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## Student Perceptions of Dual Enrollment and Dual Credit in a Mississippi Community College

LaChandra Belisa Smith

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Student perceptions of dual enrollment and dual credit in a Mississippi community  
college

By

LaChandra Belisa Smith

A Dissertation  
Submitted to the Faculty of  
Mississippi State University  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy  
in Community College Leadership  
in the Department of Leadership and Foundations

Mississippi State, Mississippi

December 2015

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LaChandra Belisa Smith

2015

Student perceptions of dual enrollment and dual credit in a Mississippi community  
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The purpose of this study is to ascertain students' perspectives on dual enrollment and dual credit in a south Mississippi community college. The problem is the need to understand the perceptions of students regarding dual enrollment and dual credit to help foster better policies surrounding the program, help promote positive benefits for the students, and overall improve dual enrollment and dual credit to better suit the growing need and demand for a college degree. Dual enrollment and dual credit have become prominent in the U.S. Many studies have shown to have positive outcomes including increased high school completion rates, improved college persistence, and higher degree completion.

The research was conducted using a questionnaire by the National Alliance of Concurrent Enrollment Partnership (NACEP) that surveyed community college students at a south Mississippi community college to determine their perspectives of dual enrollment and dual credit. All participants were over the age of 18. Only those students who were dually enrolled or took dual credit classes in high school were allowed to participate in this study.

The descriptive research study was used to obtain information that describes existing opportunities by asking past dual enrollment and dual credit students about their perspectives, attitudes, and beliefs about college preparedness and dual enrollment and dual credit. This study is constructed to give a detailed analysis of self-reported data by an elite group of individuals (dual enrollment and dual credit participants) at a specific time. The participants were asked a series of questions using a questionnaire to collect data about their dual enrollment and dual credit experience.

Students in the study felt that dual credit and dual enrollment and dual credit was good, and they would recommend it to other students. These perceptions were especially true for those students with lower high school GPAs and in families where the mother had less education.

## DEDICATION

I would like to dedicate this to my mother, Judy, who has always been a source of encouragement and inspiration to me throughout my life. She is the one who stressed to me the importance of an education and who taught me I could accomplish anything to which I set my mind. I would also like to dedicate this to my husband, Timothy, who always kept me focused and together when I felt the world was falling apart around me. Lastly, this is dedicated to my two most precious gifts from Heaven above-my boys, Konner and Thaxtyn-who made the struggles of this process worthwhile.

Proverbs 31:25 “She is clothed with strength and dignity, and laughs without fear of the future”

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First, I would like to take this opportunity to give thanks and honor to my Heavenly Father, who has so abundantly blessed me far beyond what I deserve. Through His grace and mercy, make the impossible-possible. This endeavor has not been easy, but I have always trusted in His words from Jeremiah 29:11: “For I know the plans I have for you,” declares the LORD, “plans to prosper you and not harm you, plans to give you hope and a future.”

Next, I would like to give thanks to my husband, Timothy. You always supported me in every way, pushed me when I wanted to quit, and reminded me not to worry about the “grade”, just “get it done”. I am forever grateful to God for blessing me with a wonderful husband. I love you BIG.

To my two most precious gifts from Heaven above my-boys, Konner and Thaxtyn. Both of you boys absolutely bring out the best in me. I am so proud God choose me to be your mom. It is through the eyes of you both that I am reminded of what a wonderful world this truly is. Konner, I love you to the moon and back and back again. Thaxtyn, mom loves you back, back, and back again!

To my mom, Judy: thanks for always believing in me when no one else did, as well as teaching me to believe in myself. You have always been my biggest fan and toughest critic. Thanks for always pushing me to be a better person and encouraging me to follow my dreams as well as live them. I love you more than you will ever know.

To my sister, Bolivia; my in-laws, Debbie and Neal; and my other family, Krystal and Madison Danielle: they say it takes a village to raise a child. I am so very proud that all of you are part of my village. Thanks to all of you who have helped me with the boys so that I could attend class, complete assignments, study exams, and pursue this dream. I love all of you so very much.

