2009

Student reflections: The impact of dual enrollment on transitions to a state university

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Student Reflections: The Impact of Dual Enrollment

On Transitions To A State University

By

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A dissertation proposal submitted in partial fulfillment
of the requirements for the degree of
Doctorate of Education
Department of Adult, Career and Higher Education
College of Education
University of South Florida

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Date of Approval:
March 25, 2009

ACKNOWLEDGEMENTS

I would like to thank Dr. Tom Miller and Dr. Jan Ignash, my dissertation chairs, for their unending support and guidance in developing this work. I would also like to thank Dr. Daphne Thomas, Dr. Deirdre Cobb-Roberts, and Dr. Robert Sullins for serving as committee members and making this process a smooth, insightful experience. I would also like to acknowledge the use of the services provided by Research Computing, University of South Florida.

I also extend thanks to program directors and advisors for Student Support Services, Freshman Summer Institute, Honors Institute, and college advisors across the campus who facilitated the success of this study by getting the word to students. To the students who gave of themselves and shared so willingly during this study, I am so grateful for the valuable input you provided.

I would especially like to thank my parents, who encouraged a love for reading and always set an expectation where education was concerned. I also wish to thank my biological family, spiritual family, and friends who prayed for me, supported me, and encouraged me throughout this process. I am eternally grateful. Lastly, I thank God who gave me the persistence, opportunity, and drive to make this opportunity possible so that I can be a role model to those who will follow and be a blessing to the people whose lives I will touch through opportunities of service.

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List of Abbreviations

A.A.   Associate of Arts

ACT   American College Test

AP   Advanced Placement

CLEP   Credit-by-examination

CPT   College Placement Test

EACT   Enhanced American College Test

ECS   Education Commission of the States

FSI   Freshman Summer Institute

FTE   Full-Time Equivalency

FTIC   First-Time-In-College

HSGPA   High School Grade point Average

IB   International Baccalaureate

SAT   Scholastic Aptitude Test

SHEEO   State Higher Education Executive Office

SSS   Student Support Services

UE   University Experience

WICHE   Western Interstate Commission for Higher Education

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Abstract

Dual enrollment is one means of facilitating increased degree productivity, which can lead to the more educated workforce needed in today's society. This qualitative study was designed to obtain student perceptions about their dual enrollment experience, including how it impacted their decision to go to college and what comparisons they would make between their dual enrollment experience and their full university experience. Twenty-one students were interviewed via e-mail to provide responses that would help answer three research questions:

1. What are the initial experiences of dual enrollment students?

2. How does the dual enrollment experience impact the decision of high school graduates to attend college?

3. What comparisons can previous dual enrollment students make between the college experience they had in high school and the subsequent college experience as a full-time college student?

Students who have participated in dual enrollment and subsequently matriculated to a university were provided an opportunity to give voice to their experiences, which were fairly positive. They also described characteristics that would be desirable of

potential dual enrollment students and offered recommendations for students who are

considering the dual enrollment experience. The findings of the research resulted in

several recommendations for practice to those who make critical decisions in regards to

these programs. These recommendations include further consideration of orientation

sessions for students who are considering dual enrollment, developing or enhancing

quality assurance measures for instruction and student outcomes, and establishing a

network for dual enrollment students that will help bridge gaps in their collegiate

experience.

Chapter 1: Introduction

Careful and strategic planning of the high school experience, particularly where academics are concerned is of utmost importance for students whose intentions are to enroll in college once they graduate. In *Answers In A Tool Box,* Clifford Adelman discusses the results of a study conducted in 1999 which suggests that the most important factor for one's completion of a bachelor's degree is the "academic intensity and quality of one's high school curriculum" rather than SAT and ACT scores alone (p. 1). However, my review of the literature in recent years yields numerous reports through national higher education organizations such as the Education Commission of the States (ECS), the State Higher Education Executives Office (SHEEO), the Education Trust, and the National Center for Public Policy and Higher Education which suggest an apparent disconnect between the standards required for high school graduation and those needed for entry to college in order to even pursue the bachelor's degree (Boswell, 2001; Bailey, 2003; Kirst, n.d.). In fact, research scholars from these organizations state that the United States has more disconnect than any other part of the world. As a result of such reports, states are strongly encouraged to consider policies that will bridge the gap and increase collaboration between high schools and colleges (Boswell, 2001). The facilitation of a stronger alignment between K-12 and postsecondary education systems is necessary so that a smoother transition develops as students prepare for college admissions and so that students' curricular experiences are more meaningful in high school and in college.

For a number of years Florida's Articulation Coordination Committee has focused on this need to strengthen alignment between K-12 and higher education sectors, creating a more seamless transition. One of the developments from the work of this committee, in addition to the legislative acts in Florida, is growth in acceleration mechanisms such as Dual Enrollment (Florida Board of Education, 2003). This mechanism allows high school students to take college-level courses while also simultaneously completing high school requirements. Some benefits of this mechanism for students is to motivate them to pursue a college education and assist them in being academically prepared. For state officials and institutional administrators at the postsecondary level, this mechanism may also facilitate increased enrollment, first-to-second year retention rates, degree completion rates, and shorter time-to-degree.

Statement of the Problem

Dual enrollment, also referred to as dual credit or concurrent enrollment (Buchanan, 2006), is viewed by some educators as one method used for assessing college readiness and reducing remediation (AASCU, 2002; National Commission on the High School Senior Year, 2001), a barrier that many are not able to overcome successfully despite hopes of a college education. Boswell (2001) also indicates dual enrollment programs as one way to achieve "a more seamless system" between K-12 and higher education sectors. In addition to receiving a greater number of students who are more likely to obtain college readiness through this seamless system, dual enrollment programs also facilitate potential institutional benefits, such as a shorter time-to-degree for students, and can serve as a marketing or recruiting tool for institutions who take advantage of it (AASCU, 2002).

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The attainment of an educated workforce of students who obtain degrees is crucial to a state's population because it increases the prospect for economic development for that state, according to a policy alert from the National Center for Public Policy and Higher Education in November 2005. The policy alert further indicates that states must better educate their residents if they are to have higher income per capita, which leads to a higher tax base, and if they are to survive in a "knowledge-based economy that requires most workers to have higher levels of education (p. 1)." This need is critical among all ethnicities, but especially among those populations that are growing the fastest. For example, of the current working population, the proportion of whites is projected to decline while that of some minority populations, which are the least educated, will double or even triple. To further substantiate this matter as it relates specifically to dual enrollment opportunities, a report by the Florida Community Colleges & Workforce Education (2004) also maintains that, while the proportion of female dual enrollment students is similar to the female proportion of community college students, there is a much greater proportional difference in minorities and students with disabilities who participate in dual enrollment when compared with this population at the community college level.

Engagement in dual enrollment opportunities launches a head start on the academic rigor of the college experience, which may influence the high school student's decision to enroll in college and complete requirements for a bachelor's degree. According to a Fast Facts report issued by Florida's Department of Education in February 2005, students who participated in at least one dual enrollment course attended colleges

and universities at a much greater rate than counterparts who did not (63.9% vs. 55.4%

overall).

Because dual enrollment is seen as one approach to resolving the disconnect

between educational sectors at the high school and postsecondary levels and increases the

college-attending rate (Boswell, 2001), some of the above reports describe an overview

of dual enrollment programs in terms of the important components necessary in program

design for each state, the benefits, and other general observations (Karp, et. al., 2005;

American Association of State Colleges and Universities, 2002; Boswell, 2001), while

other reports have a greater focus on dual enrollment trends (Florida Department of

Education, 2004; Kleiner, 2005).

Purpose of the Study

The research on dual enrollment programs thus far has been positive, but there is

also a shared belief that more research is needed in order to establish greater depth in the

literature (Huntley and Schuh, 2002; Buchanan, 2006). While policymakers and

administrators have given their perspectives on dual enrollment, systemic studies of

students' perceptions are lacking. Therefore, studies like the one proposed here can

contribute to the existing body of literature by incorporating the reflections and

perceptions of students who have been recipients of the services offered through the

phenomenon of dual enrollment.

The purpose of this study is to add to the knowledge base as it relates to student

perceptions of their involvement with the dual enrollment experience and the subsequent

impact of these experiences upon their transition into their first year of college. Major

research questions will elicit responses that involve comparisons of the college

experience as a high school student and, later, as a full-time college student to assess the potential impact of using dual enrollment as a college-readiness tool that may facilitate greater persistence. Two studies in particular cite a need for research involving the use of student voices or perceptions. Huntley and Schuh (2002) conducted a qualitative study with nine students in the Midwest to learn about their experiences in dual enrollment with the intentions of unveiling recommendations to colleges and universities for recruiting and retaining students. Through interviews with both students and high school counselors, in addition to some observations, the researchers found that more effort could be made by colleges and universities to connect students who are in the program from different high schools, increase communication between counselors at the high school and college level, provide a main point of contact at the college, and to retain these students upon graduation from high school, who are focused and academically successful. Due to the limited number of students in this single geographic location, further studies in other geographic areas and with larger sample sizes were recommended.

Buchanan (2006) interviewed six students in rural western North Carolina to obtain their perceptions and learn more about what they gained as a result of their experiences in the dual enrollment program. Her expectation in doing this research was to provide valuable information to state departments of education for further promotion, planning, or revising of dual enrollment initiatives. Overall, each of her six participants expressed positive feedback about their experience and even made immediate life changes in areas such as extracurricular activities and relationships with their peers while they were still in high school. The study by Buchanan (2006) specifically identifies a

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need to determine if the programs are effective and to see how students feel about their participation in the program. The need to research what students have to say once they leave dual enrollment programs was also endorsed by Andrews, who used the results of a national study that he conducted to publish a comprehensive overview of dual enrollment programs in 2001.

Student voice is seen as valuable when considering educational reform (Mitra, 2004). Cook-Sather (2006, p. 359) concurs by stating that "young people have unique perspectives on learning, teaching, and schooling; that their insights warrant not only the attention but also the responses of adults; and that they should be afforded opportunities to actively shape their education." Using students' voices to help inform practice recognizes them as participants in the educational process who may have valuable contributions that will add to the decision-making process. Under this premise, "student outcomes will improve and school reform will be more successful if students actively participate in shaping it (Mitra, 2004, p. 652)." McCants (2004) also emphasizes the importance of collecting numerical and descriptive data from current and former students of outreach programs as a means to assess their impact upon the students. Transcripts, program assessments, surveys, observations, focus groups, and interviews are some of the methods that are available for gathering achievement data for these analyses.

While there are some concerns that have been voiced by policymakers and administrators about dual enrollment, such as maturity levels, liability, variances in academic calendars, and academic rigor for courses taught by high school teachers (AASCU, 2002), predominantly quantitative research thus far has been consistently clear about the positive impact experienced in college by students who have been participants

in the program as compared to their peers that have not shared in such experiences

(Bailey, et al.; 2002). Studies by the Education Commission of the States (2005),

Andrews (2004), and Bailey (2002) have reported on the achievement gap between high

school exit and college entry that demonstrate a need for dual enrollment programs, the

various policies and program designs that exist across the United States, and basic

success outcomes for high school seniors who participate.

Conceptual Framework for Proposed Study

Karp (2006) conducted a study that would bring a theoretical perspective to the

existence of dual enrollment programs because her research discovered none that would

support this policy intervention. Karp proposes that, through identity theory, goals for

attending college and for postsecondary persistence are encouraged. In identity theory, an

iterative process enables people who are in new social environments to realize new

expectations and take on new behaviors in accordance with that environment. Identities

are cognitively created through engagement in and interpretation of a social environment

for a college student. "Lives become patterned around roles. Individuals learn to behave

appropriately in given situations by enacting role-related behaviors and come to see

themselves as filling specific social roles, and as belonging (Karp, 2006, p. 25)." Karp

further states that dual enrollment students can feel more committed to the role of a

college student and are more likely to experience persistence.

In Karp's study, a person begins to pattern his or her behaviors after that of a

college student through role rehearsal. Students obtain this at varying levels according to

the extent to which they study, participate in class, attend class, and do homework.

Students in dual enrollment experience a vehicle for college readiness not only through

their exposure to the academic rigor, but also in becoming familiar with campus resources and processes. Going through the process of registering for classes, securing textbooks, and becoming familiar with other norms and practices associated with attending college will demystify some of the experiences related to college. As an example, participants in Buchanan's study (2006) experienced changes in their high school lives in areas such as extracurricular activities and peer relationships as a result of participation in the dual enrollment program. Role rehearsal helps facilitate identity shifts and, according to Attinasi (1989), is a powerful tool for students to develop strategies that will help them successfully take on the role of a college student.

Significance of the Study

The findings of this study would make significant contributions to further development of the dual enrollment program as students' voices unveil what they have experienced in the program and how it has made a subsequent impact on their first year as full-time college students. The results of the proposed study can be valuable to program constituents such as legislative policymakers, state officials, and program administrators who make critical decisions related to programs and policies for dual enrollment through information-rich data obtained from program recipients.

This study contributes to the literature because of the lived experiences obtained from students who have experienced dual enrollment. These lived experiences capture non-tangible aspects of the process and provide insight into how students think they are impacted by a program such as dual enrollment. The findings of this study yields results for high school students concerning the value of dual enrollment as a way to enhance their preparation for undergraduate education and may encourage their investment in

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courses that count towards degree requirements, save money in college expenses, and potentially shorten the time-to-degree.

This study would also provide valuable information to state policymakers and to institutional administrators. For states such as Florida that pay the expenses for students who participate (Windham & Perkins, 2001), it provides feedback from a small sample of the beneficiaries in whom they are investing. The state can also benefit from the program's success because its effectiveness contributes to a more educated population, which also facilitates a more educated workforce. Possessing this type of workforce yields even greater benefits because this population has proven to require less in social services (Ewell, Jones, & Kelly; n.d.). Administrators hear directly from participants of the program and receive feedback that will contribute to the decision-making process as they consider implementing or modifying programs of this nature.

Research Questions

Students who have completed no more than three semesters at the university were be identified and invited to participate in this qualitative study. E-journals were the method by which students provided responses to semi-structured interview questions about their experiences. The questions that were posed in this study were designed to draw insights that address how students' participation in dual enrollment while still in high school has impacted their experience as full-time, first-year students in college. The results of this study yielded results to the following questions:

1. What are the initial experiences of dual enrollment students?

2. How does the dual enrollment experience impact the decision of high school graduates to attend college?

3. What comparisons can previous dual enrollment students make between the college experience they had in high school and the subsequent college experience as a full-time college student?

The expectation was that college students of the millennial generation would be comfortable with the use of the e-journal method, providing convenience with respect to location, time-of-day, and the ability to provide careful and complete reflection and thoughtful responses about their high school and college experiences.

Definition of Terms

The terms in this study, which should be defined include the following:

Acceleration Mechanism

An acceleration mechanism is an articulated agreement between secondary and postsecondary educational institutions intended to shorten the time necessary for an Associates or Baccalaureate degree (Florida State Board of Education, 2003).

Access

Access is the ability or opportunity to participate in postsecondary education (United States Department of Education Advisory Committee on Student Financial Assistance, 2001).

College

College is any formal education beyond high school leading to a degree. This can, and often does, include community colleges (Gibbons & Shoffner, 2004).

College Placement Test

Also known as the CPT, this test is an assessment of basic competencies in the areas of English, reading, and mathematics which are essential to perform college-level

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work; prerequisite skills that relate to progressively advanced instruction in mathematics, such as algebra and geometry; prerequisite skills that relate to progressively advanced instruction in language arts, such as English composition and literature; prerequisite skills that relate to the College-Level Academic Skills Test (CLAST); and provision of test information to students on the specific deficiencies (Common placement testing for postsecondary education, Florida Statute 1008.30 (2), 2004)

College Readiness

College Readiness is a demonstration of students' preparedness to participate in college-level coursework by obtaining a passing score on all three sections of the Florida CPT (Florida Department of Education, 2002).

College Remediation

College remediation consists of "those courses and support services in basic academic skills which address the needs of a diverse population of underprepared students" (The University of the State of New York State Education Department Office of Higher Education, 1999).

Dual Enrollment

Dual enrollment is the enrollment of an eligible secondary student or home education student in a postsecondary course creditable toward a career and technical certificate or an Associate or Baccalaureate degree (Dual enrollment programs, F.S. 1007.271 (1), 2002).

First-to-second year retention

First-to-second year retention is the percentage of first-time, full-time freshmen who return to the same institution for the second term or second year of study (Levitz, Noel, & Richter; 1999).

Freshmen Summer Institute (FSI)

A program that admits first-generation and limited-income students who demonstrate ability and/or potential to succeed through the combination of their high school grade point average (HSGPA) and Scholastic Aptitude Test (SAT) or Enhanced American College Test (EACT) scores. The program promotes the academic success of first-year students and encourages higher graduation rates by providing academic support and coordinating campus services. (FSI Home Page, April 2007, http://www.ugs.usf.edu/pthrust/fsi.htm)

FTIC

FTIC, an acronym for First-Time-In-College, refers to a student who is attending college for the first time with no credit toward a degree and who is enrolled in courses that lead to a degree (Florida Department of Education, 2002a).

Freshman

For this study, a freshman will have entered the state university for the first time in summer 2007, fall 2007, or spring 2008 and are preferably full-time students.

Full-Time Student

Full-Time Student is a student who enrolls in 12 or more credit hours in a term (Florida Department of Education, 2002a).

Honors College

The Honors College at the University of South Florida is for motivated students, regardless of major. The program emphasizes the development of thinking, reasoning, analytic and writing skills, which students in the program can apply to an individual research project or original creative work. (USF About Honors information page, April 2007, http://honors.usf.edu/about.html)

Inter-institutional Articulation Agreement

An inter-institutional articulation agreement is a comprehensive articulated program that delineates specific guidelines for the provision of postsecondary credit to be earned by secondary students within a specified school district (2007 Florida Statutes District Inter-institutional Articulation Agreements, F. S. 1007.235 (1), 2007, http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=Ch100 7/ch1007.htm).

Student Support Services

The Student Support Services (SSS) Program is a federally funded grant program, which provides academic support for a select group in college. The Student Support Services program is designed for first time college students who have been identified as a first generation college student or with a low income family status, or an individual with a disability. These students may not meet all University admission criteria, but their high school records and standardized test scores (SAT or ACT) must indicate the potential for success in college. (SSS Home Page, April 2007, http://www.ugs.usf.edu/sss/sss.htm)

University Experience

The University Experience class is designed to provide students (primarily first time in college freshmen) new to the University of South Florida with effective strategies for academic success and enriched opportunities for understanding the variety of human cultures, values, and perspectives, which a university offers. The course seeks to assist students toward self-actualization and integration into the life of the campus community. (University Experience Instructor Resource, April 2007, www.ugs.**usf**.edu/ue/Instructor%20Resources/Purpose,%20Goals,%20and%20Outcomes. doc)

Assumptions and Limitations

The use of e-journals in research provides data that is already transcribed and lends itself to higher accuracy, allows for low administrative costs, and typically removes the limitations of "spatial and temporal proximity between the interviewer and the respondent," according to Selwyn & Robson (1998). Because students who have access to computer labs and university e-mail addresses were used in this study, the participants of the study were less likely to be hindered by social class barriers as it relates to the availability and usage of technology. However, the convenience of having their own personal computer access may affect participation in the study and could be a limitation of some interviewees if schedules do not permit the necessary time to access computers on campus. By conducting interviews using technology rather than face-to-face contact, another benefit is the loss of interviewer effect due to "visual and nonverbal cues or status differences" (Selwyn & Robson, 1998). People who are typically shy can be more expressive in written communications.

