College

Katie reportedly received no advising whatsoever about correct class choices in high school, and only one teacher ever spoke to her about considering college or taking classes that would prepare her for college. Her life skills teacher thought Katie would make a good teacher, so she encouraged her, and in fact, that is what Katie majored in—elementary education. But Katie is the kind of student who easily slips through cracks. Perhaps because she did not stand out in any way—academically, athletically, or socially in high school—she was largely ignored by the adults in her high school. Whereas her parents were not college graduates, they did try to encourage and support Katie when she expressed an interest in coming to college.

Response to First-Year Classes

Katie reported to have been glad to have tested into Reading 100 at the college because the class taught her skills she had very little ability in such as annotating and note taking. Otherwise, Katie took the classes necessary for a degree in elementary education. She attended mass advising events, where all of the elementary education students come together to hear program information, meet with an advisor, and get registered for the next semester’s classes. Katie also had a part-time job at the bookstore, and seemed to be adjusting to college life, yet she was rarely seen socializing with other students. She completed 50 credit hours towards her degree in elementary education with a 2.42 grade point average. She earned the occasional “D” but completed most of her classes with a “B.”
Where Is Katie Now?

Katie did not complete her sophomore year and is not currently enrolled in college. As she did not complete any occupational courses in education through the college’s early childhood education program, it is unlikely that she is working with young children, as she desired to do.

Bambi

The next four students, Bambi, Max, Kim, and Adam, are members of the group who did not take any math course their senior year but tested out of developmental math at the college. Bambi did not have to take any assessment at the college due to her high scores on the ACT test. Her MEAP and PSAT test scores were equally impressive. No developmental classes were required at all. A tall, attractive blonde, Bambi was almost haughty, brashly confident about her skills and abilities.

High-School Preparation

When asked whether Bambi considered her high-school curriculum college prep, she responded verbally that she chose college prep classes on purpose, and she wrote on her interview form, “It is a choice whether someone is prepared for college in high school or not.” Bambi was the first student interviewed who expressed a belief that it is the student’s responsibility to prepare for college. She had wanted, in addition to an academic challenge, more structured study hall time. Bambi proudly stated that while her motivation was lessened somewhat during her senior year, she still graduated at the top of her class after “paying my dues the first 3 years.” Indeed, a review of Bambi’s transcript shows semester after semester of challenging classes. She earned only two “B’s” her
entire high-school career. In addition, it appears from her extracurricular activities that she was a model student overall, participating in dance, drama, church groups, school clubs, and music lessons. In the interview, Bambi conveyed a cool confidence, as if she took her success for granted, as if it were a "given" that she would achieve excellence.

Guidance in High School and Support for College

Bambi shared that her guidance counselor specifically sought her out to give her information on colleges and scholarships. She was encouraged to apply to four different colleges and her teachers offered to write recommendations for her. An example of her confidence was expressed in her comments about her parents' support of her: "My parents expected me to go to college. Mom went on college tours with me. Reminded me to send in applications, and rightly so because I did well in school." Bambi's parents told her that she could attend any college she chose; they were in full support of her. She chose SMC because she was offered a 2-year scholarship.

Senior-Year Experience

Again, Bambi felt that her educational success was completely up to her. She felt sure that she would graduate with a strong GPA and would be welcome at nearly any college she applied to. She had developed good relationships with the teachers and administrators at her high school; she was trusted, well-liked, and popular. Perhaps because of the groundwork she had laid in her first 3 years of high school, she reported that she "coasted" senior year. "I skipped my first class every day [and she still passed with an "A"]. I didn't study. I just took choir, drama, other electives, and one science course." Note, however, that she also expressed a desire for an additional structured
study hall. Another inconsistency in the interview was her comments about her motivations in senior year. Earlier she stated that she had skipped her first class every day, but then she said, "I heard it was the stupidest thing not to show up for class. You just need to show up because teachers don't expect as much." Evidently, in some cases, you do not really need to show up.

Response to First-Year Classes

Bambi was frustrated by the attendance requirements of college. She had done well in high school without always going to classes, but in college, you were counted off for missing class by some teachers. Bambi originally registered for 19 credit hours her first semester in college but had to drop 2 of them because attendance was required. She said, "I expected the structure of college to be completely different than high school but it wasn't. I expected more freedom in attendance. I think the attendance policies are inconvenient." Despite these inconvenient attendance policies, Bambi finished her first semester strongly with a high "B" average.

Where Is Bambi Now?

Bambi graduated from SMC in the spring of 2004 with an associate degree in arts. She majored in political science and transferred to the University of Texas in Dallas.

Max

Max graduated from a very small, rural high school. He did not take the ACT or SAT in high school; instead, he came out to the college in the summer after he graduated and took the Compass test. He said that the test was "easy" and that it did not surprise
him that he tested out of developmental math because he took math for his first 3 years of high school. Max also tested out of reading and English on the basis of the Compass test.

High-School Preparation

Ranking near the bottom of the tiny class of 81 seniors of his high school, Max had taken a wide range of classes. He said that he thought there were college prep tracks, but he did not know what classes fit those tracks. Presumably, he just took classes that interested him, and he said that he felt very prepared as a whole for college. And despite his barely “C+” average, Max did indeed seem ready for college on the basis of his test scores. As for whether he felt that he was prepared academically, Max felt that yes, he was somewhat prepared for the rigors of college.

Senior-Year Experience

Max credited one class he took his senior year with preparing him for college: Western Civilization. Evidently, this class had requirements that felt more like a college class would feel. Otherwise, Max reported not feeling very motivated to go to school his senior year. He was obligated to drive his sister to school every day, so he showed up too. He also knew that if he wanted to hang out with his friends, he would have to go to school because that is where they would all be.

Guidance in High School and Support for College

Max said that he had received some support from his teachers, but he did not specify what kind of support they offered. He shared that his guidance counselor was new, and the counselor seemed more interested in developing friendships with students...
than in helping them with college choices. His parents told him he could either go to
college, work full-time (he wrote on his interview form “work 24/7”), or get out of the
house and move out on his own. Max chose the first option.

Response to First-Year Classes

Despite Max’s preparations, his first semester at SMC did not go so well. He
passed his art classes but failed math and English. Perhaps because he failed the regular
Freshman Composition class, he decided to drop back a step and take the developmental
English in a subsequent semester, which he passed with an “A.” He has not attempted
math again.

Where Is Max Now?

Max changed his major from art to design and graphic arts. After spending one
semester on academic probation, it appears that Max has figured out what he needs to do
to be successful in college. He could potentially graduate in 2005.

Kim

Like Bambi, Kim’s ACT scores were high enough for her to be exempt from
placement testing at the college. A local student, Kim graduated in the top 5 percentile
out of her class of 131. She was not surprised that she did not need any developmental
coursework; given her stellar high-school record, she likely would have been shocked if
she had. She did not take any math her senior year, but she had earned “A’s” and “B’s”
in all of her previous years of math.
High-School Preparation

Kim took 4 years of English, 3 years of math, and 4 years of science. She identified a number of her classes as college prep and felt that they had been useful for getting her ready for college, though she considered senior year “ridiculously easy.” She also indicated that her teachers started talking about “what to expect” in college; however, she did not feel that there was much difference in the expectations of high school and those of college.