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## CHAPTER I

### BACKGROUND OF STUDY

Dual enrollment and dual credit are two of the fastest growing services offered by high schools in conjunction with community colleges. According to the Mississippi Department of Education (2014), a new accreditation system is being implemented by high schools in Mississippi. The Mississippi Department of Education implemented the new accreditation system in order to meet the College and Career Readiness Indicator. According to Achieve (2015), the components of the College and Career Readiness Indicator reveal that high school graduates have the knowledge and skills in both English/reading and mathematics to succeed in postsecondary coursework without the need for remediation, or high school graduates will possess the skills to succeed in postsecondary job training after high school graduation. The new accreditation system will require that 50% of all college and career-ready high school students in each public school participate in English/reading or mathematics dual enrollment and dual credit classes by the year of 2016 (Mississippi Department of Education, 2014). For a student to be considered college and career ready they must be on high school diploma track, attend vocational training for a minimum of two years, and pass all subject area tests. College and career students do not have to have a minimum ACT score, and they do not have to take any high level math or science classes in order to take dual enrollment and dual credit classes (Mississippi Department of Education, 2014). President Obama

challenged higher education to produce five million more graduates by 2020 and one of the strategies for the Mississippi Department of Education was dual enrollment and dual credit (Pertlow & Washington, 2014). Because of high drop-out rates in high schools and community or junior colleges and the increased need for student remediation in community or junior colleges, policy makers are focusing more on college readiness (Amos, 2008). Badolato (2010) states that community colleges will play a crucial role in reaching the aims of the American Graduation Initiative by increasing the number of awarded associates degrees and certificates; integrating strategies for providing opportunities to immigrants, minorities, first-generation college goers, and low-income populations; and reforming the goals of student achievement. Kanter (2010) suggests that by year 2016, four out of ten new jobs will require advanced education or training. Dual enrollment or dual credit is an attractive option to help better prepare students for college (Karp, 2007). Research shows that students who complete a single dual enrollment or dual credit course have a better chance at completing college than those who do not participate in dual enrollment or dual credit (Adelman, 2006).

Dual enrollment allows students to take college courses while in high school and receive college credit for them. Dual credit courses allow students to take college level classes, earning high school credit and college credit at the same time. The dual enrollment and dual credit courses can be taught on high school campuses by trained high school teachers, on college campuses by college faculty or on-line. Dual enrollment and dual credit has been described by some as the largest revolution in secondary and postsecondary education (Cesta, 2003; Marshall & Andrews, 2002). A qualitative study by Karp in 2006 used identity theory as a rationale for students who gain knowledge

about the role and identity of a college student through dual enrollment and dual credit programs. Specific aspects of the role of a college student include behaviors, skills, academic habits, social and interpersonal characteristics and personal habits and traits.

Tinto's integration model was originally proposed in 1975 and revised in 1997. Tinto's model is based on Durkheim's (1951) suicide theory; Van Gennep's (1961) separation, transition, and incorporation phases; and Spady's earlier (1970, 1974) integration model (Hodum, 2007; Jong, Sikkema, & Dronkers, 1997). Tinto's (1997) integration model suggests that student persistence is determined by the degree to which students integrate (1) socially and (2) academically into the institution of higher learning. The degree of academic and social integration is determined by the students' commitment to obtaining a degree and commitment to an institution. Student commitment in turn is determined by the student's background such as family, skills, ability, and prior schooling.

Jacobi (1991) states that Tinto's student integration model (SIM) contains several characteristics that are common with and used in combination with Astin's (1970) input-environment-outcome (I-E-O) model of involvement. Jacobi says that Astin focuses on student behavior affected by student attitude while Tinto focuses on attitudes that lead to behavior (Hodum, 2007). College is treated and viewed as a social role. Tinto theorized that social conditions affect students' decisions to attend college or stay in college; students are likely to persist when they feel they are part of the social system of community or junior colleges.

According to Andrews (2001), dual enrollment programs date back to the 20<sup>th</sup> Century. Dual enrollment and dual credit programs began in the 1970s, but gained

momentum in the 1980s because of a report by the U.S. Department of Education's National Commission on Excellence in Education called *A nation at risk* (National Commission on Excellence in Education, 1983). *A nation at risk* demanded that states improve academics in high school. Dual enrollment and dual credit were originally implemented for high achieving students so that they could get an early start on college before becoming burned out; today the dual enrollment focus has shifted from high achieving students to minority, low income, and first generation students (Howley, Howley, & Duncan, 2013).

Hunt and Carroll (2006) studied Florida's dual enrollment programs. They noted their success and attractiveness to students. However, they also indicated that dual and or dual credit enrollment programs continue to present challenges to state policymakers. Lerner and Brand (2006) indicated that students who took dual enrollment or dual credit courses experienced a broader vision of life as a college student and received college credit while in high school. However, the study lacks data on determining college credit transferability, degree of coursework rigor, students' college completion rate, and student perspectives of dual enrollment and dual credit programs. Karp (2007) stated that there was a direct correlation between the authenticity of dual enrollment and the student's understanding of what it means to be a college student. Edward, Hughes, and Weisberg (2011) stated that where and by whom dual enrollment courses were taught has an impact on how authentic students viewed their college experience. According to Karp and Hughes (2008) although dual enrollment offers benefits for increasing the college completion rate and time to degree, there has been little research into student perspectives on dual enrollment (Adelman, 2006; Klopfenstein, 2010; Swanson, 2008). Dual

enrollment and dual credit are growing phenomena that have the potential of fostering student success; however, more research is needed in the area of students' perspectives to help guide policy makers' decisions, benefit the students, and possibly improve the dual enrollment and dual credit programs. In summary, Tinto's student integration model can help explain the conceptual underpinnings of students' perceptions on dual enrollment and dual credit.

