

AN ANALYSIS OF THE EXPERIENCES OF TRANSFER STUDENTS PARTICIPATING  
IN DUAL ENROLLMENT PROGRAMS IN THE STATE OF FLORIDA

By

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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL  
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
DOCTOR OF EDUCATION

UNIVERSITY OF FLORIDA

2013

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To my lovely and beautiful wife Carol, and my children Xaymara and Jason

## ACKNOWLEDGMENTS

I thank my wife Carol for her endless support. I also wish to acknowledge my parents, who worked hard and supported all of my educational endeavors.

I also wish to acknowledge my dissertation co-chair, Dr. Dale F. Campbell, for his continuous support and motivation in addition to providing unique learning and networking opportunities throughout my doctoral program. Special thanks to each of my committee members, Dr. Larry Tyree and Dr. Barbara McDade-Gordon, for serving on my committee and for their sincere support, guidance and learning opportunities. In particular, I thank Dr. Art Sandeen, my dissertation chair, for taking a special interest in my topic and continuously revising, and make recommendations toward improving, my dissertation.

Many thanks to each of my doctoral cohort colleagues and members of the “learning community.” Thank you for the engaging discussions and sharing your expertise and laughter with me.

Finally, I would like to acknowledge Broward College for giving me my first full time college position of a twenty-plus-year career in higher education and providing financial support toward my degree.

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Abstract of Dissertation Presented to the Graduate School  
of the University of Florida in Partial Fulfillment of the  
Requirements for the Degree of Doctor of Education

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December 2013

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Major: Higher Education Administration

The State of Florida Senate Bill (SB) 1908 of 2008 created a new diploma designation for high school students who complete four or more accelerated college credit courses in Advance Placement (AP), International Baccalaureate (IB), and/or Advanced International Certificate of Education (AICE), or who participate in dual enrollment, wherein students enroll in postsecondary instruction and concurrently receive both secondary and postsecondary credit.

The goal of this study is to qualitatively analyze the experiences of transfer students participating in dual enrollment programs in the state of Florida. Additionally, the study is intended to fill the knowledge gap regarding this expanding population.

This research used a purposeful sampling technique to select 15 participants who enrolled in a college academy dual enrollment program in south Florida. The significance of the study is to gain useful knowledge to improve the dual enrollment program and the support systems at transfer universities so future students will be more prepared to handle their initial transfer to the university level and find more support once they transfer.

The results of this study suggest that dual enrollment transfer students are often negatively impacted by the actual, or their perceived, lack of support at transfer universities and by not having the opportunity to experience university life or varied elective courses after transfer.

High schools, community colleges and dual enrollment programs could benefit by doing a better job of providing guidance and realistic expectations of university life. Additionally, at transfer universities, guidance counselors and advisors should be aware of developmental theories and Tinto's interactionalist theory and be sensitive to the unique needs of dual enrollment transfer students.

## CHAPTER 1 INTRODUCTION

In the State of Florida, students can graduate from high school with an Associate of Arts (AA) or Associate of Science (AS) degree and transfer to four-year universities to complete their Bachelor degrees in two more years. This program which allows students to graduate from high school while earning an AA or AS degree is called concurrent or dual enrollment. According to Allen (2010), dual enrollment is defined as a collaborative program between high schools and colleges in which high school students enroll in college courses, earning college credit. The Florida legislature instituted dual enrollment programs over 38 years ago. According to Hale (2001), the reasons for the implementation of dual enrollment programs are as follows:

the promotion of rigorous academics and to provide more educational options to students; to save students time and money on a college degree; to provide greater academic opportunities for students at small rural schools; to increase student aspirations to go to college; and to accelerate student progress towards a degree in order to free up additional space on campus to meet the increased demands for college access by the children of the “baby boom” generation (Boswell, 2001).

Florida statute FS240.116 (1), enacted in 1973, provides high school students with options such as dual enrollment for college access (Heath, 2008). In Florida, Senate Bill (SB) 1908 of 2008 requires high school students to maintain a minimum academic standing to participate in dual enrollment. Moreover, this law creates a new diploma designation for high school students who complete four or more accelerated college credit courses in Advance Placement (AP), International Baccalaureate (IB), and/or Advanced International Certificate of Education (AICE), or who participate in dual enrollment wherein students enroll in postsecondary instruction and receive both secondary and postsecondary credit (Clark, 2008). Community and state colleges in

Florida offer academically gifted high school students, participating in dual enrollment, the opportunity to obtain associate of arts (AA) degrees while concurrently completing their high school degrees. The two-year program places high school juniors and seniors into college-level courses, often times on a college campus, thus providing a unique learning experience to the students. By the time some dual enrollment students finish high school; they will have simultaneously earned their associate degrees and can transfer to four-year institutions to complete their bachelor degrees.

### **Importance of the Study**

The research problem stems from the fact that matriculation data regarding dual enrollment transfer students is available; however, no information documenting their persistence rates and/or transfer experiences, including transfer shock, was identified in the literature. According to Allen (2010), research studies are needed to determine the impact of dual enrollment programs on student access and success in college. Moreover, a 2007 study of Florida dual enrollment data conducted by Columbia University did not cover a long enough period of time to determine whether dual enrollment had an impact on degree attainment (Melinda, Calcagno, Hughes, Wook, & Bailey, 2007) and no other longitudinal study was found. In addition, dual enrollment transfer students often may not have the prerequisites to be considered juniors at the university level (K. Ehlers, personal communication, August 27, 2011). In her doctoral dissertation about community college experiences of high school dual enrollment students, Heath (2008) suggests as a topic for future studies to look at the notion of transfer shock as it relates to dual enrollment students and at the long-term cost analysis of dual enrollment programs. Transfer shock is defined as a decrease in the grade point average when community college students transfer to universities (Carlan &

Byxbe, 2000; Ishitani & McKittrick, 2010; Laanan, 2004; Townsend, 2001). Research to understand and explain the experiences of community college transfer students from the social and psychological perspective or the factors that contribute to transfer shock is very limited, as is information about students' emotional and psychological development at four-year institutions (Allen, 2010; Heath, 2008; Hunt & Carroll, 2006; Karp, 2007; Laanan, 2004).

Additionally, in many cases, the institution to which the student transfers does not accept all of the transferring student's credits (Bailey, Hughes, & Karp, 2002). Questions about the quality of dual enrollment courses lead to issues regarding transferability of these courses. The University of Florida (UF), for example, has a policy that a maximum of 45 semester hours granted by a combination of AICE, AP, IB, and CLEP (College Level Examination Program) credits (<http://www.admissions.ufl.edu/ugrad/trapib.html>) can be applied to a degree program. Moreover, at UF students can only transfer up to 60 credit hours of community college credit as part of the hours needed for their degrees. According to the UF website, "it is the prerogative of the student's college to determine how transfer credit satisfies the specific degree's course requirements" (<http://www.admissions.ufl.edu/ugrad/frdualenroll.html>). During a conversation with one of the parents of a dual enrollment student, she conveyed that although the student had the prerequisites from the community college, the university made it clear that if he did not retake the same courses offered by the university, the university could not guarantee his acceptance into its concentration program (Dr. Kathy Jackson personal communication). In 2006, a Hunt and Carroll study of Florida dual enrollment students revealed that universities

give preferential admission to students with AP credits versus dual enrollment students. The implications of this particular finding indicate that although high school students in the state of Florida are encouraged to take dual enrollment courses, those courses are not considered as rigorous as AP courses. Hence, choosing to take dual enrollment courses rather than AP courses may limit students' accessibility to higher education. Nevertheless, other research using the NELS:88 national data suggests that dual enrollment transfer students were successful in transferring almost all of their community college courses (Melguizo, Kienzl, & Alfonso, 2011). Although the Melguizo, Kienzl, and Alfonso study (2011) is a more valid study, the data collected is from a cohort of national high school graduates in the early 1990s and not representative of the state of Florida. In fact, to date, this researcher has not found any research examining the experiences of transfer students participating in dual enrollment programs in Florida or any other state.

### **Justification of the Study**

High school students in the state of Florida are encouraged to participate in dual enrollment programs. These students concurrently enroll in colleges, potentially earning an AA or AS degree by the time they finish high school. Quantitative data about student enrollment in dual enrollment programs is abundant (Melguizo, Kienzl, & Alfonso, 2011).

Boswell (2001) found that the Florida legislature requires local school districts to pay all of the tuition costs and books for students enrolled in concurrent enrollment programs. This requirement is pursuant to the Educational Scholarships, Fees, and Financial Assistance Statute (FS 1009.25). Statewide, in 2011-12, college data revealed that the estimated loss of tuition to colleges resulting from academic dual enrollment programs was \$58 million as compared to the Florida Legislature's Office of

Program Policy Analysis & Government Accountability (OPPAGA) figures, which estimated the loss at \$43 million (Sikes, 2013). According to the Florida Department of Education, community colleges are absorbing the direct costs of instruction (FLDOE, 2013). Therefore, finding out if the investment in dual enrollment programs is accomplishing the state's goals is important, particularly as it pertains to three areas: 1) saving students time and money on a college degree, 2) lessening the financial burden on the state; and 3) accelerating student progress towards a degree in order to free up additional space on campus to meet increased demands for college access.

This qualitative study will address the experiences of dual enrollment transfer students and whether these students are saving time and money by completing their bachelor degrees within two years of transfer. The study of the transfer experiences and insights of students participating in dual enrollment programs in Florida is important because the state requires that school districts and community colleges subsidize the cost of these students attending college. Community colleges are waiving tuition and fees; while school districts pay for, books and transportation.

This information is important to dual enrollment transfer students as well as the institutions to which they transfer.

### **The Purpose of this Study**

The purpose of this study is to describe the experiences and insights of 15 dual enrollment transfer students in the state of Florida and to study the notion of transfer shock as it relates to these students. The study uses a qualitative methodology to investigate this and related research issues. Qualitative research is defined as collecting data from interviews, focus groups, observations, documents, and material culture (Onwuegbuzie, Leech, & Collins, 2010; Rossman & Rallis, 2003; Savenye &

Robinson, 2004). Moreover, qualitative research attempts to describe a situation as it exists and determine patterns or trends that emerge (Slavin, 2007). At this stage in the research, dual enrollment students are generally defined as students who completed at least 60 credits or earned an AA or AS degree at the time of transfer to the university level.

## CHAPTER 2 DUAL ENROLLMENT LITERATURE REVIEW

This chapter presents a review of dual enrollment and the associated literature. The criterion for inclusion in this literature review is based upon both an electronic and traditional database search using adjusting, community college, dual enrollment, transfer students, transfer shock, and transfer to university as key words. The search was limited to peer reviewed journals published from 1997 forward.

The review focuses on several areas, the first of which is a discussion of the subject vocabulary and of ambiguities in definitions. This is followed by a review as it pertains to the state of Florida, other states and nationally. The literature review then discusses the outcomes of dual enrollment students and the program's contribution to college readiness. The next step is a presentation of a review of what has been, and still needs to be, done in the field regarding policy. After the policy review is a review of the literature on transfer students and the support provided to these students, including, but not limited to, articulation and data collection. This is followed by a discussion of the literature on goals, students' selection of majors, and students' knowledge about college life, as well as the way in which four-year institutions classify dual enrollment transfer students. Finally, the researcher uses the literature to justify this qualitative research.

### **Subject Vocabulary and Definitions**

According to Allen (2010), dual enrollment is defined as a collaborative program between high schools and colleges in which high school students enroll in college courses, earning college credit. The Office of Community College and Research and Leadership together with the Illinois State Board of Education and the Illinois Community College Board used a Delphi study to clarify dual credit definitions and

prioritize issues in Illinois (Kim, Barnett, & Bragg, 2003). The following consensus regarding the definitions of terms was reached based upon the results of two rounds of the Delphi survey conducted by a panel of experts consisting of secondary and postsecondary personnel and Illinois state representatives.

1. **Articulated Credit:** Articulated credit programs align secondary and postsecondary courses to allow students who successfully complete selected high school courses to become eligible to apply for credit in the corresponding college courses.
2. **Dual Credit:** Students receive both high school and college credit for each college-level class successfully completed.
3. **Dual Enrollment:** Students are concurrently enrolled (and taking college-level classes) in high school and college.
4. **Intensive Dual Enrollment Programs** wherein students take dual enrollment courses during the 11th and 12th grade years to concurrently satisfy both the requirements for a high school diploma and an associate's degree. According to Heath (2008), the Broward College Academy High School is an example of an intensive dual enrollment program.

In his monograph *The Dual-Credit Phenomenon! Challenging Secondary School Students Across 50 States*, the author identified four models for dual credit programs (Andrews, 2001):

1. students receive college credit for courses they take at the high school taught by qualified high school teachers;
2. college faculty members teach at the high school;
3. college courses are taught by college faculty members at a location other than the high school and limited to high school students; and
4. college courses are taught by college faculty members at a location other than the high school and include high school and college students.

Established in 1999 by 20 founding institutions, the National Alliance for Concurrent Enrollment Programs (NACEP) created a set of standards to be used in assessing or improving quality in dual credit or concurrent enrollment programs. This voluntary accreditation group developed the standards “as the result of a two-year,

nationwide discussion among Concurrent Enrollment Program professionals” and identified key elements of quality in the areas of curriculum, faculty, students, assessment, and program evaluation. According to NACEP, their standards serve as a model for other states and have been incorporated into state policy by 15 states (NACEP, 2012).

Hoffman, Vargas and Santos (2009) found there is no settled terminology in what they call dual enrollment pathways. This term has been used to describe a structure for dual enrollment in which students participate in a variety of preselected sequences of college activities within the high school, including a preselected sequence of two to four college courses, sometimes preceded by study skills courses. This pathway allows unique opportunities to students who are unlikely to qualify for college courses before graduation and is used by the College Now Program of the City University of New York.

### **Dual Enrollment Program in Florida**

In the State of Florida, students can graduate from high school, while attending a dual enrollment program, with an Associate of Arts (AA) or Associate of Science (AS) degree and transfer to four-year universities to complete their bachelor degrees in two more years. Florida high school students are required to have a minimum academic standing to participate in a dual enrollment program. Heath (2008) explained that this kind of program is defined as intensive dual enrollment or concurrent dual enrollment wherein students satisfy their last two years of high school by taking dual enrollment courses and concurrently obtaining high school diplomas and associate degrees.

A 2009 study found that Florida has one of the most highly articulated and centralized public education systems in the country (Hoffman, Vargas, & Santos, 2009), including a statewide dual enrollment program for high school students. Students can

take courses during or after school hours and during the summer. The state of Florida legally defines dual enrollment as “the enrollment of an eligible secondary student or home education student in a postsecondary course creditable toward high school completion and a career certificate or an associate or baccalaureate degree” (FS 1007.271). There are two variations of the dual enrollment program. In one option, colleges and school districts have agreements to offer college-level courses at high schools, wherein the courses are usually taught by qualified high school teachers. Alternatively, concurrent enrollment programs enable high school students to register and attend college courses taught by college faculty on campus while receiving both high school and college credit for their coursework (Boswell, 2001). Kim, Barnett, and Bragg (2003) reported that the biggest concern related to the quality and integrity of dual credit programs has to do with ensuring that they are taught at the college level by qualified teachers.