Amidst these advantages were several limitations that should also be mentioned with respect to method, sample size, location, potential issues, and participant honesty. Selwyn and Robson further indicate that while use of e-journaling can yield favorable response rates, response times, and provides an easier mode of distribution, conducting research by e-mail lacks interpersonal cues such as eye contact or body language, which causes the attempt for rapport-building to be created through carefully constructed verbal responses. Anonymity is jeopardized with the use of e-journaling. Another problem that could occur is for an e-mail regarding the survey to be received as junk mail. However, this problem was minimized through a reminder to participants to add the researcher's e-mail address to their address book so that it was not received in their e-mail inbox as junk mail or spam.

The sample size of 21 was small compared to the number of students who possess experience in dual enrollment programs, causing limited generalizability of the findings. In addition, these self-selected participants were only obtained from the main campus of a large, southern metropolitan university. Other limitations included minor technology issues that arose, causing slower response rates or distractions that hindered participation in the study altogether. There were the possibilities associated with deceit by a participant who does not remain true to the purpose of the study. An opportunity to conduct member checking would bring increased validity and reliability to the study as students confirm the accurate interpretation and placement of their responses. With this in mind, the timing of each stage in the process is critical and can be a limitation if students are not accessible.

Organization of Study

Chapter two will provide a review of the existing literature on key topics associated with this study. It will provide information that supports the need for the nature of the study by elaborating on patterns and trends across educational systems, the status of past and present dual enrollment programs, college transitions, and student demographics associated with the university from which research participants were selected. The third chapter will provide an overview of the method, research questions, and rationale for the population selection, data collection, and analyses of the qualitative study.

Chapter Two: Review of the Related Literature

This chapter will provide a review of the literature as it relates to key areas involved in this study. In addition to a brief overview of several studies that justify a need for the proposed study, the review of literature will define the history of events which led to the emergence of dual enrollment programs, the recommended steps that states should consider in developing dual enrollment programs, and the current status of those programs throughout the nation. Benefits and concerns that have been expressed by higher education officials, state legislators, and program administrators will also be discussed. Lastly, a description of the university setting from which the population will be obtained shall address institutional characteristics, student demographics, and the current state of technology that will impact the design of this study.

Justification for Research

What students have to say after leaving the dual enrollment program is one of the issues that should be addressed in research, according to Andrews (2001). Research that assesses program quality and student impact is recommended in states where dual enrollment exists (Marshall & Andrew, 2002). "Research provides the foundation for improving and for assuring that the dual-credit programs are quality for students, parents, boards of education, college boards, state educational agencies and state legislators who are involved in deciding to fund these efforts. Research should also provide solid data for answering critics or doubters of the dual-credit programs (Andrews, 2001, p. 81-82)." A stronger foundation is needed to support existing research, which is predominantly

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positive, that currently exists for dual enrollment programs (Andrews, 2004). Several

studies exist that also substantiate the legitimate need for the study proposed. These

studies address3e the identification of a theoretical perspective that supports dual

enrollment, gathered perceptions from students who have taken dual enrollment courses,

and assessed the effect of location of instruction for these courses.

Theoretical Rationale

A qualitative study conducted by Karp in 2006 was conducted using identity theory as a

rationale for students who gain clarity about the role and identity of a college student

through the dual enrollment program. Specific elements in the role of the college student

included skills, behaviors, and habits of an academic nature, social and interpersonal

characteristics, and personal habits and traits. Along with classroom observations and

conversations with high school staff, college staff, and former students of the program,

twenty-six students in the College Now program in New York City were interviewed at

the beginning, middle, and end of their first semester in a dual enrollment course to

assess changes in how they view the role of college students.

The purpose of using the study to establish a theoretical rationale was to

encourage enthusiasm among policymakers and educators by justifying the existence of

and need for dual enrollment program through the lens of identity theory, which suggests

that postsecondary persistence is encouraged as high school students come to identify

with the role of college students through the college courses they encounter before

graduation from high school. Karp states: "without a theory explaining why the expected

outcomes should be anticipated, policymakers and educators will be less able to clearly

articulate why dual enrollment programs should be supported by state and local

governments, or by foundations and other funding sources. Second, the lack of a theory means that program directors are 'flying blind': they are implementing dual enrollment without clarity about what elements of the program might lead to the outcomes they value most." Having a clear theoretical approach will also help give researchers and program administrators a sense of direction. This study would also aid in "future outcomes-based research (Karp, 2006, p. 2)." By the third interview, seventeen students had clearer descriptions of the college student's role and twelve of them began to take on more of these characteristics personally.

Taking a college course in high school provided an environment for anticipatory socialization and role rehearsal to take place, which are two of the mechanisms used in the theory that explain the changes that students experienced. Anticipatory socialization indicates a process that enables a person to take on or adapt to characteristics of a future role (Brown, 1991). Students are prepared to take on a new role through the technical demands that are learned formally and informally as students engage with full-time college students who already occupy the role the high school students are aspiring to (Simpson, 1979). They learn normative values and habits and also acquire the motivation to fully inherit the role of a college student. Role rehearsal is very similar to anticipatory socialization, but has a greater emphasis on practicing roles instead of just observing. As seen in apprenticeships and internships, students have the opportunity to actually engage in the role and, therefore, experience a greater identity shift.

The findings of the study were such that role rehearsal was instrumental in both learning about the role and in making identity shifts, while anticipatory socialization only encouraged learning about the role. Overall, dual enrollment was confirmed as an

environment in which students could learn about and begin to acquire the role of a college student into their self-concept.

Student Perceptions

Huntley and Schuh (2002) conducted a study in 1998-1999 that indicated a need to expand empirical studies related to the dual enrollment phenomenon. Their study was conducted using criterion sampling in selecting nine students from three different high schools in the Midwest who took dual enrollment courses during the 1998-1999 academic year to examine the reasons these students took dual enrollment courses, what their perceptions of the environment were, and how the experience benefited them. Of the nine students, four of them were taking classes at the community college, three took classes at a four-year college, one took courses at the university, and one took courses at both the community college and a four-year institution. Along with observations, students and high school counselors were interviewed

As a result of the responses obtained during the interviews, they were able to make recommendations to administrators and enrollment managers that would enhance the dual enrollment experience for the student and simultaneously assist the postsecondary personnel in recruitment and retention efforts. They also stated a need for other research that would expand their study by examining students in other geographic regions and that would incorporate gender and ethnicity comparisons

Effect of Location

Burns & Lewis (2000) conducted another qualitative study that examined the effect of location of classes on students' dual enrollment experiences. College courses that are made available to high school students can be delivered in several different ways.

Some courses are taught at the high school by either a full-time college instructor or a high school teacher who also qualifies as an adjunct instructor. In other scenarios, courses are offered at the college and the student is allowed to attend courses at that campus.

Purposeful sampling was used with six participants in the study, two of whom were male and four were female. Among these students, who had similar grade point averages, three were taking a college course at the high school and the other three were taking a college course at the community college. The analytic induction method was used with interview questions that inquired about what motivated students to take college classes while in high school, how they were treated by classmates who were aware that they were still in high school, if the class environment facilitated learning, what differences they might have experienced if they had taken classes in both environments, and what impact location had on continuing to enroll in classes.

The data were analyzed through categorization and transcription analyses and were individually coded as a method of triangulation. Construct validity, internal validity, external validity, and reliability were taken into consideration. In the results, students were pleased overall, but seemed more satisfied, gained more independence, and were more serious about the courses if taken on the college campus.

The two researchers of this study chose the phenomenon of dual enrollment because research on the topic as a whole is lacking at a time when it is most critical in terms of accountability. Programs are held under keen observation to ensure fiscal accountability exists in line with "clearly articulated objectives, methods for reaching those objectives, and data to support progress (Burns & Lewis, 2000, p.1)." Documented

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evidence must be shown in order for such programs to maintain their existence in today's

competition for funding resources.

Issues with College Readiness

Policymakers recognize dual enrollment as a tool for developing a pool of highly-

trained individuals who may ultimately fill professional fields that are in high demand,

such as healthcare and technology (Boswell, 2001). Before the United States can expect

to reap the benefit of this population through increased degree productivity, it must first

address students' ability to even pursue their aspirations of obtaining a college degree. By

maintaining a pipeline that provides a clear path from high school into college, students'

aspirations to pursue a college degree will be perceived as an attainable goal. Growing

attention has been given to the disconnect between standards for exiting high school and

the requirements for entering college without the need of remedial work. Currently,

students must take exams in high school in order to graduate but often do not realize that

these exams are based on the skill levels of a tenth-grade education and cannot

necessarily be used to also determine their college readiness (Kirst & Venezia; n.d.).

Students also miss the fact that even after admission, it is college placement exams that

will determine where they start with their college-level curriculum. Almost half of these

college hopefuls find themselves in remedial work initially, which increases both time

and money for degree completion.

As a result of the growing remediation costs for high school graduates of all

backgrounds, many states are working towards stronger alignment and a more seamless

transition between high schools and higher education systems (Ewell, et. al.; n.d.). Some

educational constituents expect that students should be prepared for college-level

coursework upon graduation and should not need remedial courses. But in order for that

to happen, the higher education sector must communicate clearly to high school systems

exactly what will be required for students to be considered "college-ready" (Kirst &

Venezia.; n.d.). Policies that facilitate greater connections between these two systems

would also be helpful. Often, representatives from K-12 and higher education systems

will come together as a council or commission who will be responsible for resolving the

gaps that exist between the two systems. Unless a clear agenda is set, however, these K-

16 entities can easily get lost in conversation instead of action (Kirst, et. al., n.d.).

An Overview of Dual enrollment

As a result of several reports that have brought national attention to the great

disconnect between educational sectors, policies have led to the establishment and growth

of several acceleration mechanisms across the nation. One of those mechanisms is dual

enrollment. This section will describe the emergence of dual enrollment, along with an

overview of dual enrollment programs on national, state, and local levels. In addition,

information about the dual enrollment programs within the state of Florida will also be

discussed.

The Emergence of Dual enrollment Programs

Dual enrollment programs date back as far as the latter part of the 20th century

(Andrews, 2001). Programs began to emerge in the early 1970s, with a significant

increase being evident during the 1980s, after the release of a report by the U. S.

Department of Education's National Commission on Excellence in Education called *A

Nation at Risk*, which provoked many states to improve the academic scholarship of its

high school students (Fincher-Ford, 1997). A professional organization, the National

Alliance of Concurrent Enrollment Partnerships (NACEP), was established in 1999 to facilitate collaboration, advocacy, support, research, and quality among increasing courses and programs across the nation in dual enrollment. The association was initiated by a group of program directors, but now has administrators, staff, faculty, partners, and researchers among its membership.

Students were able to participate in the dual enrollment program through academic or vocational-technical courses. Several names exist for courses that students take while in high school. Dual enrollment or dual credit is for the student who takes a college course and receives credit in both high school and college, while concurrent enrollment is for the high school student who was only receiving college credit for a course.

For a number of years Florida's Articulation Coordination Committee has focused on this need to strengthen alignment between these sectors. One of the outcomes of this committee is growth in acceleration mechanisms such as Dual enrollment (Florida Board of Education, 2003). This mechanism allows high school students to take college-level courses while also completing high school requirements. Acceleration mechanisms that are used to provide early exposure to rigorous college-level coursework have been of growing interest across the nation (Florida Board of Education, 2003). For years, states have had programs such as CLEP (credit by examination), advanced placement, early admission and IB (international baccalaureate) programs. However, there has been a growing trend among educational systems nationwide to develop programs for dual enrollment as another mechanism to facilitate students' exposure to collegiate coursework.

National and State Involvement in Dual enrollment

Public policy has three established responsibilities for providing opportunity in higher education: enrollment, quality curriculum, and affordability. National organizations that are involved in these programs are the Western Interstate Commission for Higher Education (WICHE), State Higher Education Executive Office (SHEEO), and the College Board. The Education Commission of the States (ECS) also favors dual enrollment as a component of a seamless K-16 system and encourages state policymakers to consider funding the program and providing incentives for students to participate (Windham & Perkins, 2001). Approximately two million students around the nation are participating annually in dual enrollment, which is offered in 71% of America's public high schools (Plucker, Chien, & Zaman, 2006).

Dual enrollment programs exist in all 50 states, with 40 states having some form of legislation (Lerner & Brand, 2006). State legislators and policymakers play an active role in how various acceleration mechanisms function in each state. Legislation and policymakers determine the priorities that will be established for educational programs and can mandate that educational systems within the state "play nice" with each other if they support the initiatives themselves. According to Boswell (2004), dual enrollment policies exist in 38 states at the state level, policies in 10 states are at the institutional level without governing policies at the state level, and two states have no policy. Most policies address criteria for student eligibility and how the funding aspects will be handled (Education Commission of the States, 2005). All of the other factors are typically left up to the educational officials or committees from the partnering institutions to work out.

Comprehensive programs where students pay little to no tuition and fees and have few course restrictions exist in 21 states (Andrews, 2001). Examples of these states include California, Colorado, Delaware, Florida, Georgia, Idaho, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New Mexico, North Carolina, Ohio, Washington, and West Virginia. *Limited programs* exist in 26 states, including Alaska, Arizona, Arkansas, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, New York, Pennsylvania, South Carolina, Tennessee, and Texas. Tuition for college courses are paid by the student and there are more restrictions on the academic credit earned and stringent criteria on eligible courses.

Program Development. There are a number of factors that a state must decide when developing a dual enrollment program (Andrews, 2001; CCRC, 2004). Often policies are put in place to guide the actions of educational institutions in providing this service. Partnerships between high schools and community colleges are established to develop, implement, or oversee the quality of the process. These partnerships may be as small as one community college and one high school, but often are much more vast. While most discussion of this subject refers to public education, some policies will also address how private institutions and home or charter schools can also participate.

Characteristics that define these programs on a broader level within the state include whether the programs are mandatory or voluntary in school districts, how students will be counted for in terms of enrollment for the high school and the college or university, and how state funding will be appropriated for the courses or what families will be expected to contribute. High schools and higher education institutions will typically collaborate on where the courses are offered, who teaches the course, and how

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students become eligible to participate. Some students go to a college campus and attend class with other college students. Others take college-level courses at the high school among their own peers. An increasing trend now is the ability to take these courses through distance education via Internet (Fincher-Ford, 1997). Depending on the policies in place, courses might be taught by a high school teacher who has the credentials of a college adjunct professor or by a college professor. Unless the state has already established a list of statewide courses that should be made available to students throughout the state, which eases the articulation process once students transfer to a higher education institution, the courses that are offered should be discussed and agreed upon in the initial planning process between the high school and college or university and should be reviewed annually for modifications (Andrews, 2001).

Program implementation. Once a committee has been established to decide on program procedures between a school and a college or university, appropriate staff is identified to assist with admissions and registration processes and with faculty and scheduling issues. An orientation for faculty and an orientation for students and their parents are recommended to go over the processes and procedures for the program and clarify any questions (Fincher-Ford, 1997).

Fincher-Ford (1997) outlines a detailed guide for creating dual enrollment programs. A pilot program is recommended that starts with one semester and a few courses. Formal feedback and evaluative processes should also take place during the initial semester to determine what is working and what isn't before expanding the program. Once the committee feels they are ready to proceed, they can begin to market the program to parents, students, area high school administrators and faculty via news

articles and other media, flyers that are mailed or sent by students, and through parent night events at the local schools. They might also try other community-related events to publicize the program. Consideration should also be given to the unique needs of each high school in allowing students to take courses through dual enrollment that may not be readily available at their regular high school or by not offering courses that have a strong curriculum at the high school. Lastly, the quality of the program, based on students receiving the same experience as a first-year college student, should be measured through evaluations conducted by the students and counselors. How administrators, parents, and taxpayers view the program will also be of great importance.

Student eligibility. To be eligible, some states require students apply for admission to the college, while others require a certain g.p.a. or passing scores on a placement test, and some only require a recommendation from the high school guidance counselor (Andrews, 2001). States also vary in what grade level students must be in before they can take classes or in how many courses can be taken in a semester or term.

Most often the stellar students participate but a growing interest in participation for underachievers is beginning to emerge as a tool to keep them interested and encourage them to do better (Bailey, et. al., 2002; Adelman, 1999; Burns and Lewis, 2000). Some scholars believe that underachieving students can rise to the occasion if properly motivated and challenged. One proven example is given by Darryl Sedio, coordinator of Minnesota's programs, who has experienced students who were failing high school classes, but earned A's and B's in college coursework (Andrews, 2001). A student in Vermont who once spent her high school days daydreaming and ignoring teachers enrolled in a college English class where she earned an A, despite weekly

reading assignments, 18 papers, and two exams (Lords, 2000). Burns and Lewis (2000) describe opportunities in South Dakota public schools for vocational training through dual enrollment that are also used to motivate students who were at risk of dropping out of school.

Middle college high schools and early college high schools offer forms of dual enrollment programs that exist at community colleges across numerous states (Lords, 2000). These high schools are housed on a college campus and enroll students who have dropped out of high school, are repeating a grade, or have numerous absences. A percentage of these students get to enroll in college courses before they graduate and many students from the school do go on to college. Examples of such high schools include LaGuardia Middle College in New York and the El Centro Community College in Dallas, Texas. A recently developed initiative involving dual enrollment include several partnerships between secondary and postsecondary institutions that are being overseen by the Community College Research Center (CCRC) with the specific mission to help students who are struggling academically, are from low-income backgrounds, or considered part of an underrepresented population to have "rigorous, supportive, and career-focused dual enrollment opportunities (Bailey, 2008, p. 3).

Types of courses. Career and technical dual enrollment are courses at vocational-technical schools that can lead to certification while academic dual enrollment reflects the use of college-level courses that can earn credits towards a degree (Fincher-Ford, 1997). Academic dual enrollment has experienced significant growth in the state of Florida and is available through all of its community colleges, while the career and technical opportunities at remain constant in student participation (Florida Department of

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Education, 2004). Students average about nine credit hours or three courses. Some students earn more credits and may even receive their A.A. degree during the same time they are graduating from high school.

Benefits of Dual Enrollment Programs

Many benefit from what dual enrollment offers. Students benefit from a broader variety of courses to choose from in the areas of American History, Biology, English, European History, Humanities, Psychology, Mathematics, and Political Science (Windham & Perkins, 2001). Students get college credit while simultaneously meeting high school graduation requirements, which can cut down on the time and expense in getting a degree. Unlike the advanced placement courses, credit is given to the student based on their performance throughout the course as opposed to their performance on an exam at the end. Windham and Perkins (2001) further state that if students are able to take classes and do fairly well, they experience greater self-confidence and preparation for the academic rigor prior to full-time enrollment as college students.

By starting this process early, it is one way to potentially reduce remediation or bring awareness to barriers to college-readiness before graduation for those students who take advantage of it. Although it's questionable whether students see this as an advantage or not, they avoid "senioritis" by remaining engaged in meaningful curriculum. Instead of taking it easy in their senior year and "losing" their academic prowess, they are able to stay engaged and move forward in the process rather than experience gaps in learning and having to reacquaint themselves. Providing they do well in the courses, their applications for admission to college can look more appealing with these experiences and they are more likely to retain more complex subject matter. Studies show that students who have

taken dual enrollment have a greater likelihood of enrolling at higher education institutions once they graduated from high school (Florida Department of Education, 2004; Hunt & Carroll, 2006). Research by the Florida Department of Education (2004) has also shown that, once these students arrive at college, they tend to experience greater retention rates than their counterparts and that students do as well or better in subsequent courses once they fully enroll in college. In addition to the academic rigor of the classroom, they will have become acquainted earlier on with the college environment in terms of other aspects such as registration, use of the bookstore, and other resources and support services that are available to college students, particularly if they attend the institution where they enrolled in college courses while still in high school.