### **Statement of the Problem**

The problem of this study is to ascertain the perceptions of students regarding dual enrollment and dual credit to help foster better policies surrounding the program, help promote positive benefits for the students, and overall improve dual enrollment and dual credit to better suit the growing need and demand for a college degree.

Stakeholders often view Mississippi's educational continuum as fragmented. A need is recognized for financial planners and policy makers to promote better alignment between secondary and higher education.

### **Purpose of the Study**

The purpose of this study is to investigate students' perceptions of academic preparation and college student role preparation due to their participation in dual enrollment and dual credit courses offered to them as high school students. Students at a south Mississippi community college were asked to complete a survey created by the National Alliance of Concurrent Enrollment Partnership, (NACEP). NACEP developed the student follow-up survey to help assist concurrent enrollment programs in meeting certification standards. This study explored dual enrollment and dual credit classes taken

by students, academic preparation, the role of a college student, and their overall experience satisfaction as it relates to dual enrollment and dual credit course work.

### **Research Questions**

Five research questions guided this study. Descriptive and Spearman Correlation statistics were computed and the data were examined to describe student gender, ethnicity, personal background, and influence factors for dual enrollment and dual credit participants.

1. Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation prepared them for the challenge of college?
2. Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation helped them develop more realistic expectations about college?
3. Do students perceive that dual enrollment and dual credit promoted self-confidence in their ability to succeed in college?
4. How do students rate and to what extent do students recommend dual enrollment and dual credit to others?
5. Are the perceptions of dual enrollment and dual credit students related to their characteristics?

### **Definitions of Terms**

1. Accelerated College Education (ACE) is the name for dual enrollment and dual credit programs. This program allows students the opportunity to enroll in community college classes while still in high school. ACE

participation is open to all students in high school or home school programs of study within the community college's service region (Mississippi Department of Education, 2014).

2. Community college and junior college is defined as any institution regionally accredited to award the associate in arts or the associate in science as the highest degree (Cohen & Brawer, 2008).
3. Concurrent enrollment in this study is defined by the National Alliance of Concurrent Enrollment Participation: the opportunity for qualified high school students to earn college credit taught by high school faculty during the normal school day on a high school campus (NACEP, 2002).
4. College-track students are high school students whose academic plans are to take advanced coursework in mathematics, English, science and so forth that will enable them to attend a community college or university (Braxton, 1999).
5. Dual credit in this study is the opportunity for high school students to take college-level courses that count as both high school and college credit, which is consistent with the definition by (Andrews, 2004); Barnett, 2003).
6. Dual credit students are students in high school enrolled in an eligible class through a college or university; the student is simultaneously earning both high school credit and college credit (Andrews, 2004; Barnett, 2003).

7. Dual enrollment and dual credit is an accelerated learning program which allows students to take college coursework while still in high school. For this study, dual enrollment and dual credit will be used for all such coursework regardless of class location, instructor, or acquisition of dual credit (Andrews, 2004).
8. Dual enrollment student is a high school student enrolled and taking coursework through a college or university for college credit only (Andrews, 2004).
9. Family income in this study is categorized as low i.e., 3,000, medium, or high i.e., 150,000 (Midcap, 2002).
10. First-generation college student is a student whose mother nor the father received any formal education beyond high school (Gibbons & Borders, 2010).
11. Full Time Equivalency (FTE) is a number computed by colleges to report enrollment. For this study, FTE equals total credit hours generated divided by 12. The minimum credits needed for full-time enrollment at the institution(s) of study. (Cohen and Brawer, 2008).
12. General academic coursework is defined as college courses required as part of the general education core for associates or bachelor's degree completion, including English, science, mathematics, and history that is consistent with the institution of study (Hughes, Karp, Fermin & Bailey, 2005).