Researchers examined the effect of location of dual enrollment courses on student satisfaction with their classes by interviewing three students from high school- and college-based dual enrollment courses (Burns & Lewis, 2000). Their results indicated that the students who did not leave the high school to take dual enrollment courses felt no difference between their dual enrollment courses and their other high school courses. However, students who left their high schools and took courses on a college campus felt they learned more than just academics. Dual enrolled high school students who took courses on a college campus stated they felt more independent, responsible and grown-up (Burns & Lewis, 2000).

Because of concerns over the qualifications of those teaching dual enrollment courses, particularly at the high school level, the State of Florida specifically addresses the issue in the law. Legislation in Florida spells out the requisite qualifications of those who teach in the state's Articulated Acceleration program:

Community college and high school faculty, teaching credit courses in humanities/fine arts; social/behavioral sciences; and natural sciences/mathematics must have completed at least 18 graduate semester hours in the teaching discipline and hold at least a master's degree or the minimum of a master's degree with a major in the teaching discipline.

In most dual enrollment programs, a community college or university may share faculty members to teach a dual enrollment course, or a high school teacher with the appropriate credentials may teach a college-level course (Allen, 2010). In California, community college instructors must possess a master's degree in their subject area for academic and many career-related disciplines. In Florida, instructors must also possess an additional 18 credit hours in the teaching area. For a high school teacher to be hired as an adjunct by a community college, he or she must meet the qualifications of a college instructor. Golann and Hughes (2008) reported that some California high schools have difficulty finding instructors to teach dual enrollment courses in high schools because many high school teachers do not possess a master's degree in the subject they are teaching. When looking at dual enrollment courses taught by qualified high school teachers and those taught by other instructors, Perkins and Windham (2002) found virtually no difference between the percentages of students' success. However, in 2012, Evenbeck and Johnson argued that rather than attempt to replicate a college experience elsewhere, the model for early college should be to conduct classes on college campuses so students can participate in a true collegiate experience.

Community and state colleges in Florida offer academically gifted high school students the opportunity to obtain an Associate of Arts (AA) degree while concurrently completing high school requirements. The two-year program places high school juniors and seniors into college-level courses, often times on a college campus, thus providing a unique learning experience to the students. By the time dual enrollment students finish high school; they will have simultaneously earned their AA degrees and can transfer to four-year institutions to complete their bachelor degrees. A recent publication by Educators for Social Responsibility examines ways to increase college access through school-based models of postsecondary preparation, planning and support of students. The author recommends a model for developing college access programs to support all students in urban high schools. The integrated whole school model consists of the development of a rigorous and engaging curriculum for all students, with opportunities to enroll in advanced courses, from AP to early college and dual enrollment (Lieber, 2009). Moreover, Lieber discussed the importance of high school and college faculty working together to create a seamless alignment to ensure student success. The report also recommended that policymakers allow both colleges and high schools to collect Full-Time Equivalent (FTE) funds for students enrolled in dual enrollment programs.

### **Dual Enrollment Programs in Selected States**

Dual enrollment programs enacted over 38 years ago provide high school students with options, such as dual enrollment, for college access (Heath, 2008). Florida Statute, FS1007.27, also known as the articulated acceleration mechanisms, requires that all twenty-eight community colleges, the Florida Virtual School and Campus, and certain four-year institutions offer dual-credit courses. Although dual

enrollment programs were once limited to high-achieving students, they are increasingly available to average-achieving students. In the State of Florida, dual enrollment programs are also available to home-schooled students (Hunt & Carroll, 2006). Florida Statute FS240.116(1) requires school superintendents and community college presidents to implement articulation agreements that specify, among other things, the following:

courses and programs for dual enrollment, eligibility requirements for student participation in dual enrollment opportunities, “institutional responsibilities regarding student screening prior to enrollment and monitoring student performance,” criteria for judging the quality of dual enrollment courses, “institutional responsibilities for assuming the cost of dual enrollment courses,” and mechanisms for “converting college credit hours earned through dual enrollment and early admission programs to high school credit based on mastery of course outcomes.”

In 2006, over 37,000 Florida students participated in dual enrollment programs with participants completing an average of five college courses (Allen, 2010). The state of Florida has two sets of admission requirements for dual enrollment students. Students applying for an academic degree must have a 3.0 GPA while students who plan to apply for career and technical certificate programs must have a 2.0 GPA (Allen, 2010). Literature regarding the dual enrollment program in states other than Florida was limited considering the fact that dual enrollment and dual credit program development has now been identified in various forms in all 50 states (Andrews, 2004). However, in 2001, Robertson, Chapman and Gaskin published the book *Systems for Offering Concurrent Enrollment at High Schools and Community Colleges*. This book reviews dual enrollment programs in Arizona, California, Illinois, Ohio and Virginia.

## **Arizona**

In Arizona, dual enrollment programs are available in all ten of the community college districts. The state's stakeholders see dual enrollment programs as a bridge between secondary and post-secondary education. A legislative statute legally enables high school governing boards to award dual enrollment college courses toward high school graduation requirements when the following standards are met (Puyear, Thor, & Mills, 2001):

1. credits will be granted by the community college,
2. courses offered will have been evaluated and will have met the official college curriculum approval process-to include outlines, competencies, grading policies, and attendance requirements,
3. students admitted to a college course will follow established admissions assessment and placement policies,
4. faculty members must have community college certification and must be selected and evaluated by the college, using approved college procedures, and
5. any text used must be college-approved.

## **California**

Helfgot (2001) published a chapter in which the author discussed how Cerrito College in California has created valuable partnerships with four unified school districts for their concurrent enrollment program. In the spring of 1998, a policy change waived tuition fees for any high school student enrolled in a Cerritos College class and allowed credits to be awarded by both the high school and the college. According to Helfgot, one of the benefits of the dual enrollment program is the opportunity to employ high school faculty members who meet the college's minimum qualifications to teach some of the classes on the high school campuses since high school teachers attract more students to the program (2001, p. 48). In California, the Santa Monica College dual

enrollment program has established articulation with the K-12 system. The dual enrollment program provides an opportunity for minority and first-generation students to learn about colleges and improve their study skills, and it gives them more information about the process of attending college (Hugo, 2001, p. 72).

### **New York**

In 2007, Karp, Calcagno, Hughes, Wook, and Bailey reviewed dual enrollment programs in Florida and College Now of New York. In Florida, they found that students participating in dual enrollment were 16.8% more likely to attend college compared to their non-dual enrollment peers. They also found that registering in five or more dual enrollment courses did not result in a statistically increased likelihood of enrolling in a four-year institution.

With regard to participation in the New York College Now program, the authors did not find a statistically significant relationship between participation and persistence in the second semester of college (Karp, et al., 2007). One limitation of the New York College Now data set was that it contained dual enrollment participation for career and technical education students only while the data set for Florida contained data for all dual enrollment students. Both data sets were limited to students enrolled at universities or colleges in their corresponding states. Additionally, in both New York and Florida, the authors found that high levels of participation did not positively influence the likelihood of enrolling full-time or persisting to the second term at the university.

Although both the works of Karp, et al., (2007) and Robertson, Chapman, and Gaskin (2001) are descriptive in nature and use quantitative data sets on student

transfer to universities or their respective states, the authors did not follow up or provide any indication of student success once students completed their first year of college.

## **Ohio**

The PSEO program was originally enacted in Ohio in 1989 in response to Ohio Senate Bill 140, Sec. 336S.011 (1989). According to Jordan (2001), the program was established to provide qualified high school students with the opportunity to take college-level courses and experience a college-level environment while receiving both high school and college credit. There are two sets of admission criteria. The first set dictates that twelfth-grade students must possess a 2.7 cumulative GPA (3.0 for eleventh-graders), and they must have successfully completed Ohio's ninth-grade proficiency examination. The alternative or second set of criteria requires students to have achieved an ACT score of 22 or higher or an SAT score of 1150 or higher (Jordan, 2001). The state of Ohio views dual enrollment programs as an option for high school students who desire to take challenging coursework or are interested in enhancing their high school experience and not necessarily as a way of concurrently earning an AA or AS degree.

## **Virginia**

The chapter on dual enrollment in Virginia traces the history of dual enrollment in the state from 1988 through 2001. Although there is a signed agreement between the Virginia Superintendent of schools and Virginia community colleges titled The Virginia Plan for Dual Enrollment, the authority of implementation is delegated to each community college (Catron, 2001). As is the case with other states, only a small number of courses are offered on the college campus while the majority are taught in high schools. Accordingly, some four-year colleges and universities question whether

high schools can provide an environment equivalent to a college campus (Catron, 2001).

### **National Dual Enrollment Programs**

According to Boswell (2001), 38 states have state-level policies for concurrent dual enrollment high school students in college-level courses while 10 other states have concurrent enrollment agreements at the institutional level, with two states having no dual enrollment programs. However, a review of the literature indicates that only one state, New Hampshire, does not have a dual enrollment program. By 2009, the number of states with dual enrollment policies increased to 42 (Hoffman, Vargas, & Santos, 2009). Research data published in 2006 showed about half of the states mandated that high school students be given access to dual credit or dual enrollment courses (Bragg & Kim, 2006). Most states limit the ways tuition and fees for dual enrollment programs are apportioned between high schools and post-secondary institutions.

A study of state policies toward dual enrollment conducted by Boswell in 2001 found fifteen states required either the state or local school district to pay all or most of the tuition costs for students enrolled in concurrent enrollment programs. These states included California, Colorado, Florida, Georgia, Iowa, Maine, Massachusetts, Michigan, Minnesota, New Jersey, New Mexico, Ohio, Utah, Washington, and Wisconsin. In eighteen other states, students were responsible for all tuition and fees although they may have received some support from individual districts. Those states included Arizona, Arkansas, Connecticut, Delaware, Hawaii, Indiana, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Nebraska, New York, Nevada, North Carolina, Rhode Island, South Carolina, and Texas. A study of Washington State's dual credit program

found that students participating in dual credit courses perform as well as other college students in two-year institutions (Hanson, 2001; WSBCTC, 2009).

Kotamraju (2007) analyzed state-level data to determine the relationship between participating in Postsecondary Enrollment Options (PSEO), the dual enrollment program in Minnesota, and Minnesota college students' GPAs. The researcher found that participants in dual enrollment had higher GPAs and a higher probability of receiving post-secondary credentials than students who had no dual enrollment experience. The same year, Blanco, Prescott and Taylor released a research report finding that high school students who took college courses through PSEO program, on average, earned degrees faster than the general population. The median time to earn an associate degree was 2.7 years for PSEO students, compared to 3.8 years for all other students.

In 2003, Venezia, Kirst, and Antonio conducted research in the largest majority and minority school districts in the country, Prince George's County, Maryland, on the effects of two different dual enrollment experiences in science: summer residential programs on a university campus and in-school courses taught by college faculty. The authors concluded that both programs seem to have a similar positive impact on students' attitudes toward, and subsequent performance in, science in higher education.

In 2002, Spurling and Gabriner compared 377 dual enrollment students who went on to matriculate at City College of San Francisco (CCSF) with 2,274 first-time freshmen at CCSF who graduated from San Francisco Unified School District (SFUSD) high schools without dual enrollment experience. Results showed that students with prior CCSF experience passed 58% of their units once matriculated at CCSF, while

students without prior experience passed 53% of their units. Moreover, dual enrollment participants also had higher average GPAs in all categories than non-participants. For dual enrollment participants, the average GPA was 2.61, compared to non-participants' GPAs which averaged 2.34. The authors concluded that these findings suggest that concurrent enrollment programs have a positive impact upon later student performance at CCSF (Spurling & Gabriner, 2002).

An institution may retain a student to degree completion by granting credit for work completed at the college level if the student has already completed some of the work at that institution. Moreover, dual enrollment programs can attract top high school students who might otherwise not have considered a community college or local university (Schmit, 2011).

According to the Washington State Board for Community and Technical Colleges (WSBCT), Running Start is a program that allows eleventh and twelfth grade students to take college courses for free at Washington's 34 community and technical colleges and public universities. The program started in 1990 with a reimbursement rate of 80% of the cost. In 2008, the Running Start reimbursement rate covered approximately 60% of the cost of educating students. The same admissions procedures were used for dual enrollment and all other college and university students. The WSBCT program used a national placement test to determine if students are ready for college-level work. In 2008, Running Start did not pay for remedial non-credit courses. However, if students were not ready for college-level work, they were encouraged to return to their high schools (WSBCT, 2009).

The latest Running Start annual report available indicated that students completed more of the credits they attempted, with better grades, than other recent high school graduates who were attending college. In 2007-08, Running Start served 17,327 students who earned more than 3,500 associate's degrees or certificates at the same time they graduated from high school (WSBCT, 2009).

Eimers and Mullen (2003) studied the relationship between students who took dual credit and/or advanced placement (AP) in high school and their first-year retention rate and academic performance at the University of Missouri System. Their results indicated that students earning dual credit while in high school do not appear to do significantly better than other students who enter college with no dual credit. However, they found that students who entered a college with dual enrollment credits returned to their second year at a higher rate (89%) than other students having earned no dual credit (76%). Dual enrollment students were more academically prepared before entering college than no college credit students as demonstrated by their high school rankings and average higher ACT score of 25.8 for dual credit students compared to 24.7 for no college credit students. However, holding academic ability constant, multiple regression results showed that dual credit students did not perform significantly better in first-year GPA than students without dual credits (Eimers & Mullen, 2003).

The Kentucky Council on Postsecondary Education (2006) researched the impact of dual enrollment in Kentucky from the postsecondary perspective, examining dual enrollment course-taking and the matriculation and success of dual enrollment students in regular postsecondary study. Results suggested that dual enrollment increased students' GPAs at the end of their second years of college by about one-third

of a letter grade among students who matriculated into four-year public institutions while having no impact on retention.

Southside Virginia Community College Office of Institutional Research surveyed dual credit alumni and with a 29.2% return rate found the following: 93.79% of the dual credits transferred successfully to universities; dual enrollment classes were compared favorably to the on-campus classes taken; and there was a near unanimous response recommending continuation of the program (Andrews, 2004).

### **Outcomes of Dual Enrollment**

When legislators and states proposed dual enrollment programs, they had a set of goals or outcomes in mind about the benefits of dual enrollment to their respective states. Some of those outcomes in Florida included shortening students' time to degree, broadening the scope of curricular options available to high school students, and increasing the depth of study in a particular subject (Hunt & Carroll, 2006, p. 40). States seem to be pushing dual enrollment programs, while, according to Andrews 2004, the federal government, while acknowledging their interest in dual credit programs, has yet to add anything of significance to the movement. Research on short-term effects is very limited, particularly due to the difficulty in controlling the variables affecting dual enrollment participation. Research directly related to short-term effects of dual enrollment comes from a study of dual enrollment in Florida (Karp, et al., 2007). Analyzing Florida's dataset using non-experimental methods, the authors found that dual enrollment was positively related to students' likelihood of earning a high school diploma. Dually enrolled students were 4.3% more likely than non-dually enrolled students to earn a high school diploma.

Running Start, Washington State's dual credit program, has found that students participating in dual credit courses perform as well as other college students in two-year institutions (Hanson, 2001). Heath (2008) surveyed 275 alumni of the College Academy at Broward Community College, an intensive dual enrollment public high school in Florida, and found that dual enrollment students were satisfied with their experiences.