Senior-Year Experience

Kim shared that her motivation took a nosedive in senior year, and she was worried about her GPA slipping. The question about motivation startled her. She sat back in her seat and looked around the room with wide eyes. It was as if she thought this was some kind of a trick question; either that or the question reminded her of how much she coasted in her senior year, and perhaps she felt guilty. It was not as if Kim really slacked off her senior year. She took an advanced English composition class and physics, but otherwise her classes were electives: art and something called community outreach, no doubt a co-op service learning class. She did share that in the second semester of her physics class, her teacher did not actually require any work from the students. Kim then admitted, color rising into her cheeks, that she skipped school for the very first time while a senior.

Guidance in High School and Support for College

It is hard to imagine a high-school student with a 3.87 GPA who graduated at the top of her class not receiving any support or encouragement to go to college, but this was
the case with Kim. Her guidance counselor never asked her what her plans after graduation were. None of her teachers asked her what schools she was considering. Kim is a pretty, round-faced brunette, soft-spoken but not particularly shy. She did not talk about her parents being supportive either, and when given an opportunity to list on paper the ways in which her parents supported her, she left the paper blank.

Response to First-Year Classes

A review of Kim's SMC transcript shows someone who needed better direction and support in high school and in her first semester of college. She started out her college career with no major: she declared herself undecided on her application. Over the course of the next several semesters, she chose business management, changed to business administration, then to early childhood education, finally settling back into the undecided major. Kim opted to take a course her first semester entitled “Freshman Year Experience” in an effort to get some direction, but she said she did not like the class, and it did not help her to understand how to handle her college responsibilities. Otherwise, she liked her other classes, although arriving on time to her 8:00 a.m. pre-calculus class was a challenge.

Where Is Kim Now?

Kim did very well in all of her classes at SMC—straight “A’s” until the fall of 2004 when she earned her very first failing grade. She had earned 61 credits toward an associate degree, but she has not returned to finish.
Adam

Adam was the last student in the category of those who did not take math their senior year of high school but did not need developmental math in college. Like Kim, Adam’s ACT scores were very high, and he was exempted from taking any of the college’s assessment tests. The most verbal of the students in this category, Adam had some very strong opinions about his high school and college experiences.

High-School Preparation and Senior-Year Experience

Adam was particularly unhappy that his senior classes felt so much like college courses that he thought he should have earned college credit for them. He angrily shared “It was ridiculous. I had to take a lot of courses that were just like college courses which should have earned me college credit. I had to do portfolios, job shadowing, and ideally, that would be good preparation for college but it was done in a way that was not helpful.” He based this opinion on what he has experienced in college, finding the experience “just a continuation of high school.” Adam graduated high school with a GPA of 3.37 while taking ambitious courses such as chemistry, physics, 4 years of English and foreign language, yet he did not feel challenged. “Teachers weren’t making us work hard. They let you do whatever the hell you want.” Adam thought his teachers were just tired of “dealing with us.” He opined that perhaps the teachers were afraid of working seniors too hard so as to put them off of college. And yet, Adam really liked his teachers, considered them more as peers, and had friendly personal relationships with many of them.
Guidance in High School and Support for College

Adam did not discuss any support from his guidance office in high school, but he did feel that his teachers were supportive of him going to college. As for support from home, Adam believed that his parents would consider him “worthless” if he did not go to college, and he was not sure if this judgment felt like encouragement or not.

Response to First-Year Experience

Despite Adam’s excellent high-school preparation, good college preparatory class selections, and outstanding ACT scores, he has not been successful in college. When he first applied to the college, he wanted to study graphic design. He switched to psychology after a lackluster first semester. He has not maintained acceptable academic progress, and as of this writing is carrying less than a C average. His instructors in the fall semester of 2004 submitted a number of “early warning” comments regarding Adam, such as “Student has very poor attendance (50% attended) and has not turned in assignments.” Each semester, Adam has taken fewer and fewer classes as well.

Where Is Adam Now?

Adam is enrolled in one class in the winter of 2005. He has completed less than half of an associate’s degree, and he is not in good academic standing.

Mustang

The next student, Mustang, represents the sixth category of students: those who did not take English their senior year but tested out of developmental English at the college. Mustang was surprised that he tested out of developmental English because he
had been a special education student in high school and did not feel well prepared for academic courses in college. He was disappointed, however, to have tested into the developmental reading class, which he had to take twice in order to pass. Mustang said that he does not like reading unless he is interested in the topic, and that in order for him to understand written material, he must have some background knowledge about the topic.

**High-School Preparation**

Mustang shared that his high school offered college preparatory classes but he was not eligible to take any because of his reading disability. When asked if he thought high school prepared him for the whole college experience, Mustang replied “Not too much. Some teachers were helpful…. They didn’t harp on us but they taught responsibility.” Mustang was allowed to dual enroll in automotive classes at the college during his senior year. This made a big difference to him in terms of his motivation to graduate from high school and his interest in going on to college—both achievements that he believed were beyond his abilities. Otherwise, a review of his high-school transcript reveals poor grades in typical academic courses such as social studies and English, better grades in non-academic courses such as wood shop and auto mechanics. He had special education classes each semester in English and literature. Overall, Mustang graduated near the top quarter of his class of 132 with a 2.0 GPA.

**Senior-Year Experience**

Having made the decision to study automotive technology, Mustang was highly motivated in his senior year. Senior year was not necessarily harder for him than the
previous years, but he worked harder because he had a goal. He very much wanted to graduate and go on to college.

**Guidance in High School**

The Intermediate School Districts in Michigan are responsible for supporting special education students attending the local district schools. One counselor in particular from the local ISD worked with Mustang's special education and automotive teachers to get him started in dual enrollment classes. Otherwise, Mustang had little to no contact with the school's guidance office.

**Support for College**

In addition to the ISD and his high-school teachers, Mustang received a lot of support from his parents who helped him with his homework, and reviewed his schedules with him to make sure he was taking an appropriate load of classes. His dad, in particular, encouraged his automotive study, even bringing an engine out to the college for Mustang to work on in the auto shop over the summer. Between the dual enrollment classes, the support of his teachers, and his parents, Mustang made a smooth transition to college.

**Response to First-Year Classes**

Once Mustang was enrolled full-time as a fully matriculated student at SMC, he did very well, given his limitations. He did finally pass his developmental reading class because his instructor in his second attempt modified the content to include material he was interested in reading. In addition, he received services through the college’s Special Populations department such as books on tape and un-timed testing. He completed a 1-year certificate in automotive technology in the spring of 2003.
Where Is Mustang Now?

Mustang is set to graduate with his associate degree in automotive technology; he will no doubt participate in commencement in April 2005. His GPA is over a 2.0 and his grades in non-automotive classes are good.

Molly

The next two students, Molly and John Doe, come from the groups of the students who did not take any textbook-dependent courses their senior year but tested out of developmental reading in college. A strong student, Molly had planned well for her senior year and did not need to take any courses that required a lot of reading. She took the ACT in her junior year and all of her scores exempted her from any placement testing at SMC. A pretty girl with a moon-shaped face, Molly exuded enthusiasm about her academic experiences.