13. Grade Point Average (GPA): The average determined by taking the total grade points earned during an academic term, divided by the total number of semester hours taken during that same term for college credit, as reported on a 4.0 scale (Mississippi Department of Education, 2014).
14. NACEP is the abbreviation for the National Alliance of Concurrent Enrollment Partnership, an accrediting system for concurrent enrollment. Retrieved February 14, 2015, from [www.nacep.org](http://www.nacep.org)
15. NAEP is the abbreviation for the National Assessment of Educational Progress, the only nationally representative and continuing assessment of American students in a variety of subject areas developed by the U.S. Department of Education. Retrieved February 27, 2015, from [www.naep.org](http://www.naep.org)
16. Non-traditional student: students who are 23 years of age or older and are enrolled part-time or full-time in a higher education institution (Palazesi & Bower, 2006).

### **Overview of Method**

This study used a questionnaire to study the population of students who were dual enrolled in high school using a community college in the state of Mississippi. They were asked a series of questions adapted from the NACEP Student Alumni Survey Essential Questions One Year out of High School Survey. The data collected were analyzed using SPSS. The analysis was consist of descriptive and Spearman Correlation statistics.

### **Delimitations**

- The problem being studied was limited to participation in dual enrollment and dual credit programs; no other programs to encourage students to obtain college credits while in high school were studied in order to allow the researcher to focus on the benefits and challenges of dual enrollment and dual credit specifically.
- The sites of study were limited to one community college in the state of Mississippi. Also, this study took place in south Mississippi, so it may not be representative of the entire state of Mississippi or the United States. The participants were students at a south Mississippi community college who had been participants in dual enrollment and dual credit programs. The site and participants were primarily chosen for the convenience of the researcher.

The procedure was to survey the students about their experiences in order to gain their perspectives about participation in dual enrollment and dual credit. Existing data such as GPA or graduation rates were not included because the researcher chose to focus on student perceptions. To insure that the survey was manageable, the survey instrument used primarily multiple choice Likert items along with multiple choice responses that allowed respondents to report additional information.

### **Significance of Study**

This study may help provide vital information to policy makers, law-makers, and college and school administrators concerning the consequences of dual enrollment and dual credit participation. Due to growing government initiatives to increase academic rigor, lower the cost of college, reduce time-to-degree and increase the number of students entering college, research on dual enrollment and dual credit programs has

begun to increase. Budgets may also be impacted by an improved understanding of the efficacy of dual enrollment and dual credit programs. Research is still very limited when determining the effectiveness and students' perspectives of dual enrollment and dual credit. Despite the lack of research on students' perspectives on dual enrollment programs, policy makers see it as an attractive alternative to create better relationships between K-16, reduce the cost of higher education, and increase senior motivation in high school (Karp, 2007). The desired outcome of this study is to help inform educators and policy makers on the efficacy of dual enrollment and dual credit and provide them with data for program assessment and improvements.

### **Summary**

Dual enrollment and accelerated learning programs have experienced rapid growth nationally. Definitive research on dual enrollment efficacy is limited by the challenge of controlling for numerous student variables and the differences of programs. This quantitative study examined student perceptions of dual enrollment and dual credit courses. The results from this study will help inform policy makers, high schools, and community or junior colleges on program effectiveness and the potential improvements to better the program(s).

## CHAPTER II

### REVIEW OF LITERATURE

Chapter two offers a review of literature as it relates to the areas involved in this study. For the proposed study, a review of the history that led to dual enrollment and dual credit programs was addressed. The study looked at steps that have been recommended for states when considering developing and implementing dual enrollment programs. This chapter covers issues concerning cost, advantages and issues of dual enrollment, student support services, student perspectives, and future considerations.

#### **Justification of Research**

Dual enrollment is a topic of interest for students, policy makers, and the state of Mississippi. Participation in dual enrollment is increasing, and the Educational Reform Act (2006) has set the stage for research about Mississippi's community and junior college dual enrollment programs. The Educational Reform Act (2006) introduced the need for conducting research in Mississippi's community and junior colleges' dual enrollment programs. The act called for increased focus on academic achievement and a stronger connection between secondary and postsecondary education. Although research on dual enrollment and dual credit programs is in the early stages, statewide data from the State Board for Community and Junior Colleges (SBCJC, 2008) Office of Statistics and Research indicate that participation in dual enrollment and dual credit programs in Mississippi's community and junior colleges is increasing. According to the SBCJC in

2008-09, 100% of Mississippi's 15 community and junior colleges allowed high school students to enroll in college courses.