### **Contribution to College Readiness**

A study that examined the relationship between participation and location of dual-credit enrollment courses and the educational aspirations of high school students found that concurrent enrollment location was a significant predictor of educational aspirations. Students participating in dual-credit enrollment on a college campus had higher educational aspirations than participants of dual-credit enrollment at a high school (Smith, 2007). However, limitations of this study, including the fact that the participants in the study were predominantly White (93%); the schools were in a primarily rural setting; results were based on self-reports; and no assumptions can be made as a part of this study linking the relationship to cause and effect, precluded Smith from formulating generalizations.

A 2007 research report found that high school students who took college courses through Ohio Post-Secondary Enrollment Options (PSEO) were more likely to attend college. Nearly 71% of PSEO participants who graduated from high school in 2003 enrolled in Ohio public colleges, substantially more than the 59% of Ohio high school graduates who went to college anywhere in 2002. However, data used for this study was not student-specific; therefore, researchers could not determine whether students who participated in PSEO were already college bound (Blanco, Prescott and Taylor, 2007).

A study by researchers at Columbia University's Community College Research Center (CCRC) examined the outcomes of 2000-01 and 2001-02 Florida high school graduating cohorts who entered postsecondary public institutions in Florida. Students with dual enrollment experience (n=36,217) and a dually enrolled subgroup of CTE students (n=4,654) were tracked. Some of the key results from this study (Karp, et al., 2007) included:

1. Dual enrollment was positively related to students' likelihood of earning a high school diploma.
2. Dual enrollment students were 4.3% more likely to earn a diploma than their peers.
3. Participation in dual enrollment was positively related to enrollment in college and increased the likelihood of initially enrolling in a four-year institution by 7.7%

### **Policy Questions Regarding Dual Enrollment**

There is no national standard for dual enrollment policy regarding enrollment, admission, or acceptance of dual enrollment courses. Each state determines its policy regarding dual enrollment programs. However, the NACEP standards have been adapted or incorporated into state policy in 15 states (NACEP, 2012).

Because dual enrollment students are enrolling in college courses, they often have to meet the same entry standards as regularly matriculating college students. Nationwide, 38% of the colleges with dual enrollment programs indicated that their requirements were the same as admission standards for regular college students, with 62% indicating that their admission requirements were different for dually enrolled students (Kleiner & Lewis, 2005). Additionally, some programs set admission requirements using GPA, test scores, and student essays to screen program participants. Others had no such requirements, and students needed only sign up to

participate (Hughes, Karp, Fermin, & Bailey, 2006), while a few states regulate only the age of dually enrolled students (Hughes, Karp, Bunting, & Friedel, 2005).

Other academic eligibility requirements reported by 31% of the institutions included: recommendations or permission (from a high school principal, guidance counselor, or a parent/guardian), course prerequisites, strong high school attendance, junior or senior grade level.

In most cases, students are required to be a junior or senior (Kleiner & Lewis, 2005). The American Association of State Colleges and Universities recommended establishing a minimum age and involving parents in the admissions process (AASCU, 2002). Karp, et al., 2004 reported that Arizona, Georgia, Idaho, Indiana, Iowa, Montana, North Dakota, Oregon, Tennessee, Virginia, Washington, and Wisconsin regulated the age of junior and senior students only. Conversely, Alabama, Arkansas, Ohio, and South Dakota admitted freshmen and sophomores into their dual enrollment programs. In Main, dual enrollment was open to high school students of any age if they had a 3.0 grade point average, met course prerequisites, and had high school and parental permission. While students should be academically qualified to engage in college-level work, Lerner and Brand (2005) pointed out that programs and universities need to be careful to ensure their admissions standards do not create barriers for student participation.

The College Now Program at CUNY colleges considers New York Regents scores, SAT or PSAT scores, and/or GPA to decide whether dual enrollment students can take a course for college credit (Allen, 2010). In some cases, state policies can limit student access to dual enrollment courses when the policy limits course location,

regulates instructors' credentials, and imposes strict participation requirements (Karp, Bailey, Hughes, & Fermin, 2004). Some states require that dual enrollment courses be offered only on college campuses. Such programs must then develop ways to transport high school students from their high schools to the college and vice versa.

Dual enrollment has additional costs outside of course-related expenses. These costs are incurred by both the school district and the college offering dual enrollment courses. Among the additional costs are books, transportation, tutoring, and support services. Moreover, there is a need for professional development and planning time for faculty who deliver the courses. According to Lieber (2009), a continuing challenge with dual enrollment programs around the country is the limited funding by many states to school districts and colleges offering dual enrollment programs.

### **Future Policy and Research on Dual Enrollment**

Although the results of dual enrollment research have been largely positive, (Hughes, et al., 2006; Karp, et al., 2007; KCPE, 2006; Smith, 2007; Spurling, & Gabriner, 2002) explained that "more rigorous research studies are needed to determine the impact of these programs on student access and success in college" (Allen, 2010; p. 16).

In 2010, Allen reported there were several dual enrollment areas that needed additional research. One such area was the need for additional solid research that established a causal link to positive college outcomes. This remains a key issue and will likely drive the direction of future research and policy (p.37). Another area of particular interest that requires additional attention is the need to look for opportunities to conduct studies that will provide a control for the self-selection of students into dual

enrollment programs. Additionally, research should be conducted to better understand the factors that contribute to student success.

Students, teachers and administrators need research-based information to guide decisions about enrollment and implementation of dual enrollment programs. Hence, in addition to the above, additional research is needed to link dual enrollment programs to other critical issues in higher education including student retention and degree completion (Hughes, et al., 2005; Karp & Hughes, 2005; Kim, Kerby, & Bragg, 2006). In the absence of research driven evidence of what works in dual enrollment programs, it is challenging to convince policymakers and institutional leaders to allocate resources to these programs (Allen, 2010).

More research is also needed to determine how to encourage minority and underrepresented students to participate in dual enrollment programs. Moreover, there is a research need to identify policy and/or institutional barriers that limit dual enrollment access to these students. According to Hoffman (2003), far more is needed to be known systematically about the barriers for underrepresented students and how they can overcome these barriers (p. 6).

### **Dual Enrollment Support Programs**

Shkolnik (2008) recently reported that most students in Early College High Schools were satisfied with their dual enrollment experience: 80% said that if they could start over, they would choose the ECHS again. Most dual enrollment programs are expected to provide, and do provide, very strong student support while students are still in high school. However, according to Hughes, et al., 2006, there is considerable variation in the support services available to students. Services vary as to whether they provide academic or personal support and help with college-preparatory activities,

including college applications or financial aid. The location of the support may also vary. Support may be offered at the high school or college, or through a collaboration of the two. In most cases, the support provided includes help with course selection and academic support as needed (Hoffman, Vargas, & Santos, 2009).

A study of specialized dual enrollment programs in Engineering (DEEA) and Medical Science (DEMSA) programs had an excellent student support system which provided a plethora of services including:

academic tutoring, individual and group academic advising, statewide college site visits, summer and year-round volunteer medical field opportunities, university presentations, local engineering and medical professional guest speakers, four-year university transition assistance, scholarship search workshops, career awareness, case management sessions, and engineering- and health-related event participation (Gonzalez & Chavez, 2009, p. 931).

A recent study of the AACU (2012) suggested that ideally, dual enrollment students should be provided with support at their high schools to help ensure their success and facilitate a seamless transition between high school and college. Another recent report indicated that college faculty may be unfamiliar with teaching dual enrollment high school students and are challenged by how best to engage these students and what level of support to provide them to ensure their success (Hughes & Edwards, 2012). Despite these studies, the researcher did not find any literature on student support programs for dual enrollment transfer students or programs designed to help these students adapt to university life.

### **Dual Enrollment Transfer Students**

Easy transfer of course credit from high school to college, and then from community college to four-year institutions, is an essential component of any successful dual enrollment program (Krueger, 2006, p. 5). Ultimately, the students are at the

mercy of the institutions to which they are transferring. For example, according to Burns (2000), the University of Florida does not accept dual enrollment chemistry hours from any college or university unless the student meets standard admissions requirements.

Community college students build relationships at their colleges with faculty, staff and other students. Transfer students who need a nurturing learning environment may be unable to succeed without it and, thus, may have difficulty after transfer or may even choose not to transfer to another academic environment (Townsend, 2007, p. 135). A qualitative analysis of a 103 students who transferred from a public community college to a public state university indicates that many students enrolled at the community college with a specific intent other than earning an associate degree (Cejda & Kaylor, 2001). Preparing institutions to receive community college transfer students has become an innovative and vital goal to improve educational access (Peterman, 2000). However, according to Carlan and Byxbe (2000), the more nurturing and protective orientation of community college instructors may contribute to their students' transfer shock at four-year institutions.

Earning a two-year degree or taking dual enrollment credits does not guarantee the host university will accept all of the credits. Students who transfer without completing their degrees face problems transferring their coursework "because the universities' general attitude is that dual enrollment courses are not as academically rigorous as AP courses, in which credit is awarded via a nationally normed exam" (Hunt & Carroll, 2006, p. 45). Most public universities award AP students one preference point and dual enrollment students half a preference point, while others do not give dual enrollment students any points (Hunt & Carroll, 2006).

Johnstone and Del Genio (2001) conducted a survey of 451 colleges and universities, filled out principally by the office of academic affairs, asking about their acceptance of college credit earned while still in high school. Nearly one-third of all institutions indicated they were “suspicious” of credit earned through transition programs offered in high schools.

In 2009, NYU announced it would no longer award academic credit for college classes that also count for high school credit (i.e. dual credit, concurrent enrollment), commencing with students who entered in the fall of 2009. According to the university, dual credit courses taught at high schools are “not verifiable in terms of academic rigor.” Faculty members at NYU are suspicious of such credits and, when the courses are taught by a high school teacher in a high school setting, this suspicion is raised even higher (Heggen, 2008).

Johnstone and Del Genio (2001) found that an analysis of policies and practices of postsecondary institutions showed great differences between two and four-year colleges and universities in the extent to which they will accept college learning in high school. In all models, it is up to the college or university whether the courses will be accepted for college credit at all, or merely used, if at all, for admissions or placement purposes.

Florida uses a common course numbering system to facilitate transfer between colleges and four-year universities (Kruger, 2006). Under this system, all credits earned in dual enrollment courses listed in the statewide directory must be accepted at all postsecondary institutions in the state (Hunt &Caroll, 2006). However, even in Florida, dual enrollment course transferability can be problematic. Lake City Community

College (LCCC) in rural Florida took over the school districts' vocational training programs to teach vocational dual enrollment classes. However, LCCC continues to face challenges with the attitude of the state's universities toward admitting students with dual enrollment credit as opposed to AP credit (Hunt & Carroll, 2006, p.45).

Nevertheless, because Florida has articulation agreements, students who transfer with an associate degree are covered under the law, while those without the degree may face problems transferring their coursework.

Transfer shock is defined as a decrease in the grade point average when community college students transfer to universities (Carlan & Byxbe, 2000; Ishitani & McKittrick, 2010; Laanan, 2004; Townsend, 2001). Research to understand and explain the experiences of community college transfer students from the social and psychological perspective or the factors that contribute to transfer shock is very limited, as is information about students' emotional and psychological development at four-year institutions (Allen, 2010; Heath, 2008; Hunt & Carroll, 2006; Karp, 2007; Laanan, 2004). Moreover, particularly in the State of Florida, transfer students come from diverse backgrounds. According to Bailey and Karp (2003), dual enrollment programs could potentially discourage those students who are academically or emotionally unprepared to handle the demands of college.

Universities have the potential to organize intervention strategies and programs promoting student transfer success. However, most institutions are making only minimal efforts to address the needs of dual enrollment transfer students. In a study of transfer institutions, only one-third of the campuses reported having programs

specifically designed for transfer students (Swing, 2000). Most students transferring from a community college to a four-year institution find the process is difficult.

In a report on Expanding Pathways in California, the authors recommended that one of the ways to facilitate smooth transitions from high schools to community colleges is by improving communication between community colleges and high schools regarding requirements and the transfer of college credit for dual or concurrent enrollment coursework (Hoachlander, Stearns, & Studier, 2008). The authors also recommended that community colleges streamline transitions and promote dual enrollment courses at the regional or statewide level through agreements, thus ensuring transferability of credits.

Research conducted in 2007 by Urso and Sygielski about successful community college transfer students found that:

Students will find their share of struggles along the way. These may include things like adjusting to a significantly larger campus, finding success in classes that are markedly larger than the community college courses, and adapting to a new and different social scene. Transfer counselors at the four-year schools must integrate into their mindset the responsibility of both getting these students in the door through streamlined application processes and strengthened articulation agreements and helping them find success during their early time at their school (p. 17).

It is difficult to clearly identify the factors associated with transfer student success. However, Melguizo, Kienzl, and Alfonso (2011) reported that successful community college transfer students are defined as those who earned more than 10 credits toward a degree and subsequently earned more than 59 credits at the time they enrolled at a four-year university. Today, almost 50% of the students enrolled in public higher education are enrolled in community colleges (Cohen & Brawer, 2008). Therefore, nearly half of all high school students with aspirations to attend a university

follow the community college transfer path, which requires being accepted as transfer students at a four-year university where they can complete their bachelor degrees. Consequently, enrolling community college transfer students at a university might be cost effective because universities generally require no more than two, rather than four, years of institutional financial support (Dowd, Cheslock, & Melguizo, 2008). According to the literature, only a small percentage of community college students manage to transfer to four-year institutions. The national estimates for the transfer rate range from 25% to 40% (Melguizo, Kienzl, & Alfonso, 2011).

Most dual enrollment students earned honors and high honors during their dual enrollment program but could not maintain that academic level once transferred. This is what has been referred to in the literature as “transfer shock.” However, a study of dual enrollment students from a dual enrollment program in Arizona found that students’ first semester grades were higher than those of typical community college transfer students (Finch, 1997 as cited in Puyear, Thor, & Mills, 2001). Similar results were found in Florida and New York where dual enrollment students’ postsecondary grade point averages one year after high school graduation were statistically significantly higher after high school graduation than those of their non-participating peers (Karp, et al., 2007). In California, the higher education system relies heavily on community colleges and has comprehensive statewide transfer and articulation agreements. Despite these agreements, a 2007 report about how the California policy creates barriers to degree completion concluded that of the 60% of students who are seeking a degree or certificate, only about 25% succeed in transferring to a university and/or earning an associate’s degree or a certificate within six years (Shulock & Moore, 2007). In the

Heath (2008) study, one third of the student respondents who graduated from a dual enrollment program with an associate's degree indicated there was confusion in placement at the university as freshman or juniors.

### **Data Collection about Dual Enrollment Programs**

The Laanan-Transfer Students' Questionnaire (L-TSQ) is a Likert-type scale that may be used to assess transfer students' experiences at public and private four-year universities (Laanan, 2004). In Laanan's article on transfer students, the author provided the reliability and validity information of the instrument. The instrument has a validity of .81 to .94. The closer the validity to the value of one, the higher the validity of the instrument (Creswell, 2009). In many cases, transfer students may not have the prerequisites to be considered juniors at the university (K. Ehlers personal communication, August 27, 2011). A study conducted by Cejda & Kaylor (2001) found that there was no particular benefit to dual enrollment students who completed their associate degrees. In fact, the students being admitted to the university did not have guaranteed admission or junior standing.