There are also benefits to parents, high schools, and postsecondary institutions who participate in the collaborative effort of allowing students to take college courses during high school. Parents get to save money if they are paying for their child's college expenses, which may extend beyond tuition to include other fees such as housing and meal plans. By partnering with a college or university, high schools can make the opportunity available for students to take courses that they would otherwise not be able to offer. This broadens their curriculum and potentially allows them to benefit from a better image in the community. This program could also facilitate increased enrollment for higher education institutions by recruiting and engaging students before they graduate. Some research has shown that this is particularly helpful to an institution when trying to build a more diverse population. In a comparison of community colleges with and without dual enrollment programs, it was determined that two-year colleges with these programs were likely to have higher percentages of students of color. It is believed that

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these experiences may help warm up their educational aspirations, which would ultimately lead to higher percentages of them actually pursuing those goals. Colleges get exposed to bright students from area high schools. It is likely these students could be in a position to mentor other students. Having this program helps facilitate a more seamless system between educational sectors through greater alignment of standards between high school exit and college entry.

Concerns with Dual Enrollment Programs

While benefits are evident for this acceleration mechanism, there are also a number of concerns that have been expressed by policymakers and administrators. Concerns about maturity factors, location, academic rigor, transferability, the impact on high school involvement, and funding policies are among the issues associated with dual enrollment programs. Although some professors say that at times they don't know the difference between the high school student and college student unless the individual tells them, one such concern is the age difference and maturity level of the high school students when in the same setting with college students where the average age is about 29 (McCabe, 2000). Yet, if classes are held at their high schools, others argue that location affects the "true" college experience that students receive. Many question the true rigor of college-level coursework, which often impacts whether or not a higher education institution will accept credit for these courses (Hunt & Carroll, 2006; Johnstone & Del Genio, 2001).

Once a high school student has graduated and been admitted to college, if credit is awarded, dual enrollment coursework may receive less weighting by admissions offices at state universities than credit earned by other mechanisms such as advanced placement

or International Baccalaureate (Hunt & Carroll, 2006). Furthermore, students do risk potential damage to college transcripts if they do not do well in such courses while they are in high school and must make extremely cautious decisions that will facilitate academic success. However, if the trends observed in a study by Windham and Perkins (2001) of over 26,300 students in Florida who took dual enrollment courses between the Summer 1994 and Spring 1999 terms continues and are experienced in other programs, the population of students who experience this adverse situation should be minimal. The results of this study found that students performed well academically in subsequent coursework, earning a C or higher, and that only 3% of this population had to repeat courses once they entered college full-time. This was especially true for students who two courses in English, psychology, humanities, and political science.

Secondary institutions are disheartened at the impact of dual enrollment program upon the students' high school experiences in some cases. For example, typically dual enrollment programs generally pull the brightest students from the high school and diverts needed money from school districts (Hebert, 2001). Some are also concerned that students in these programs, who are often leaders on campus, may miss the full high school experiences such as pep rallies and football games. Participation in these programs might even hinder a student's ability to participate in athletics or other extracurricular activities.

Decisions about funding patterns for dual enrollment programs appear to be complicated as well. The two primary decisions regarding funding these programs are who will pay the tuition and how funding for the American Disabilities Act (ADA) and Full-Time Equivalency (FTE) will be directed (Karp, et. al.; 2005). In both decisions, the

outcome leads to a loss of funds for the high school, the college, or both institutions unless a method known as "double-dipping" is used. That practice, which grants funds to both institutions for the same student, and can be expensive (Karp et. al., 2004). These decisions can impact how constituents respond to the idea of dual enrollment opportunities. If students are expected to pay tuition, this would severely impact students from low-income families. If high schools incur the expense, they are not likely to encourage dual enrollment, and if higher education institutions are impacted by the responsibility, they might create barriers to minimize participation. Some states, such as Georgia, Michigan, North Carolina, and Ohio, use a delicate balance where the high school and the postsecondary institution share the costs and alleviate the student of any responsibility beyond fees, books, and transportation (Karp, et. al.; 2004).

The fact that the tracking systems between high schools and colleges are not identical is always an issue. High schools are not able to follow their graduates and, likewise, community colleges are unable to do the same for their students who are going on to four-year universities. With the need for accountability, which is tied to performance and other funding related issues, having a system that is compatible would seem imperative.

Then there's the issue of where these courses are taught and by whom. Gary Ripple, Director of Admissions at Lafayette College, speaks for many university officials who feel these courses should only be offered on a college campus and taught by college faculty with college students in the room. Tulane University is another institution that spells out clearly its policies regarding dual enrollment courses, which basically are not accepted if the course was not offered by a college or university and taught by their

faculty. There are others, such as Gerald Edmonds, who disagrees with such policies. As associate director of Project Advance at Syracuse University, he feels that critics are ignoring the course content and outcomes and are also ignoring the possibility that high school teachers might be trained and qualified to provide the same learning experience as a college faculty member. High school teachers who are used to teach these college-level courses have the same credentials as an adjunct faculty, but undergo additional scrutiny.

In one research study, a group of students at a Florida community college who had a high school teacher and a group who had a college faculty member for their courses were followed to see if there were any significant differences in subsequent math courses. An unweighted, cumulative high-school GPA and test scores from the SAT, ACT, or CPT were used to ensure comparable academic ability among the students. The college's student database was used to select the participants in the study and to determine whether they were taught by a high school teacher or college faculty, but all courses had been taught on a high school campus. Just over 1,800 students were identified for the study, nearly half in each group of these, 700 students were ultimately used, as the outcome was measured according to the grade received in the next course taken and providing they continued their education at one of the state universities.

Regardless of the university attended or the gender or ethnicity of the students, group A students, those taught by high school teachers, actually did better in subsequent coursework than those in group B. While the hypotheses was that there would be no difference in outcomes, the learning outcomes by high school teachers were actually superior and the students were better prepared. This positive outcome is attributed to the fact that high school teachers are already comfortable in their environment, as opposed to

college faculty coming in to this setting. Teaching such courses is an honor in high school. Teachers actually spend more time with the students. In addition these teachers may have a background in education that college faculty may not have.

Florida

Florida is one of the few states that developed dual enrollment programs in the earlier stages. Most courses for dual enrollment are provided through the Florida Community College System (Windham & Perkins, 2001). An observation of legislation in support of the program, along with trends concerning its student participation subsequently, are addressed in this section.

Legislation. Three goals that drive the policy agenda for Florida's dual enrollment program are: "to shorten students' time to degree, to broaden the scope of curricular options available to high school students, and to increase the depth of study in a particular subject" (Hunt & Carroll, 2006, p. 40). With Florida Statutes 240.116 (1) being enacted in 1973 with regards to five acceleration mechanisms (dual enrollment, advanced placement, IB, early admission, credit by examination (CLEP), Florida appears to be among the first to initiate state legislation in support of dual enrollment programs in their state. Dual enrollment and advanced placement are the two most widely used acceleration programs. Most of the programs require passing a standardized test to receive college credit, but dual enrollment only requires earning a grade of C or better in a course.

In addition to other initiatives, the Florida Articulation Coordinating Committee oversees these programs and makes recommendations for continuous improvement. For example, in December 2003, Florida's Articulation Coordinating Committee established a pilot agreement between a few school districts and the distance learning consortium as a

way to expand access, recommended that the state continue current funding patterns and that a program of study "module" of general education courses be developed.

As of 2003, several policies had been put into place including House Bill 1739, Florida Statutes 1007.235, 1007.271, and 1007.272. Florida Statutes 1007.235 is an inter-institutional articulation agreements which promotes access for students. Florida Statutes 1007.271 represents general policies about dual enrollment programs. Florida Statutes 1007.272 involves joint dual enrollment and advanced placement instruction. Section 1007.261 determines how dual enrollment courses are weighted.

Florida is one of six states that pays dual enrollment costs (Handsom, et. al., 2006). In other states the school district or the student pays this expense. Both the high school and college can consider students' for funding purposes, which is often referred to as double-dipping. However, some see it as paying potential future costs in today's dollars.

Participation. In 2005-2006, 32,759 students took dual enrollment in community colleges (Hanson, et. al., 2006). Seventy-two percent were white, 10% Hispanic, 10% African-American, and 8% classified as other. Eighty-three percent earned a C or better and the average student took three courses, which equates to nine college credit hours. Since its inception, the state of Florida has experienced significant growth in students who participate in dual enrollment, which also makes a positive impact on students who later enroll in higher education programs once they graduate from high school. For example, the dual enrollment student rate of enrollment in postsecondary institutions was 9% greater than that of all high school graduates in 2001-2002 (Florida Department of Education, 2004). With the exception of Asian students and those whose race were

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unknown, all other ethnicities experienced higher enrollment rates in college after graduation from high school. In fact, the enrollment rate for African Americans was almost double.

Florida grew from 3,609 participants in 1991-1992 to 5,883 participants in 1998-1999, with students averaging 13-18 credit hours of general education requirements by the time they graduated, and some are even earning the high school diploma and the A.A. degree simultaneously. Data retrieved from the FCCS Student Database indicates that from 1998-99 to 2002-03, both African Americans and Hispanics were increasingly using this program to help them prepare for college. African-Americans yielded a 49.30 increase (1,969 to 3,289) in participation. Hispanics grew 49.18 percent, from 71,843 to 107,174. During this same five-year period, each population grew roughly 98% in the number of courses they took through this program. For these same ethnicities, dual enrolled students are also much more likely to enroll in either a community college or state university than the typical high school graduate. Most dual enrollment students choose to enter the state university system upon entry to college (Windham & Perkins, 2001).

Florida has been committed to the advancement of dual enrollment programs for many years (Hanson, Windham, Lerner, 2006). Currently, this state is developing a dual enrollment handbook for school districts and colleges. One community college is piloting the use of the state-mandated FCAT instead of a college placement test for admission into dual enrollment courses in an effort to reduce the number of tests students need to take.

Research Setting

The research for this study was conducted at a multi-campus public research university that has been in existence for over 50 years. It is accredited by the Southern Association of Colleges and Schools (SACS) and is among the top ten largest universities in the nation. With over 1,800 faculty members, it is also nationally recognized for its numerous research and community efforts. It is most reputable for its research in the treatment of numerous diseases and in technological and economical developments. [http://www.ugs.usf.edu/catalogs/0607/aboutusf.htm]

The university has ten colleges and offers undergraduate, master's, specialist, and doctoral degrees in over 200 programs. The university's enrollment exceeds 45,000, with almost 38,000 attending the main campus. The undergraduate students make up 77% of the total population with a freshman retention rate of 80% for 2006-2007 and a 6-year graduation rate of 49%. The 2006-2007 academic year yielded approximately 20,000 applicants for incoming freshmen. Approximately 10% of the populations at the main campus (3,797) were college freshmen who entered in the fall, averaging a 3.71 GPA. SAT scores averaged 1148, with a midrange of 1060-1230. Over half of the freshman population (55%) was in the top 20% of their high school class. This institution has 1,685 students in their honors program, with 488 students as incoming freshmen. The freshman class for this institution also consisted of 12 National Merit Scholars, 5 National Achievement Scholars, and 13 National Hispanic Scholars. Half of the incoming freshmen lives on-campus. The university attracts students from over 120 countries and over 30 percent of the student population is African-American, Hispanic, Asian/Pacific Islanders, Native American, or other ethnicity. There were 20,000 students who applied

for admission to this university. Approximately half were accepted and about 34%

actually enrolled, yielding 3,797 new students. It is unclear how much of this population

might have had dual enrollment experience.

Conclusion

In the face of mounting issues that are certain to affect our nation, the need for a

more educated workforce is evident. Efforts that facilitate greater access and retention are

most valuable in achieving that goal. Acceleration mechanisms such as dual enrollment

are one means to that end. Dual enrollment is still, to some degree, in an infancy stage in

most states and are having to figure out how best to implement these programs given

their own resources, mission, and other dynamics. But seemingly, states are only

experiencing rapid growth in these programs despite some very valid concerns such as

student readiness, academic quality, and funding.

Chapter 3: Methods

Introduction

The goal of this study was to provide a richer understanding of the dual

enrollment process by examining students' involvement in dual enrollment courses and

the impact upon both their transition into a state university as well as their first-year

experiences at the university. The researcher's review of the literature revealed that most

dual enrollment courses are taken at community colleges (Windham, 2001), and most

qualitative studies involve dual enrollment students who are still in high school. For

example, qualitative studies on dual enrollment conducted by Huntley and Schuh (2002)

and Burns and Lewis (2000) used responses from students to gain insight to their

thoughts, perceptions, and experiences and obtained results that would benefit program

administrators, policymakers, and other constituents. The study by Huntley and Schuh

used nine students from three different high schools, while the study by Burns and Lewis

used only six students who were also in high school. Both studies cite a need for more

research that will expand the existing literature on dual enrollment.

This qualitative study made unique contributions to the literature because it had a

much larger sample size of 21 participants and obtained the perceptions of students who

were in a different geographic region than other qualitative studies on dual enrollment.

Another unique quality of the study was that the population for this study had graduated

from high school and was attending college full-time at the main campus of an institution

in a southern state university system. Similar to the study by Huntley and Schuh and the study by Burns and Lewis, however, the results of this study provided valuable insight for program administrators and generated recommendations for practice, based on actual student experiences. This chapter contains the following sections:

- Research design: describes the approach and rationale for the study

- Research questions: provides a brief explanation of the research questions being used for the study

- Population: describes baseline criteria and the rationale for the sample and population

- Instrumentation: describes the instrument to be used and addresses issues related to validity and reliability

- Data collection: thoroughly describes how data will be collected, including procedures, timelines, and safeguards for protecting participants

- Data analysis: describes how the data will be analyzed

- Conclusion: recaps the overall design of the study

Research Design

The purpose of this study was to help shape public views of dual enrollment through the perceptions of students who have been exposed to the process and to strengthen the knowledge base as it relates to this educational phenomenon. The study, which is both descriptive and exploratory in nature, examined student perceptions of the dual enrollment process with participants who matriculated to the state university system upon completion of their high school diploma and have completed their first semester. Patricia Windham, Associate Vice Chancellor for Evaluation for the Division of

Community Colleges and Workforce Education at the Florida Department of Education, indicates that most dual enrollment courses are taken through the community college, but most of these students enroll in a state university upon graduation from high school (2001). These students provided valuable insights through the comparisons they made between their college experience while in high school and their experience as full-time college students.

Qualitative research aims for "description, understanding, and interpretation" (Lichtman, 2006, p. 11). Because little research in the area of education involves the perspectives of the people involved (Siedman, 2006), this study provided an opportunity for people who make program decisions to hear from those who are affected by the experience and heighten the awareness of issues and experiences associated with dual enrollment. The results are expected to have an institutional and a social impact by unveiling information that may improve educational practices, set priorities for future goals, and perhaps even generate new ideas that will lead to positive outcomes for policymakers, students, and their families.

Research Questions

Qualitative studies allow for multiple perspectives (Patton, 2002) and are suitable for research that looks into the complexities and processes of systems where there is limited knowledge (Marshall & Rossman, 1999). This study obtained student perceptions about their previous experiences as dual enrollment students and their subsequent experiences as full-time college students. The questions asked in this study were:

1. What are the initial experiences of dual enrollment students?

2. How does the dual enrollment experience impact the decision of high school graduates to attend college?

3. What comparisons can previous dual enrollment students make between the college experience they had in high school and the subsequent college experience as a full-time college student?

Population

First-time-in-college (FTIC) freshmen at a large, metropolitan research university were contacted via e-mail inviting them to participate in the study if they had been involved in dual enrollment courses while they were in high school. To pursue a more positive response rate, this e-mailed invitation from the researcher was forwarded to potential participants through program administrators or faculty members whose names these students recognized because they had already built a rapport with them during their first year of college (see Appendices A and B).

Purposeful sampling was used for this study to carefully select 21 students whose experiences were considered information-rich based on two key variables: the extent of their experiences in dual enrollment and the types of courses that were taken. While the target goal was 50 students, a minimum of 20 students was acceptable for the study. In addition to matriculating to the university between and inclusive of summer 2007 and fall 2008 these students had met the state-established guidelines required for participation in dual enrollment during high school, which included having a 3.0 unweighted high school grade point average and passing the appropriate section of the college placement test (see Appendix F). With respect to the extent of their experiences, attention was given to students who have had only one semester of dual enrollment experience as compared to

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students who had two or more semesters of dual enrollment. With a focus on these two variables, other criteria for the selection of research participants such as age, gender, ethnicity, major, and what high school they attended were not the focus for deciding which students were able to participate.

To obtain a broader perspective, rather than obtain more homogenous results by using students with a comparable number of courses, the researcher recruited a sample of students at a major research university who have taken a range of dual enrollment courses, including students who have had as few as one course, and those who have had enough dual enrollment courses to nearly satisfy requirements for an associate's degree. Students who have enrolled in a class but later dropped the course were also included as their experiences broadened the diverse perspectives. An examination of the various types of dual enrollment courses students enrolled in while in high school were considered in an effort to gain knowledge about different academic experiences.

Participants who matriculated to the university between and inclusive of summer 2007 and fall 2008 were eligible for the study to extend the opportunity to FTIC students who were admitted to the university through summer freshmen programs such as Student Support Services (SSS) and the Freshman Summer Institute (FSI). Participants were sought through the First Year Connections program, Honors Program and through University Experience, which is an orientation course that is strongly recommended by the university for all freshmen. Students informed the researcher of their willingness to participate in the study via e-mail. Upon receipt of this e-mail, the student was tentatively added as a member of the Dual Enrollment Research Group and received an e-mail response that shared information about informed consent, supplied them with the

interview questions, and was offered an option to schedule an online chat as an alternate method for participating in the study. Participants were informed of the $10 iTunes or Subway gift card that they would receive for participation in the study. This incentive was only given to students who provided responses within the first two weeks of receiving the questions and provided timely responses to follow-up probes throughout the remainder of the study. Research participants were informed when all data had been collected and that phase had been closed. Instructions for obtaining the iTunes or Subway gift cards were sent by e-mail within 72 hours of the final e-mail.

The Dual Enrollment Research Group was hosted as a student organization on the university's academic portal called *Blackboard*. This space on the portal allows one convenient location on the university network for maintaining documents, communications, and calendars related to the study. This research was conducted using an e-mail address administered by the university in conjunction with access to Blackboard. Blackboard is used by both faculty and students for access to a myriad of options including courses, organizations, libraries, services and resources that are accessible to students and faculty. Guest access can also be used to get a minimal preview of courses and organizations. Leaders of student organizations, similar to course instructors, are able to create announcements, add documents, create and maintain a calendar, and are able to communicate with other members via e-mail, discussion boards, and chat sessions. Students also have the capability of submitting assignments, keeping a calendar, and using e-mail through this portal.

Data Gathering

Through qualitative interviewing the researcher was able to gather information through the experiences of the research participants. This information was valuable in the study because of its contributions to existing literature and, ultimately, of value to legislators, education officials, program administrators, students, and their families. Narrative inquiry is one method used in qualitative research, spoken or written, to "gather, analyze, and interpret the stories people tell about their lives" (Marshall & Rossman, 1999, p. 120). Cultural and social patterns can be observed through narratives and stories as individuals share their lived experience more than they would through case studies (Patton, 2002, p. 115). Although this process is considered time-consuming and is limited by what the participant can recall, it used their perceptions of those experiences to better understand the sociological nature of groups and communities, which for this study referred to that special population of students who have participated in a dual enrollment experience.

Narrative inquiries can rely on e-mail messages and online chat sessions as well as other oral or written forms and are a collaboration between the narrator and the researcher who now takes a more active role in exploring the narrator's story and crafting the written documentation. Use of e-mail as a research tool is gaining acceptance in academe. In fact, Selwyn & Robson (1998) anticipate the increased usage of electronic methodologies in quantitative and qualitative studies as time progresses. It has the potential to provide speedy and immediate responses or dialogue, participants can complete the survey more comfortably, and response rates for researchers who used e-mail was greater than the more traditional methods (Selwyn & Robson, 1998).