According to Amos (2008), policy makers are focusing more on college readiness because of high dropout rates, the demand for more remediation in community college, and lack of job skills. Dual enrollment and dual credit is becoming an attractive option for many policy makers. They are seeing dual enrollment and dual credit as a way to attract students to community or junior colleges early on; better prepare them for the future as well; and help increase senior motivation, lower the overall cost of college, and foster better relationships between K-12 and higher educational institutions (Karp, 2007). According to Adelman (2006), a study was conducted that consisted of a national sample of over 12,000 eighth graders scheduled to graduate in 1992. The students were tracked through December 2000. The research shows that students who complete a single dual enrollment class in high school have a better chance of completing college than students who do not take a dual enrollment course. Dual enrollment programs have been identified for providing more academic rigor, assisting low-achieving students, increasing student aspirations, better preparing students for college life, and decreasing the cost of college (American Association of State Colleges and Universities, 2002). In light of this, policy makers should consider crafting policies to help reduce barriers that inhibit disadvantaged students from attending college by offering support and or waiving tuition (Rodriquez, Hughes, & Belfield, 2012).

Students have much to say about dual enrollment programs. Huntley and Schuh (2002) and Burns and Lewis (200) conducted two qualitative studies that examined the effect of location on students' dual enrollment experiences. Their study used criterion

sampling in selecting nine students from three different high schools in the Midwest that were dually enrolled to find out what student perceptions of the environment were and how the students benefited from the experience. Out of nine students, four took classes at the community college, three took classes at a four-year college, one took courses at a university, and one took courses at both the community college and a four-year institution. The study found that students who took dual enrollment classes at a community college versus a high school perceived themselves as a college student. The results obtained from the interviews provided recommendations to administrators and enrollment managers that would enhance the dual enrollment experience and assist recruitment and retention efforts. The study also stated a need for other research that would expand the existing literature on dual enrollment.

According to Andrews (2001), what students have to say after completing dual enrollment programs is an issue that should be addressed in research. Research that accesses the quality of dual enrollment programs and student impact is recommended in states where dual enrollment programs exists (Marshall & Andrews, 2002). More research on dual enrollment programs are needed. “Research provides the foundation for improving and for assuring that the dual-credit programs are quality for students, parents, boards of education, college boards, state educational agencies and state legislators who are involved in deciding to fund these efforts. Research should also provide solid data for answering critics or doubters of the dual-credit programs” (Andrews, 2001, p. 81-82).

As a society we are striving to better educate our population, which means encouraging students of all walks of life to attend college, even those with little college experience in their family and low to middle achievers (Edwards & Hughes, 2011). Dual

enrollment is part of the solution to two national issues: increasing senior rigor and shortening the length of time to complete a college degree (Andrews, 2004). According to Educational Evaluation and Policy Analysis (2013), dual enrollment students are 10% more likely to complete a bachelor's degree, and for students whose parents never went to college, 12% are more likely to complete a bachelor's degree. Dual enrollment has shown to promote success among all students. Dual enrollment programs have shown to not only benefit high achieving students but minority, low income and first generation students as well.

### **Dual Enrollment Overview and Emergence**

Dual enrollment programs date back to the latter part of the 20<sup>th</sup> Century (Andrews, 2001). Programs began to form in the early 1970s and increase during the 1980s because of a report by the U.S. Department of Education's National Commission on Excellence in Education (1983) called *A nation at risk*. *A nation at risk* stated that Americans were never first or second and were many times last when compared to international test-scores (National Commission on Excellence in Education, 1983). This called for many states to seek to improve the academics of their high schools. In NACEP was formed to create advocacy, collaboration, support, and research; and to increase the quality of course work and programs offered in dual enrollment across the nation. Dual enrollment was first implemented to give high achieving students an early start at an advanced education before they became burned out (Howley et al., 2013). Dual enrollment involves collaborative efforts between high schools and colleges that allow mainly juniors and seniors to earn college credit while in high school (Karp & Huges,

2008). The Educational Commission of the States (ECS) favors dual enrollment as a seamless K-16 system (Windham & Perkins, 2001).

Many names exist for students who take college courses while in high school. Dual enrollment is a term used when high school students take college classes and receive college credit. Dual credit is used for students who take a college course and receive credit in both high school and college. Concurrent enrollment is for high school students who only receive college credit for a course. Since the 2000s the focus of dual enrollment has been on minority, low income and first generation students (Howley et al., 2013). Dual enrollment courses are considered paths between high school and college. President Obama challenged higher education to produce five million more graduates by 2020, and one of the strategies to reach that goal was dual enrollment (Pertlow & Wathington, 2014).