High-School Preparation

Molly was accustomed to doing well in school. She took all of her challenging courses early on in high school and rounded out her schedule with art and band classes. She played sports and served on the student council as well. At Molly’s school, honors courses were considered the college prep courses, so she took as many honors classes as she could. She said proudly, “I was not just taking classes to graduate—I had a college plan.” She described a curriculum that differed from anything I heard in any of the interviews previously: she was graded in high school on how she performed the techniques of studying, more so than the final outcome. She described the experience thus: “The [study] classes taught systems on personal management and systems of getting
things [projects/papers] done.” Because of this, Molly felt that she understood how to study and was therefore set up for success in college. She was the only student in all of the interviews from her particular high school and the only student who marked on her interview sheet that high school “definitely” prepared her for the academic difficulty of college classes.

**Senior-Year Experiences**

Molly “loved” high school and did not want to graduate. Early in her senior year, she found out that she was in the running to be the school valedictorian at graduation, and this news spurred her to achieve a perfect 4.0 her senior year. She also wanted to maintain her eligibility to play sports and to compete for scholarships to college. But mostly, Molly said she “likes to learn” and wanted to make the most of her educational experiences. She felt that teachers in her senior year were more “fun” and felt like friends. She said, “They knew I wanted to be there” so they treated her with a friendly respect. Molly added that senior year was “less formal” and that teachers did a lot more fun activities in classes.

**Guidance in High School**

Molly described her guidance counselor as “phenomenal.” He gave Molly an interest inventory to help her decide on a future college major. She said, “He was always trying to get students to go to college—he was very encouraging. He always had a college application in his hand.” Moreover, this counselor had attended SMC and knew this was a good school for Molly. She wrote on her interview sheet, “During our senior year [our guidance counselor] was on a mission helping kids with transcripts,
applications, military representatives. We took so many interest surveys. Those went on all through school. Overall, he was extremely helpful."

Support for College

In addition to the phenomenal guidance counselor, Molly’s parents were very supportive of her going to college. They helped her fill out her financial aid forms, attended college open houses with her, read over the brochures for various colleges with her, and talked to other parents whose children were away at school or at schools close by. Grades were very important to Molly and her parents because she was to be dependent on scholarships to attend college.

Response to First-Year Classes

True to form, Molly loved college. She enjoyed the challenge of some of her classes but was not overwhelmed by the challenge. She felt that the amount of work required in college was reasonable. “I learned a lot, but I didn’t have to hit the books 24 hours a day.” Indeed, Molly maintained her perfect “A” average in college.

Where Is Molly Now?

After spending her first year pursuing majors in elementary education and art, Molly settled on pre-nursing. She’s maintaining her happy balance of classes, however. She is taking music and art classes along with her science and math. Molly has already achieved 71 credit hours with a 4.0, but because she changed her major so many times, she will need another 57 credits to finish her nursing degree.
John Doe also did not take a textbook-dependent course his senior year, but his score on the Compass test exempted him from the developmental reading class in college. His ACT scores overall were very good, and in fact, he was not required to take any tests except the reading. In addition to testing out of reading, John Doe challenged the fundamentals of chemistry class with the institutional test and tested out of the basic chemistry as well.

**High-School Preparation**

An affable young man, John Doe felt that his high school, like Molly’s, stressed organization and study skills though he did not think he had been on a college preparation track. Contrary to his beliefs, however, John Doe took college-level writing classes while still in high school. SMC teaches two freshman composition courses at John Doe’s high school, and he took and passed those courses. Otherwise, John Doe took challenging higher level math classes, and graduated strongly with a B average. He did not feel that his classes were very difficult, but he wanted to participate in each of them fully. He thought that his classes were fun and motivating. John Doe wondered aloud, “Why [should anyone] slack off when this was the last time [he] was going to be in high school?”

**Senior-Year Experiences**

John Doe said that he was highly motivated to do well his senior year. He thought that his senior year grades would be very important in terms of his getting accepted in college. It was later that he learned that his last semester grades do not even
count toward his overall high-school GPA at his school, but by then, he was doing well and enjoying his last few months of being a high-school student.

**Guidance in High School**

John Doe said that there was a lot of support for students if they would just ask for it. He developed good relationships with his high-school teachers and the administrative staff, and he believed that these relationships made him more likely to receive information about college from his guidance counselor. As it so happened, John Doe's guidance counselor called him in during his senior year specifically to talk to him about college and to give him the application for SMC. John Doe had not researched colleges, and agreed that a local college was a good place to start his postsecondary education.

**Support for College**

In addition to the good support John Doe received from his high-school guidance counselor, his parents did their part to help him along. He shared that they questioned him a lot about his plans: what colleges he was considering, what he wanted to study in college, etc. They helped him complete applications for admissions and for financial aid. Having graduated from the local school, coming out to SMC was a simple process.

**Response to First-Year Classes**

John Doe spent a lot of his first year in college trying to find out what career he should pursue. He began his first semester as a liberal arts major, changing to engineering mid semester, and finishing out the semester as a computer major. These were not simply changes in majors, however; they were changes in the degree he was
pursuing—from an associate in arts, to an associate in science, to an associate in applied science.

Where Is John Doe Now?

John Doe transferred to Ferris State University after finishing 57 credits at SMC. He did not graduate with his associate degree, but he did not need the degree in order to transfer.

Summary

The stories of the 15 students illustrate the varied experiences students have as they transition from high school to college with regard to how well they feel academically prepared for college, how much and what quality of guidance and support they receive for going to college, and how well they adjust to the new environment of college.

Analysis of Stories

In this section, I share an analysis of the students’ stories. The interview data revealed three general themes: high-school preparation, guidance and support for going to college, and the transition experience of attending college.

High-School Preparation

Some of the students in the study were very surprised that they had placed into a class they thought they had already mastered in high school, such as Cheyenne, who was a writer for her school newspaper but tested into the college’s developmental English class. Other students were surprised that they had tested out of classes that they thought
they needed better skills in, Mustang, for example, did not believe his special education English class prepared him for college English, but it had. A number of the students expected to place where they did; John for example knew that his alternative high-school experience was not going to allow him to place out of all the developmental classes in college.

With regard to whether the students believed they had taken a college prep curriculum in high school or not, the majority of them were either confused about whether or not they had taken college prep courses or felt that their high-school classes did not particularly prepare them for college—college prep or not. Two students, Molly and John Doe, described a different kind of preparation for college—not particular academic courses, but rather, academic success skills stressed in the senior year. A couple of students indicated that their teachers tried to alert them when a lesson would be important for college, but this effort did not make much of an impact on them. Of the four students who have dropped out of college, all made comments that indicated their high-school academic programs lacked the rigor they expected or realized they needed. In Katie’s case, she was not encouraged to take demanding classes, but in Cheyenne’s case, the “honors” classes she thought she was taking were not rigorous. Not much reading was required; few tests were administered; students were able to learn what was required without much effort.

A Difference in Academic Demands

Several of the students in the study realized early in their first semester of college how different the academic demands were compared to high school. Cara, Cheyenne, and Katie all remarked on the skills they realized they did not acquire in high school.
related to reading, annotating, note taking, test taking, and other skills that are
fundamental to success. Cara, in particular, identified the fact that answers to problems
were always in the back of high-school textbooks which she recognized as something that
reduced the academic rigor of the education.