Individuals with clear goals participating in dual enrollment programs can have a smooth transition from high school to college (Mokher & McLendon, 2009). However, dual enrollment students may not be mature enough to deal with the demands of the four-year university setting. Flaga (2006) found it unclear whether maturity plays a role in the success of transfer students. These results are similar to the results of a recent study of transfer students from community colleges. That study found maturity very difficult to measure but showed maturity correlated with performance and attainment (Melguizo, Kienzl, & Alfonso, 2011). The reason for most community college student achievement is perseverance. Glass and Harrington (2002) found that community

college transfer students had a higher retention rate than native university students. Townsend and Wilson (2006) reported that college transfer students may need more assistance initially than they are given, partly because of the large size of the university. Previous studies found “it may be true that community college education does not fully prepare one for the more self-directed environment of senior colleges” (Carlan & Byxbe, 2000).

Karp, et al. (2007) revealed that studies on dual enrollment generally suffer from the following shortcomings:

1. Studies generally lack comprehensive data to include in their outcomes analyses, as few programs or states have comprehensive K-16 data systems. Therefore, most studies are based on fairly narrow samples or populations of students, primarily due to limited or unavailable data.
2. Studies often do not use rigorous statistical methods to control for preexisting student characteristics, even when such data are available.

Most states use academic performance as admission criteria for placement into dual enrollment programs. However, most dual enrollment research does not address the self-selection and academic characteristics of students, and, therefore, does not control for these characteristics which lead to student success independent of participation in dual enrollment programs.

It is necessary to have a randomized design and control for as many variables as possible. According to Hughes, et al., (2006), policymakers should support outcomes analyses that begin with students’ performance prior to program participation, include comparison groups, and follow students through college matriculation and graduation. Otherwise, positive findings may be due to unaccounted factors rather than to dual enrollment participation (Bragg & Kim, 2006; Karp, et al., 2004; Karp, et al., 2007). Many of the studies about dual enrollment benefits are methodologically flawed

because they fail to account for differences in academic characteristics, aspirations and motivations of participants and non-participants (Bragg & Kim, 2006, p. 2).

A study that controlled for many such variables found that dual enrollment in Florida and New York City is positively associated with the likelihood of obtaining a high school diploma, initially enrolling in a four-year institution, enrolling full-time, and continuing college enrollment through the second semester (Karp, et al., 2007).

Swanson (2008) found that dual enrollment participation may play a significant role in improving students' propensity to persist in college which, in turn, would improve the likelihood and odds of students graduating from college with a bachelor's or graduate level degree. To address the limitations of the study and build on previous research, Swanson (2008) used the same NELS: 88/00 data set used in a prior study.

Some 213,000 dual enrollment students were identified as: 1) graduating in 1992 using restricted data sets and variables constructed by the NCES from the NELS: 88/2000 and the Post-secondary Education Transcript Study (PETS:2000); and 2) registered at post-secondary institutions after participating in dual enrollment programs while in high school. This allowed the researcher to study this cohort for 12 years until 2000, when they were 26 or 27 years old. Dual enrollment programs have changed significantly since that time. Accordingly, it is difficult to make any conclusions about dual enrollment effectiveness using data on students graduating high school before most dual enrollment programs even existed in the forms they are today (Karp, et al., 2007). The NELS data only collects information about dual enrollment through the PETS which samples students who enroll in college after high school. According to

Allen (2010), “this data cannot be used to evaluate the effect of dual enrollment on college enrollment, an important outcome for educators and policymakers (p. 22).”

A report released by the Florida Department of Education (2006) found that 2004-2005 students with dual enrollment experience maintained a higher GPA in the State University System than those who had not participated in dual enrollment. After one year at the university, the average GPA was 0.12 points higher for students with dual enrollment experience, compared to those without dual enrollment experience.

A 2004 report by the Florida Department of Education found that dual enrollment students with a 3.0 GPA graduated from community colleges at higher rates than similar students who did not participate in dual enrollment. There was a difference of between 12% and 16% in the dual enrollment students and non-dual enrollment students who completed an associate of arts degree (FLDOE, 2004).

### **Knowledge about College Life**

In *The School to College Transition* (2004) McDonough recommended that colleges and universities develop or expand dual enrollment and other school-to-college bridge programs that assist students in making a successful transition to college. However, there is a lack of preparation of dual enrollment students to the expected academic life at the university once they transfer, particularly as it relates to class size, study habits and academic expectations. By visiting the college campus and taking classes on campus, dual enrollment students can begin to understand what will be expected of them as college students, potentially increasing their confidence and helping them to navigate the transition (Bailey, Hughes, & Karp, 2002; Noel & Levitz, 2011). Students participating in Ohio’s PSEO program are expected to perform at the same level as any other students at the institution of higher education (Jordan, 2001).

High school students taking dual enrollment classes also have an increased motivation. High school teachers found that dual enrollment students did not complain about class expectations and more readily approached their college classes (Puyear, Thor, & Mills, 2001).

Research indicates that while high school-based dual enrollment students learned to take responsibility for their academic progress, they were not exposed to other college demands. In particular, they were not expected, nor did they learn, to navigate new social spaces or bureaucracies (Karp, 2007) which are common on college campuses. Evenbeck and Johnson (2012) argued that little consideration is given to the intellectual development that should ultimately be produced through the completion of a college degree, and dual enrollment programs do not take students' intellectual development into consideration.

Laanan (2004) stated that preparing community colleges so they, in turn, are able to prepare dual enrollment students with regard to the expectations of the transferring university would facilitate students' transitions. A qualitative study by Burns and Lewis (2000) found that all subjects perceive significant value in participation in a dual enrollment program. Their research also suggests that participants perceive dual enrollment courses taken on a college campus to be of greater value than those taken on a high school campus and that, regardless of location, dual enrollment was a worthy endeavor.

In order to investigate the ways dual enrollment serves as a means for students to learn the norms and expectations of the role of college student, Karp (2007) conducted in-depth interviews and observations of students in their first semester of a

dual enrollment course. Karp (2007) stated merely renaming a high school course “college” is not enough to create role-related learning.

Many dual enrollment programs offer courses designed to give students the skills needed to succeed in college also known in Florida as student life skills (SLS). Among the possible skills covered in these courses are note-taking, time management and test-taking. These courses also emphasize the importance of making use of campus resources and developing relationships with faculty members. In 2007, researchers examined the effects of these types of SLS courses offered in Florida (Zeidenberg, Jenkins, & Calcagno, 2007). Using a multivariate analysis that controlled for test scores, race, gender, and age, the researchers found that for students who did not need to take remedial courses, SLS enrollment was associated with a nine percent increase in the chances of completing a degree program. For those who needed to take remedial courses, SLS enrollment was associated with a five percent increase in the chances of completion of college courses. These results indicated that SLS enrollment increases the chances of degree completion.

### **Justification for the Research**

There are several areas that need additional research in dual enrollment. One such area is the need for additional research that establishes a causal link to positive college outcomes (Allen, 2010). According to the literature, research was needed to link dual enrollment programs to other critical issues in higher education including student retention and degree completion (Hughes, et al., 2005; Karp & Hughes, 2005; Kim, Kerby, & Bragg, 2006). Moreover, there is a research need to identify policy and/or institutional barriers that limit dual enrollment access to these students. According to

Hoffman (2003), far more needs to be known systematically about the barriers for underrepresented students and how they can overcome these barriers (p. 6).

Most institutions are making only minimal efforts to address the needs of dual enrollment transfer students. According to Swing (2000), in a study of transfer institutions, only one-third of the campuses reported having programs specifically designed for transfer students. Transfer students may need more assistance initially than they are given, partly because of the large size of the university (Townsend & Wilson, 2006). Moreover, previous studies by Carlan & Byxbe (2000) found that “it may be true that community college education does not fully prepare one for the more self-directed environment of senior colleges.” Finally, preparing community colleges so they, in turn, are able to prepare dual enrollment students with regard to the expectations of the transferring university would facilitate students' transitions (Laanan, 2004).

### **Summary of Literature Review**

This literature review is a summary of the research performed regarding dual enrollment programs from 1997 to present. Dual enrollment programs are diverse and vary by state. Two states do not have dual enrollment programs; 10 states have concurrent enrollment agreements at the institutional level; and 38 states have state-level policies for concurrent dual enrollment high school students in college-level courses.

The state of Florida has one of the most articulated and centralized public education systems in the country. Local school districts pay all or most of the tuition costs for students enrolled in concurrent enrollment programs. In 2011-2012, 50,054 students were enrolled in dual enrollment programs (FLDOE, 2013). Literature

regarding the dual enrollment program in states other than Florida is limited. Moreover, Florida dual enrollment literature published to date appears to be primarily, if not completely, quantitative and does not address transfer students. The lack of qualitative research exploring the experiences of transfer students participating in dual enrollment programs in the state of Florida forms the basis of the research proposal. There is no current research paper or book that explores this issue.

## CHAPTER 3 METHODOLOGY

### **Conceptual Framework that Guides the Study**

A review of the literature suggests there are three frameworks that can be applied to dual enrollment. These frameworks are Astin (1999), Pascarella and Terenzini (2005) and Tinto (1975). Several factors affect a student's continued enrollment at an institution, including, but not limited to, the student's personality, the institution's structure and the student's experiences at the institution.

Astin's (1999) framework discusses student involvement theory which refers to the amount of effort a student invests in studying and participating in his or her college experience. Pascarella and Terenzini's (2005) framework relates to an institution's structural characteristics and how students interact with its environment.

### **Tinto's Theory**

Tinto's interactionist theory framework focuses on student retention theory. Tinto's 1975 theoretical framework yields 13 propositions. These propositions and their relationship are depicted in Figure 1-1. According to Tinto's theory, departure from the institution occurs because of the student's interactions with the institution and the meanings the individual assigns to those interactions. According to Tinto (1975), "academic integration consists of structural and normative dimensions (p. 104)." Structural integration deals with meeting the institutional standards of the college or university. Normative integration deals with the student's identification with the beliefs, values and norms of the institution. There is considerable consensus among scholars of college student retention about the validity of Tinto's theory (Braxton, Hirschy &

Shederick, 2004). Student retention in an institution is affected by the degree to which the students develop relationships with faculty, staff, and other students (Tinto, 2007).

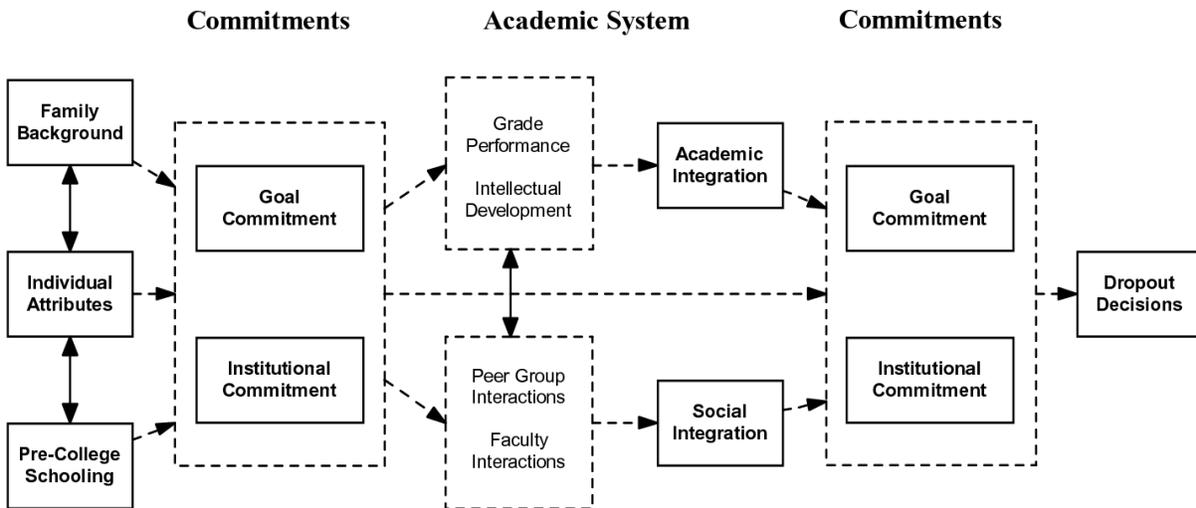


Figure 1-1. Tinto's interactionist theory framework

Note: Reprinted by permission from Tinto, Vincent. 1975. "Dropout from Higher Education: A Theoretical Synthesis of Recent Research", *Review of Educational Research*, 45(1), (Page 95, Figure 1-1). American Educational Research Association.

Looking more particularly at students' experiences at institutions from Tinto's lens, students persist because they can identify themselves, and build relationships, with individuals in the institution and share the values and beliefs of the institution. Moreover, according to Berger and Braxton (1998), "it appears that successful first-year retention in this type of institutional setting is based to a great extent on how well campuses can effectively communicate rules and expectations, enforce rules fairly, and encourage students to participate in decision-making across campus (p. 117)." Considering this statement, dual enrollment transfer students typically do not receive any form of college orientation to help them become familiar, and build relationships, with the institution. The extent to which the student and the social system of the

institution are in congruency is what Tinto's framework considers social integration. Tinto's social integration occurs both at the level of the college or university and at the level of a subculture of an institution (Tinto, 1975, p.107). According to Tinto's interactionalist theory suggests the greater the student level of academic and social integration, the greater the influence on student retention and subsequent graduation.

The researcher hypothesizes that maturity level and positive interactions with the institution and its environment within the above constructs are positively related to persistence of dual enrollment transfer students in postsecondary education.

### **Research Methodology**

Historically, samples in qualitative research are small. A number of issues can affect sample size in qualitative research; however, the guiding principle should be the concept of saturation meaning when collecting additional data, do not shed any further light on the issue (Mason, 2010, p. 2). According to Rossman and Rallis (2003), if a researcher is conducting a qualitative study involving long interviews, it is unwise to have a sample of more than three to five people (p. 139). The appropriate sample size in qualitative research is one that answers the research question. For simple questions or very detailed studies, the appropriate sample size might be in single figures (Marshall, 1996, p. 523). There are times when a sample of 10 might be seen as adequate (Sandelowski, 1995, p. 179). This is a view shared with other researchers. Atran, Medin and Ross (2005) suggested that in some of their studies "as few as 10 informants were needed to reliably establish a consensus (p.753)." Moreover, "focusing on a few participants, in contrast, encourages an in-depth understanding not possible with a larger sample (Rossman & Rallis, 2003, p. 175)." There is a "misapprehension

that generalizability is the ultimate goal of all good research, and quantitative researchers often fail to understand the usefulness of small samples” (Marshall, 1996).

Taking these sample size recommendations from the literature into consideration, the researcher will interview a diverse mix of 15 students who participated in dual enrollment programs in the state of Florida and transferred to Florida universities. To the extent possible, the interviews will be conducted in person. Qualitative research techniques grounded in the interpretivism epistemology will form the core of the data analysis. Ethnographic methods of interview, document review, and content analysis techniques will be utilized (Rossman & Rallis, 2003). The study will use qualitative research methodologies to analyze and reduce data.

### **Interview Process**

Meetings and interviews with students will take place face-to-face whenever possible, at universities, in public locations or via Skype. All of the questions in the interview will focus on the experiences of students who attended community colleges as participants in the State of Florida dual enrollment and advance placement programs once they transferred to four-year universities. As the study unfolds, some aspects of the research design may be modified.