### **National and State Dual Enrollment**

Dual enrollment programs exist in all 50 states, and 46 states have some form of legislation governing those programs (Pertlow & Wathington, 2014). Policies address criteria for student eligibility and how funding will be handled in dual enrollment (ECS, 2005). All of the other factors governing dual enrollment are left up to the education officials in the participating institutions. According to Struhl and Vargas (2012), state policies should help ensure that low-income and underrepresented students are able to take advantage of the benefits of dual enrollment. This can be accomplished in a variety of ways. Students need better preparation and support, as well as classes that address learning strategies. Data from the National Center for Educational Statistics (NCES,

2012) showed that in 2010-2011, 1.4 million students were dually enrolled in two million courses compared to 800,000 students in 2002-2003.

A Mississippi dual enrollment and dual credit student is defined as a high school student who is simultaneous enrolled in a community college, junior college or state institution of higher learning and receiving high school and college credit (Mississippi Public Universities, 2015). The eligibility criteria for participation is an overall GPA of 3.0 on a 4.0 scale in all high school courses and successful completion of 14 core high school units and/or junior status along with written recommendation from the principal or guidance counselor, and an overall ACT composite score of 16 or a minimum overall GPA 3.0 on a 4.0 scale on all high school courses, minimum ACT score of 30 or the equivalent SAT score, and written recommendation. Dual enrolled students can earn up to a semester's worth of community college credit while enrolled in high school. A semester's credit equals 15 credit hours at a Mississippi community college or junior college or 12 credit hours at a Mississippi public university. One 3-hour university or community college credit equals to one high school Carnegie unit (Mississippi Public Universities, 2015).

### **Advantages of Dual Enrollment**

Dual enrollment has been known to have many positive outcomes. Dual enrollment has been credited for increasing high school rigor, helping lower achieving students meet higher academic rigor, lowering the high school dropout rate, helping students acclimate to college life, better enabling students to enter the workforce after high school, giving low socio-economic and rural students a better chance at college

work, and lowering the overall cost of education (Karp & Hughes, 2008). Dual enrollment gives many students a chance to further their education that they may otherwise not receive, and many dual enrollment students go on to pursue graduate degrees (Karp, Calcagno, Hughes, Jeong, & Bailey, 2007). A dual enrollment study by Karp et al. (2007) examined both high school and college outcomes. The researcher used two datasets from Florida and New York, one for high school and another for college. The research results of these two programs are encouraging. The data indicated that dual enrollment is an accelerated learning strategy that encourages college enrollment and access. The researchers indicated that students who took dual credit coursework in high school showed more persistence when enrolling in college credit courses and greater probability of obtaining a college degree regardless of family income, gender, or race. Karp et al. (2007) state that more research needs to be done to determine the outcomes of college enrollment and degree completion as well as student perspectives of dual enrollment programs.

Since the 2000s the focus of dual enrollment has been on minority, low income, and first generation students (Howley et al., 2013). Average and moderate-achieving students have been known to do well in college settings when given the right support group (Gurule, 1996). A study was conducted to determine if first generation minority students taking dual enrollment classes would have a higher overall GPA than non-participating first generation minority students. The study showed that first generation minority students that took six or more dual enrollment credits performed significantly better than non-participating first generation minority students (Stansberry, 2013).

Dual enrollment courses are considered paths between high school and college. They allow students to adjust to the academic and social demands of the college learning environment and help to prepare students for academic success in relation to GPA and graduation time (Lukes, 2014). A study showed that students who participated in the dual enrollment programs have a higher graduation rate compared to their nonparticipating peers, as well as higher rates of persistence and credit accumulated in college (Rodriquez et al., 2012). The study compared overall acquired credits of dual enrollment students to non-dual enrollment students. It was determined that after one year of college, dual enrollees had accrued 1.2 and 1.3 credits more than the comparison group. After two years of college the dual enrollees had an additional 4.6 credits over the comparison group. The study also noted that the students who had taken dual enrollment classes had a significantly higher graduation rate as well. Dual enrollment programs allow students to see what is expected of them. Karp (2007) found that dual enrollment programs do in fact give students a clear concept of the role of a college student. Dual enrollment programs show many students that college is not the right fit for them at the present time, aiding them to avoid expensive false starts, and helping to foster the students' self-confidence. Dual enrollment programs also allow for realistic expectations by providing students with the opportunity to experience life as a college student (Bailey, Hughes & Karp, 2002). Dual enrollment has helped middle class and minority students successfully transition to higher educational classes, and they have increased college retention rates (Pretlow & Wathington, 2014). These students showed larger gains in GPA and college enrollment over females, high-income and high-achieving students who typically do better in college (Karp et al., 2007; Edwards & Hughes, 2011).