This lack of preparation is consistent with findings in other studies. Nist found
that the academic literacy demands in high school differ dramatically from those in
college (Nist, 1993, Fall-Winter). Nist's comprehensive review of all high-school
disciplines revealed that high-school teachers require and expect far less than do college
professors, not only in terms of actual knowledge, but in learning skills as well. In a
review of the literature about academic literacy, Nist (1993) shared four major findings:

1. "The academic literacy demands in high school differ significantly and perhaps
dramatically from the academic literacy demands of college....
2. Students are unprepared for the reading demands in post-secondary institutions
basically because they have not had to read in high school....
3. Students seem not to have learned anywhere in their schooling how to carry out
basic studying and note taking procedures to meet college academic literacy
demands....
4. Students and professors don't always agree on what the academic tasks are,
especially when it comes to preparing and taking essay exams” (pp. 11-12).

Behaviors and Attitudes as Determinants
of Academic Success

Several students remarked on how "lax" teachers were with their expectations.
As Cara noted, “I think they babied students. You could turn in stuff late with no
consequences. They’d give you lots of reminders.” John realized that there was “a
difference between homework and studying” because of his experience in college classes.
Mark felt that his high school did “too much” for students, and the level of responsibility
that college required was difficult for him to adjust to.
In addition to discipline-specific academic preparation, many students lack the behaviors and attitudes required to be successful learners. Rings (2001) surveyed faculty and developmental education experts to identify some general qualities that they believe underprepared students share. She categorized these qualities into three areas: knowledge, skills, and beliefs.

1. Knowledge—inadequate knowledge in specific subject areas

2. Skills—an inability to write, read, and compute at the college level; poor skills in computing and other technology; inadequate study skills, i.e., time management, organizing and categorizing information, logical and critical thinking, etc.

Beliefs—unrealistic expectations of college and what is required (Newton, 2000, November-December); unwillingness to accept direction and advice; poor motivation; unrealistic beliefs about level of preparedness for college; misunderstanding about their own responsibility for learning.

In addition, a study conducted by Abbott (1994) concluded that a positive relationship exists between community college GPA and behaviors and attitudes. This finding is based on a research instrument that Abbott developed to measure these qualities. Abbott found that completing a study skills class or attending an orientation in college did not make a difference in the academic success of college students, which may indicate that these attitudes and behaviors must be adopted early in one’s education to make a positive impact.
Self-Regulation as a Determinant of Academic Success

Several students in the study knew that they had been short-changed in high school. Cara reported that she had taken “college” English, “college” economics, and advanced algebra in high school; the fact that she tested into all developmental classes in college caused her to reflect on the quality of her learning experiences in high school. Also, recall Adam’s frustrations with the level of challenge in his high-school classes; he knew even in high school that he was capable of a more rigorous academic challenge. For many students, the realization that they had not been adequately challenged in high school is a sign that they are beginning to develop self-regulation. For the students in this study, college’s more appropriate challenge helped them to become more self-regulating.

Weinstein and Van Mater Stone (1993) suggest that self-regulation is the ability of students to regulate their own learning. They define the expert learner as: one who has knowledge about himself as a learner; knows how to accomplish different tasks and how to choose which task for which outcome; knows about different study strategies and when to employ them; and has prior knowledge about the area studied. Even if all of these characteristics are present, however, an expert learner must also be self-regulating, that is, he must manage his learning by creating a plan for learning, selecting the specific strategies that will be needed to accomplish the learning, successfully implementing these strategies, monitoring and evaluating his progress, modifying his plan if necessary (flexibility), and evaluating his experience to inform future learning opportunities.

Zimmerman (1998) defines self-regulation as “self-generated thoughts, feelings, and actions for attaining academic goals. Like Weinstein and Van Mater Stone, Zimmerman finds that self-regulating learners are self-motivated, plan to complete
learning objectives, select strategies for learning, and evaluate the strategies’ effectiveness.

**High-School Teacher Expectation**

Both Cara and Adam shared stories tinged with bitterness about the expectations of their high-school teachers. Cara’s comments about being “babied” and Adam’s judgment that his teachers were tired of dealing with the students by senior year express a frustration that perhaps high-school teachers would be surprised to learn about. Adam believed that the teachers were afraid to push students too hard for fear that they would become discouraged and not go on to college; and yet, pushing was what these students craved. One can only conjecture about John’s and Katie’s situations in which the standards were so low that they themselves recognized the lack of expectation of their achievement.

Katie’s and John’s experiences, however, are not uncommon. Another component in student underpreparedness for college is the level of expectation of the high-school teachers. A nonprofit group called Public Agenda conducted a national study of 1,300 high-school students to find out how they perceived the academic rigor of their high-school classes. Deborah Wadsworth, Executive Director of Public Agenda, commenting about the study, noted that 50% of public school students believe that their schools do not challenge them to do their best; that they can earn acceptable grades doing mediocre work; that their classes are boring and meaningless; and that deadlines for turning in homework are so lax as to be meaningless as well (*Public Agenda*, 1997). Indeed, some of the students in the Southwestern Michigan College study indicated that these circumstances exist at their high schools as well. Some argue that the reason for
these mediocre standards is the teachers’ hesitance to require too much of students for fear of wearing them down or discouraging them (Mathews, 1998). Recall that Adam’s opinion was that “Teachers weren’t making us work hard.” He believed that teachers were afraid of working seniors too hard so as to put them off of college. Cara’s experience was that teachers “babied students. You could turn in stuff late with no consequences.” Cheyenne added that she “got away with not reading often.”

**Student Expectations**

A final component has to do with the students’ expectations for themselves. Some high-school students do not anticipate going to college. In some schools, students may choose to follow a college prep track or a career track, but students do not always know which track they are on or what choices to make to ensure they are on the “right” track. Those students who knowingly or unknowingly choose the career track may be the least prepared for college if they ultimately decide that that is what they want to do. This certainly was the case with John who achieved his diploma through the alternative school and Mustang who studied automotive mechanics in high school. If these students had taken at least some college prep courses, they might not have needed to take any developmental classes in college. But a college prep curriculum does not always ensure that students are actually prepared for college, owing to a lack of coordination between high schools and colleges (Kirst, 2004). Of course, with some students, such as Katie, the discussion about whether the student is even considering college never happens. Former U.S. Secretary of Education Richard Riley referred to the low expectations of certain high-school students as “tyranny” (*National Commission on the High School Senior Year*, 2001, p. 3). Of course, the student herself needs to make her wishes about
her post-high-school plans known to the guidance counselor, and if the focus is more on high-school activities and after-school jobs, planning for the future may not happen in a timely manner. The senior year should be a “ramping up” time for the future, not a relaxing of standards as many articles reflect (American Association of School Administrators, 2001; Dunn, 2001; McKay, 2001; Schouten, 2001). The students in this study experienced a great diversity of academic preparation for college; some of them were very ready (Bambi, for example), others (such as Katie) were not ready at all.