### **Research Questions**

Prior to taking these steps, the researcher will frame the research questions in a manner that makes them appropriate for qualitative research. Accordingly, the researcher developed the following research questions:

3. What are the experiences and insights of dual enrollment transfer students participating in Florida dual enrollment programs?

4. What are the expectations of transfer universities with regard to dual enrollment students, and how do these universities communicate those expectations to the students?
5. How was the institutional support system once the student transferred to the university compared to the support system at the community college?
6. What factors did students perceive as having contributed to or delayed completion of their education in two years at the university?

### **Participant Selection Strategies**

The study was limited to dual enrollment students in the State of Florida who transferred to a Florida state university. Participants will be interviewed, and, with their permission, the interviews will be recorded. In qualitative research, the setting and sample are purposively selected through what is called purposeful sampling techniques. According to (Richards & Morse, 2007), this involves choosing the “best,” most optimal example of the phenomenon and the setting in which you are most likely to see whatever it is you are interested in (p. 75). This form of sampling technique is the most commonly utilized in qualitative research (Marshall, 1996). In general, sample sizes in qualitative research should not be so large that it is difficult to extract thick, rich data (Onwuegbuzie & Leech, 2007, p. 242). The researcher will utilize purposeful sampling techniques, including, but not limited to, professional networks, to obtain names and contact information of potential participants and will email them, informing them about the research topic. Once they express an interest in participating in the study, the interviewer will communicate with them to schedule convenient days, times and places to conduct the interviews. The study will not be restricted to one location.

### **Methodology**

The main methodology for collecting data about dual enrollment that has been used in the field is quantitative. This type of research can give an excellent picture of a

population. The advantage of quantitative research is that it is easy to collect great quantities of data; however, it has limitations including the design and definition of control and experimental variables such as the instrument used for data collection and the interpretation and analysis of the data. Qualitative data research provides data collection in a natural setting as well as offering multiple sources of data and an inductive data analysis. Additionally, during the interview process the research builds on the participants' meanings (Creswell, 2008). The disadvantage of using qualitative research is that it is time consuming and its generalization is limited since the "population" researched is usually limited.

The most appropriate method of collecting data about the experiences of transfer students participating in dual enrollment programs in the state of Florida is through the use of interviews in qualitative research. Savenye and Robinson (2004) argue that the questions a researcher strives to answer are what should drive the choice of methods. In qualitative research, "we make observations in natural settings and report our observations in everyday language" (Dooley, 2001, p. 264). Most of the methods used by other researchers studying dual enrollment and transfer students have been quantitative (Karp, Calcagno, Hughes, Jeong, & Bailey, 2007). Some researchers have argued that qualitative research represents not simply a methodology, but a worldview, paradigm or perspective (Luetkehans & Robinson (2000). Some of the unknown issues associated with quantitative studies from the methodological perspective are the problems transfer students encounter at the transfer university; what support, if any, is provided; and how students cope with their new demands. Moreover, qualitative data would provide the participants' meanings (Creswell, 2008).

## **Limitations**

The limitations of research are influences the researcher cannot control. These limitations place restrictions on the methodology and conclusions that could be drawn from the research. Some of the limitations of this qualitative research on experiences of transfer students participating in dual enrollment programs in the state of Florida may include the following: the analysis of the data, the nature of self-selection, the kinds of questions asked during the interview process, the respondents' honesty, and time constraints.

In qualitative research, validity involves determining the degree to which researcher's claims about knowledge corresponded to the reality or participant's construction of reality of him or herself (Cho & Trent, 2006). For that reason, after the interviews are transcribed, the researcher may review the transcripts with the participants to verify and clarify the information. In most educational research studies, the investigator determines ahead of time what will be observed and recorded, guided, but not limited by, the research questions (Savenye & Robinson, 2004, p. 1052). The participants will not have editorial rights in the final paper.

To maintain reliability, the researcher should be certain he truly listens to respondents and records what they say, rather than to the researcher's perceptions or interpretations (Savenye & Robinson, 2004). This process ensures credibility and rigor in the research process. This is what Rossman and Rallis (2003) call collaborative action research.

Qualitative research studies typically require considerably more time to design, collect, and analyze data and to report the results than do quantitative studies (Savenye & Robinson, 2004, p. 1049). Therefore, there is a time constraint limitation associated

with this research, which requires the research to be completed accurately and efficiently within a limited timeframe.

The respondents' willingness or unwillingness to answer questions honestly is another possible limitation. Therefore, the findings apply only to the institutions or population sampled. Additionally, self-selection might skew the findings as well as the conclusions regarding the transfer policy and practice. Self-selection is another threat to validity (Creswell, 2008; Dooley, 2001). Volunteers tend to be less representative of specified populations and to differ from non-volunteers. They also tend to be more educated, have more liberal social views and have a higher socioeconomic status (Myers & Hansen, 2005).

## CHAPTER 4 RESULTS

This chapter documents the experiences of 15 students who transferred to four-year universities in the state of Florida following their participation in the dual enrollment program. Of the students interviewed, six transferred to University “A,” five transferred to University “B,” one transferred to University “C,” one transferred to University “D,” one transferred to University “E,” and one transferred to University “F.” All of the participants transferred from College Academy “G” at Community College “G.” Eleven of the participants identified themselves as female; four of the participants identified themselves as male.

The researcher employed a qualitative methodology for purposes of coding and analysis. The researcher meticulously read through each transcript seeking out common themes and assigning individual color codes to each recurrent theme. Microsoft Word and The Personal Brain software ([www.thebrain.com](http://www.thebrain.com)) were used to link the transcripts together. The researcher assigned color coding and page numbers to participants and their corresponding themes. Analysis and coding of the interview transcripts revealed four distinctive themes.

The first theme that emerged was the impact of the way individual participants defined their goals and selected their major areas of study, prior to transferring to universities. Most students completed an AA degree which allowed them to transfer to four-year universities but did not always fulfill all prerequisites for their chosen majors. Additionally, many students sought to change majors after transferring, a variable that does not comport with the expedited graduation goal of the dual enrollment program.

Accordingly, participants' selections of majors facilitated or impeded their completion of a bachelor degree in two more years.

The second theme was the level of support provided to participating students during the dual enrollment program at their high school (Community College "G" academy) versus the support provided to them at the university level once they transferred. The faculty, staff and administration at Community College "G" are very student-oriented. Classes are small, and students attend as a cohort. In most cases, Community College "G" provides support to students before they even ask for it, continuously motivating them along the way. That is not the case at transfer universities, where students must be proactive and seek help. Hence, participants were often frustrated and/or unprepared as a result of the polarity of support between Community College "G" and their transfer universities.

The third theme derived from the data was the lack of preparation of some dual enrollment students to the expected academic demands at the university once they transferred. All but one participant were unaware of expected demands as to financial aid, class size, study habits, and academic expectations, in general. For example, most dual enrollment students did not need to apply for financial aid at Community College "G," since the cost is covered by the state; however, participants were required to timely apply for financial aid at their transfer universities. Moreover, classes at Community College "G" were small and familial while class sizes at the transfer universities were often in the hundreds, frequently resulting in transfer shock.

The fourth theme that emerged was that although most of the participants completed an AA or AS degree before transferring to a four-year university, they did not

all graduate within two years of transfer. The primary reasons for the delay, despite the fact that these students were considered juniors by their admissions offices, were some lacked the prerequisites for their majors (often being forced to retake courses they completed at Community College “G”), and others, after transferring, changed their choices of majors, resulting in conflicts with institutional cultures that did not support their perceived “lack of commitment” to their declared majors.

### **Students’ Goals and Majors**

Individuals with clear goals participating in dual enrollment programs can have a smooth transition from high school to college (Mokher & McLendon, 2009). However, students who have not clearly stated their goals, or are uncertain what major to pursue, may not fully benefit from the dual enrollment program. One of the students interviewed observed the following: “If you don’t know what you want to do, you don’t really realize you’re getting two years out of the way, and you just don’t take that into account.” Another student remarked: “I didn’t do anything for the next two years. Going to college for two years during high school gave me a free two years of my life, and I spent those two years being free.” Contrary to this student’s commentary, most students viewed the dual enrollment program as an opportunity to expedite attainment of a four-year degree. One of the comments most commonly expressed by participants was: “You are getting two years ahead, with free tuition and free books.”

Despite the general goal of advancing two years by the time of transfer, some dual enrollment students who transferred to four-year universities in Florida, particularly those who earned an AA degree without a clear and definitive major, did not complete their declared majors and/or obtain bachelor degrees within two years. As one such participant commented:

It was basically that I changed my mind a good amount. I would take classes, and although I did well in every class, I would change interest even though I was doing well in the classes. I just started to be interested in something else. That was pretty much it.

Another student stated: "I completed an AA in liberal arts because I was still undecided." Lack of decision can be detrimental to the dual enrollment objective of completing a bachelor degree in less time and saving money in the process. One of the participants explained: "I needed to stay one more year in college after my AA because I did not have the prerequisites for the biology and chemistry program I ultimately chose to pursue at [University "C"]. While another student remarked: "I did not have the prerequisites in music I needed so it took me four years to complete my four-year degree, because I initially earned my AA rather than a degree in music." A similar sentiment was echoed by another student who commented:

Before I graduated, I changed my major so I needed to take the prerequisites to obtain a professional degree. I spent an additional year doing the prerequisites. I attended two colleges, but after one year, I was able to transfer.

Additionally, some students transferring with a clear idea of their majors also changed majors once they transferred. As one respondent explained:

I changed my mind after the first semester. So when I got there, I was doing architecture, and I felt very confident in that. I chose architecture because, for one thing, I liked the field. And, I felt like I could tap into my creative side, my mathematical side, as well as my desire to help people. I thought architecture could do all of those things. But, when I went to school, and I was doing the work, I just did not connect with the work at all. It was actually very devastating to me because I thought I had this plan. Then I got there, and I realized I don't want to do this at all.

Students' desires to change their declared majors after being accepted into junior level programs at four-year universities created obstacles, including not being permitted to change majors and delayed graduation. This study found that some of the problems

transfer students experienced included choosing majors they ultimately did not wish to pursue once they took major concentration courses; not having the option of taking electives outside of their declared majors; and departmental advisors “forcing” students to complete the coursework in their “selected and admitted majors.” In some cases, respondents expressed this inflexibility caused some of their dual enrollment peers to completely withdraw from their universities.

Some students graduated later than initially anticipated because they did not know the requirements of their programs and departments with regard to placement. One participant was indignant that the college at the university to which the student was admitted would not allow her to take courses outside of her major. She remarked: “Maybe institutions should offer [transfer] students some [elective] credits for first-year students so they can experience [freshman] courses.”

### **Student Support at Transfer Universities**

When students are admitted to a university with an AA or AS degree, they are considered juniors by counselors and advisors and are, therefore, not permitted to enroll in elective courses outside of their majors if doing so delays graduation and/or if the course requires payment using financial aid and/or scholarship monies. Junior transfer students must enroll in core major courses. This creates conflict with the dual enrollment student who wants to explore other options academically but is not permitted to do so by the institution. Some of the participants stated their advisors told them if they failed to complete their selected degrees in two years, they would be dismissed from their departments. These experiences are similar to those of some students who were “pressured to figure out what to do with the rest of [their lives] at 18” (Heath, 2008). Four of the participants ended up changing their declared majors. One finished

her degree in the area she was admitted into and returned to college to obtain a different degree after not being allowed to change her major. Another student is in his first year at the university and changed the major he was admitted under. Those who were permitted to change majors struggled to be able to change departments, and not all departments were accommodating. The following quote from one such participant demonstrates her experience: “When I decided to switch, I ran against some obstacles because the guidance counselors at the school were looking at me as if I were a junior.” Another student confronting a similar situation commented: “Like the classes [in sociology] were interesting, but, realistically, there are not many career options for you. That’s why I’m doing nursing now.”

Another student found the college to be accommodating and commented about his experience in the following quote: “They were pretty understanding with the situation, knowing I was only going to be a 20-year-old graduating college, and I wasn’t sure what I was going to be doing.”

The lack of support on the part of counselors and/or advisors for dual enrollment students constrains their development and can lead to student failure. Regarding the advisors at the university, one participant stated:

We found out pretty early when I was a dual enrollment student that it does not matter how many advisors you go to. If you go to five advisors, you are going to get five different answers. You have to figure things out on your own. We really did not go to advisors at [Community College “G”] after the first year, or at [University “B”] at all, unless it was a formality.

Townsend (2007) found that “students who need a nurturing learning environment may be unable to succeed without it and, thus, may have difficulty after transfer or may even choose not to transfer to another academic environment” (p.135).

As an example of the importance to some students of maintaining a nurturing

environment, one participant stated she selected the transfer institution because “[she had] a relationship with [her] faculty member who teaches at [University “B”].” She explained: “In music, the personal relationship with your teacher is very important, and we had that. There was no reason to go anywhere else.”

Another participant stated: “[University “A”] is like a business. You have to make an appointment and wait in line. When I talk to faculty at [University “A”], they are all nice, but I don't feel that family connection I had at [Community College “G”]. Yet another participant made the following comment regarding the lack of support by her counselors: “It got to the point where my counselors told me you have to make better grades, or you need to switch your major or leave the school.”

Some tasks students deal with earlier in their college educations include “achieving competence,” “managing emotions” and “moving through autonomy toward interdependence” (Evans, et al., 2010; Inkelas, Vogt, Longerbeam, Owen, et. al., 2006). Because of their early age and lack of maturity, dual enrollment transfer students may not have achieved these tasks before arriving at the university, thus putting them at risk. One participant who took two years off before transferring to a university made the following observation:

It was interesting because while in the dual enrollment program, I was used to going to classes with a bunch of kids, and at [University “B”], it's mostly like middle-aged people. They were people like me who are older than freshmen.

One of the participants who transferred to the College of Pharmacy at University “A” to pursue pharmaceutical studies had an anomalous experience with regard to transfer student support, finding the transfer college provided similar support to [College Academy “G”]. Students transferring to this program are considered graduate students

and not undergraduates, as most transfer students would be. Accordingly, the support system is very unique and similar to the type of support dual enrollment transfer students are accustomed to during high school. As the participant commented:

The support system was very similar to the support system in my high school, no need to figure out which classes to take because it was pretty regimented as [it was in] the dual enrollment program. The support structure was very good.

Conversely, a participant at a different transfer university remarked:

At [University "B"], the support is there, but you had to take the initiative, whereas in the dual enrollment program, they are so worried about you passing, if something seemed wrong, they approached you or asked questions like "Hey do you have everything covered?" "Do you know what you're doing?" "Are you going to pass?" "Do you have all your credits?" Whereas, at [University "B"], if you had a problem, they were there to help you, but they would not ask you. You had to ask them. It was a little different.

Class sizes were smaller at the dual enrollment College Academy "G," thus allowing participants to develop a great rapport with faculty and staff. However, that kind of relationship was more difficult to cultivate at the university. As one respondent lamented: "At the university, you only got to know the professors sometimes." Another participant remarked: "I had more support at [College Academy "G"] than at [University "E"]. Even though [University "E"] had small classes, it felt like a commuter school. Going to classes and then home, not much support."

### **Lack of Preparation for Life at the University**

Most of the participants stated that their dual enrollment classes prepared them academically and provided them with a support system. As one of the participants very eloquently commented:

There was a guidance counselor there, and he knew everybody's name which was very endearing. The principal also knew a lot of people's names, and she was very

accessible. A lot of the teachers were very accessible and engaged with the students as well. So, it felt very nurturing in terms of being able to ask questions about school work and about life, in general.