E-mails, or e-journals, were used to conduct interviews using an approach similar to semi-structured interviews, which allowed the process to begin with a pre-determined set of questions that can lead to further probing for additional insight (see Appendix E). The online chat option was offered as an alternate method in case it would facilitate a greater response rate. The standardized questions from the interview protocol facilitated a comparison of responses and gave participants a consistent set of questions to view, yet the ability to use probes to gather deeper insight provided the researcher an opportunity to make interviews "more conversational and situational" as he or she explored particular details of each participant's response (Patton, 2002, p. 347). The questions used in the interviews were centered around the students' holistic experience in college courses while in high school and their impact on both their transition to college and the completion of their first year as college students. Open-ended questions were used to build upon and explore participants' responses to items of interest from the study (Siedman, 2006). The interview questions were written in a language that the audience would understand, was non-directive, and avoided posing multiple questions in one item. Items were sequenced in an order that drew the participant into the study by describing current situations that were easy to recall and which were then related to previous experiences.

Patton (2002, pgs. 349-351) offers six types of survey questions for use in qualitative studies:

- Experience and behavior questions that describe what would occur on a typical day, ask about actions and behaviors;

- Opinion and values questions that inquire about beliefs, thoughts, opinions, and desired changes related to an experience;

- Feeling questions that address affective domains related to one's feelings about an experience;

- Knowledge questions that ascertains one's knowledge about resources, eligibility factors, rules, and procedures;

- Sensory questions which ask about what is discussed with others, observed, heard, touched, tasted, and smelled;

- Background/demographic questions such as age, gender, and educational background.

As responses were received, additional questions or probes were used to go deeper and gain further insight. To maximize the effective use of time and communication with participants, a maximum of four probing rounds were used to gather this additional data from students. Clarification or further elaboration was sought through statements such as "*what do you mean when you say….*, *can you tell me more about that*, *let's talk about that in more detail*, *can you explain more fully, can you give me an example of what you mean by….*, or *why do you think you felt so….*" When clarification was requested, the researcher was careful in how these statements were phrased to ensure that participants did not feel as though they were not able to communicate well (Patton, 2002). Contrast probes were also used to ask about comparisons related to the experience, such as "*what differences did you perceive in the academic expectations of the college classes taken as a high school student compared to those classes taken as a full-time college student?*" and *"how did the teaching styles you observe as a full-time college student compare to those you have observed in dual enrollment classes?* Appropriate use of such probes required skill in "knowing what to look for in the interview, listening to what is and isn't

said, and being sensitive to the feedback needs of the person being interviewed" (Patton, 2002, p. 374).

Pilot interviews were conducted with three students who possessed similar criteria as the population of the study to test the effectiveness of the proposed questions and the approximate amount of time students would need to complete the questions thoroughly. At the researcher's request, program directors and advisors then assisted in the recruiting process by contacting their students who were potential participants via e-mail with a recruitment flyer about the study (Appendix B). As outlined in Appendix C, six weeks was the estimated time needed to initiate contact with potential participants, exchange questions and responses, conduct follow-up, and close the participants' role in the study. However, an additional two weeks was built into the tentative timeline in the event of unexpected delays. Use of the e-mail survey interview mode and the online chat session gave participants the convenience of responding at a time and location that was convenient for them. While my review of the literature seemed to be limited with respect to details such as recommended timeframes for e-mail surveys, a study by Porter and Whitcomb (2005) suggested that inclusion of a deadline date for closing the survey has the potential to yield greater response rates.

For studies that utilize Internet or telephone surveys, the IRB Waiver or Alteration of Informed Consent grants the opportunity for the researcher to conduct the study without the need to obtain signatures from research participants, although the consent form must be provided. Access and use of e-mail or an online chat for the survey required an Internet connection and, as a result, fell within the waiver guidelines. To initiate the research among participants, a letter explaining the nature of the study and the

consent form was sent via e-mail (see Appendices A and C). In order to monitor

participation in the study participants confirmed their interest by the end of the first week.

Selected participants then received instructions on how to complete the survey with a

request for initial responses that were to be sent within two weeks. A gentle reminder was

sent at the beginning of week two, along with an attachment of the survey, instructions,

and a thank you note for those who had responded. At the end of the two-week period

another reminder was sent to participants who had not responded, with one additional

week provided for submitting their responses. Due to complications in recruiting, a

smaller sample size of 21 students was acceptable. This size still exceeded similar studies

that yielded valuable data with only six or nine students (Huntley & Schuh, 2002;

Buchanan, 2006).

Using the continuous redesign of questions as responses were received, the

researcher conducted follow-up with participants for further elaboration or clarification as

needed on an individual basis (Rubin & Rubin, 2005). The researcher continued to collect

data from the participants in the study until it seemed that a saturation point through the

lack of new information was reached and enough valuable data had been collected. The

survey process was closed and analyses, which began as responses were received,

continued. Once follow-up with participants concluded and the last week for the study

had passed for all participants to respond, they received a final notice that informed them

their participation in the survey portion of the study had been closed. An anticipated date

for availability of the results was provided.

Instrumentation

For qualitative research, the "researcher is the instrument" and should describe his or her experience and training related to the study being conducted to enhance credibility (Patton, 2002, p. 14). While obtaining a bachelor's degree, two master's degrees, and completing coursework for a doctoral degree, the researcher has taken courses related to educational measurement and statistical methods and possesses an understanding of issues related to credibility and trustworthiness in conducting research. Through the training and experience I received as a professional educator and counselor, the importance of remaining objective in the dialogue and interactions of the individuals involved in the proposed study was understood and caution was taken to minimize or eliminate any personal bias throughout this process.

As the researcher, I take general interest in the phenomenon of dual enrollment because of my own personal experiences as a first-generation college student who had very little guidance in preparing for or pursuing the initial phases of college and was very sheltered in my adolescent years. As a result, I have always had a genuine interest in opportunities that will expose young people to positive experiences beyond their immediate surroundings and that will help them develop and recognize their individual gifts and talents. This interest led to my decision to become a business educator, and later a counselor, because of the opportunity to provide instruction that would help prepare students for the "real world" by teaching them about career choices and by equipping them with skills and knowledge that would prepare them for the world of work as well as the option to pursue further education.

To ensure objectivity so that my own biases are removed in the process, I employed a check-coder who has had identical instruction in the methods for conducting research at the dissertation stage. Similar to the researcher, the check-coder possesses a Master's Degree in Counselor Education and was also a doctoral student who had completed coursework in the Higher Education Administration program. Trustworthiness of the study was enhanced through confirmability, or the ability of other researchers to reach similar conclusions based on their analysis of the data. The researcher and the check-coder also exercised caution to be neutral in examining both the positive and negative experiences associated with the research of these dual enrollment experiences so that insights were thorough and not biased.

Data Collection/Procedures

Once the necessary IRB permission was obtained to protect the rights of research participants, administrators of programs that take in freshmen students annually, such as the First Year Connections, University Experience program, the Honors Program, Jenkins Scholars program, Student Support Services, and Freshman Summer Institute assisted the researcher with the initial communication needed to identify potential participants. These administrators forwarded an e-mail to students that contained recruiting material about the nature, purpose, and details of the study. Students then contacted the researcher to express interest in the study and provided preliminary information that would assist the researcher in the selection process.

Upon the review and selection of students based on the extent of their experiences and the courses they have taken, invited participants received an informed consent document via e-mail that clearly explained the purpose and description of the research

study and informed them of their rights as it concerns confidentiality, anonymity, and the ability to withdraw at any time during the research process (see Appendix D). Potential participants also had an opportunity, through e-mail, to ask questions, clarify details, and select a pseudonym for added security if they chose to. Participants were reminded of the importance of using e-mail accounts to which only they have the password. The researcher maintained incoming and outgoing e-mail messages for this study in a university e-mail account which was protected by a password and was secured on a university server.

Once participants for the study had been selected, they were referred to the *Dual Enrollment Research Group* student organization on Blackboard, where they received the research documents as a word processing document or PDF file. An approach similar to semi-structured interviews was used to conduct this study through e-journals. As a result of today's technological advances in both social and educational settings, using the e-journal process was very similar to a method called blogs, which students use as a "collaborative writing space where students share ideas and work together" using a tool whose "open, flexible nature encourages dialog among its discussion participants" (Repman et. al., 2005, p. 6). This process also offered convenience through the choice of location and the time of day in which participants responded to the survey. The researcher also had the benefit of being able to focus on analyzing the results once collected, rather than spending time or money in transcribing or in paying transcription fees.

Similar to the semi-structured interview method, the approach used in the study enabled the interviewer to begin with a standard set of questions that was asked of each

interviewee in a consistent manner, but allowed flexibility to go beyond the initial responses to get more information (Berg, 1995). Caution was exercised to develop questions that yielded clear and informative responses from participants. Berg (1995) suggests that the prescribed list of questions begins with basic, demographic-type questions and leads to more complex questions as the interview proceeds.

Participants sent interview responses to the researcher's e-mail address, which was secured through the university server. A benefit of the e-journaling method for qualitative research was that, along with the interviewer, the interviewees also had a record of the responses they sent provided that their e-mail account was configured to retain messages sent from that address. Participants were made aware that they may be contacted for further clarification of their responses throughout the duration of the study. As responses were received and clarity was sought, the interviewer exercised caution in developing a controlled rapport with the student participants by deferring any opportunities for advice or counseling to appropriate programs and services that were available at the university.

Responses were received via e-mail and a folder for all research documents was created in Microsoft Word for storing and organizing the data. File names were created to track multiple contacts with the participant and the date of each submission. Lichtman (2006) also recommends that the researcher keep a journal of any thoughts or comments that come to mind as they read through the interview responses that are received.

Data Analysis

Lichtman (2006) refers to the 3 C's for data analysis, which are coding, categorizing, and concepts. Using a reductive process, the analyses began as the

researcher started receiving responses. A qualitative software program called Atlas T.I. was used to assist in managing the data received from interviews within and across subgroups as responses are received throughout the study. This software assisted in the organization of selected quotes and other background information from research participants, in addition to facilitating the creation and manipulation of codes and categories for the placement of these quotes. The management and organization of this data contributed to the results that would be reported in Chapters 4 and 5.

Data were analyzed continuously as it was collected, and the constant comparative method was used to develop themes, patterns, and trends. Codes were not pre-determined but occurred as documents were analyzed. As new interviews were read, the data was dissected using previous codes or by adding new ones until all interviews were coded. The data were examined within and across interviews for both common and unique themes. In the original plan for analyses, member checking was to be used to establish trustworthiness and increase descriptive validity in the results, as recommended by Jones, Torres, & Arminio (2006). With the approval of the dissertation committee member checking was omitted as a result of prolonged recruiting efforts, as described in Chapter 4, which led to conflicts with semester schedules for the students who participated in the study. However, use of this method can bring increased validity to the study if replicated.

Following several of the strategies recommended by Oliver (2004), data was selected for analysis if they represented issues that were raised by all interviewees, concurs with the findings of other research, or revealed some unique aspects of interest that seemed necessary to highlight (p. 142). The researcher also chose to identify

participants whose responses were valuable to the findings of the study and should be included because of the rich detail provided. Analyses were conducted by both the researcher and a check-coder to help reduce bias and increase credibility. In this process, also referred to as triangulation, both parties analyzed the same data independently and then compared their findings (Patton, 2002). Through discussion and collaboration, mutual themes were agreed upon, and, when disagreements still existed, further discussion was continued until a mutual decision was reached. In this phase, quotes were also identified that validated the concepts or themes that were chosen and added richness to the results. For participants who did not continue through the conclusion of the study, the data provided up to the point of their departure was analyzed with the other responses of the study.

Conclusion

Chapter 3 summarizes the methods that were used for the study, which was a qualitative study that used e-journaling to elicit descriptive responses from students who had college experience as students in dual enrollment programs and matriculated to full-time students in college. Details of the study regarding the selected population of fifty first-time-in-college (FTIC) students from a large, metropolitan research university through purposeful sampling, and the data collection and analyses phases are discussed. Students who were just beginning their matriculation as full-time college students were expected to produce informative and valuable assessments of their "college" experiences while in high school and later on in college at the time of the study. In addition, precautions that were taken to protect the integrity of the study and ethical considerations that might have impacted the process were described in this chapter.

Chapter 4: Results

Introduction

This chapter describes the research sample used in the study, explains the process used in conducting the research, and reports the findings of the data collected through the survey protocol used for the qualitative study. The purpose of the study was to add to the existing literature base regarding dual enrollment by collecting data on the perceptions of students who have transitioned to the university setting after having experienced dual enrollment. To accomplish this goal, participants responded to survey questions about how they became aware of dual enrollment, made comparisons about teaching styles, assessed relationships among students and teachers, and observed differences in academic expectations (Appendix E). The series of survey questions were designed to answer the following three research questions:

     1.   What are the initial experiences of dual enrollment students?

     2.   How does the dual enrollment experience impact the decision of high school graduates to attend college?

     3.   What comparisons can previous dual enrollment students make between the college experience they had in high school and the subsequent college experience as a full-time college student?

Participants used e-mail to provide basic demographic information, submit unofficial transcripts of their collegiate coursework, and responded to 15 survey

questions that would provide perspectives about the three research questions (Appendix E). In return, participants received gift cards online via e-mail for their contributions to the study. As the data were collected from participants, the researcher read their responses for possible follow-up questions and to look for any recurring themes that might exist. After a small section of data was used to initiate the coding process, themes and concepts were developed and refined as coding continued with the remaining data.

Research Sample

Initially, a total of six weeks was estimated for recruiting, data collection, and follow-up questions. Throughout the recruiting process students expressed an interest in the study. They would answer a few basic questions that would inform me of how they heard about the study, when they matriculated to the university, and a brief statement about their dual enrollment experience. They were also instructed to review the letter of invitation and informed consent. Upon their acknowledgement of reading and understanding these two documents, they would be added to the Dual Enrollment Research Group as a research participant. As a result of these efforts twenty-one students fully participated in the study by submitting the required documents including an unofficial transcript, dual enrollment course history (see Appendix E), and their survey responses.

Because two independent recruiting cycles became necessary to achieve the minimum sample, this phase ultimately spanned a period of 4 ½ months. The initial plan included two weeks of recruiting through program directors and advisors of student support programs that work primarily with first-year and second-year students. The director would forward an e-mail from the researcher to their advisors, who would in turn

send this e-mail to all 175 students. This method was chosen so that students would receive the e-mail from someone whose name they would recognize. Students would then review the information and determine if they were eligible to participate. Three advertisements for the research opportunity were also placed in the university's electronic newsletter over a five-week period, which is made available online and e-mailed to subscribers weekly. This initial process resulted in 15 students who fully participated in the study.

A second recruiting phase was initiated a month later, after making modifications that received IRB approval. These changes included expanding the eligibility requirements to include students who matriculated to the university in Summer and Fall of 2008. The gift card for participation in the study was changed to a restaurant that is available on campus, recognizing that a gift card for food might prove to be more appealing than an iTunes gift card that is primarily used for entertainment. Directors of academic advisors in various colleges throughout the university were contacted and had their advisors forward information about the research opportunity via e-mail to their students. Through this additional recruiting, there were six students who also completed the study.

Demographics

The sample included 18 female and three male students. The ethnic composition of this sample was 14 Caucasian/white, three African American/blacks, one Asian, one Hispanic, and two who were multi-racial. Students reported taking courses through dual enrollment as early as age 15, although most students began at age 17 when they were seniors (*see Table 1).*

Table 1. Number of Participants by Age of 1st Dual Enrollment Course,
Gender & Ethnicity

AGE OF FIRST DUAL ENROLLMENT COURSE								
	Age 14		Age 15		Age 16		Age 17		
Ethnicity	Male	Female	Male	Female	Male	Female	Male	Female	
White/ Caucasian	1	0	0	4	1	2	0	6	**14**
Black/AA	0	0	0	0	0	1	0	2	**3**
Hispanic/Latino	0	0	0	1	0	0	0	0	**1**
Asian	0	0	0	0	0	1	0	0	**1**
Multi-racial	0	0	0	0	0	0	1	1	**2**
TOTAL	**1**	**0**	**0**	**5**	**1**	**4**	**1**	**9**	**21**

As Figure 1 depicts below, involvement in dual enrollment ranged from one to 26 courses over a maximum of eight semesters. A total of 181 dual enrollment courses were taken by this population between 2004 and 2008. This range of courses exists for students who matriculated to the university in 2007 and started dual enrollment courses in their ninth grade year.

Figure 1. Participant Age Of 1st Dual Enrollment Course, Number of Classes & Terms
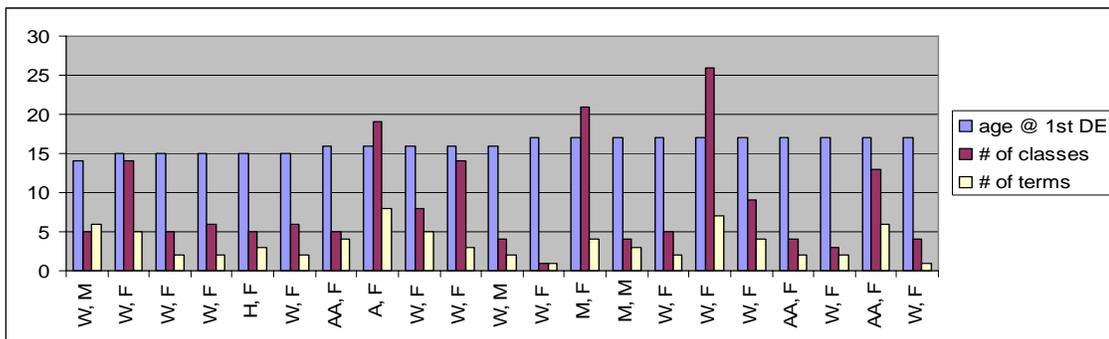
[1] Gender Codes: M = male, F = female

[2] Ethnicity Codes: W = White, AA = African American, H=Hispanic, A = Asian, M = Multiracial

Of the 181 courses taken by participants in this study 36 dual enrollment courses were taken at a regular high school, 86 were taken at a community college, 30 were taken at a college preparatory high school, 29 courses were taken at a college or university.

Concerning the grades that were earned, 105 were As, 46 were Bs, 16 were Cs, five were Ds, two were Fs, two were an S for satisfactory grades, and five did not report their S/U grades for science labs (s*ee Table 2*).

Educational Background

To gain a broader perspective of the educational experiences of the participants in the study, several questions were posed to obtain information about their backgrounds in certain subjects and involvement in other acceleration mechanisms. All students reported an intended major, including Mass Communications, Psychology, Biomedical Science/Pre-Medicine, Geology, and International Business. Many of the students took foreign language and either honors or advanced-level English and Math courses. Some went on to take college-level English and Math that would count as elective credit in high school.

Acceleration Mechanisms

Eight students had been involved in both honors and AP courses, one student had been in both IB and AP courses, nine reported being in either honors or AP classes, and one student indicated that these programs did not exist at his homeschool. One student who also had AP and honors classes favored dual enrollment the most. She enjoyed the class discussions, felt that she learned at a higher level, and didn't feel that she was being taught to a test as perceived of the AP courses she had taken.