Guidance and Support Issues

In this section, I discuss two major topics: the role of the guidance counselors and teachers and the role of the parents and family. Both topics emerged in the interviews, with students sharing meaningful stories that provided information about how essential guidance and support are for students who want to go to college.

Guidance Issues

Most of the students in this study did not receive intrusive guidance from their high schools for attending college with a few exceptions. Gracie Lynn’s and Jessica’s guidance counselors were friends of their families, so they received special attention. The high-achieving, outgoing students, Bambi and Molly, were sought out by their guidance counselors and provided with a lot of support; however, other students who attended the same high school did not receive the same level of support. One of the highest achieving students, Kim, was never offered any information or support.

Who is responsible for supporting high-school students and making sure they are prepared to go to college if that is what they choose to do? Few would argue that it is the
mission of high schools to support their students by preparing them for whatever post-
graduation plans they make. Much research has been conducted on the role of the high-
school guidance counselor and the important role they play in the futures of their students
(Lapan, Gysbers, & Yongmin, 1997; Mau, Hitchcock, & Calvert, 1998; Palmer, 2003;
Perry, 2004; Sanoff, 1999; Savitz-Romer, 2004). Savitz-Romer, Perry, Lapan et al.,
Gysbers, Yongmin, and Palmer all conducted research regarding the impact of effective
guidance programs and discuss how important it is for students to receive the support and
mentorship of their guidance counselors. Lapan et al. (1997), for example, found that
schools that implemented a model guidance program, the Missouri Comprehensive
Guidance Model, had students who were more likely to be aware of post-secondary
options available to them. Moreover, a number of researchers, such as Perry (2004),
found that students were heavily influenced in their decisions to attend college by their
teachers and guidance counselors. Unfortunately, it has been found that too often
guidance counselors are not prepared to provide this kind of support at the level it is
needed by students (Sanoff, 1999, p. 1). Possibly, this lack of preparation has to do with
the caseload carried by guidance counselors. Sanoff reports, “The American School
Counselor Association recommends 100 students per counselor as an ideal ratio and 300
as the absolute maximum. But a survey released in 1998 by the National Association for
College Admission Counseling found that, on average, 330 students were assigned to
each public-school counselor” (p. 2). In rural Michigan, it is more likely that students
simply receive fewer services than their counterparts in urban, larger, wealthier school
systems. Lee and Ekstrom (1987) found that minority, poor, and rural students received
fewer guidance and counseling services in their schools. It may be that smaller, rural
schools have fewer resources, or it may be that college is deemed less valuable to families in farming communities. Cobb, McIntire, and Pratt (1989) conducted a longitudinal study of over 10,000 high-school seniors and found that whereas rural students had lower educational and occupational aspirations than their urban counterparts, their aspirations were consistent with what their parents expected and hoped for them.

**Parental Support**

Nearly all of the students in this study reported receiving support from parents for going to college. In some cases, the parents helped in very tangible ways such as providing financial support, attending admissions meetings, and helping with homework. John and Cara, for example, received tangible support from their parents. In some of the cases, the students' parents provided the only support received for attending college, such as in Max's experience.

Some of the research on the importance of support is related to the issue of social capital (Coleman, 1988). Social capital may be considered as the support students “build” to help them further their goals. Maimer (2003) concluded that social and cultural capital is an essential predictor of academic performance and retention. How students perceive how well they are supported in their quest to enter college (or the amount of social capital they have amassed) is the subject of a number of studies (Blackburn, 2000; Garrison, 2003; Moore, 2003; Woodson, 1999). Blackburn, for example, found that when high-school students were in the process of choosing a college to attend, they relied heavily on the support, influence, and encouragement provided by their parents and mentors with whom they had significant relationships. One of the chief
providers of social capital is the students’ family (Tierney & Auerbach, 2005). Students who believe that their parents expect them to go to college are more likely to try to fulfill those expectations (Davey, 1993; Wahl & Blackhurst, 2000). It is helpful if the parents are college graduates themselves; they are better equipped to help their children navigate the journey toward higher education, though this is not essential (Cagampang, 1992). Some of the students in the study, John and Max, for example, garnered a lot of support from their mothers, neither of whom attended college.

The Transition Experience of Attending College

Another way of looking at the data was to look at where the students are now. Even though this was not the initial purpose of the study, it seems important to include the outcomes of each of the students. Of the 15 students interviewed, 4 students have dropped/stopped out, 7 have graduated, graduated and transferred, or transferred, and 4 are still attending college at Southwestern Michigan College. I will discuss each of these groups of students more in depth because the students in each of the categories have more in common with each other than just their outcome.

Many others have also investigated questions about the transition that students make between high school and college, and how that transition is sometimes a yawning gap (Kirst, 2001, 2004; Kirst & Venezia, 2001; Venezia et al., 2003). Michael Kirst, the principal investigator of the K-16 Bridge Project at Stanford University, has written extensively on the subject of senior-year preparation and ways to bridge the academic gap between high school and college. In addition to the Bridge Project, other initiatives have addressed college preparation issues such as The American Diploma Project (Creating a High School Diploma That Counts, 2002), Achieve, Inc. (The Expectations

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Gap, 2004), studies conducted by The Education Trust (Haycock, 2004; Haycock et al., 1999), and the State Higher Education Executive Officers (SHEEO) (Russell, 1998). These organizations have all made recommendations with regard to increasing the academic challenge of the senior year, working in alliance with colleges and universities, and improving methods of assessment in high school to be more in line with entrance exams for college. Adequate academic preparation is vital to a successful transition to college, but other factors are also essential including the students' ability to manage the changes in teacher expectations, the changes in culture, and the need to become a more responsible and self-regulating student.

A number of researchers have studied the transition experience of students moving from the high school to the college culture, finding that social and emotional transition issues are equally important as academic transition issues (Tucker, 1998). Of special importance is the notion of environmental congruence and how students experience the differences between the high school and the college environments (Boone, 2003; Fusarelli, 2003). When students at a major urban Southeastern University were given the assignment of writing a letter to incoming freshmen to help them make the transition to college, one of the themes that emerged in their letters was the need to “be ready for freedom and independence,” which are often very new experiences for new college students (Commander & Valeri-Gold, 2003).