This view was espoused by all of the participants interviewed, each of whom spoke very highly of the teachers, staff, and administrators at College Academy “G.” However, the participants almost uniformly complained that the high school dual enrollment environment did little to prepare them for the challenges at the university after transferring. As several participants stated: “The class size and lack of support are things they did not prepare us for.”

Another participant remarked: “A lot of kids coming into college now, like many of my friends, we felt out of touch the first semester. We were focused on academics, but we weren’t into [social activities] and volunteering outside of the community.”

The high school support system is evident in the analysis of the cultural printed material which boasts “enjoy closer contact with instructors who are available for tutoring” (BC Academy, 2010). Most dual enrollment programs are expected to provide, and do provide, very strong student support while students are still in high school (Gonzalez & Chavez, 2009; Hoffman, Vargas, & Santos, 2009). Some participants in the study commented that “At the high school, although we were taking college-level courses, they still treated us like high school students.” Moreover, these students were in classes with peers who were their same age and like-minded, and class sizes were limited to 30 students. Once transferred to universities, most students were surprised by the size of their classes which, in some cases, were upwards of 300 students. As one participant put it during the interview:

[The first day] at the university, it was honestly a nice day. But, like I was not ready. Like nobody knows how it's going to be until they actually get there because when they taught the classes in my high school, it was a class size of about 30 students: a regular high school class. At the university, there are two hundred kids in one class.

Another participant asserted, nervously remembering: "It was really funny because I was the youngest person in my class. So, I had to get used to all of the other students [at University "D"] being older than I was."

Most participants lost their peer support and were emotionally unprepared for the transition to academic life at the university, as demonstrated by the following comments of one participant:

I felt like an outsider, looking at all the things going around. At first, I was a little lonely. The thing is that at the university, in general, you have to join clubs and groups. It would have been fun if I would have joined a club or something [during my first semester].

Hooker and Brand (2010) explained that students need to receive early signals about their readiness for postsecondary education. A unique story of one participant who, by her own account, considered herself the "black sheep" of the program, was that she decided to "take time off" after completing her AA because "[she] did not know what [she] wanted to be," and "[she] wanted to take a break." However, because she was awarded a scholarship, she continued to take the minimum number of classes required to retain the scholarship while working and traveling. After returning to fulltime attendance to complete her degree, during which time she took evening classes, the [University "B"] respondent commented: "I was working and taking evening classes most of the time. Evening classes are mostly for people who already have their associate."

The graduate student at University “A” College of Pharmacy made the following comments regarding her preparedness following the dual enrollment program:

Because of the high demand of the dual enrollment program, I was able to handle the graduate level studies. Most of my peers were overwhelmed by the workload, but because I was [in the dual enrollment program], I was already balancing the stress level of both the high school and college curriculum which helped me manage the 18 credits I had to take at the graduate level.

### **Academic Majors and Graduation within Two Years**

Most of the students were accepted as juniors at their transferring universities. These students had predefined majors and a college within the university they applied to, and were admitted into. Despite this, by their own accounts, most of them were immature and lacked the necessary experience to determine what careers they wanted to pursue. As one of the participants vehemently expressed:

I think one thing that is very central to my story is that I did not quite feel prepared to enter a four-year university because I wasn't emotionally ready for it. By that, I mean I wasn't in the right frame of mind. I was so cocky, and that wasn't good.

Another participant commented: “It is very unlikely that whatever decision someone makes at 17 or 18, they are going to stick to it.”

In the Heath (2008) study, one third of the student respondents who graduated from a dual enrollment program with an associate's degree indicated there was confusion in placement at the university as freshman or juniors. Only one student from this study participated in an orientation for transfer students. That University “F” participant described the experience as follows:

We attended a transfer orientation because we were already juniors. We toured where math and science majors primarily took their classes. We went to the transfer office and the main office and were given a tour of the campus.

In fact, many of the participants were required to take part in freshman orientation, and a few had to take First-Year Experience or Student Life Skills (SLS) courses. One of the participants was indignant that the university forced her to take an SLS course and stated:

One thing that really frustrated me for the first semester was that we had to take this class, to help you acclimate, the first year experience. Even though I tested into the department as a dual enrollment student and had already been in college for like three years, they still required me to take it. It was a waste of time; the whole thing frustrated me. There were requirements that are so distracting and irrelevant to what I wanted to be doing.

Another respondent noted:

There was confusion with my classification. They made me go to freshman orientation; that was ridiculous. At orientation, I was classified as a freshman because I didn't know what steps to take to be classified as a junior. Freshman orientation didn't help me because I didn't need freshman classes. I needed higher level classes. [University "E"] gave me a hard time.

Only one of the participants applied, and was admitted, as a freshman despite having earned an AA degree because the major he applied for was health science. As students took their core courses, some started to realize the majors they selected were not the careers they wanted to pursue. Unfortunately for dual enrollment transfer students, most of the time, the system is very inflexible and does not allow the exploration of courses that traditional first-year students at the same institution are afforded. As one participant lamented:

The university needs to be flexible about how students transfer. There should be some kind of negotiation of how students transfer in the institution. It doesn't have to be you come in with an associate degree, and you know your major.

When questioned about preparedness for college and taking advantage of the dual enrollment program, one participant commented:

I would say it's a great experience if a student knows how to take responsibility, especially if the student wants to go to [medical] school, something that may take eight years, because getting two years done ahead of time is a huge help. That's two years you don't have to be struggling. You get your prerequisites out of the way.

In response to the question of whether the student completed the degree within two years of transfer, one respondent remarked:

You don't want to rush your experience. These are things you will never get back. During high school, I was so set on getting there as soon as I could. When I got to [University "A"] and started thinking about the future, I was like, if this is my goal, I will reach it, and I don't want to completely rush. Especially with the medical school, it looks good that we finish quickly, but it also shows a lack of experience. I could have finished my classes in two years if I stayed a bio major and focused only on my sciences.

Earning an AA or AS degree during the dual enrollment program does not automatically guarantee a student will be admitted into his or her major of choice at the university level. Some programs have prerequisites that must be completed, particularly in the STEM (Science, Technology, Engineering, and Math) fields, before students are admitted. As one of the participants stated: "I needed to remain one more year in the college, after earning my AA, to be able to complete the program prerequisites."

Another participant described her experiences with regard to her choice of major in the following quote: "So, they were saying you really can't do this. It doesn't make the university look good." Yet, another participant, after being admitted into the sociology department, commented: "Once you're at a four-year institution, like for me, sociology, I graduated with that degree primarily because I had no idea what I wanted to do, but I knew I wanted to graduate." This participant currently attends a community

college and has been admitted to complete the prerequisites to a nursing program, with aspirations to complete a bachelor degree in nursing.

In some cases, the university was very inflexible as expressed by one participant: “I know a lot of people did have to graduate in that two year time period. Many, however, dropped out of college altogether.”

Another participant complained regarding the two year deadline: “If I did not complete the degree in two years, I would have lost my scholarship.” Still another participant did not complete her degree in two years because, as she explained: “It took me longer because I did not complete the prerequisite for a sequential course and had to wait one year for the course to be offered again.”

The lack of guidance and communication as to university program requirements did not prevent most of the participants interviewed from graduating; however, some did not graduate within two years while others encountered unanticipated circumstances that impacted their goals and objectives.

Of the 15 participants interviewed, all of whom should have earned their degrees within two years of transfer, only eight actually accomplished that feat. At the time of this report, 11 participants persisted or graduated from their original majors while four participants changed majors. After transferring, two participants are currently in their second year; two graduated from their universities after three years; one remained four years, and one participant, five years after transferring, changed her major for the third time and is currently starting her prerequisites for her latest major. The one exception occurred with the graduate student at the University “A” College of Pharmacy who

stated: “The graduate program in pharmacy is six to eight years. Because of my participation in the dual enrollment program, I was able to graduate in five years.”

### **Theoretical Framework**

Developmental theory indicates that students’ development occurs during the college years. Identity is a major issue students deal with during their college years (Chickering & Reisser, 1993; Evans, Forney, Guido, Patton, & Renn, 2010). As such, it is important to allow students to explore and develop. Moreover, universities should provide support and clearly delineate what is academically expected of their students. That opportunity only occurs if students have a chance to socialize and engage in activities outside the classroom. Tinto’s interactionalist theory examines the way in which students’ identification with the norms of the academic system, and their level of social integration, impacts retention. Tinto (2007) revealed that retention in an institution is affected by the degree to which students develop relationships with faculty, staff and other students. Tinto posited that a student’s perception of his or her academic and social interactions with the institution can lead to either attrition or completion (Tinto, 1975).

The results of these findings confirm Tinto's theory regarding the significance of academic and social interactions between students and institutions and the manner in which those interactions contribute to integration. Academic integration consists of structural and normative dimensions. The structural dimension represents the students’ ability to meet explicit institutional standards of the college or university, such as earning passing grades (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). The normative dimension denotes the students’ identification with the beliefs, values and norms of the institution, such as an engineering school that values the physical sciences over the arts

(Kuh, et al., 2006). This researcher's results demonstrate that structural integration was an important factor in the success of respondent, dual enrollment transfer students with regard to completion of their bachelor degrees. This was particularly true as it related to the admission of these students into specific programs or colleges. Lack of structural integration or understanding was also a key factor in participants' desire to change to another college or major after transfer. Several respondents complained about their lack of understanding of institutional standards of their universities, especially as they related to change of major. One respondent explained:

I would start taking a class in another field and then change my interest again. Fortunately, I was able to persuade my advisor to work with me regarding my change of major. If I had not been persuasive, I would have been stuck in a major I no longer wished to pursue, as was the case with several of my peers who dropped out.

Another participant lamented: "At that point, it's kind of hard to change your major once you have so many credits. So, they were saying: "You really can't do this." Yet another respondent stated: "It doesn't have to be all or nothing. It doesn't have to be you come in with this AA degree, and you know your major." These participants lacked any substantive structural integration, resulting in a lack of understanding of what was expected of them as dual enrollment transfer students.

Tinto defines social interaction as student integration into the social system of the institution, which occurs primarily through informal peer group associations, semi-formal extracurricular activities, and interaction with faculty and administrative personnel within the college (Tinto, 1975). Some participants' responses reflected their perceived importance of social interactions. One participant reflected: "The only thing that made me feel a part of [the university] was when I went to a football game." Another respondent explained: "I decided to stay with my current piano teacher who teaches at

the university. We had been working together for three or four years.” Yet another participant commented: “When I talked to faculty at [University “A”], they were all nice, but I didn't feel that family connection I had at [College Academy “G”].

Tinto’s interactionist theory contributes to a better understanding of these participants’ responses. Viewing participants' experiences at their transfer universities from Tinto's lens, most respondents persisted because they were ultimately able to successfully integrate, both academically and socially. Dual enrollment participants of this study built relationships with other students, faculty and staff at their institutions. Additionally, most participants compromised to accommodate the values and beliefs of their universities, thus enabling them to integrate and persist in their postsecondary education.

### **Summary**

This chapter began with a description of the sample population participating in the study, followed by a description of the analysis and coding of the interview transcripts, which revealed four distinctive themes. After describing the themes found in this study, analyses of the qualitative data proceeded, and the results were reported. Below is a summary of the results.

The first theme was the participants’ choices of major areas of study, prior to transferring to universities. Respondents earning AA degrees did not necessarily have the prerequisites for their declared majors. There were two reasons for this. First, some transfer universities did not accept certain prerequisite courses taken at Community College “G” and required participants to retake them at the university level. Second, some students chose majors that required AS degrees to be able to graduate within two years of transfer. Accordingly, both the associate degree earned, and major

selection, at the time of transfer impeded or facilitated participants timely earning their bachelor degrees.

The second theme was the level of support provided to participants at Community College “G” versus the support provided at the transfer university. At Community College “G,” classes were small, and instruction and support were student-oriented, with continuous, preemptive student support and services. At transfer universities, students were expected to autonomously navigate the system and seek assistance when necessary.

The third theme was the participants’ lack of preparation to the demands at their transfer universities. Students were required to independently learn about, and cope with, applying for financial aid; class sizes that were much larger than at Community College “G,” in many cases between a 100-300 students; and more rigorous academic expectations, in general.

The fourth and final theme was participants failing to earn bachelor degrees within two years of transfer despite the fact that most completed AA or AS degrees before transferring. The reasons for the delay included lack of prerequisites (or accepted prerequisites) for their majors and/or changing of majors, resulting in conflicts with institutional cultures.

Chapter 5 presents a discussion of these results, the implications drawn and suggestions for future research.

## CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

Dual enrollment is a Florida academic program created to enable high school students to concurrently enroll in college. The program was also instituted with the goal of saving students and the state money by expediting the completion of a college degree; while simultaneously freeing up additional space on campus to meet ever increasing demands for college access. The intent of the program is for high school students to earn college credits, and potentially obtain associate of arts or science degrees by the time they finish high school. Dual enrollment programs were designed to encourage rigorous academic study, promote students' aspirations to attend college, and accelerate the process of students earning college degrees.

This study addresses key problems regarding the dual enrollment program in the state of Florida. The topic was selected to address a void in the literature with regard to the transfer experiences of dual enrollment students. Although matriculation data on dual enrollment transfer students is available, there is no information in the literature documenting the persistence rates of these students. Moreover, no studies have been published regarding the transfer experiences of dual enrollment students once they register at four-year institutions. Allen (2010) found a need for research studies to determine the impact of dual enrollment programs on student success. Florida dual enrollment literature published to date is primarily quantitative and does not address transfer students. The lack of qualitative research exploring the experiences of transfer students participating in dual enrollment programs in the state of Florida forms the basis of this research.

The researcher performed an extensive literature review of peer-reviewed journals published from 1997 forward. The literature revealed there are four definitions of dual enrollment, and ambiguities among these definitions. The four definitions are: 1) high school students receive college credits for taking college courses taught by qualified high school teachers; 2) college faculty members teach at high schools; 3) college faculty teach college courses to high school students on college campuses; and 4) college faculty teach college courses to high school and college students on college campuses, (Andrews, 2001).

The general literature on dual enrollment demonstrated that the program has been identified in various forms in all 50 states (Andrews, 2004). However, literature regarding dual enrollment programs outside of Florida was limited to Arizona, California, New York, Ohio, and Virginia.

Most published studies pertaining to dual enrollment were conducted in Florida. Review of the literature revealed that dual enrollment was enacted in Florida as a statute. The dual enrollment program in Florida covers all of the costs of courses, books and transportation for those students participating in the program. The dual enrollment program was established to promote accelerated degree attainment and as a cost saving measure for students and the state. Florida's dual enrollment program is one of the most studied of its kind and has been used as a model by other states.

The literature review on transfer students and the support provided to these students confirmed that although a plethora of support is provided to these students while they are dually enrolled (AACU, 2012; Hoffman, Vargas, & Santos, 2009; Hughes & Edwards, 2012), there are no support programs that specifically target dual

enrollment transfer students. “Colleges committed to the Completion Agenda should involve all faculty, administrators, support staff, and returning students to help new students make connections in their first encounters with the college (O’Banion, 2013, p.18).”