According to Karp (2007), dual enrollment is important to both secondary institutions as well as high schools. Both secondary institutions and high schools are pathways for students' future success. Dual enrollment programs can benefit both colleges and high schools by allowing them to come together and discuss curriculum and standard alignment. Both secondary and postsecondary schools are setting higher educational goals in regards to matriculation and attainment of a college degree (Achieve, 2015). Articulation agreements between secondary and postsecondary institutions are imperative because such agreements help to reduce tuition costs, duplication of coursework, and time to degree (Badolato, 2010). Many states have created course guides for students to follow from Grade 9 through Grade 16 and beyond. The purpose of the Carl D. Perkins Vocational and Technical Education Act of 2006 was to strengthen the connections between secondary and postsecondary institutions. Mississippi career and technical programs use a statewide framework for high schools and community or junior colleges. Mississippi also uses statewide occupational-specific assessment called the Mississippi Career Planning and Assessment System (MS CPAS) to help ensure high schools and community or junior colleges are using statewide curriculum frameworks (King & West, 2009).

### **Issues of Dual Enrollment**

There are several issues surrounding dual enrollment. Many policy makers question the course rigor of dual enrollment classes. High school students missing important activities because of dual enrollment has been an issue as well. Many community and junior colleges are faced with dual enrollment funding problems, and

policy makers struggle to make decisions surrounding dual enrollment because of the lack of data.

Dual enrollment was initially intended for high achieving high school students. Now dual enrollment classes are being offered to students who have not performed well in traditional academic environments, and many policy makers and educators fear low achieving students will cause dual enrollment programs to be watered down in order to help students successfully succeed (Karp & Hughes, 2008). Many policy makers believe that dual enrollment programs have a positive effect, but they have common concerns about maturity factors, locations, academic rigor and transferability, impact on high school environment, and funding to name a few (McCabe, 2000). Other policy makers question the rigor of college-level coursework that is associated with dual enrollment programs (Karp & Hughes, 2008). Many policy makers recommend that students first be placed in college courses that teach study and note-taking skills before taking the actual dual enrollment courses. Courses that teach study and note-taking skills often personally engage students and help them to set future goals to accomplish (Edwards, Hughes, 2011). Policy makers also question if the coursework taught at a high school is held to the same type of high standards as those at a community college (Hunt & Carroll, 2006). Educators fear that dual course credits are often “watered down” to accommodate struggling high school students, and the acceptance of dual credit coursework has not always been automatic by 4-year institutions (Barnett, 2003; Davis, 2001).

According to NCES (2004), the cost of dual enrollment classes varies from \$75 a course to \$400 a course. The cost of these classes is typically paid by students, high school districts, parents, and/or post-secondary institutions. According to Adams (2014),

some states are discussing expanding Pell Grants to high school students in order to help defer the cost of these classes. The cost of college has increased tremendously since the 1990s (NCES, 2004), yet according to NCES (2014), the cost from spending a year in college instead of the workforce is greater than the direct cost of a year in college. Dual enrollment is beneficial to students by reducing the cost of college, providing college credit at little to no cost at all, and shortening the time to degree (Adams, 2014). Funding for dual enrollment is problematic as well (Hughes et al., 2005). Dual enrollment faces problems including who will pay the tuition and how funding for the American Disabilities Act (ADA) and FTE will be distributed (Hughes et al., 2005). Both lead to a loss of funds for high schools, colleges, or both. One way to deter this would be “double dipping.” Double dipping is when both institutions receive funds for the same students (Karp & Bailey, 2004). In many cases dual enrollment courses are paid by the students, but this often hinders students from low-income families from taking dual coursework.

Karp and Hughes (2008) state there is a lack of appropriate data on dual enrollment because the data high schools have are not connected to the data colleges have. High schools are unable to follow their graduates, and community colleges are unable to follow their students who go on to attend 4-year universities. With accountability tied to performance and funding, there is a need for a systematic tracking system (Karp, 2007). According to Life Tracks (2012), the state of Mississippi implemented a longitudinal data center, The National Strategic Planning and Analysis Research Center (nSPARC), at Mississippi State University to link information from pre-K through the workforce. nSPARC is an intellectual, interdisciplinary hub that uses data methods and analytical techniques to connect policy makers, stakeholders, and the public.