**Students Who Have Dropped Out or Stopped Attending College**

For the four drop/stop-outs, there are two characteristics that stand out. First, all four students (Cheyenne, John, Katie, and Kim) attended the same high school or the
alternative school associated with that high school. Only two other students in the overall study attended this high school, and they are still attending the college. Second, all four students indicated in their focused interviews that they either did not believe they took college prep classes and/or that they had not been provided guidance or support from anyone either in their high school or at home. Cheyenne, for example, believed that high school did not prepare her for college; in her high-school classes she did not need to read very much, and the classes that were supposedly college prep did not require much rigor. Moreover, Cheyenne reported that she did not feel that anyone at the high school took any interest whatsoever in her post-graduation plans. John attended the alternative high school which he believed had lower standards for achievement than regular high school. John, in fact, believed that students from the alternative education school were not expected to go to college, only complete their high-school diploma. Katie took very undemanding classes in high school, particularly her senior year. She hoped to make up for the poor grades she had received her first 3 years in high school. The classes she took, like Cheyenne’s, did not require much academic rigor; i.e., they did not require much homework or very frequent tests. In addition, Katie never received any advising about what classes to take in high school to prepare for her future. Though Kim took college prep courses in high school and graduated at the top of her class, not one high-school official ever asked what her plans were after graduation, and her parents presumably did not take much of an interest either.
The Students Who Have Graduated
and/or Transferred

Of the seven students who have had a successful outcome to their college experience at SMC, six reported good support from their high schools, their parents, or someone else in their lives as previously discussed. Bridgette’s guidance counselor is a friend of the family and took a special interest in making sure Bridgette completed all the necessary forms correctly for college admissions. Bambi had a network of support and guidance from her guidance counselor, her teachers, and her parents. John Doe, too, described good relationships with the teachers and administrators at his high school, and he credited these relationships with the support and information about colleges he received from the school officials. Parents, even those who did not attend college themselves, were often a strong support of their child’s aspirations. Cara’s parents not only pay her tuition and buy her textbooks, they drive her to the library and help her with her studies. Tucker’s mom accompanied him on his first visit to the college and helped him plan his schedule. Whereas parents and guardians are often the source of support, Mark’s employer gave him the push that got him in to college by making him take a day off work to go to the college and start the application process.

The Students Who Are Persisting

Of the four students who are still working on completing associate degrees at the college, few conclusive commonalities can be found. Max and Adam each reported that they did not feel that high school was a good experience. Max graduated with barely a “C+” average and only took classes that interested him, not planning specifically for college. Adam knew he was going to college, but he felt let down by his high school; his
high school teachers and classes did not challenge him the way he thought he should be challenged. He thought that by senior year, his teachers were just “tired of dealing with us.” Both students’ performance in college has been lackluster, though they are persisting towards achieving their associate degrees. Mustang is doing well in college, but his curriculum in high school was auto shop, not college prep. He experienced some rough spots with his college reading class, but otherwise is doing fine.

Molly is the only student who does not fit into any category. Everything she talked about in her focused interview was positive—from her high-school experience which she loved, to her “phenomenal” guidance counselor, to the great support her parents provide, to her perfect “A” in college. If anything, Molly represents the student who loves learning so much, she never wants to leave school.

For the students who are persisting in the effort to attain a degree, the notion of social capital also applies. A sense of belonging to the college community, a belief in one’s own ability to persist, and the support of others who care about the student can make the difference in whether the student persists or not.

**Summary**

In summary, the high-school graduates who go to college have several factors influencing their success: the quality of academic preparation; support from teachers, counselors, and parents; and the experience of navigating the transition from high school to college. The students who have not had a good outcome at the college experienced poor preparation and a lack of support and encouragement from their high schools. The students who were well prepared for college and have achieved positive outcomes by and large received positive and enduring support, and took the appropriate steps to ensure
their success in college. Chapter 5 addresses recommendations to both high schools and colleges to improve the chances of all students to have success in college.
CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Jason Rowley (Senior, Roosevelt High School): I'm not allowed to have one unexcused absence or I don't graduate, because I have a deal set up with the administrators.

Smith: So when almost every one of the 400 seniors took off one Friday—senior skip day, it's called—Jason was here working, if not exactly engaged.

Rowley: Yeah. It wasn't very fun, but I skipped for four years. I figured I can make it one day and then never have to come back again than skip one day and have to come back for the rest of the summer.

Smith: But to get more out of seniors than just attendance is going to take some major changes. And as many teachers here will concede, the seniors are not the most pressing problem in the school system. By the 12th grade, the die is cast. The school has done or not done its job. By this time of year, the seniors are already on their own.

-All Things Considered, NPR

Introduction

This chapter is a review of the problem and purpose of this study, the methods used in the study, and the findings from both quantitative and qualitative data. Discussion of the findings and recommendations for high schools, colleges, and future research conclude the chapter.

Problem and Purpose

This study was conducted because of the concerns nationally about high-school graduates, who presumably are ready for college, but who are testing into developmental
courses. The setting for the study was Southwestern Michigan College, a rural community college in the fruit belt of Michigan near the borders of Indiana and Illinois. As someone who has spent countless hours talking with and assisting these students, I was curious to know whether the reasons for this phenomenon were something I could address as an employee of the college. A story from my experience as a community college counselor that continues to motivate me is that of a young man who was in special education in high school and tested into all of our developmental classes. He worked very hard and applied himself, learning by me and my colleagues at the college how to work within the constraints of his learning disabilities. He took advantage of every academic support opportunity available to him and used the tutoring services on a daily basis. I was proud enough to watch him walk across the stage to receive his associate degree; however, I was honored to support him in transferring to a 4-year college and ultimately receiving his bachelor’s degree. That young man is an architect today, designing buildings for a large firm in a nearby community. If Southwestern Michigan College did not have a developmental studies department, and he had been required to take college level math and English his first semester, he probably would not have finished his first semester.

Conceptual Framework

I found that in thinking about the notion of transitions, the work of Bridges, who sees transition experiences as having an ending, a neutral stage, and a beginning as a helpful framework for understanding the students in the study (Bridges, 2001, 2003). Other researchers have used Bridges in framing studies related to student transition, “crossing over” experiences, and liminality or periods of time when people who are
undergoing transition are forced to examine the change in the culture surrounding them (Howell, 1991; Samuels, 1997; Tucker, 1998). In this study, those who tested into developmental classes tended to extend their neutral state past their first semester in their transition into college. Those who had good academic preparation, guidance, and support transitioned more fully into college life their first semester.

**Methods**

My approach to this project was to choose a high-school graduating class and conduct a mixed methods study using quantitative and qualitative data. I chose the class of 2002, and began an inquiry into the transition that students make from high school to college. Specifically, I investigated to what extent placement into or out of developmental classes is related to senior-year course selections, the number of high-school units in math, English, and textbook-dependent courses taken, and overall grade point averages in the subject areas of math, English, and textbook-dependent courses. Second, I investigated students' experiences in making the transition from high school to college. Through interviews with 15 students I was able to describe the transition experience from high school to college.

**Findings**

The findings of this study are reported under each research question. Quantitative data were used to answer the first research question, whereas qualitative data were used to answer the second research question.
Research Question #1

The first research question examined to what extent placement into or out of developmental classes is related to senior-year course selections, the number of high-school units in math, English, and textbook-dependent courses taken, and overall grade point averages in the subject areas of math, English, and textbook-dependent courses.

The results of data analyses indicate that developmental math placement is associated with taking math in the senior year of high school, overall GPA in high-school math, and the number of math units taken in high school. Further, developmental math placement is associated with GPA in English and textbook-dependent courses. Third, English and reading placements were found to be associated with overall GPAs in English and textbook-dependent courses. Lastly, those students who placed out of all three developmental courses had higher high-school GPAs in math, English, and textbook-dependent courses and had taken more math units in high school. Other researchers have also looked at overall GPAs and their impact on placement into developmental classes and reached similar findings (Ferry, 1997, ; Johnson, 2002, ; Taylor, 2003). My study is unique in that I looked at overall GPAs in subject-specific areas, concluding that regardless of the number of classes taken or the types of classes, overall subject area GPA is associated with placement in college developmental classes.