Finally, some literature on college readiness of dual enrollment students indicated that by taking classes on campus, dual enrollment students understood what was expected of them as college students (Bailey, Hughes, & Karp, 2002; Noel & Levitz, 2011). However, despite this literature, the researcher found that dual enrollment participants were often unprepared for university life. In particular, they were not expected, nor did they learn, to navigate new social spaces or bureaucracies (Karp, 2007). Moreover, they did not realize the full impact of transferring as juniors.

### **Research Sample and Methodology**

Fifteen students who participated in the dual enrollment program in the state of Florida were interviewed regarding their experiences as they transferred to four-year Florida universities. Participants were selected using a purposeful sampling technique. Purposeful sampling technique is the most commonly utilized methodology in qualitative research (Marshall, 1996). These participants were interviewed, and, with their permission, the interviews were recorded. Tinto’s interactionist theory was the theoretical framework used for this research. According to the interactionist theory, the greater the student’s level of academic and social integration, the greater the influence on student retention and subsequent graduation (Tinto, 1975).

### **Research Findings**

The 15 self-identified dual enrollment students who transferred to universities in the state of Florida had unique experiences; however, they shared common threads.

These threads included not having clear goals; changing their declared majors once accepted; lack of support or not knowing how to navigate the support system at the university; and not being prepared emotionally and/or intellectually for university life and rigor. These findings have important implications for practice and policy, which will be discussed later in the chapter.

High school counselors, teachers and parents often encourage students to participate in dual enrollment programs because some view the last year of high school as insufficiently challenging. The state of Florida requires that high school students complete at least four or more college credit courses. Although high school students can be very successful taking college courses in the nurturing environment of their high schools, or among their peers in community colleges, this environment does not necessarily prepare them academically or emotionally for the rigors and demands of four-year institutions. Moreover, they may not have the emotional maturity to thrive in a four-year university environment. Many respondents surveyed by Heath (2008) indicated that the small size of the dual enrollment program was crucial to their success in high school by providing a close-knit family environment. However, that was not the case once participants transferred. After transferring, many of the participants lost contact with their peers and support system. The lack of knowledge of how to obtain support at four-year universities, and the isolation of these very young and, in many cases, immature students who had not yet developed their identities, put them on track for potential failure and disappointment.

All of the participants interviewed stated they enrolled in the dual enrollment program to expedite earning a bachelor degree. However, some respondents did not

accomplish that objective due to unforeseen obstacles. These barriers included some students changing majors due to dissatisfaction with their declared concentration; inability to meet academic requirements for their majors; failure to integrate into the culture of the transfer university; and/or developing other career interests after transfer.

Most participants' were dissatisfied with their experiences as transfer students in Florida dual enrollment programs. Respondents were particularly frustrated by the treatment they received from their university departmental advisors, many of whom insisted, as juniors, they timely complete their declared majors and advised them not to take electives outside of their departmental majors.

### **Discussion**

The results of this research revealed that most dual enrollment students, by their own admission, are not mature enough to deal with the demands of the four-year university setting. Although Flaga (2006) found it unclear whether maturity plays a role in transfer student success, most participants interviewed stated unequivocally that their immaturity impacted both their academic and social integration. The results of this study are similar to the results of a recent study of transfer students from community colleges. That study found maturity very difficult to measure but showed maturity correlated with performance and attainment (Melguizo, Kienzl & Alfonso, 2011). The reason for the participants' ability to persist despite the stated challenges was their perseverance and their ability, in some cases, to change majors. The present results agree with Townsend and Wilson (2006) who found that transfer students may need more assistance initially than they are given, partly because of the large size of the university. Similarly, previous studies found "it may be true that community college education does not fully prepare one for the more self-directed environment of senior

colleges” (Carlan & Byxbe, 2000). The present study adds to these results, demonstrating that both community colleges and transfer universities need to better prepare dual enrollment students for the social and academic challenges and rigors of university life and provide support throughout the process.

### **Implications**

These findings have significant implications for the practice of dual enrollment and transfer programs at the university level. Hoffman, Vargas, and Santos (2009) see accelerated learning options as an important strategy for increasing the nation’s high school and college success rates; however, if students do not persist once transferred, dual enrollment programs will actually drain the nations’ future academic pool. Furthermore, there is a heavier financial burden on the state of Florida when students remain at transfer universities longer than anticipated, especially when those students frequently change their majors or drop out.

Two implications for practice emerged from this study. The first implication is the need for educators at the high school level/Community College “G” to explain the expectations of transfer universities with regard to dual enrollment students. These discussions should include a detailed explanation of the rigid academic requirements associated with transferring as a junior, especially as these requirements relate to having to timely complete selected majors and limitations placed on students taking electives outside of their departments. The lower division institutions should also encourage and teach students to be autonomous while in the program and to seek assistance outside of the high school. Dual enrollment educators should also suggest that students explore electives outside of their declared majors before transferring to a university and emphasize the need to proactively seek out support once transferred

(Flaga, 2006). Finally, dual enrollment educators at community colleges should explain that dual enrollment transfer students will be younger than many of their peers, who may be more mature. They should also advise students of the option to apply as freshmen, and explain the importance of attaining social integration.

The second implication pertains to the university level. Transfer universities should ideally develop a separate orientation program for dual enrollment students. Higher education leaders may benefit from creating and implementing professional development programs for advisors and counselors so they understand the unique needs and circumstances of dual enrollment transfer students. Universities should also provide a support system that caters to the needs of dual enrollment students. Moreover, deans and administrators should be flexible with regard to permitting students to explore academic options outside of their departments. Employing these initiatives may increase student persistence and their overall satisfaction with transfer universities.

### **Limitations**

The findings of this study offer a unique set of results regarding the experiences of 15 transfer students participating in dual enrollment programs in the state of Florida. However, it is important to understand the limitations of this research investigation. Some limitations of the study may include the following: the validity of the data, the kinds of questions asked, the nature of self-selection, and the respondents' honesty.

The validity of the data in qualitative research involves determining the degree to which the claims about the research correspond to the participants' realities. The questions asked by the investigator and what the investigator observed and recorded were potential limitations since interview questions were predetermined. Self-selection

is a threat to validity as well because volunteers tend to be less representative of the specified population. Moreover, self-selection might skew the findings and conclusions regarding transfer policy and practice, as all students came from the College Academy “G” program and from south Florida. Hence, the findings apply only to the institution or population sampled. The respondents’ willingness or unwillingness to answer questions honestly is another possible limitation.

### **Recommendations for Future Research**

Several research investigations could be performed in the future regarding the experiences of transfer students participating in dual enrollment programs in the state of Florida. Because the sample of 15 students came from the same college, College Academy “G,” one of the recommendations for future studies and research is to replicate this study by using a different sample size and/or geographical location of the participants. Another recommendation is to expand the respondents’ demographic data to include ethnicity, and study its effect on the experiences of dual enrollment transfer students. Additional research studies could also be conducted to compare the relationships between gender and transfer experiences. The researcher also recommends that a study be conducted at a transfer university, implementing a pilot program catering to dual enrollment students. Further research should be conducted to study the effectiveness of dual enrollment as one of the six key programs and practices colleges are implementing to ensure student success and completion (O’Banion, 2013). Finally, future studies could also replicate this study using a validated questionnaire to eliminate any potential instrument bias that may be present.

## Conclusion

Florida law requires that high school students take four or more college credit courses or participate in a dual enrollment program. On its face, this practice seems reasonable since students can potentially earn an associate of arts or associate of science degree by the time they finish high school, thus saving time and money. However, the results of this study indicate that dual enrollment transfer students are often negatively impacted. They are also challenged by the actual, or their perceived, lack of support at transfer universities and by not having the opportunity to experience university life or varied elective courses after transfer. As a result of the lack of support, maturity and preparedness with regard to academic and social integration, these first-year transfer students often do not attain bachelor degrees within two years of transfer. These barriers could also detrimentally affected persistence rates of transfer students. According to study participants, with regard to their dual enrollment peers, not only are some students taking longer than anticipated to complete their bachelor degrees, some are dropping out of the universities altogether.

High schools, community colleges and dual enrollment programs could benefit by doing a better job of providing guidance and realistic expectations of university life. Additionally, at transfer universities, guidance counselors and advisors should be aware of developmental theories and Tinto's interactionalist theory and be sensitive to the unique needs of dual enrollment transfer students. Moreover, universities should be flexible as to course and major selection of these students and provide special orientation and support to enhance social and academic integration and expedited degree attainment. Finally, colleges and school districts should attempt to resolve the contentious issue of funding dual enrollment programs.

## LIST OF REFERENCES

- American Association of State Colleges and Universities. (2002). The open door: Assessing the promise and problems of dual enrollment. *AASCU State Policy Briefing*, 1(1), 1-10.
- Allen, D. (2010). Dual enrollment a comprehensive literature review & bibliography. New York: CUNY Collaborative Programs, Office of Academic Affairs. Retrieved online [http://www.cuny.edu/academics/k-to-12/databook/library/DE\\_LitReview\\_August2010.pdf](http://www.cuny.edu/academics/k-to-12/databook/library/DE_LitReview_August2010.pdf)
- Andrews, H. A. (2004). Dual credit research outcomes for students. *Community College Journal of Research and Practices*, 28, 415-422.
- Andrews, H. A. (2001). The dual-credit phenomenon! Challenging secondary school students across 50 states. Stillwater, OK: New Forums Press.
- Atran, S., Medin, D. L., & Ross, N. (2005). The cultural mind: Environmental decision making and cultural modeling within and across populations. *Psychological Review*, 112(4), 744-776.
- BC Academy, 2010. Why students are choosing the College Academy at BC. Retrieved online <http://www.collegeacademyatbcc.org>
- Bailey, T., Hughes, K. L., & Karp, M. M. (2002). What Role Can Dual Enrollment Programs Play in Easing the Transition between High School and Postsecondary Education? *The Journal for Vocational Special Needs Education*, 24, 18-29.
- Bailey, T. R., & Karp, M. M. (2003). Promoting college access and success: A review of credit-based transition programs. Washington, DC: U.S. Department of Education, Office of Vocational and Adult Education. Retrieved online <http://www.eric.ed.gov/PDFS/ED482497.pdf>
- Berger, J. B., & Braxton, J. M. (1998). Revising Tinto's Interactionist Theory of Student Departure through Theory Elaboration: Examining the Role of Organizational Attributes in the Persistence Process. *Research In Higher Education*, 39(2), 103-119.
- Blanco, C., Prescott, B., & Taylor, N. (2007). The promise of dual enrollment: Assessing Ohio's early college access policy. Cincinnati, OH: Knowledge Works Foundation. Retrieved from [http://www.kwfdn.org/resource\\_library/publications/pseo\\_report.asp](http://www.kwfdn.org/resource_library/publications/pseo_report.asp)
- Boswell, K. (2001). State Policy and Postsecondary Enrollment Options: Creating Seamless Systems. *New Directions for Community Colleges*, 113, 7-14.
- Bragg, D., & Kim, E. (2006). Dual credit and dual enrollment. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-

Champaign. Retrieved from  
<http://www.apass.uiuc.edu/publications/Dual%20Credit%20Enrollment%20w-Header.pdf>

- Braxton, J. M., Hirschy, A., & Shederick, A. M. (2004). Tinto's Interactionist Theory. (2004). *ASHE-ERIC Higher Education Report*, 30(3), 7-20.
- Burns, H., & Lewis, B. (2000). Dual-enrolled students' perceptions of the effect of classroom environment on educational experience. *The Qualitative Report*, 4(1& 2). Retrieved from <http://www.nova.edu/ssss/QR/QR4-1/burns.html>
- Carlan, P. E., & Byxbe, F. R. (2000). Community Colleges under the microscope: An analysis of performance predictors for native and transfer students. *Community College Review*, 28(2), 27-42. Retrieved from EBSCOhost.
- Catron, R. K. (2001). Dual enrollment in Virginia. In Robertson, P.F., Chapman, B.G. and Gaskin, F. (Eds.). *Systems for offering concurrent enrollment at high schools and community colleges*. New Directions for Community colleges. San Francisco, CA: Jossey-Bass.
- Cejda, B. D., & Kaylor, A. J. (2001). Early transfer: A case study of Traditional-aged community college Students. *Community College Journal of Research and Practice*, 25, 621–638. doi: 1066-8926/01
- Chickering, A. W., & Reisser. L. (1993). *Education and identity* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Cho, J., & Trent, A. (2006). Validity in qualitative research revisited. *Qualitative Research*, 6(3), 319-340. doi: 10.1177/1468794106065006 Retrieved from <http://qrj.sagepub.com/cgi/content/abstract/6/3/319>
- Clark, T. (2008). Components of Senate Bill 1908. Retrieved online <http://www.fsba.org/userfiles/File/7.19.08.SB%201908.att%201.pdf>
- Cohen, A., & Brawer, F. (2008). *The American Community College*. San Francisco, CA: Jossey-Bass.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Dooley, D. (2001). *Social Research Methods* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- Dowd, A. C., Cheslock, J., & Melguizo, T. (2008). Transfer access from community colleges and the distribution of elite higher education. *The Journal of Higher Education*, 79(4), 1-31. Retrieved from <http://cue.usc.edu/tools/publications/>

transfer\_access\_from\_community\_colleges\_and\_the\_distribution\_of\_elite\_higher\_education.html

- Eimers, M., & Mullen, R. (2003). Dual credit and advanced placement: Do they help prepare students for success in college? Paper presented at the 43rd Annual Association of Institutional Research (AIR) Conference, Tampa, FL.
- Evans, N. J., Forney, D. S., Guido, F., Patton, L. D., & Renn, K. A. (2010). *Student development in college: Theory, research, and practice* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Evenbeck, S., & Johnson, K. E. (2012). Students Must Not Become Victims of the Completion Agenda. *Liberal Education*, 98(1), 26-34. Retrieved from <http://www.aacu.org/liberaleducation/le-wi12/winter12.pdf>
- Flaga, C. T. (2006). The process of transition for community college transfer students. *Community College Journal of Research & Practice*, 30(1), 3-19. doi: 10.1080/10668920500248845
- Florida Department of Education. (2013). State Board of Education Update: Florida College System. Retrieved from [http://www.fldoe.org/board/meetings/2013\\_03\\_19/pick.pdf](http://www.fldoe.org/board/meetings/2013_03_19/pick.pdf)
- Florida Department of Education. (2006). Community college dual enrollment students do well in subsequent university courses. Fast Fact #83. Tallahassee, FL: Author. Retrieved from <http://www.fldoe.org/CC/OSAS/FastFacts/FF83.pdf>
- Florida Department of Education. (2004). Impact of dual enrollment on high performing students. Data Trend #26. Tallahassee, FL: Author. Retrieved from <http://www.natn.org/assets/files/FLADUAL.pdf>
- Glass Jr., J., & Harrington, A. R. (2002). Academic performance of community college transfer students and "native" students at a large state university. *Community College Journal of Research & Practice*, 26(5), 415-430. doi:10.1080/02776770290041774
- Golann, J. W., & Hughes, K. L. (2008). Dual enrollment policies and practices: Earning college credit in California high schools. New York: Columbia University, Teachers College, Community College Research Center. Retrieved from [http://www.irvine.org/assets/pdf/pubs/youth/Dual\\_Enrollment.pdf](http://www.irvine.org/assets/pdf/pubs/youth/Dual_Enrollment.pdf)
- Gonzalez, N., & Chavez, G. (2009). Dual enrollment academy programs. *Community College Journal of Research & Practice*, 33(11), 930-932. doi:10.1080/10668920903149921
- Hale, G. (2001). Postsecondary Options. Education Commission of the States. Retrieved from <http://www.ecs.org/html/Document.asp?chouseid=2811>