<center>*Research Results*</center>

Three research questions guided the protocol developed for use as survey questions via e-mail. Through these questions, six major themes were identified: initial experiences, transitional impact, dual enrollment/university comparisons, student relationships,

<center>62</center>

Table 2. Location & Performance Outcomes Of Dual Enrollment Courses Taken By Research Participants

	High School Letter Grades			Community College Letter Grades						Collegiate H S Letter Grades			College/University Letter Grades			TOTALS
CONTENT AREA	A	B	C	A	B	C	D	F	NG	A	B	C	A	B	S	
COMMUNICATIONS (ENC, LIT, CRW, SPC, ENL, LIT)	11	5	1	8	7	1	0	0	0	2	0	2	4	0	0	41
MATH (MAC, STA**)**	4	2	0	0	6	3	2	1	0	1	1	1	3	2	0	26
SOC SCI (PSY, SYG, DEP POS)	3	1	0	10	2	0	2	0	0	2	0	0	1	0	0	21
HISTORY (AMH)	2	0	0	3	3	0	0	0	0	2	0	0	2	0	0	12
SCIENCE (BSC, AST, CHM, OCB, PHY)	0	0	0	5	3	2	0	0	5	5	1	2	2	0	0	25
HUMANITIES (HUM, REL, PHI, THE)	0	0	0	2	2	1	0	1	0	6	1	0	2	1	0	16
FRN LANG (SPN, JPN)	0	0	0	2	3	1	0	0	0	2	0	0	1	1	2	12
ELECTIVES (SLS, REA, MAT, ECO, CGS, EST, BUL, CJL, ACG, GEB, EDF, MAN, HSC)	7	0	0	6	2	2	1	0	0	1	1	0	6	2	0	28
TOTALS	27	8	1	36	28	10	5	2	5	21	4	5	21	6	2	181

university experiences, and reflective observations. Other observations by students that were not incorporated into the previously mentioned themes became the final theme that emerged from the results. Four of the six themes had factors that made up its category, developed primarily through survey questions.

Initial Experiences

Several factors resulted from student responses to questions about their dual enrollment experience. These categories included how they became aware of the opportunity to participate in dual enrollment, their reasons for participating, and whether orientation was a requirement before taking classes. There were also responses related to the location and environment of dual enrollment courses.

Awareness. To begin learning about participants' initial experiences with dual enrollment, the first question was intended to determine how they learned about the dual enrollment program. Eleven of the subjects (52%) learned of dual enrollment through their high school counselor, either in a one-on-one session or in a school assembly. For two of these participants, it was a common part of their curriculum as they were attending a college preparatory high school. Three subjects (14%) learned of the opportunity through their friends who were taking classes, and five (24%) became aware of dual enrollment through school sources such as the honors program, morning announcements, or a teacher. Two of the students (10%) learned about dual enrollment through a flyer that was sent in the mail or through parents who worked at a high school or college.

Reasons. There was a variety of reasons why students chose to participate in dual enrollment classes and sixteen participants offered more than one reason. Twelve of the

21 (57%) interviewees stated one reason they took these classes was to seize the opportunity to save money since tuition and books were free. One-third of this sample also wanted to get a feel of what college would be like, obtain college credit, and earn a higher GPA in high school. Some wanted a greater challenge than what they were experiencing in high school, while others seized the opportunity to get a head start on the college experience or to shorten their time in college. Additional reasons for participating in the program included parental influence, avoiding high school classes, and desiring to try new things. One student participated in dual enrollment because of the availability of other courses, as he was able to take two courses in Japanese as a foreign language during the summer. One student appreciated having a more flexible schedule, by having classes that were during the morning, at the end of the school day, on the weekend, and online. Lastly, one student spoke with an advisor at the university she wanted to attend in another state after graduation and was told that earning an A.A. degree upon high school graduation would look great on her transcripts.

Orientation. Information on this issue was the result of one student's response, which prompted a follow-up question to roughly nine of the participants. Of those who were asked, only one student reported that she had to attend an orientation at high school as well as at the college. The other eight students indicated that they did not attend college orientations when participating in dual enrollment. It was recommended in some cases, but students with hectic schedules as a result of their involvement in school activities chose not to follow this recommendation.

Location. Dual enrollment programs can be offered in high schools, community colleges, state colleges, and universities. In this study six subjects (29%) had dual

enrollment classes at their high school, eight of them (38%) took courses at the community college, one (4%) only took courses at the university, and another six (29%) had courses at their high school and a community college. Courses on the high school campus were convenient, but three students (14%) reported that these were not as meaningful as courses taken on the college campus. A few comments about the location of the classes as compared to the overall experience are stated as follows:

- "I had classes both at my high school and at the local community college. While it was very convenient to take the classes at my school, the course I took at the college was a lot more valuable. The class I took at the college allowed me to be in a real college setting with a professor and even students in their 50s. It was an invaluable part of my transition to [university] because I already knew what to expect and was used to being in a college class."

- "Half of my dual enrollment courses were available at the school, while the other were at the community college. I guess you could say it isn't fun to drive to them, but how can you complain when you are getting so much education out of the way and mentally preparing yourself for the most important education? It seems worth the drive and gas to me."

- "In high school, it wasn't so bad. But I really liked the ones at [community college]. Because it gave me more in depth and also meet newer people. I really liked the ones at [community college] better than the ones at my high school.

- "In the HS setting and community college setting, it was different. But the community college setting was really the more ideal one."

The location of colleges where students took courses away from their high school ranged from a five-minute walk from their high school up to a half-hour commute, which was considered convenient for the most part. Five students reported difficult commutes due to distance, traffic, etc. which cut into time for studying and social networking. Aside from that inconvenience, it seemed to be a value-added experience to take courses in an actual college setting.

Environment. Recognizing that many elements contribute to the overall environment in a dual enrollment classroom, students were asked questions with regard to academic expectations as well as both student and teacher interactions. Most students (n = 13, 62%) reported that the academic expectations were the same, while eight students (38%) perceived a difference in what was expected of them between the two college settings. These differences included an increased amount of work, a faster pace of instruction, and more stringent grading practices. Most students (n=20, 95%) reported positive interactions with professors and students. Professors in this setting were often friendly, and more available than what these students experienced later in the university setting. They were able to drop in to see professors during office hours and one even had a cell phone number for her instructor, while at the university they often have to make an appointment or communicate via e-mail. The one student who had been home-schooled had taken courses at the community college and at the university. He reported mixed feelings that were subject to each instructor and the students in that class environment.

Student interactions. While there are a few reports of students who encountered classmates that were not very serious, 19 of the students (90%) reported positive interactions with classmates. One student, who had been in honors, AP, and dual

enrollment classes, found the overall environment of her dual enrollment classes to be "quite pleasant. It was comforting in high school to be with students who cared as much about learning as I did. Our time was spent learning and sharing ideas with each other in a very mature environment."

Several reports indicated that people were friendly, hardworking, and getting along well. One student reported that she enjoyed the diversity in age when she was in class with "nontraditional students who had come back to get either their first degree or expand upon what they already possessed," and another thought she fit in pretty well, despite being years younger than her fellow classmates. "Many of them were much older than me and more mature," was another response by a student who found her classmates to be nice and accepting. Another student who had taken courses among a diverse age group was accustomed to always being around adults so it was natural for her. One student even made the comparison about how, as a full-time college student, she has experienced students who "talk while the professor is speaking, go online with laptops, and show an overall lack of interest in the course," which would have never happened among the students she took dual enrollment courses with.

While the majority of reports about student interactions was fairly positive, there were also indications of being around students who might not have been as appreciative of the experience. One person shared how he had students who were "immature and just had an attitude of just wanting to get it over and done with." Another gentleman shared his disgust with fellow classmates who "didn't do the work with all their heart and then got upset over grades." He indicated that this occurred more at the community college than when he took dual enrollment at the university.

Campus resources. Another follow-up question that was asked of about eight or nine students was regarding their use of campus resources outside of the dual enrollment classroom. Five of the students (24%) described their use of the college library for research or studying with friends. Four of them (19%) looked to their high schools for other resources such as student organizations and advisors. Some students were required to meet with a college advisor before registration, while others were only allowed to meet with their high school counselors to plan courses for the next term. Three students described their use of all of the same resources as regular college students and their ability to fit in without others having the knowledge that they were a dual-enrollment student.

A couple of students shared their struggles utilizing college tutoring due to their schedules, which might be a consideration for students who wish to participate in dual enrollment, while remaining active in high school activities. One student shared her experience as follows:

"I sought out tutoring at the college. It was a small room with three to four people who would answer math questions. It was useful, but very hard to attend the hours since I did have high school classes as well. I did not have too many problems juggling dual enrollment and staying active at my high school. There were a few times that I had to prioritize what I was going to do such as play at the high school volleyball game or attend my college class. I talked to my coach though beforehand and tried to schedule my classes around so I only missed two games and he knew beforehand. Not to say he didn't get upset, but he did know. I was also involved in clubs at my high school and organizing events. I had no

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problems with these since I would work out times that most people could attend. I feel that the events at high school though kept me from participating in clubs on the college campus."

Another student had a similar problem when she sought alternatives for getting help with a math class after attempts with her instructor were unsuccessful. She shared:

"There is only one course I wish would have had a different outcome. I took a math class as a dual-enrollment student, and my teacher did not understand how to help me. The entire course was based on the use of a graphing calculator which I had never used prior to that course. I talked to the teacher numerous times about it, went to her office hours, and asked to be taught how to do it on paper. She would only teach me on the calculator, which I did not understand. I had a tutor for a little while, but I was involved in many other things in my high school, so I did not get as much help as I needed. Needless to say, this is the class that I lost my 4.0 GPA."

These experiences suggest that students who are taking dual enrollment or considering dual enrollment will need to be resilient, and perhaps more flexible, in their ability to seek out assistance as needed. If they are actively involved with campus activities or work, students may have to make difficult decisions about where they should direct their energies based on what they value most and what will be most critical at the time. For students who may be relying on college scholarship opportunities as a result of their athletic or extracurricular involvement or may be experiencing financial challenges and need to work, very wise and conscientious planning would precede their pursuit of the college-level experience during high school.

Transitional Impact

The second theme, transitional impact, was derived from the research question: "*How did the dual enrollment experience impact your decision to attend college?*" The factors that led to this theme resulted from survey questions that asked whether dual enrollment had any impact on the participant's decision to attend college. This question yielded 16 negative responses (76%), only because attending college was already a part of their future plans. Most of these students saw dual enrollment as an opportunity to prepare for an experience that was already a planned part of their future. Only three of these participants also stated that the experience at the university was quite different from what they had experienced in dual enrollment courses at their high school or community college. One student stated that it helped her determine where she wanted to go to college, which was a preference to attend the university rather than remain at the community college. The five students who responded with ecstatic positivism reported that they were more confident, comfortable, prepared, and aware of what was to be expected in the college setting. Comments in regards to experiences that led to a neutral or positive transition represent this theme.

Impact on college decision. When asked if participation in dual enrollment impacted their decision to go to college, students responded unanimously that it did not, primarily because these students had college planned as a part of the future prior to participating in the program. Some offered brief reasons such as "*I would have attended college either way,*" or "*I knew before dual enrollment that I planned to go to college.*" The experience may have just given them more confidence about their decision or

reduced some of the mystery about what to expect. Several interesting responses are listed below:

- "No because I was very sure that I was going to college however, it made me more confident I could definitely achieve my goals and college wasn't going to be too hard I just needed to focus."

- "I was going to go to college if I did dual enrollment or not. It just gave me the college experience before I graduated high school."

- "I was planning to go to college definitely after high school. The dual enrollment program did allow me to start my education in college earlier and save my family money."

- "No, I always planned on attending college and dual-enrollment just helped prepare me for the transition."

- "No, because I always knew I wanted to attend college after graduation. I did dual enrollment as a way to better prepare me for college."

Participating in dual enrollment did help one student go a step beyond deciding to go to college, but also to clarify whether she wanted to attend a community college or go to a major university. She responded, "*I was planning on going to college after graduation anyway, but I think dual-enrollment affected my decision of where to go to college. It made me not want to stay at a community college, but to experience a university.*" Another student realized that she saved a semester of college by participating in dual enrollment. She stated, "*It didn't really affect my decision by it did give me a head start. I entered college with 14 dual enrollment credits and 12 hours is a fulltime schedule.*"

Neutral transitions. When asked questions about their transitions, none of the students reported a negative transition to the university. A few students (n=3, 14%) shared statements that were considered neutral, and the majority of the responses were positive. Neutral statements were considered to be those responses where students did not clearly indicate a positive or negative response about the impact of dual enrollment on their transition. These three students reported that dual enrollment was much easier than what they experienced at the university or that it was a huge change. For example, one student indicated "*I do not feel that dual enrollment affected my transition to college, because it was still a completely different experience from dual enrollment classes.*" Another student states, "*No, coming from a rigorous high school program, the college transition was not difficult.*" Other comments students shared spoke to differences students can still expect despite their dual enrollment experiences:

- "It affected my transition because of the material covered. The texts in college are more in depth and more material is covered in a short period of time. In high school, you get a full school year to complete a course but dual enrollment and college classes are semester long classes but the same amount of material."

- "Really if I were to stay at [college] I would say yes but I went to a completely different school with a different environment so it was a huge change."

- "Dual enrollment did not really prepare me for coming to a university. It only prepared me with staying organized and learning how to budget my time with college courses. As for coming to a university, it was a completely different experience. I had to learn how to interact with other students and teachers differently. Teachers now are not always able to stay thirty minutes after class to answer questions, but require you to go to

office hours. During dual enrollment, I used to stay after and talk to the teachers about many things and they were open in sharing their knowledge. At the university, I feel like it is a game to ask the right question in order to find the answer you are seeking."

The perspectives of these students suggest that the differences they experienced were due to the changes in location they experienced. If they took courses at their high school or community college, there was still some transitions they had to adjust to when matriculating to a university. Dual enrollment would seem to be a stepping stone that would prepare students for some, if not all, aspects of the transition from high school to the university.

Positive transition. In most cases (n=18, 86%), students had positive things to say about their transition to the university from their high school and dual enrollment experience. Many students (n=17, 81%) were glad that they were able to demystify some of the experience prior to starting at the university and felt they knew what to expect. One student felt more prepared to handle the level of freedom that is available at the college level. Several students echoed comments similar to the following quote: *"I did not have to take challenging courses and have to adapt to "college life" at the same time. It avoided stress I know some of my peers had."* Other comments were:

- "Yes, I was fully prepared for college when I came in. it was not nearly the culture shock that many students experience when they first get to college. I was already accustomed to my surroundings so I could just focus on school."

- "It has positively influenced my transition from high school to college. I feel I was much better prepared for college after having taken dual enrollment than if I had just taken honors or normal classes."

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A number of students were more specific regarding things that were positive about their transition. Some attributed their knowledge of processes and procedures as a common reason for this. One student stated, *"I have been more aware of guidelines and processes to get things done than regular first year students may not be aware of. For example, getting registered for classes, who I need to speak to when I have an issue and I knew where to get free tutoring. I feel that I had a heads up on the average college student."* Another student who had similar thoughts had these things to say: *"I really enjoyed the atmosphere at [the university] and I learned many good lessons regarding things like OASIS and having to register for classes by yourself, as I had to overcome a few hurdles along the way. Having knowledge about the way the registration, class scheduling and financial aid worked, made my first official college semester seem habitual."*

Another reason many students felt they had a positive transition was because they were able to build a greater comfort level with the academic environment that they would be confronted with upon their transition. There were quite a few unique statements that spoke to the effect that the experience had on students' confidence in their ability to handle the workload, participate more in class, and communicate more effectively with their professors. The points below highlight numerous comments that were expressed:

- "I became more confident about the workload. I did not hesitate to speak out in class once I became a full time student at the University. I was diligent in keeping contact with my professors when I needed help. I was much more excited about going to school. My greatest fear was that college work would be too difficult for me, but once I realized that all I had to do was apply myself, I knew I could do it. If I had not

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participated in dual enrollment I would have walked into college a full time student without a clue. I would have doubted myself. I would have been uneasy all the time, which would only make my transition that much harder."

- "Yes. Knowing how to relate to professors and manage the workload were things I had already been exposed to during dual-enrollment and so they was a couple less things that were brand new in college."

- "The college courses I took in high school GREATLY prepared me for being a full-time student. It absolutely scares me that some kids come to college with no knowledge whatsoever of how the classes will be, the difficulty level, etc. The classes I am in now directly correlate to the ones I took in high school and I had no "initial shock" from first coming here."

- "YES! YES! I can't stress enough, as I will say again, how vital and essential dual enrollment has been on my education. I came to college fully aware and prepared and felt comfortable going to classes. I knew the level of work expected of me and I knew I had the adequate knowledge."

One student who had taken courses at the high school and the local community college encountered some difficulties that led to a one-year delay in his transition to college after graduating from high school. Despite those obstacles, he had this to say about how dual enrollment impacted his transition: *"Yes it has definitely. . . . That['s] what helped me [have the] motivation to fight to get into college. It was a one-year battle and it was a pure struggle. But at least the motivation and desire to never give up persisted and it came through. Taking college classes reminded me that I can be able to go to college…"*

Dual Enrollment/University Comparisons

The third theme, Dual Enrollment/University comparisons, was a result of the research question: "What comparisons would you make between the college experience you had as a high school student and the college experience you are having now as a full-time college student? Categories that emerged from responses to survey questions associated with this theme included: class size, teacher contact, teaching styles, and course workload.

Class size. All students made reference to the difference in class size in their dual enrollment class, whether at the high school or community college, and the class they experienced once they transitioned to the university. Once they matriculated to the university, classes were at least double or triple the size they were accustomed to previously. As several students are quoted here, this drastic increase in class size was often associated with the difficulties of having a better rapport with their professors and their peers.

- "The only difference is the class size. In high school, there were 25 or so students at the most but here at [the university] I have a class of 350, about 150, and another with 200 students. Therefore the one-on-one relationship with the teacher is harder to establish. Other than that, the coursework is about the same. The information was covered as if it were a course given on the campus, so my transition was much easier."

- "The classes were much smaller during dual-enrollment and so most of my teachers knew my face if not my name. Here, a lot of classes I've taken have had 100+ students, making it slightly difficult to know every student by name. But the classes at

[the university] that have had a number closer to 30 have always made an effort to be available in and out of class."

- "Yes, the class sizes at [the university] were about 3 times the size of my dual enrollment classes."

- "In dual enrollment since we were such a small group, the professors knew each and every one compared to now where only my professors in Russian and Composition know me and the rest I'm just a number on the roster."

- "At [the college] the classes were much smaller than my lecture classes now. It's not necessarily that the teacher knew you any better it was just a smaller class."

- "Dual enrollment is definitely more personal due to the smaller class sizes. They understand that this is a transition process; therefore they may be a little more lenient on the rules. Here at [the university], it is the student's responsibility to know their professors on a personal level."

These comments consistently reflected that students experienced a drastic change in the class size they experienced at the university, which seemed quite different from the smaller classes they had enjoyed in their dual enrollment settings.

Teacher contact. Students consistently reported closer ties with dual enrollment educators rather than the university professors they had. They used words such as "intimate, personal, accessible, friendly, and helpful" to describe the characteristics of their previous college instructors. A few detailed responses below are more telling of how students perceived differences in dual enrollment professors, who were most often from their high school or community college, as compared to their current professors:

- "While I was dual enrolled the relationships were much more intimate. It was easy to reach the instructor and he or she would learn your name. At the University it's not as easy to sit with the instructor face to face. Unless they have office hours an appointment would have to be made, but ultimately the best way to contact them is via-email."

- "I feel that the teacher-student relationship in dual enrollment courses is a little bit more personal. I felt more connected with my teachers in those courses because of the smaller class sizes and therefore felt more productive and more at ease. It is a little hard to be just another face in a class full of 350+ kids and I don't feel as prepared when tests come around."

- "For HS/College, I was sorta close to them. But not as I really wanted to be. Though only like 1 was caring enough the other really didn't. As for the one in college, it was ok. We got to talk here and there. And was helpful. Now for [the university], not really. Though 2 of the professors I know because I took the same classes my mother did. So it was like a bonus in a way. Though in general, I really don't have any relationships of a more academic sort anyway. Big downfall."

- "Here my professors know me by a number not by my name. There is a lack of communication, I send an email and almost never get a response. And if I go to office hours I better have questions or it's a waste of time. There is no personal connection with professors at the university, it could be the fact that I'm just one student in a sea of faces."