Research Question #2

My second research question had to do with how recent high-school graduates experience the transition to college. A number of themes emerged from interviews with the students. First, the students in the study shared a wide range of experiences as they entered college. For many, there was a mismatch of their high-school academic
experience and their resulting assessment and placement at the college. This related to
the theme of academic preparation in high school. Another theme that emerged had to do
with the amount of support the students received, either from the high-school staff or
their parents, and it became clear how important this support was to the students,
regardless of how well they ultimately performed in college. The last theme that
emerged from the interviews was about the outcomes for the students: some of them had
dropped out, most of them had completed their degrees and/or transferred, and some of
the students are still studying at the college. The students who have dropped out of
college all attended the same high school and reported that they did not receive support,
encouragement, or even any information about college. The students in the study who
graduated from SMC and/or transferred to a 4-year college all experienced a combination
of both academic preparation and support for college. The students who are still
persisting at SMC had experienced some good academic preparation and support in high
school, and in some cases are doing very well in college.

Discussion

This study adds to the knowledge base that already exists about the students who
graduate from high school underprepared for college. Further, it validates the concerns
about students on the national level in showing that these concerns are shared by the
communities of southwest Michigan. The students at Southwestern Michigan College
share the same qualities as many other students across the country who graduate from
high school and find the transition experience to college somewhat difficult. The
findings of this study may be used to help students and the high schools from which they
graduate to support future students.
The finding that high-school seniors who take math are less likely to place into developmental math courses in college is supported by other studies (ACT, 2004; Burns, 1990; Goycochea, 2000; Kirst, 2001, 2004; Kirst & Venezia, 2001; Porter, 1998; Venezia et al., 2003; Wirt & Livingston, 2001). Kirst (2001, 2004), for example, suggests that the senior-year course load be specifically designed so as to serve as a gateway to the requirements of college, of which math is one. Moreover, the findings that students who place out of developmental math have higher GPAs in other subject areas may indicate that math skills are most critical for success.

The finding that placement out of developmental English and reading is associated with high-school English and textbook-dependent course GPA indicates that students should follow an academically rigorous curriculum to ensure a smooth transition to college. Regardless of their post-graduation plans, all students deserve to graduate with the same level of academic readiness for whatever their next step is, be it postsecondary study or the workforce (Creating a High School Diploma That Counts, 2002; The Expectations Gap, 2004; Haycock et al., 1999; Kirst & Venezia, 2001; Schouten, 2001).

Assessment testing using college placement tests can be a way of providing feedback to the high schools on how they are preparing students and helping them require seniors to take the courses needed to ensure a smooth transition to postsecondary education. Colleges that offer assessment to juniors prior to their making their senior-year class selections can help them remediate any weaknesses in their academic preparation (Boswell, 2000). Responding to this weakness can be a part of a college’s
outreach efforts to the high schools, and high schools should work with local colleges to arrange for this support.

The findings from the interviews of the students in this study indicate that both academic preparation and support, from school officials and/or parents in high school, are important for students to make a successful transition to college. Others have likewise arrived at this same conclusion (Cobb et al., 1989; Davey, 1993; Lapan et al., 1997; Liou, 1998; Mau et al., 1998; Palmer, 2003; Perry, 2004; Sanoff, 1999; Savitz-Romer, 2004; Wahl & Blackhurst, 2000). With regard to academic preparation, providing junior assessment is important, but of equal importance is the alignment of graduation requirements with college entrance requirements so as to give all students the opportunity to achieve postsecondary success (Haycock et al., 1999). In addition, this study concludes that requiring all seniors to take math courses in both semesters will help them retain these skills and begin their college math sequence less likely to need remediation.

For seniors who are academically ready, a useful way of providing not only a motivating challenge but a means for easing the transition to college is through dual enrollment opportunities through the local colleges (Boswell, 2000). Whereas it is most advantageous to bring high-school students to the college, other means for providing challenge to high-school seniors include providing some college courses at the high school taught by college-approved instructors.

With regard to providing adequate guidance and support for students, sometimes, the resource for this guidance and support is the colleges themselves. The role of many college recruiters is to provide high schools—guidance counselors as well as students—with information about their college. Some researchers add that students also need more
general information about the academic requirements of college and other college transition issues (Kirst & Venezia, 2001). College orientation programs are often the way to offer this general information to students, but as Tierney and Auerbach (2005) note, including the parents in orientation programs is vital.

For the benefit of all students, faculty from both the high schools and colleges can find more opportunities to collaborate. Instructors from the college who teach college courses in the high schools can provide important feedback to the instructors from the high schools who are preparing students for those college classes. Professional development opportunities that include the staff of the whole K-16 system can help the schools align their objectives for students so as to make transitions from one part of the educational system to the next more smooth.

Finally, research indicates how important it is for high-school graduates to start their college careers without the need for any remediation. Cara's experience notwithstanding, most developmental students never graduate from college. The American Diploma Project reports that only 45% of community college students who take one developmental course graduate; those who take three developmental courses (like Cara) have a graduation rate of only 18% (Adelman, 1998; Creating a High School Diploma That Counts, 2002). Developmental students often lack the kinds of skills that are required for success in any academic environment—skills that if not acquired in the early, formative years of education, are very difficult to acquire as adults (McCabe, 2003).
Recommendations

This study confirms that the research and recommendations made by other researchers and policy makers with regard to underprepared college students correspond to the experiences of students attending college in Southwest Michigan. How can community colleges like Southwestern Michigan College better support these students? How can we help the local high schools ensure that their graduates are prepared for study at our institution and other colleges? I submit the following recommendations to address these questions:

Recommendations to High Schools

1. Placement testing should be provided to juniors in high schools so as to inform senior-year class selections. High schools should work with local colleges to arrange for this assessment.

2. High schools should align graduation requirements with college entrance requirements to give seniors an academically challenging and rigorous experience so as to better prepare them for postsecondary success.

3. Regardless of placement results from assessment in the junior year, all seniors should take a math course, particularly those with low math GPAs.

4. High-school standards for graduation should include at least 4 years of math courses.

5. High schools should consider the ratio of guidance counselors to students and ensure that every graduating high-school senior’s postsecondary plans are known and supported.
Recommendations to Colleges

1. Colleges should provide more opportunities for high-school students to get a head start on their college education through dual enrollment or co-enrollment.

2. Colleges should provide more information to high schools and the parents of high-school students about the expectations of college and the level of responsibility students must take for their own learning.

3. College instructors should collaborate more with high-school instructors; i.e., attend professional development events in their discipline, work on projects for students transitioning between high school and college, etc.

Recommendations for Future Research

The results of this study indicate the need for additional research in the following areas:

1. The relationship of the guidance counselor's caseload to the number of students going to college should be investigated. A number of students in this study had no substantive contact with a guidance counselor to talk about their future plans, but it is unclear whether talking with students about their plans after graduation is even part of their actual job responsibilities.

2. Many students do indeed successfully matriculate into 2-year and 4-year colleges. A follow-up to this study might be to study these students in particular to find what, if any, commonalities they share in terms of high-school courses taken, grade point averages, substantive conversations around issues of college preparation, and the like.
3. A further investigation into the exit competencies required for graduation by high schools and their relationship to the entrance requirements of college should be conducted.