- Heath, L. A. (2008). *Community College And University Experiences Of High School Dual Enrollment Students*. (Doctoral dissertation). Retrieved from <http://digitool.fcla.edu>. Florida Atlantic University, Florida.
- Heggen, J. (2008). NYU downgrades dual enrollment. Inside Higher Education. Retrieved from <http://www.insidehighered.com/news/2008/05/22/dual>
- Hoachlander, G., Stearns, R., & Studier, C. (2008). Expanding pathways: Transforming high school education in California. ConnectEd: The California Center for College and Career. Retrieved from <http://www.connectedcalifornia.org/publications.php>
- Hoffman, N. (2003). *College credit in high school: Increasing postsecondary credential rates of underrepresented students*. Boston: Jobs for the Future. Retrieved from <http://www.jff.org/Documents/collegecreditNH.pdf>
- Hoffman, N., Vargas, J., & Santos, J. (2009). New directions for dual enrollment: Creating stronger pathways from high school through college. *New Directions for Community Colleges*, 2009(145), 43-58. doi:10.1002/cc.354
- Hooker, S., & Brand, B. (2010). College knowledge: A critical component of college and career readiness. *New Directions for Youth Development*, 2010(127), 75-85. doi:10.1002/yd.364
- Hughes, K., & Edwards, L. (2012). Teaching and Learning in the Dual Enrollment Classroom. *New Directions for Higher Education*, 158(2012) 29-37. doi:10.1002/he.20012
- Hughes, K. L., Karp, M. M., Bunting, D., & Friedel, J. (2005). Dual enrollment/dual credit: its role in career pathways. In D. M. Hull (Ed.), *Career Pathways: Education with a Purpose* (pp. 227 – 255). Waco, TX: CORD. Retrieved from <http://ccrc.tc.columbia.edu/Publication.asp?UID=337>
- Hughes, K., Karp, M. M., Fermin, B., & Bailey, T. (2006). Pathways to College Access and Success. *Community College Research Center Brief*, 27, 1- 4.
- Hughes, K. L., Rodriguez, O., Edwards, L., & Belfield, C. (2012). Broadening the Benefits of Dual Enrollment. Community College Research Center, Teachers College, Columbia University, New York.
- Hugo, E. (2001). Dual Enrollment for Underrepresented Student Populations. In Robertson, P.F., Chapman, B.G. and Gaskin, F. (Eds.). *Systems for offering concurrent enrollment at high schools and community colleges*. New Directions for Community colleges. San Francisco, CA: Jossey-Bass.
- Hunt, E., & Carroll, C. E. (2006). Florida's dual enrollment initiative: How state policy influences community colleges' service to underrepresented youth. *New Directions for Community Colleges*, 2006(135), 39-47. doi:10.1002/cc.246

- Ishitani, T. T., & McKittrick, S. A. (2010). After Transfer: The engagement of community college students at a four-year collegiate institution. *Community College Journal of Research & Practice*, 34(7), 576-594. doi:10.1080/10668920701831522
- Inkelas, K., Vogt, K., Longerbeam, S., Owen, J. et al., (2006). Measuring outcomes of living-learning programs: Examining college environments and student learning and development. *The Journal of General Education*, 55(1), 40-76. Retrieved from Project MUSE database.
- Johnstone, D. B., & Del Genio, B. (2001). College-level learning in high school: Purposes, policies, and practical implications. Washington, DC: Association of American Colleges and Universities. Retrieved from <http://gse.buffalo.edu/org/lpn/lpnfinalnews/dbjanddelgenio.htm>
- Jordan, T. (2001). Dual Enrollment Options: Columbus State Community College Model for Successful Implementation. In Robertson, P.F., Chapman, B.G. and Gaskin, F. (Eds.). *Systems for offering concurrent enrollment at high schools and community colleges*. New Directions for Community colleges. San Francisco, CA: Jossey-Bass.
- Karp, M. M. (2007). Learning About the Role of College Student Through Dual Enrollment Participation (Working Paper No. 7). Community College Research Center, Teachers College, Columbia University.
- Karp, M.M., Calcagno, J.C., Hughes, K.L., Jeong, D.W., & Bailey, T. (2007). The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states. St. Paul: National Research Center for Career and Technical Education, University of Minnesota. Retrieved from <http://ccrc.tc.columbia.edu/Publication.asp?UID=547>
- Kentucky Council on Postsecondary Education. (2006). The dual enrollment of high school students in postsecondary education in Kentucky, 2001-02 to 2004-05. Retrieved from <http://www.e-archives.ky.gov/pubs/CPE/DualEnrollmentinKentucky306.pdf>
- Kim, J., Barnett, E., & Bragg, D. (2003). Dual credit in Illinois: Results of expert panel deliberations and a Delphi study of definitions and priorities. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign. Retrieved from <http://occr.illinois.edu/node/282>
- King, P. (1999). Putting together the puzzle of student learning. *About Campus*, 4(1), 2-5. Retrieved from EBSCO.
- Kleiner, B., & Lewis, L. (2005). Dual enrollment of high school students at postsecondary institutions, 2002-03. Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubs2005/2005008.pdf>

- Kotamraju, P. (2007). Researching CTE Student Success: A New Conceptual Framework. *Techniques*, 82(4) 49-52. Retrieved from <http://wed.siu.edu/faculty/manderson/WED560/Researching%20CTE%20Student%20Success.pdf>
- Krueger, C. (2006). Dual enrollment: Policy issues confronting state policymakers. Denver, CO: Education Commission of the States. Retrieved from <http://www.ecs.org/clearinghouse/67/87/6787.pdf>
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2007). Major Theoretical Perspectives on Student Success in College. *ASHE Higher Education Report*, 32(5), 13-20.
- Laanan, F. (2004). Studying transfer students: Part I: Instrument design implications. *Community College Journal of Research & Practice*, 28(4), 331-351. doi: 10.1080/10668920490424050
- Lieber, C. M. (2009). Increasing college access through school - based models of postsecondary preparation, planning and support. Cambridge, MA: Educators for Social Responsibility. Retrieved from <http://www.esrnational.org/index.php?location=projects&project=57>
- Luetkehans, L., & Robinson, R. (2000). Qualitative methods in educational technology research: An examination of recent studies. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Manning, K. (1997). Authenticity in constructivist inquiry: Methodological considerations without prescription. *Qualitative Inquiry*, 3(1), 93-115. doi: 10.1177/107780049700300105
- Marshall, M. N. (1996) Sampling for qualitative research. *Family Practice*, 13(6), 522-525. Retrieved from <http://spa.hust.edu.cn/2008/uploadfile/2009-9/20090916221539453.pdf>
- Mason, M. (2010). Sample Size and Saturation in PhD Studies Using Qualitative Interviews. *Qualitative Social Research*, 11(3). Retrieved from <http://nbn-resolving.de/urn:nbn:de:0114-fqs100387>.
- Melguizo, T., & Dowd, A.C. (2009). Baccalaureate success of transfers and rising four-year college juniors. *Teachers College Record*, 111(1), 55-89.
- Melguizo, T., Kienzl, G. S., & Alfonso, M. (2011). Comparing the educational attainment of community college transfer students and four-year College rising juniors using propensity score matching methods. *Journal of Higher Education*, 82(3), 265-291. Retrieved from EBSCOhost.
- Melinda, M. K., Calcagno, J.C., Hughes, K., Wook, D., & Bailey, T. (2007). The postsecondary achievement of participants in dual enrollment: An analysis of

- student outcomes in two states. St. Paul, Minnesota: National Research Center for Career and Technical Education, Columbia University.
- Mokher, C. G., & McLendon, M. K. (2009). Uniting secondary and postsecondary education: An event history analysis of state adoption of dual enrollment policies. *American Journal of Education, 115*(2), 249-277. Retrieved from EBSCOhost.
- Myers, A., & Hansen, C. (2005). *Experimental Psychology*, (6th ed.). Oakland University, CA: Sage Publications Inc.
- National Alliance of Concurrent Enrollment Partnerships - NACEP. (2012). Statement of National Concurrent Enrollment Partnership Standards. Retrieved from <http://nacep.org/standards/>
- Noel, L., & Levitz, R. (2011). 2011 student retention practices at four-year and two-year institutions. Coralville, Iowa. Retrieved from <http://www.noellevitz.com/BenchmarkReports>
- O'Banion, T. (2013). *Access, Success, and Completion: A Primer for Community College Faculty, Administrators, Staff, and Trustees*. Chandler, Arizona: League for Innovation in the Community College.
- Onwuegbuzie, A. J., & Leech, N. L. (2007). Sampling Designs in Qualitative Research: Making the Sampling Process More Public. *The Qualitative Report, 12*(2), 238-254. Retrieved from <http://www.nova.edu/ssss/QR/QR12-2/onwuegbuzie1.pdf>
- Onwuegbuzie, A. J., Leech, N., & Collins, K. (2010). Innovative data collection strategies in qualitative research. *The Qualitative Report, 15*, (3), 696-726. Retrieved from <http://www.nova.edu/ssss/QR/QR15-3/onwuegbuzie.pdf>
- Sikes, E. (2013). Dual Enrollment: Participation & Funding. Office of Program Policy Analysis & Government Accountability. Retrieved from <http://www.oppaga.state.fl.us/monitordocs/presentations/P13-12.pdf>
- Perkins, G. R., & Windham, P. (2002). Dual enrollment as an acceleration mechanism: Are students prepared for subsequent courses? *Visions: The Journal of Applied Research for the Florida Association of Community Colleges, 3*(1), 55-60.
- Peterman, D. (2000). Major trends in community college transfer literature. *Community College Journal of Research and Practice, 24*, 605–608. doi: 1066-8926/00
- Puyear, D.E., Thor, L.M., & Mills, K.L. (2001). Concurrent enrollment in Arizona: Encouraging success in high school. In Robertson, P.F., Chapman, B.G. and Gaskin, F. (Eds.). *Systems for offering concurrent enrollment at high schools and community colleges*. New Directions for Community colleges. San Francisco, CA: Jossey-Bass.

- Richards, L., & Morse, J. (2007). *README FIRST for a User's Guide to Qualitative Methods* First Edition. Sage Publication.
- Rossman, G.B., & Rallis, S.F. (2003). *Learning in the field: An introduction to qualitative research* (2nd ed.). Thousand Oaks, CA: Sage Publications Inc.
- Ryan, G., & Bernard, H. (2003). Techniques to identify themes in qualitative data. *Field Methods*, 15(1), 85–109. doi: 10.1177/1525822X02239569
- Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing & Health*, 18(2), 179-183. doi: 10.1002/nur.4770180211
- Savenye, W. C., & Robinson, R. S. (2004). Qualitative research issues and methods: An introduction for educational technologists. Retrieved from <http://www.aect.org/edtech/39.pdf>
- Schmit, M. S. (2011). *A comparison of accelerated and non-accelerated students and the effect on graduation*. (Doctoral dissertation). Retrieved from <http://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1440&context=etd>
- Shkolnik, J. (2008). Positive research study on early college high schools. Retrieved from <http://thecollegepuzzle.blogspot.com/2008/07/positive-research-study-on-early.html>
- Smith, D. (2007). Why expand dual-credit programs? *Community College Journal of Research and Practice*, 31(5), 371-387.
- Shulock, N., & Moore, C. (2007). *Rules of the game: How state policy creates barriers to degree completion and impedes student success in the California community colleges*. Institute for Higher Education Leadership and Policy.
- Speroni, C. (2011). High School Dual Enrollment Programs: Are We Fast-Tracking Students Too Fast? The National Center for Postsecondary Research (NCPR)
- Spurling, S., & Gabriner, R. (2002). The effect of concurrent enrollment programs upon student success at City College of San Francisco: Findings. San Francisco, CA: City College of San Francisco, CA, Office of Institutional Development, Research and Planning. Retrieved from [http://www.ccsf.edu/Offices/Research\\_Planning/pdf/ecepss02.pdf](http://www.ccsf.edu/Offices/Research_Planning/pdf/ecepss02.pdf)
- Swanson, J. (2008). An analysis of the impact of high school dual enrollment course participation on post-secondary academic success, persistence and degree completion. Iowa City, IA: Institute for Research and Policy Acceleration at the Belin-Blank Center for Gifted Education, University of Iowa. Retrieved from [http://www.nacep.org/confdownloads/swanson\\_executive\\_summary.pdf](http://www.nacep.org/confdownloads/swanson_executive_summary.pdf)
- Swing, R. L. (2000). *Transfer Student Support Programs*. Policy center on the first year of college. Brevard College: Brevard, NC.

- Tinto, V. (1975) "Dropout from Higher Education: A Theoretical Synthesis of Recent Research" *Review of Educational Research*, 45, 89-125.
- Tinto, V. (2007). Research and Practice of Student Retention: What Next? *J. College Student Retention*, 8(1), 1-19.
- Townsend, B. K. (2001). Redefining the community college transfer mission. *Community College Review*, 29(2), 29-42. Retrieved from EBSCOhost.
- Townsend, B. K., & Wilson, K. (2006). "A hand hold for a little bit": Factors facilitating the success of community college transfer students to a large research university." *Journal of College Student Development*, 47(4), 439-456. Project MUSE
- Townsend, B. K. (2007). Interpreting the influence of community college attendance upon baccalaureate attainment. *Community College Review*, 35(2), 128-136. Retrieved from EBSCOhost.
- U.S. Department of Education (2004). State Dual Enrollment Policies: Addressing Access and Quality, Washington, D.C. Retrieved from <http://www2.ed.gov/about/offices/list/ovae/pi/cclo/cbtrans/statedualenrollment04.doc>
- Venezia, A., Kirst, M.W., and Antonio, A. L. (2003). Betraying the College Dream: How Disconnected K-12 and Postsecondary Education Systems Undermine Student Aspirations. Stanford, CA. Retrieved from <http://www.aacu.org/meetings/generaleducation/gened2012/documents/Poster1.pdf>
- Washington State Board for Community and Technical Colleges. (2009). Running start: 2007-2008 annual progress report. Olympia, WA. Retrieved from [http://s3.amazonaws.com/zanran\\_storage/www.sbctc.ctc.edu/ContentPages/51136744.pdf](http://s3.amazonaws.com/zanran_storage/www.sbctc.ctc.edu/ContentPages/51136744.pdf)
- Zeidenberg, M., Jenkins, D., & Calcagno, J.C. (2007). Do student success courses actually help community college student succeed? *CCRC Brief No. 36*. Retrieved from <http://ccrc.tc.columbia.edu/Presentation.asp?uid=181>

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Angel Miguel Rodriguez was born and raised in San Juan, Puerto Rico. He received his Baccalaureate of Science Degree in Marine Biology from the University of Puerto Rico, Humacao College in December 1985. He earned a Master of Science Degree in June 1989 from the University of California, Scripps Institution of Oceanography. Rodriguez is employed by Broward College (f/k/a Broward Community College). For more than 22 years, he has passionately supported the community college mission of open door access. During his tenure at Broward College, he graduated with his doctorate in Higher Education Administration from the University of Florida in December 2013.

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