Perspectives such as these suggest that if students choose to matriculate to a university, rather than remain at a community college, they can expect differences in

class size and teacher contact. They may face being in much larger class sizes at the university than they had in their dual enrollment courses at the high school or community college. As a result, having hundreds of students in a class instead of twenty or thirty, will likely lead to differences in how students can expect to learn in class and communicate with their professors.

   Teaching style. Students made comparisons about the different teaching styles they were exposed to in each setting. The responses in this area were a bit mixed but, in general, students saw dual enrollment as a gentle segue into the academic expectations of the college experience.

- "Before being a full-time student, I had no idea what a lecture class was like and coming here I have been introduced to that class setting. Dual-enrollment was a typical high school class setting, with the difference only being the college class."

- "Most instructors at the University lecture for an hour or so, but while I was dual enrolled there was often student participation during lectures; not just, "raise your hand if you have a question."

- "I feel that the classes I took while I was dual-enrolling were a little bit more relaxed in nature; my professors were a little more flexible and approachable. It felt like the classes were more of a preparation for other classes, whereas at [the university], the classes I'm taking are directly related to my area of study and more concentrated. I haven't seen a big difference in workload though.."

- "The workload was definitely more intense, and the professors at the community college are more available to work with you. It feels more like I'm teaching

myself the material now and the professors are just instructing my on how to do that, rather than actually teaching me themselves."

- "The teaching styles as a dual-enrollment student were focused on not only the class, but other pieces of knowledge that were useful not necessarily relevant. For example, in one of my science courses we had a project to look up what Chinese year it was, the year of the pig. The classes as a full time student are based solely on the information that we need to know in order to pass the class. They do not care what other classes want you to know or any outside knowledge."

- "Yes, the professors were more strict in format and expectations such as having a syllabus. Class size was bigger than some of my high school classes

- "The styles were pretty much the same, lecture, lecture, lecture."

- "At my community college my professors seems to have more extra credit opportunities compared to full time. Teaching in general is the same."

- "Basically if a student is in the program that I was in; they should be treated like a college student not as if they were still in high school. It just made the transition harder because you gain these assumptions that college courses are ran like high school classes."

- "At the community college where my dual enrollment took place the professors went as slow as the class needed. At [the university] the professors work at their own pace not caring if the students grasped the concept or copied everything off of the PowerPoint slide. I would say the teaching styles at the community college were better than they are at [the university], but I think that goes back to the fact that the professors at [the university] don't seem like they really want to be there.

Community college professors and high school teachers who taught dual enrollment were described as less challenging than university professors, more lenient. They seemed to be more attentive to individual students in this setting, as one student indicates, and were alleged to "baby" students more. Five students made statements indicating that university professors treated people as adults, expected students to seek out help as they needed to, often taught at a faster pace, and relied less on class participation and discussion. One student expressed her reflections by saying: *"The teacher relationships were different between high school and college classes. Teachers in high school had more control over what and how I did things. College professors told me what was required and needed to succeed. It was up to me to get the job done whereas high school teachers reminded for homework and tests more than in college."*

Course Workload. Students shared interesting perspectives about the differences in courseloads and expectations between the two educational settings. While most students appreciated the role of dual enrollment in preparing them for the full-time college experience, a few did express concern that it was a bit easier than the courses they have taken since attending the university, where courses were described as being much harder, intensive, or difficult compared to what they had experienced before. A few remarks from this category were stated as follows:

- "I do notice a difference in what is expected of me in my classes now compared to then, but I am also in higher level classes and in my major-specific classes. So, I can't say that it is the instructor more than the classes themselves. Also, certain instructors expect more from you than others and I have had some of both during both dual-enrollment and full-time."

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- "I really have not noticed much of a difference. The only thing would be that at [the university] there is a lot of supplemental material, such as online homework and quizzes."

- "Some of my courses at [the university] are quite a bit more difficult and professors expect a lot more out of you and aren't always on you to do your work. But on the other hand there are some easier classes at [the university] that are nothing compared to dual enrollment courses. But overall I would have to say dual enrollment courses were somewhat easier."

- "The college classes I took as dual enrollment were too easy, professors allowed us to take open note exams so, in my opinion, we really did not get the chance to learn the material as well as I would have liked. My course load now is more serious and I actually am learning the material and studying for tests (which are not open book)"

- "Participating in dual enrollment did not really prepare [me] for regular college classes, because I think that they lightened up the material for us high school students and did not really expose us to the college environment. Nonetheless, I enjoyed taking the dual enrollment classes and earning college credit."

If there were one student's response that might summarize much of the feedback received when comparing the dual enrollment setting with the university, it would be the following quote:

"[The university] has so much more to offer than [the community college] does. At [the community college] there isn't really much to do. You just get there, go to class, and leave. At [the university] we have lots of ways to get involved. It is definitely easier to make friends at [the university]. Although, this may be an

unfair statement since I was older and more confident when I came here. Nevertheless, one definitely gets more of the college experience at [the university] while [the community college] is more scholastically focused. I would also say that the academic expectations are significantly higher at [the university]. As a community college, [the community college] gets a lot of students that for whatever reason were either unable or unwilling to attend a major university. Therefore, their academic standards reflect the level of those who are enrolled there."

Student Relationships

Of the 21 participants, only three of them reported that the student relationships they experienced in dual enrollment were similar to those they experienced at the university level. One unique response by a student states, "Obviously, it's easier to be closer to people while taking dual enrollment courses in high school because you tend to be in the courses with a multitude of people you know. But I also have classes here as a full-time student where I know my close friends and always have people to study with. I think it's pretty much the same." Most students (n=13, 62%) indicate that in dual enrollment they were among friends from high school who might have taken classes along with them, but at the university it may be harder because they're among hundreds of students in each class. A few comments from students who shared this experience:

- "In dual enrollment, all the students knew each other and some were actually a group of close friends taking the class. Here at [the university], in the large lecture classes you're lucky if you see the same student twice and relationships are more individual."

- "Dual enrollment- All of us had been in classes together since freshman year because we were in honors together then and then went to dual enrollment. Some of us even knew each other from elementary or middle school so we have very close relationships. [The university] - There is so many students here and so many in each course that it is sometimes hard to get to know your classmates. In general education classes sometimes you'll know 2 or 3 people at most in a 300 person class so student relationships are not as intimate as high school."

- "In dual enrollment, you're taking classes with students you have known for years. You are more likely to see them around a high school campus. Here at [the university], students must try harder to form relationships with students. With large size classes you might meet someone new every day and you are less likely to see these people outside of class."

One student reported a different experience in taking classes at the community college from other participants. She stated, "At my community college it was just like high school, when walking from one class to the next I would see at least 20 people I knew and stop and have short conversations and make plans for lunch or the weekend. In class I would know almost, if not everyone in the class." However, for most of the 13 students who took courses at the community college, they were usually among students of diverse ages. Although these classes were much smaller, where developing a bond academically might have been more feasible, students didn't seem to bond with others as much due to the variety in ages. Once these students were at the university as full-time college students the classes these students had were filled with hundreds of classmates

and students may have found it harder to establish a rapport with them, but the similarity in age and stage of life made it easier to accomplish in some cases.

- "Well in the full time college I have more people in my age group I can relate to. Compared to those in my community college who were a bit older."

- "In dual-enrollment I didn't talk to other students because they were significantly older than me."

- "In college classes you make more friends with the people in your classes. When I did dual enrollment I didn't really speak to anyone besides the friends taking the class with me from high school."

- "This tends to be one of the downsides to dual enrollment. Students are instantly exposed to many things that their parents may not want them exposed to. Also, when you are 15 in a class full of 18 to 24-year-olds you cannot help but feel out of place and sometimes alone. I was always treated nicely and I was rarely teased for my young age but I still had trouble because I did not fit in. This is why I would strongly recommend that no student do dual enrollment alone. My first two semesters were much easier than the rest because I had my best friend with me."

Of the twelve students who took at least some dual enrollment courses at their high school, six of them clearly indicated being in a comfortable environment with people they knew. If they took courses at the community college, they were more likely to be among people of varying ages and might not be as comfortable unless they took these classes with a friend. Once students matriculated to the university, they were likely to be among people of similar age and their ability to connect with their peers could be easier if they were not intimidated by the large class sizes.

University Experience

This section specifically addresses experiences at the university level, without comparison to other educational settings. Many of the responses were related to campus and class size, the dynamics of interacting with professors and other students, and the flexible environment in the university setting. Given the perceptions of students, there was a mixture of responses on any given topic, as shown below:

- "Here at [the university] the classes are more spaced out. It's up to you to make it there when you're supposed to. The age ranges are very wide. Some are typical college students between ages 18 and 21 but there are returning students who are in their 30's. The environment has not changed much. None of my classes are too intense for me to handle and a lot of material is covered at a fast pace."

- "The classes are almost overwhelming, to the point where I changed my major. The class sizes are huge, the professors don't seem like they want to be teaching (or at least when I was a microbio major). To see a professor during office hours you have to make an appointment, at [community college] you just walked in to their office, and they even gave you their cell numbers in case you had a question "after hours." "

- "I was used to being told what to do, asking permission to use the bathroom and those things changed when I started college classes. I guess you can say more freedom."

- "When I was taking classes at [community college] while in high school my "early college" counselors told me that the university wouldn't be much different than the classes I was currently taking, I believe the professors did as well. So when I transferred I was not expecting to have a class with 350 students in it.

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- "Here at [the university] I know maybe 10 or 20 people out of like 3,000? It is very competitive, when I was a microbio major I always wanted to make study group or try and talk to people in my classes and they just shut me down, because most of us had the same intention on getting into med school, and you can't help there person that might take your spot in the medical school you want to go to.

- "My classes are all within walking distance from each other, so getting from one to another is not a problem."

- "Most of my classes have been similar, except for a few where the professors or TA's should not have been teaching.

- "Now I put great effort in making good grades."

- "[The university] offers a lot more enthusiasm and choices."

These statements reflect myriad experiences that students had at the university. For example, some students reported convenient class locations while others report the student's responsibility to get from one place to another despite the distance. One reports classes being almost overwhelming, while another doesn't experience much difference from their dual enrollment classes. These differences in perceptions or experiences offered by research participants can be expected and did not appear to be significant enough to raise concern in any one aspect of the university experience.

Other Observations

In addition to the three major research questions, additional data were collected including comments for students who might be considering dual enrollment, issues for administrators to be aware of. Participants were also able to communicate any wishes and

final comments they might have had now that they have done dual enrollment and transitioned to the university.

   Considering dual enrollment. One of the follow-up questions that was asked of several participants was for them to describe any noticeable differences between honors, advanced placement, and dual enrollment classes. Four of the twelve students (33%) who had taken honors classes reported that those classes were fairly easy and saw dual enrollment as a higher level of learning where more was expected of you and you were treated as an adult. Another student felt that dual enrollment was better because "you are guaranteed college credit, as opposed to leaving it all up to one test." One student who had taken honors, AP, and dual enrollment reported that dual enrollment was her favorite type of class as compared to the other acceleration mechanisms. She indicated that AP classes were difficult as she felt every class was dedicated to "being taught a test" and that honors classes weren't too hard, just at a faster pace and with more projects. As for dual enrollment, however, "we learned at a higher level with students who were very willing to learn and never had to worry about an AP exam. We often had very interesting discussions in class that would have never occurred in a regular or even honors classroom." Another student also felt that honors classes were like regular classes, but with more expectations whereas dual enrollment was "real, live college classes."

   Desired traits. Given their experiences now that they have transferred to the university, students were asked to describe what traits a potential dual enrollment student should have. The researcher used this question to see what kind of criteria students would recommend to their peers, beyond the academic requirements established by educational institutions. Concepts that were frequently mentioned included dedication, determination,

organization, self-discipline, motivation, and the ability to manage time well. Other traits included taking the experience seriously, doing the work, using good study habits, being open to meeting new people and adapting to multiple environments simultaneously. Diligence, maturity, and confidence were other traits that were recommended by former dual enrollment students. Samples of some of the responses to this question are as follows:

- "…need to be focused on the goal of completing the class. In high school, the teachers baby students whereas college you have to focus, come to class, do the assignments with little supervision, the professors treat you as adults not as children. You have to have your best interests for yourself."

- "Organization, organization, organization. I learned how to be able to study for all my classes, still play a sport, and work. You also have to be personally stable enough to be around both atmospheres at the same time. By stable I mean, able to form into the environment in order to be successful and not afraid to ask questions."

- "A student has to be committed and determined to do well in order to be successful in dual enrollment. After all, most of these courses are completed during your senior year of high school when the average student is skipping school and anxious to graduate. While most students have busy work during the second semester of senior year, dual enrollment classes are still in full swing and you have to keep focused the entire year."

- "A student needs to be self-motivated and organized in order to succeed because professors aren't always going to be reminding you of when you should be studying or when things are due. Also, a student needs to be confident in who they are

and their abilities. Sometimes, I felt a little inferior in certain classes with certain professors, but it ended up driving me to perform at my best ability to show the class and the professor what I was capable of."

Because many schools seem to focus on granting permission to take dual enrollment classes to students from honors and AP programs at their schools, I was intrigued by the following comment from one of the respondents:

- "Able to balance and have a different attitude of things. It's a different feeling. But it give(s) you a glance on what college is going to be. You don't necessarily have to be smart in order to do it, but at least you should have an open mind. You have to be mature when you do it. I know it may not seem like it, but it's a reality."

- "understand this starts your college career; be focused on the end goal and be responsible for your own success"

- "realize it's a privilege"

In response to questions from this section of the study, students were able to express their thoughts about what their peers might be mindful of if they are considering the dual enrollment experience. Students who had also taken advanced placement courses were able to offer their perceived differences between those courses and dual enrollment courses. They also provided a number of traits beyond academic requirements that they felt would be needed for a student to be successful in these experiences.

Issues for administrators. In the researcher's review of the literature, much of the literature on dual enrollment describes perspectives of administrators, a few may present observations from students who are currently involved in dual enrollment, but few, if any, offer detailed data from students who are now in college after doing dual enrollment.

Therefore, the researcher used this opportunity to see what suggestions former participants might offer to administrators if given an opportunity. Here is a sample of what some interviewees had to say:

- "I wish that those that are registering for dual enrollment classes would be better informed about the processes regarding registration, {web-based systems used by students], and immunization forms. It seemed that I was told that registration would be taken care of, what that probably meant that all of the paperwork regarding my student status would be prepared, while signing up for classes would still be my own responsibility. On top of that, the university did not receive my immunization forms, something, which I did not find out until the add/drop period ended, leaving me to pay the late registration fee. While an advising meeting would not be necessary or particularly useful, an online document outlining the procedures would make the process much more straightforward."

- "Make sure when recommending classes that they know what the student is trying to do in college. I took a lot of classes that ended up being unnecessary and a waste of time."

- "Yes, I recently learned that [the university] is now enforcing a policy that forces dual enrolled students to take all their classes at the community college unless the class they wish to take is not offered there. In this case [the university] will allow the students take the course at one of the [the university] campuses. I believe this to be an absolutely terrible mistake. Whether to a university, vocational school, or a better job, Community College is a stepping stone. If a student has the ability to skip this step why should he or she be prevented? This is the very purpose of the dual enrollment program.

It gives exceptional students the opportunity to excel and skip the steps that they are capable of skipping. [The university] is undermining its own policy by forcing many students to take classes in an environment where they will not be intellectually tested in the manner they deserve. This appears to be an ineffective ploy by the university to save money. The reason it is ineffective is because these students do not register until right before classes start. They are not taking any "normal paying" student's place. They are simply sitting in a seat that was already going to be empty. In fact, the university makes money off of them due to the purchases of books and food on campus."

- "I really would want more dual enrollment courses. I wished the standards of the dual enrollment courses that are in HS are more like the ones on college. They try hard to adapt to make it easier but sometimes I think that the teachers in HS, if they really don't have the education to be able to qualify to teach college courses, then why bother trying to teach college styled classes in high school, in which it's a more simplified version of it. I think that maybe dual enrollment teachers should have at least a master's degree but honestly prefer a doctorate because at the college level the majority of teachers who teaches are either doctoral level students or doctorates. The only exception I think that would be is that if the teacher knows the material very well to the point that it's like teaching it as if it's like a sort of secondhand knowledge to it."

There were very few issues that interviewees wanted to bring to the attention of administrators. Overall, students were quite pleased with their experience, but a few issues were shared that usually related to the desire to not be restricted to the amount of classes a student can take and to be better guided through the registration process and the use of other online systems that students are expected to use.

Reflective observations. Subjects in the study have matriculated to the university after taking courses in dual enrollment while they were in high school. Since they have advanced to the stage in their educational path that dual enrollment might prepare them for, this section of the study gave them an opportunity to freely share things they wish might have been different as they reflect on those experiences. Some of the more detailed responses include:

- "The classes themselves were fine, I do wish that the details regarding registration and logistics would have been better explained."

- "I wish that I would have taken my college career in the dual enrollment and my first year more seriously. I don't think I really wanted to go to college. I knew I wanted a degree and I knew that was something I would eventually accomplish, but I wasn't as serious as I am now. I knew college was something that my family expected. It was never something I thought about not doing, but at seventeen and eighteen years old I just wasn't that serious. Now I pride myself to make great grades. I know that it was still a learning opportunity and a privilege to be allowed in the program."

- "I wish I would have taken more classes."

- "I wish there was no limit on the number of course I could take."

- "I wish the dual enrollment teachers had been more like college professors are and gave us more responsibility to better prepare us."

- "I really wished I had taken a lot more. I also wished I could have taken some at [university now attending]. It would mean a lot. If I hadn't had some setbacks in my ACT scores, I would have definitely been able to take some higher level courses.

Many students (n=10, 48%) reported being fine with their dual enrollment experience as it was and had no real wishes they needed to share. Of the remaining 11 students (52%), five of them only wished they had taken more classes or had permission to do more classes through this program. Three students wished that the dual enrollment classes were more like college, one wished their experience in a math class would have been better, one wished their dual enrollment professors would have had a better demeanor, and one would have wanted clearer instructions about procedures such as registration

Final thoughts. The statements in this section are the result of the final survey question that asked interviewees if they had any final comments they wanted to add. Most students reported pleasant, helpful experiences in the dual enrollment program. Two students (10%) regretted missing out on high school activities, including graduation, either due to schedule conflicts or because they were not permitted to participate as a result of their dual enrollment status. A few of the more detailed comments provided by students:

- "Dual enrollment was a great experience. The only thing I didn't like about it was that I missed out on a few things going on at my high school because I left campus early to go to the community college."

- "I missed so much of the "senior year experience" by choosing this program. I didn't get to go to senior prom or grad night… I wasn't allowed to walk at graduation… I missed the experience of being a senior in high school. Instead I was a sophomore in college…"

- "I had a great administrator at [community college]. [Staff member], whom was always great at helping choose classes to take that would be appropriate to take and a great advisor."

- "I am very grateful for the dual enrollment program. It has helped me tremendously in my transition from high school to college. Not only did it help me get ready for my classes but it let me get a better start on my major during my first semester at [the university]. Being able to take 15 credit hours for free was a huge benefit because I would have had to pay for them later if I didn't take them during high school."

- "Dual enrollment is an amazing way to slowly intricate yourself into the college lifestyle and workload. TAKE DUAL ENROLLMENT!!!!!!!!!!!!"

- "Sometimes I wish that maybe if I had taken some sooner, that maybe it would have been a bit different. It was strange that many of them (my classmates) didn't take any dual enrollment courses outside my HS. Sometimes I even wonder to those who teach AP and those who teach dual enrollment that really one is better than the other. I am in support of dual enrollment all the way because it gives you the perfect experience and exposure to those who want to go to college. But then if there are those who don't want to go to college, or community college, then perhaps if you at least take the gen ed's in high school or at least the basic important gen eds (like the English and Maths) at least it will give you a base in your life that at least you took a bit extra steps that you can be able to comprehend better than those who simply took purely HS courses. When I was in 8th grade I got the option to take a HS class in middle school (Algebra 1 Advanced) and at least it gave me some HS exposure beforehand. Same thing in HS. I hope I'm able to do it for graduate school also."