4. A further investigation into the actual competencies that high-school seniors leave high school with should also be conducted.

**Conclusion**

All high-school graduates deserve to be ready for college regardless of the school they choose to attend. A recent editorial appearing in *The South Bend Tribune* (Ciesielski, 2005) was written by a young man who was the valedictorian of his high-school graduating class and is now attending Yale University. Matthew had every reason to expect that he was well prepared for college, given his grades and SAT scores, and the fact that he was admitted to the highly prestigious college, but he quickly learned that this was not so. Writing in high school, he recalled, was confined to English courses, so he was not prepared to write with facility in other disciplines. Moreover, he felt cheated when confronted with the level of literacy that some of his peers had achieved. He never read the great philosophers and thinkers who shaped the analytical thinking of his Yale colleagues. If a high-school graduate himself, a bright and articulate young man, recognizes how his school district failed to educate him, how many other students do not even realize how poorly they have been prepared for college until they are sitting in developmental classes, wondering how they got there?
APPENDIX A

HUMAN RESEARCH BOARD APPROVAL
Dear Margaret,

RE: APPLICATION FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS
IRB Protocol #: 03-006 Application Type: Original Dept: Leadership
Review Category: Exempt Action Taken: Approved Advisor: Shirley Freed
Protocol Title: A Study of High School Seniors Who Place Into Remedial Classes at a Community College

On behalf of the Institutional Review Board (IRB) I want to advise you that your proposal has been reviewed and approved. You have been given clearance to proceed with your research plans.

All changes made to the study design and/or consent form, after initiation of the project, require prior approval from the IRB before such changes can be implemented. Feel free to contact our office if you have any questions.

The duration of the present approval is for one year. If your research is going to take more than one year, you must apply for an extension of your approval in order to be authorized to continue with this project.

Some proposal and research design designs may be of such a nature that participation in the project may involve certain risks to human subjects. If your project is one of this nature and in the implementation of your project an incidence occurs which results in a research-related adverse reaction and/or physical injury, such an occurrence must be reported immediately in writing to the Institutional Review Board. Any project-related physical injury must also be reported immediately to the University physician, Dr. Loren Hamel, by calling (269) 473-2222.

We wish you success as you implement the research project as outlined in the approved protocol.

Sincerely,

Michael D Pearson
Graduate Assistant
Office of Scholarly Research
Dear Margaret

I am issuing you with approval to do human subjects research, but ask that you make one addition to your informed consent form. Please add the following and then send me a copy of the updated form: "I recognize that I have the right to withdraw my participation from this research at any time with the only consequence to me being a loss of the $10 offered for participation."

You need to be able to make sure that the subject does not feel any compulsion at any time to complete the questionnaire, yet you probably do not want to be paying out $10 for each student that comes cooperates for five minutes just to get lunch money. The wording that I have given is merely suggested wording. I am sure that you will be able to word it in a way that covers both you and the subjects while keeping you from the possibility of any negative legal repercussions.

May the Christ be with you

Michael D Pearson
Office of Scholarly Research
APPENDIX B

STUDENT CONSENT FORM
APPENDIX B

STUDENT CONSENT FORM

Informed Consent

Andrews University/Leadership Program

Researcher: Margaret R. Hay, Dean of Academic Support at Southwestern Michigan College, 269-782-1306
Project title: A study of high-school seniors who place into remedial classes at a community college
Advisor: Shirley Freed, Ph.D., Andrews University, 269-471-6163

Date of Interview

This focused interview is being conducted for the purpose of collecting perceptions of the educational experiences both in high school and at SMC of the participants. The ultimate goal of the research is to assist SMC and interested high schools in improving the transition for students from one educational setting to the next.

The notes collected during this session will be used by the researcher only and will be carefully safeguarded. All participants will choose an alias by which they will be known in the notes. Descriptions of participants in the resulting reporting of these notes will mask the identity of the participants; composite identities will also be used. In other words, instead of describing any one student, qualities of several students will be combined to create typical student profiles. No identities of any individual participant will ever appear in publication.

I understand the above information. I have been told that I will be given a $10 gift certificate as compensation for participating in this study. I am participating in this session voluntarily; however, I have the right to withdraw from participation after the session begins. The gift certificate will be given to me only if I stay until the end of the session.

_______________________________  ______________________________
Signature                                           Date

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APPENDIX C

INTERVIEW QUESTIONS
APPENDIX C

INTERVIEW QUESTIONS

1. Were you surprised at the results of the placement test you took last summer or fall? That is, did you place into something that you thought you wouldn't? Or did you test out of something you thought you'd have to take?

2. Would you say that your curriculum in high school was “college prep?”

3. Do you think high school prepared you for the whole college experience? If so, how did high school prepare you? If not, in what ways do you feel you were not prepared?

4. Do you think high school prepared you for college classes? If so, how did high school prepare you? If not, in what ways do you feel you were not prepared?

5. Did you find the classes you took this last semester useful? In what ways? How might these classes help you with other classes you are taking this semester or might take later?

6. Compare your senior year of high school with the previous three years. Do you think that you studied more in your senior year or less? Was senior year more academically demanding than the previous three years, or less demanding?

7. Comparing senior year to the first three years of high school, how would you rate your level of motivation, 5 representing highly motivated to finish high school with good grades, 1 representing little motivation, fatigue, or the desire to “blow off” classes?

8. Describe what motivated you your senior year. In other words, what made you want to get up and go to school every day? If you didn’t want to go to school, describe why you felt that way.

9. Do you feel you had support from your high-school teachers, or guidance counselor, for going to college including choosing a college, putting you in touch with someone to talk to from the college, helping you complete applications, etc.?

10. Were your parents or guardians supportive of you going to college? If they did support you, what did they do to support you?
11. How many hours outside of class on average did you spend studying each week during your senior year?

12. How many hours outside of class on average did you spend studying each week during last semester?

13. How many hours a week on average did you work at a paying job during your senior year?

14. How many hours a week on average did you work at a paying job during last semester?


*Crisis at the core: Preparing all students for college and work.* (2004). Iowa City, IA: ACT.


VITA
VITA

Margaret R. Hay, M.S.Ed.

Education

2005  PhD Candidate – Andrews University Leadership Program, Berrien Springs, Mi

1989  Masters of Science in Counseling and Guidance – Indiana University, South Bend, In

1985  Bachelor of Science in Sociology – Indiana University, South Bend, In

Professional Experience

2003--  Dean of Students and Academic Support, Southwestern Michigan College, Dowagiac, Mi

2000-2003  Director of Student Support Services, Southwestern Michigan College, Dowagiac, Mi

1989-2000  Counselor, Student Support Services, Southwestern Michigan College, Dowagiac, Mi

1986-1989  Director of Career Planning and Placement, Ivy Tech State College, South Bend, In

Professional Affiliations

National Association for Developmental Education, Michigan Developmental Education Consortium, Professional and Organizational Development Network

Certifications

Certified Trainer in the Strategies Intervention Model through the University of Kansas, Lawrence, Ks

Honors

Best Proposed Research Award, 2003 from the National Association for Developmental Education