- "I encourage all high school students to take dual enrollments classes, if they are offered at your school. They help with your transition into college and it gives you a head start on college credit hours needed to get a degree."

Aside from a few comments about things students missed at high school or the fact that the dual enrollment was a bit different from what they experienced once they transitioned to the university, most responses were overwhelmingly positive. Students seemed to favor their experiences and would encourage other students to take advantage of the opportunity.

Summary

This chapter presented the research findings as a result of the survey responses that participants submitted via e-mail. Participants responded to questions about their initial experiences with dual enrollment and how the dual enrollment experience impacted their decision to attend college. They also made comparisons between their college experience as a dual enrollment student and as a full college student once they graduated from high school. Six themes emerged through this qualitative process: initial experiences, transitional impact, dual enrollment/university comparisons, student relationships, university experience, and other observations. More categories were specified within four of the six themes.

Through the themes identified above, the study revealed that most courses were taken at a community college or a high school. Half of the participants learned about dual enrollment from a counselor, while the other half became aware of the program through fellow peers, other school sources, or their parents. Students took advantage of the opportunity for myriad reasons, but primarily to save money on tuition and books and to

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earn college credit or a higher GPA. Only one of the students participated in orientation before taking courses, but more students used the library for research or studying. Attempts were also made to utilize tutoring when it fit within the student's schedule of activities. Students almost unanimously reported no impact on their decision to attend college because attending college was always a part of their plan, but the experience did offer more confidence. Almost all students reported a transition in the size of classes at the university and the difference in rapport with their professors and classmates, but still recognized dual enrollment as a stepping stone that clearly provided some preparation for college.

Lastly, interviewees shared their advice for future students who might be considering dual enrollment, described the kind of characteristics they felt potential dual enrollment students should have, and shared issues they wanted administrators to be aware of, along with any final comments or observations they desired to make. Chapter 5 will contain a summary of findings and conclusions as a result of the research data collected in this study, along with recommendations for future research.

Chapter 5: Conclusion

This chapter contains four sections. The first section includes a summary of findings and an overview of the methods used to conduct the study. The second section conveys a summary of the conclusions for each of the three research questions as a result of the students' responses. The third section provides recommendations for practice and possibilities for future research. The final section offers the researcher's conclusions to the study.

Summary of Findings

The findings of the study were used to add to the existing literature by conducting a study that would incorporate the perceptions of students who have matriculated to a university after graduating from high school with dual enrollment experience. Following a phenomenological approach that was driven by the use of technology to use more innovative methods and to provide added convenience to participants¸ narrative inquiry was used to obtain student perceptions via e-mail. All but the one of the 21 students who had been home-schooled had taken AP courses, the honors courses, or both. The responses of these college students were used in developing the themes that would answer the three research questions.

Question 1*: What are the initial experiences of dual enrollment students?*

The initial experiences described by research subjects addressed their awareness of the program, where they took classes, their reasons for participating, the issue of

attending orientation, the dual enrollment environment, interactions among students, and campus resources that were accessed during this experience. Half of the students learned about dual enrollment through their high school counselor, either one-on-one or in a school assembly. The other half of the research participants learned about the program through friends who were taking courses, a teacher, a flyer or brochure that might have been given to them or mailed home, a television announcement on their school's morning show, or parents who worked at a high school or college. Most students took courses at the community college or their high school. Although students seemed satisfied with dual enrollment courses at their high school, it seemed that courses at the college campus were a closer resemblance of the true college experience.

Students often expressed several reasons for participating in the program, but in most cases they were seizing the opportunity in an effort to save money on books and tuition, to earn college credit or obtain a higher GPA. They also participated so that they would have a broader variety of courses to choose from or to have a more flexible schedule. Orientation was not usually required and when it was recommended, most students chose not attend due to hectic schedules.

Students found the dual enrollment classroom to be a positive learning environment. Professors were often described as friendly, more relaxed in their teaching style, and more accessible to students outside of class. There were mixed results when it came to interactions with fellow classmates. For classes taken at the high school, students were usually among people of similar age whom they had known for years, but at the community college they were often exposed to a diverse age range and felt a little more out of place. Some students did not make the effort to get to know other classmates but

there were others who were comfortable around adults or embraced the challenge to mature or adjust to the unique nuances in this setting. In terms of other campus resources, students used the library to do research or to study with friends, but found difficulty in incorporating use of tutoring into their schedules. One or two students attended campus events or got involved in student organizations, but several others seemed to stick with the high school activities they were already involved in.

Question 2*: How does the dual enrollment experience impact the decision of high school graduates to attend college?*

Most students indicated that they had plans to attend college prior to participating in dual enrollment and, as a result, it did not impact their decision to go to college. Instead, as they successfully navigated the system and completed courses, they received the added confidence that this goal was achievable. This concurs with previous findings by Windham and Perkins (2001) that students experience greater self-confidence and preparation for the academic rigor before enrolling as full-time college students if they are able to take classes and do fairly well. With this experience under their belts, students observed that they were able to make smoother transitions from high school to college than their counterparts who did not participate in the program. They were able to demystify some of the college experience, as Bailey et. al. (2002) indicates and not be overwhelmed with such a drastic change all at once.

Question 3*: What comparisons can previous dual enrollment students make between the college experience they had in high school and the subsequent college experience as a full-time college student?*

Subjects almost unanimously shared their observations about the class size as being double, triple, or more compared to what they experienced in dual enrollment. This impacted their ability to have accessibility and a close rapport with professors. More rigid modes of instruction such as lecture were used at the university compared to more interactive forms of learning. University professors also taught at a faster, more strenuous pace. Students also described differences in student relationships between dual enrollment classes and the university experience. Specifically, being in large classes with people of similar age that they had not met before was also quite a unique experience as compared to smaller dual enrollment classes at the high school with their friends or at the community colleges with people who were quite varied in age.

Other Observations

In the previous sections of this chapter, findings were shared that resulted from students' responses to questions that would address their initial dual enrollment experiences, the impact of the program on their decision to go to college, and their comparisons of the dual enrollment and university experience. This section will describe their advice for students who might be considering dual enrollment and the kind of traits they believe these students should have. It will also summarize the subjects' perspectives on issues of concern they would want administrators to be aware of and their reflective observations about their journey from dual enrollment to high school graduates who then went on to college.

For students who might be considering dual enrollment, the participants of the study had some advice to share. They felt students should take the opportunity seriously, because it is a privilege and it does begin their college careers. These participants seemed

to favor dual enrollment over AP and honors classes, because they felt that more was expected of the student and it appeared to be a higher level of learning, but the student was guaranteed college credit. Students also had an opportunity to convey their beliefs about the kind of traits a potential dual enrollment student should have. Respondents felt potential students should possess a number of intrinsic characteristics such as dedication, organization, self-discipline, motivation, diligence, maturity, and confidence. They also needed to be able to manage time well, take the experience seriously, do the work, use good study habits, and be open to meeting new people and adapting to new environments.

Only a few participants had issues they wished to share with administrators. These issues included a desire to have a more clear understanding of initial processes such as registration and the required health immunizations. They also desired to have more thorough advising that took their goals into consideration and addressed the transfer of dual enrollment credits once they matriculated to higher education institutions after graduation from high school. Also, one student expressed his concern for dual enrollment courses only being at the community college, because he felt the university would be a more appropriate setting. As students reflected on dual enrollment and the transition to college, most were pleased with their experiences. There were a few who wished they had taken it more seriously or that the logistics of registration and transferring dual enrollment credits were a bit clearer. Some also wished they had taken more classes or started sooner. Lastly, one or two wished that there were no limits on how many classes they could take through the program and that the dual enrollment instructors were a little more rigorous like college professors.

Summary of the Conclusions Drawn

This study provided an opportunity for college students to share their dual enrollment experience and how it impacted their transition to college. The scope of this study fit within suggestions by Buchanan (2006) to see how students felt about their participation in the program and Andrews' suggestion to research what students have to say once they leave dual enrollment programs (2001). McCants (2004) also stressed the importance of collecting descriptive data from former students in order to assess the impact of the program upon its former participants.

Participants' responses revealed a number of conclusions about their dual enrollment experience. Despite some of the nuances that students faced, the program provided a pleasant experience for students overall. While the college-level classes in high school may not have mirrored the university experience and most were only enrolled part-time, the current subjects as full-time students in this study still felt they benefited from the level of preparation they received. The type of transition experiences that these students expressed conforms with Boswell's conclusion that dual enrollment is one way to achieve a more seamless system between K-12 and higher education (2001).

Students appreciated feeling a step ahead of their peers by having established some comfort level with processes, procedures, and the academic expectations rather than experiencing complete culture shock. The academic experience at the community colleges more closely resembled the course expectations that students experience at the university. The characteristics of students participating in dual enrollment courses at the high school more closely resembled the students they would take courses with at the university. Students who wish to be actively involved with their high schools will want to

exercise caution in the courses they choose for dual enrollment and what restrictions their high school administration and their own personal schedules may place upon students in this program.

The type of institution that a student matriculates to can impact the differences he or she experiences in the higher education setting they attend after graduation from high school. Students who attend a different type of institution, such as a private college or a public, liberal arts college, may experience different transitions than those described by research participants in this study. For example, students in this study matriculated to a public, metropolitan research university that ranks among the top ten largest public universities in the nation. If students choose to enroll in a university of similar size, but take dual enrollment courses at their high schools or community colleges, they can expect variances in their rapport with professors and perhaps even their classmates. They can also expect to experience much larger class sizes and differences in the range of teaching methods used in these classroom environments than they had in dual enrollment classes.

Students can expect to work harder at making connections with classmates at the university, especially if they are not planning to attend the same university and take the same courses with friends from their high school or hometown. If they took courses at the community college, it may have been easier because they are among people of similar age. Unless a student is accustomed to being around older people, he or she may feel out of place at times.

Recommendations for Practice

Findings of the study suggest a number of recommendations for practice among program administrators and policymakers. These are listed below, followed by an elaboration of each suggestion.

First Recommendation

Consider mandating orientation or providing a special orientation at the high school so that students are better informed about processes and procedures for beginning their academic journey in higher education. Administrators might consider mandating an orientation that informs students about the impact of these courses on their college transcript and other possibilities that may come with the experience. Students need to be informed of not only the possible benefits, but also potential consequences that come with taking dual enrollment courses. Because students expressed a desire to have more clarity about some of the initial steps that are necessary when getting admitted to a higher education institution and preparing to register for classes, the researcher believes that administrators should either mandate or continue to stress the importance of attending orientation.

Orientations are an essential part of the college experience that helps students get important information that they need to matriculate successfully. Online orientations might be considered as an option, or students can be mandated to attend regular orientations as an example of how they will need to adjust their schedules periodically to attend to school business. In addition, there is the consideration of fairness that they would be excluded from a requirement that is mandated for regular college students.

This orientation would include numerous topics that will broaden the students' understanding of the institution and other information that will contribute to their success. Students should be made aware of the institution's catalog and student code of conduct, procedures to get registered for classes, and student resources that are available to them. They should also learn about important calendar dates, options for withdrawal if students are not being successful in a course, and the process of transferring dual enrollment credits when they matriculate to a postsecondary institution after high school graduation. While promoting the potential benefits of dual enrollment, high schools should alert students of restrictions or conflicts they may encounter while taking these courses.

Second Recommendation

Develop or enhance quality assurance measures for instruction and student outcomes. Student perceptions suggest that it may be helpful to have quality assurance measures in place for instruction and for student outcomes. For instructional purposes, an approach might be implemented to be sure that courses are taught in a manner that is comparable to that which is done at higher education institutions. Given the success rate of students in this research sample as well as in other dual enrollment studies, an advocacy group for potential and current dual enrollment students might be beneficial in providing quality assurance of student outcomes to ensure students are pursuing these opportunities in a way that will help, and not hurt, them academically or socially.

This group could also have the responsibility of being student advocates in terms of making recommendations to legislators and other decision-makers when reviewing restrictions on the number of courses students are allowed to take and at what age, grade, or academic ability level courses are started. They might also explore and make

recommendations about decisions such as the restrictions that are placed on students from participation in school activities.

Third Recommendation

Establish a network for dual enrollment students that will help bridge gaps in their collegiate experience. High school students often have opportunities to participate in their choice of extracurricular activities. One option to consider is to have school-wide or district-wide student organizations, special sessions, or workshops throughout the academic year that would bring current and potential students together to discuss their experience. They would have the opportunity to exchange ideas, get help with issues that may occur, and build a stronger support system. Students taking dual enrollment at a high school can share experiences with students who take dual enrollment at the community college. Students from larger universities might be invited to share experiences that might better prepare students. Similar to professional conferences, roundtables and panel discussions can be arranged to facilitate a true enrichment experience for students.

Possibilities for Future Research

Given the critical need for accountability regarding the academic standards and fiscal responsibility of our educational systems, more studies are needed that will provide documented evidence of programs such as dual enrollment that facilitate better alignment of educational standards, encourage the pursuit of a college degree, or demonstrate a cost benefit to the state. More specifically, topics for these recommended studies might look at college adjustment, retention rates, and time-to-degree. Using these topics as a guide, recommendations for studies that might broaden the literature include more studies of students who have matriculated to the community college or university after completing

high school with dual enrollment experience. These studies might examine students who remain at the same institution after graduation compared to those who attend other institutions, who live on campus compared to those who do not, or who are required to attend an orientation session compared to those who those who do not. Other factors considered equal, interesting results might be produced from research on students who begin the university with dual enrollment experience compared to those who those who do not. A valuable contribution to the literature might also be research that targets special populations or programs specifically designed for special groups, such as home-schooled students, students with disabilities, first-generation college students, or students who have not had experience with honors, AP, or IB programs. Another possibility for future research would be examining if there are trends in dual enrollment participation according to choice of intended major in college. This type of study would examine if students who choose to participate in dual enrollment are more likely to pursue certain majors at the college level. Lastly, an assessment of potential differences in dual enrollment settings such as a high school dual enrollment course and a community college or university dual enrollment course, which might include variances in instruction or seat time in class.

Conclusion

As we recognize the growing need to develop a more educated workforce, we must take a close, serious look at those initiatives that will facilitate this goal of increased degree productivity. Developing an educational pipeline that provides a clear path from high school to college is one such avenue. Dual enrollment is an acceleration mechanism that helps students realize their ability, with proper planning and support, to successfully

pursue a college education. Responses to this study suggest that dual enrollment options for students should continue, and more students should be encouraged to participate.

Respondents in this study further substantiate Karp's findings that, as identity formation suggests, role rehearsal has enabled them to acquire the normative values and embrace the identity of a college student (2006). This helps ease the transition by allowing students to make smaller steps towards this educational goal rather than facing the culture shock they might experience both academically and socially. Furthermore, students who participated in dual enrollment during high school will not be faced with the problem that is quite common among many of their peers: graduating from high school only to find out that remedial coursework is needed before they are ready for true college academic experiences.

Hanson, Windham, & Lerner (2006) state that Florida has been committed to the advancement of dual enrollment programs for many years. The results of this study suggest that legislators and other key administrators should continue that commitment to facilitate growth in acceleration mechanisms such as dual enrollment, especially if we hope to obtain a more educated workforce that will be able to keep up with the demands of our economy and society.

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APPENDICES

Appendix A

Research Recruitment Information Letter
for Administrators and Faculty

May 8, 2008

Dear Administrator/Faculty Member

A research study is being conducted for a qualitative dissertation using students who were admitted to the university during the 2007-2008 academic year and took dual enrollment courses in high school. The purpose of the study is to gain insight on the impact of dual enrollment experiences on college readiness and first-year transitions.

Your help is being solicited in the recruitment of students to participate in this study. Students will be invited to share about their dual enrollment and first-year college experiences through a research project that is intended to provide valuable information to state officials, educators, researchers, and other constituents who are interested in the administration of dual enrollment programs.

You are being asked to simply do the following:
1.   Forward an e-mail from the researcher to any students who were admitted to the university in summer 2007, fall 2007, or spring 2008 and participated in your program or took classes with you. This e-mail will include an attached letter of invitation for students to participate in the study and the informed consent information that is related to this research study.

2.   Copy the researcher on e-mails sent to students regarding this study.

It is my belief that students are more likely to read an e-mail and a greater response rate might be obtained if students receive this e-mail from a name they recognize due to a rapport that was built during their first year at the university. Students will be asked to respond to the researcher and to self-identify that they possess dual enrollment experience, which will be verified through the Registrar's office. No further action will be asked of you beyond the initial e-mail.

Please confirm by **Friday, May 9, 2008** if you are willing to assist in the recruitment of students for this study, which is expected to take place in early June. If you have any questions about the nature of this study or the process, please contact me at (813) 833-1215 or tllewis2@mail.usf.edu.

Sincerely,

Theresa Lewis, Doctoral Student
Adult, Career, & Higher Education

VOLUNTARY RESEARCH OPPORTUNITY

Do you have
Dual Enrollment Experience?
(college credits earned during high school)

Did you begin USF in either….?

Summer 2007
Fall 2007
Spring 2008
Summer 2008
Fall 2008

Then please consider sharing your experiences with dual enrollment
and your transition to college through an e-mail survey.

We NEED to hear what you have to say!!!

It's 3 easy steps and should only take about 1-2 hours over a 4-6 week period.
Note: Everything is done by e-mail at your convenience!

$10 Gift Card for Food
will be given in exchange for your participation

You will contribute to a very important study that will be informative
and beneficial to future students and their families, educators,
program administrators, and others of interest.

For more information, please send an e-mail to:

tllewis2@mail.usf.edu

Theresa Lewis, Doctoral Student
USF College of Education
Higher Education Administration program

NO LATER THAN
FRIDAY, OCTOBER 31st 2008

Research Recruitment
Information Letter for Students

Dear Student:

You are invited to share your experiences in taking dual enrollment classes while you were in high school through a research project that will provide valuable information to state officials, educators, researchers, and other constituents who are interested in the administration of dual enrollment programs.

In addition to basic demographic information (age, gender, ethnicity, etc.) you will be asked questions related to your experience in dual enrollment and how it has affected your transition to becoming a full-time college student once you graduated from high school.

Incentive: $10 iTunes Gift Card!!!

In order to receive the incentive as a token of appreciation, participants of the study must:
1. Provide your responses within two weeks of the date you receive confirmation that you have been added as a member of the research group. The first round of questions will also be sent at that time.
2. Continue to respond as needed for 2-4 follow-up sessions to get clarification or additional insight to responses.

Upon completion of the follow-up questions, you will receive an e-mail informing you that the data collection phase is closed and the online gift card should be received by e-mail within 72 hours.

Requirements to participate:

- You must have enrolled in at least one or more college classes while you were in high school through the dual enrollment program and be willing to write about your experiences.
- You must have entered the university in Summer 2007, Fall 2007, or Spring 2008.
- Read the Informed Consent which informs you of your rights as a voluntary participant in this study.

Appendix C (Continued)

Timeline of events: Once you have been selected to participate in the study, the following events will occur during the 4-6 weeks the study is being conducted:

- You will become a member of the *Dual Enrollment Research Group*, which will appear as a student organization in Blackboard once you have been added using your U number.
- The initial set of interview questions will be e-mailed to you and you must submit your responses by e-mail within two weeks. The estimated time needed to initially respond to all of the interview questions is **approximately 1- 1 ½ hour(s)**.
- You may receive 2-4 more e-mails during the remainder of the study to obtain additional information or clarification on what you've written and no more than 15-20 minutes should be needed for each of those follow-up e-mails.
- You will be notified once the data collection phase is closed and will have an opportunity to examine the results of the analyses at the conclusion of the study.
- Note: You are able to select an online chat option that is also available through Blackboard if preferred.

What do you do if you wish to participate?

- To be considered for participation in the study, please read the Informed Consent to be aware of your rights as a volunteer in the study.
- E-mail me at tllewis2@mail.usf.edu with the following information:
  o Your U # and NetID so that you can be added to the *Dual Enrollment Research Group* in Blackboard if selected to participate.
  o How many courses or semesters you participated in dual enrollment.
  o What semester you started at the university after finishing high school
  o List any of the following programs that you were involved in during your first year: Freshman Summer Institute (FSI), Student Support Services (SSS), Honors College, New Student Connections, or University Experience (UE).

Contact Information:
Theresa L. Lewis, Doctoral Student
Adult, Career & Higher Education
tllewis2@mail.usf.edu

Appendix C (Continued)

Receive a $10 iTunes Gift Card for sharing your dual enrollment and college transition experience!!!

Dear Student

You are invited to share your experiences in taking dual enrollment classes while you were in high school through a research project that will provide valuable information to state officials, educators, researchers, and other constituents who are interested in the administration of dual enrollment programs.

In addition to basic demographic information (age, gender, ethnicity, etc.) you will be asked questions related to your experience in dual enrollment and how it has affected your transition to becoming a full-time college student once you graduated from high school.

Requirements to participate:
- You must have enrolled in at least one or more college classes while you were in high school through the dual enrollment program and be willing to write about your experiences.
- You must have entered the university in Summer 2007, Fall 2007, or Spring 2008.
- Read the Informed Consent which informs you of your rights as a participant in this study.

Timeline of events:
Once you receive confirmation by e-mail that you have been selected to participate in the study, the following events will occur during the 4-6 weeks the study is being conducted:

- You will become a member of the *Dual Enrollment Research Group*, which will appear as a student organization in Blackboard once you have been added using your username for logging into Blackboard.
- You will receive some questions via e-mail and you will be asked to respond via e-mail within two weeks. The estimated time needed to initially respond to all of the interview questions is approximately 1- 1 ½ hour(s).
- You may receive 2-4 more e-mails during the remainder of the study to obtain additional information or clarification on what you've written and no more than 15-20 minutes should be needed for each of those follow-up e-mails.

- You will be notified once the data collection phase is closed and will have an opportunity to examine the results of the analyses at the conclusion of the study.
- Note: You are able to select an online chat option that is also available through Blackboard if preferred.

Incentive: $10 iTunes Gift Card!!!

In order to receive the incentive as a token of appreciation, participants who are selected must:

1. Provide your responses within two weeks of the date you receive confirmation that you have been added as a member of the research group. The first round of questions will also be sent at that time.
2. Continue to respond as needed for 2-4 follow-up sessions to get clarification or additional insight to responses.

Upon completion of the follow-up questions, you will receive an e-mail informing you that the data collection phase is closed and the online gift card should be received by e-mail within 72 hours.

I appreciate your willingness to assist in providing information for this research study. If you have any questions, I may be reached via e-mail at tllewis2@mail.usf.edu

Thank you,

Theresa l. Lewis, Doctoral Student
Adult, Career & Higher Education

Appendix D

Informed Consent

I agree to participate in the dual enrollment research project being conducted by Theresa Lewis, a doctoral student in the Higher Education program at the University of South Florida. The purpose of the study is to gain insight on the impact of dual enrollment experiences upon students who are now in college full-time.

I understand that this research will be conducted through e-journaling, in which interview questions will be sent to me and responses returned by me through e-mail in a timely manner.

I understand that the academic history I provide about my dual enrollment experience and first year in college may be verified through university records from the Registrar's office.

I further understand that my participation is strictly voluntary and that I may withdraw at any time from this study without penalty of any kind. I will inform the researcher of the decision to withdraw via e-mail.

I understand that my identity throughout the study will remain confidential and any information submitted will be maintained in secured locations such as a locked file cabinet at the researcher's library carrel and in a Word document that is password-protected. I grant permission for data from my responses to be a part of any written or verbal report as long as my right to confidentiality is maintained.

I understand that anonymous results of the study will be available to me upon request once the study is concluded and the data has been analyzed.

You may contact me, Theresa Lewis, at tllewis2@mail.usf.edu if you have specific questions about the study. You may contact the Division of Research Integrity and Compliance of the University at (813) 974-9343 if you have questions about ethical procedures as a participant of this study.

Appendix E

Interview Questions

Demographic Information

NetID [This is the ID you use to log into WebMail and Blackboard (myUSF). It will be used to add you as a member of the research group on Blackboard.]

Name

Pseudonym [This is an alternate name that you choose for me to use instead of your name in any public information such as the research results so that you cannot be identified.]

Gender

Ethnicity

Current age

Hometown

Age at the entry into first dual enrollment class

Name of High School

Intended Major

To assist you in properly responding to the next set of questions, please list information about each dual-enrollment course you have taken in the grid below. You have two options if more space is needed:

1.   **Once you get to the last row, you can continue to press the TAB key and another row will be added automatically.**

2.   **You can print the page, make copies, and fax the completed pages to (813) 315-6314. This fax number will submit documents to me via e-mail, which is secured by a password that only I have.**

DUAL ENROLLMENT COURSE LISTING

COURSE TITLE	COURSE PREFIX & NUMBER (if known)	GRADE EARNED	SEMESTER & YEAR	NAME OF COLLEGE/ UNIVERSITY	LOCATION OF COURSE (H.S./COLLEGE/ OTHER)	AVG.CLASS SIZE Choose between: A) < 15 B) 16-30 C) 31+	ESTIMATED AVG. AGE RANGE OF CLASS Choose between: A) 15-18 B) 19-24 C) 25+ D) Unknown
[Example] Freshman English I	ENC 1101	A	Spring 2006	HCC	Tampa Bay High School	C	A

<u>Questions</u>
1. How did you learn about dual enrollment?
2. What factors contributed to your decision to participate in the dual enrollment program?
3. Did you experience any differences in the college class(es) taken while in high school versus the college classes taken as a full-time college student? Please explain your answers.
4. What personal and academic characteristics do you feel a student needs to be successful in dual enrollment courses?
5. Describe your feelings about each of the following aspects of dual enrollment courses:
    a. the location of the classes
    b. characteristics of students in the classes, such as age, maturity level, etc.
    c. overall environment of dual enrollment courses taken
6. How would you compare each of the aspects mentioned above with the college classes you have taken as a full-time student?
7. Did you perceive any differences in the academic expectations set by instructors of the college classes taken as a high school student compared to the instructors of classes taken as a full-time college student? If so, please describe.
8. What were the teacher-student relationships like in these two settings?
9. What were the student-student relationships like in these two settings?
10. Describe the teaching styles you have observed in dual enrollment classes compared to those you have observed as a full-time college student.
11. Did participation in dual enrollment affect your decision to attend college after graduation? If so, how?
12. Has participation in dual enrollment affected your transition to college as a full-time student once you graduated from high school? If so, how?
13. Is there anything you wish would have been different about the dual enrollment courses taken? If so, please describe.
14. Are there any issues you would want program administrators to be aware of? If so, please describe.
15. Is there anything you'd like to add?

Appendix F

SAMPLE FORMAT
Interinstitutional Articulation Agreements

Florida Statutes. (n.d.). Sample format of the interinstitutional articulation agreement.
Retrieved December 1, 2007 from
http://www.fldoe.org/articulation/pdf/interinstitutional-articulation-agreements.pdf

The Interinstitutional Articulation Agreement, as required by section 1007.235, Florida Statutes,

should begin with an introductory section that clearly identifies the parties involved, the term (a

beginning and ending date) of the agreement, the make-up of the Articulation Committee

involved in negotiating and drafting the agreement, and a description of the process by which the

agreement is renewed or terminated. Following the introductory information, consider these

required components:

1 **Ratification of articulation agreements between the community college and school**
   district.

2. **Courses and programs available to students eligible for dual enrollment, including a plan**
   for the community college to provide guidance services.

This section attests to the ratification and modifications of all other agreements between the community

college and the school district. Such agreements might include plans involving career education

center/community college transfers, Tech Prep, placement, testing, and dual enrollment agreements beyond

the scope of this document (such as agreements unique to a specific magnet program, academy or school).

As provided by law, this section should include a list of these agreements and any additional agreements

with state universities or eligible independent colleges and universities. A brief description of the dual

enrollment program, including statutory requirements (such as exemption from the payment of tuition and

fees) is an appropriate introduction to this section of the agreement. The following reference to the 2006 legislative changes can be addressed in this section. Beginning with students entering grade 9 in the 2006-07 school year, the revised language for section 1007.271, F.S., requires school districts to: "weigh dual enrollment courses the same as advanced placement, International Baccalaureate, and Advanced International Certificate of Education courses when grade point averages are calculated. Alternative grade calculation, weighting systems that discriminate against dual enrollment courses are prohibited." It is important for the community college to provide and coordinate services with district guidance counselors regarding the selection of dual enrollment courses. When advising students about course availability, the *Dual Enrollment Course Equivalency List,* approved by the Articulation Coordinating Committee and State Board of Education, provides a great starting point. While this list identifies the college courses guaranteed for credit required for high school subject areas, it does not list all dual enrollment courses that count for subject area or practical arts elective credit. Current law allows for any course in the Statewide Course Numbering System, to be offered as dual enrollment, with the exception of remedial and physical education skills courses. The 2007-2008 implementation of the A++ Secondary Redesign Act requires high schools to offer "Major Areas of Interest" (MAI). Each year, districts can propose modifications and add courses that to Major Areas of Interest, which presents an important opportunity for postsecondary institutions to share with district partners suggested dual enrollment courses that can enhance the MAI. Using FACTS.org, students should develop an academic plan that includes courses that will result in a technology certificate, associates degree, or baccalaureate degree. If the student intends to seek a baccalaureate degree, the plan must include courses that meet general education and prerequisite requirements for entrance into the selected baccalaureate degree program. It is not advisable for students to take excessive courses that will meet neither general education nor common prerequisite requirements. The intent is to provide maximum access while guiding students toward a well planned program of study.

a. **The process by which parents and students are notified of the option to participate.**

b. **The process by which students and parents exercise their option to participate.**

c. **Eligibility criteria for student participation in dual enrollment courses and programs.**

d. **Institutional responsibilities for student screening prior to enrollment and monitoring enrolled students.**

This is the section to delineate the district and postsecondary institutional responsibilities for promoting the dual enrollment program and notifying parents and students of the option to participate? When and how will this be handled? Be specific. (Section 1007.271(5) F.S.) Procedures for participation, along with firmly established deadlines, are essential to the agreement. Explanations should address the application and associated forms for admission to the program, required recommendations/signatures, designated contacts to whom parents and/or students submit their paperwork, the process by which students register and withdraw from courses, maximum course loads, grade forgiveness, weighting of dual enrollment course grades, and the process by which grades are distributed. Confusion and frustration often occur when the high school and the college share conflicting information about procedures and deadlines. Provide information about differing college and district term schedules and start dates. Without an official resource, parents seek resolution with their school board, the college president, or the DOE; none of which has the individual authority to make these decisions. Having these components clearly documented saves considerable time and inconvenience. Section 1007.271, F.S., establishes that students eligible for dual enrollment have an unweighted GPA of 3.0 and demonstrate readiness for college coursework through scores on college placement tests. List the specific cut scores required for enrollment (particularly if they vary by discipline). Participation in career and technical dual enrollment requires a 2.0 unweighted GPA. Additional requirements shall not arbitrarily prohibit students from participating in dual enrollment courses. Clearly delineate any exception to the GPA requirement and/or any additional community college admission requirements (such as high school grade level). In this section, include promising practices, such as college reach-out or pilot programs that promote participation and increase underrepresented student access and address critical workforce needs. Delineate the responsibility for the initial screening and ongoing monitoring of participants in this section or incorporate into "b" and/or "c" above. Point out the requirements for continued participation in the program. Clearly identifying which GPA is being

considered (the college or high school), and how often the GPAs are reviewed. This will help avoid the potential dispute when a student is dismissed from the program. A key advising point to share with parents and students is that dual enrollment grades are calculated and recorded in the student's college GPA and transcript. This is a permanent record that four-year universities review, and can affect admission decisions. In addition to outlining the academic criteria for continued enrollment in the program, this section is a good place to inform students about college campus expectations. Colleges often require that dual enrollment students obtain parking permits and college library cards. College orientation information provides a helpful introduction to the college campus experience. This section of the agreement should identify behavioral expectations in dual enrollment courses taught on college campuses and the code of conduct and consequences enforced. Maturity/discipline issues arise and addressing them in the agreement leaves less room for dispute when these incidences occur.

e. **Criteria by which the quality of dual enrollment courses and programs are to be judged and maintained.**

f. **Institutional responsibilities for the cost of dual enrollment courses and programs.** Dual enrollment courses are college courses with the identical content and learning outcomes expected of all other college courses identified with the same statewide course prefixes and numbers. Teachers of dual enrollment courses have college teaching credentials established by the Southern Association of Colleges and Schools (SACS). This agreement must outline the procedures for maintaining teacher quality and content integrity of courses, similar to the guidelines in the Council of President's Statement of Standards. Such procedures should include a plan for recruiting, selecting and evaluating faculty and monitoring dual enrollment course instruction taught on the high school and college campus. A strong agreement employs cost-sharing and cost-saving measures and considers the effectiveness of combining resources to cover costs associated with the program. An important point to remember is that school districts receive FTE funding for student participation in dual enrollment courses, even when students attend courses taught on the college campus. Cost-sharing, although not required, is strongly encouraged, particularly for the cost of instruction. Though there are several variations of this model, a key cost-saver allows each entity to contribute half of each instructor's salary. The dollar figure, for example, can be calculated on a college adjunct's pay or the cost of a teacher overload. Whatever the rate decided, each entity is responsible for

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half that amount for each dual enrollment instructor. If the school district pays the instructor's salary, the

community college would pay the school district half the agreed upon cost of an instructor. Conversely, if

the community college pays the instructor's salary, the school district would pay to the community college

half the agreed upon cost of an instructor. The opportunity for this financial balance provides incentive for

both entities to actively recruit instructors qualified to teach dual enrollment. Another cost-saving incentive

could include tuition free college coursework and professional development opportunities for district

teachers to advance their teaching qualifications and credentials needed to teach dual enrollment courses on

the high school campus. While school districts are responsible for the purchase of students' textbooks, the

two entities can come to an agreement on a reasonable length of time for the use of "class sets" of dual

enrollment textbooks. If, for example, there can be a guaranteed use of a set of textbooks for 3 years from

the time of purchase, the costs associated with textbooks can be greatly diminished. Many districts have

cost-saving procedures that require students to return used dual enrollment textbooks to the college

bookstore at the end of the term, whereby the district receives textbook reimbursement for the resale of

used books. With the exception of those areas with rapidly changing technology (which can be specified in

the agreement), most academic texts can be used effectively for much longer than they typically are used.

Though this may involve compromise on the part of the instructors, it should not compromise the quality or

integrity of the course. New instructional costs that colleges and districts should consider are the costs of

licensing fees for electronic media access. Today, many students are required to pay a fee for electronic

media access. Textbooks may continue to be re-used, but in contrast, the student may need to obtain an

updated CD-ROM or license fee for each course, that is generally not re-usable. Electronic access is often

password protected and does not become the property of the district or college. If the e-access fee is a

required component of the textbook purchase, the district and college must address and delineate who will

assume responsibility for these costs. As required by law, students with disabilities must receive

appropriate accommodations. Issues related to this topic must be negotiated and delineated. Which entity

covers the cost of accommodations? Whose criteria determine the need for accommodations (K-12 or CC)? Providing these details in the agreement helps avoid difficult situations that, while rare, occasionally do arise.

g. **Responsibility for providing student transportation.**

h. Mechanisms and strategies for reducing the incidence of postsecondary remediation in math, reading, and writing for first-time-enrolled recent high school graduates.

i. Mechanisms and strategies for promoting "tech prep" programs of study.

j. A plan that outlines the mechanisms and strategies for improving the preparation of elementary, middle, and high school teachers.

This section should clearly outline who is responsible for the cost of transportation for courses taught at locations other than the high school campus. If it is the student's responsibility to provide his/her own transportation, this should be stated in the agreement. A number of districts have outstanding promising practices in terms of providing bus transportation to sites off campus. Though most districts have partnership activities between the community college and school district that serve to lessen the need for remediation when students enter postsecondary education, few interinstitutional agreements adequately address this topic. This section should specify the process by which the local Articulation Committee will: analyze the unique problems that have been identified in this district and develop corrective actions; measure and communicate outcomes; collaborate, develop and implement strategies that will better prepare students for college course enrollment upon graduation from high school; analyze the costs associated with the implementation of postsecondary remedial education and secondary-level corrective actions; and identify and implement the strategies for reducing such costs. The results of the Articulation Committee's analysis/assessment should be annually reported to the district school board and community college board of trustees. It is worthwhile to describe a realistic action plan in this section of the agreement. Examples of activities and strategies described in this section include: federal, state, or local grant programs focused on remediation, CPT testing agreements, co-sponsored after-school or summer tutoring/remediation programs, and collaborative teacher-faculty initiatives. Many districts have a separate "tech prep" articulation

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agreement in place that thoroughly addresses a plan to make students aware of the program, promotes enrollment, and articulates a sequential program of study leading to a postsecondary career and/or technical education degree or certificate. If such an agreement exists, reference in this section and provide a copy as an appendix to this agreement. Districts that do not have a separate "tech prep" agreement must address the components discussed in the previous paragraph at this point in the interinstitutional agreement. Another opportunity to enhance articulation outcomes and document promising practices is to outline the strategies and activities that address ongoing professional development of district teachers. The plan should address both pre-service and in-service activities developed with the intent of improving teacher preparation at all levels and addressing local critical teacher shortages. Pursuant to s. 1007.235(3), F.S., professional development programs should include curriculum content and the utilization of new technologies that respond to local, state and national priorities.

The final section of this agreement is the execution, which includes the appropriate signatures of school district and community college representatives.

Reminders:

- The district school superintendent is responsible for incorporating, either directly or by reference, all dual enrollment courses contained within the district interinstitutional articulation agreement within the district school board's student progression plan.

- This is the opportunity to provide assistance to districts; suggesting additional dual enrollment courses that districts should propose for department approval as courses that will count toward "Major Areas of Interest" offered at the high schools. Dual enrollment courses can advance the program of study for MAIs, enhance students' Bright Futures scholarship eligibility, and increase acceleration options.

- Districts and Community Colleges are encouraged to include representatives from local universities to participate in the development of articulation agreements.

- Districts are responsible for annually submitting updated copies of Interinstitutional Articulation Agreements to the Florida Department of Education, Office of Articulation by the start date of the fall term.

Appendix F (Continued)

❧ All agreements are reviewed in accordance with the provisions of the law. Evidence of
promising practice will be recognized. Compliance reports will be publicly reported and
areas of confirmed non-compliance will be addressed.

About the Author

Theresa Lyvette Lewis earned her Bachelor of Science Degree in Business

Education , M.Ed. in Business Education with emphasis in Instructional Technology, and

M.Ed. in Counselor Education from the University of South Florida in Tampa. With over

15 years of experience as an educator, she has had the opportunity to touch the lives of

many . After teaching middle school for seven years, along with several semesters in

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to Jenkins Scholars recipients, spent two years as a counselor in the College of Education,

and two years as a counselor for Student Support Services. While completing the final

years of the doctorate degree, she worked at Hillsborough Community College as a

College Success instructor and a professional counselor. Her love for counseling and

facilitating support services was ignited by the opportunity to serve with Project Upward

Bound, under the tutelage of the late Dr. Richard F. Pride, in providing holistic services

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