The purpose of nSPARC is help collect and store longitudinal data. Lerner and Brand (2006) state that some universities and policy makers believe dual enrollment courses should only be taught by college faculty on a college campus with other college students in order for the dual enrollees to truly experience a college course. Karp and Bailey (2004) states dual enrollment coursework can be taught on high school campuses by high school teachers who have had the proper training. Low-income students who work or have siblings to care for after school can only benefit from taking dual enrollment courses at their local high school during regular school hours (Edwards & Hughes, 2011). Many of the dually enrolled students in Mississippi take high school classes along with an online dual credit class (Adelman, 2006). There are many universities that will not accept dual credit unless it was obtained at certain colleges or universities. Many universities see themselves as “gatekeepers,” demanding prerequisite courses that are only taken at their universities (Hoffman & Vargas, 2005). This leads to an additional problem about what courses dual enrollment students transfer and to where they can transfer their credit(s). According to Karp (2007), making sure that dual enrollment classes are seen as authentic is the best way to prepare high school students to be college students. Karp (2007) states that an authentic experience for dual enrollment students are when they feel they are actually taking a college course, and the students feel they are a college student rather than a high school student. Karp (2007) states that when students take a dual enrollment course at a community or junior college they learn about college expectations and actively practice behaviors that help them adhere to those expectations. Karp’s (2007) study found that New York City’s College Now dual enrollment program does sharpen participants’ conceptions of the role of a college student. According to

Karp (2007), of 26 at-risk students studied, 18 “were able to articulate the demands of the role more clearly, more strategically, and with greater depth of understanding” (p. 31) from their enrollment in College Now. It is recommend that students’ perspective be taken into account when determining where dual enrollment classes take place (Karp & Jeong, 2008; Midcap, 2002).

### **Dual Enrollment Student Support Services**

Support services for dual enrollment students are a crucial aspect for the success of the students and the program (Edwards & Hughes, 2011). Support services are vital for students who do not have a strong academic history. These services can provide and build capacity for long-term college persistence and matriculation. There are different types of support including academic, behavioral, and the basic college knowledge (Cohen & Brawer, 2008). Orientation for dual enrollment students can provide them with information on placement scores, college expectations, and strategies for success. It is imperative that dual enrollment programs monitor the progress of the students and address any issues that may arise because by law, college students are considered adults and their records are protected by privacy regulations. Sharkin (2004) states that students are usually very familiar with the support system at their local schools, but dual enrollment students are often unaware of the support systems available on the community college campus. Students need to be made aware of these programs through orientation and on-site visits to the community college. Dual enrollment students can greatly benefit from the support services at the community college, including library, writing and math centers; library research support; and college and career advising (Edwards & Hughes, 2011).

## **Student Perceptions**

Students have a lot to say about dual enrollment and dual credit. Many students have reported that they missed out on extra-curricular activities in high school due to dual enrollment classes. Other students argue that the coursework left them with less time to spend with family and friends (Fortier, 1995; McConnaha, 1996). While many students felt that they lacked time for extra-curricular activities, other dual enrolled students felt that they were not fully integrated into college life (Midcap, 2002). The students' perspectives on dual enrollment also leads back to Tinto (1997) who stresses the importance of establishing both social and academic integration in order for students to be successful and remain in college. Tinto's (1997) integration model suggests that students' persistence is influenced by the degree to which students are able to socially and academically integrate into the institution of higher learning.

Dual enrollment students also struggled with advisement. Many of the students in dual enrollment programs expressed a greater need for academic counseling on the high school level or at the college level (Hughes et al., 2005). The students taking dual classes stressed that the lack of recruitment was an issue. Many students missed out on taking dual classes their junior year because they were unaware of the program until their senior year (Makela, 2005). Dual enrollment awareness should begin in middle school with counselors, parents, and teachers. Students need to be aware of their upcoming choices so that they may prepare early and not lag behind (McCarthy, 1999).

Students who have taken dual enrollment classes have stated it was through the dual enrollment courses that they realized they could do college coursework, therefore setting them on the path to an educational level beyond high school (Midcap, 2002;

Stansberry, 2013). They also stated that through dual enrollment they were able to realize their flaws in terms of work and academic ethics, working on their downfalls early so that they could attend college after graduation from high school (Edwards & Hughes, 2011). Dual enrollment students have also conveyed that by actually taking the dual enrollment courses at a community college, they felt it was more of an authentic college course verses taking a dual enrollment course at their high school (Edwards & Hughes, 2011).

### **Future Considerations for Dual Enrollment Programs**

According to Columbia University (2012), there are several steps that can be taken to help further the development and push the success of dual enrollment programs:

Eliminate the eligibility requirements- student participation should be open to all students, provide dual enrollment courses tuition free to all students who are interested in the program, make dual enrollment programs part of all high school curriculum, reward high schools that provide dual enrollment opportunities to all the students that they serve, help ensure that more dual enrollment courses can be held on community college campuses since research shows that students benefit more from attending dual enrollment courses on community college campuses verses high school campuses, take measures to ensure that the dual enrollment courses that are taught are high quality and rigorous so that students derive maximum benefits from them. (pg. 1)

Policy makers need more research on dual enrollment so that they can make better use of limited resources by determining the types of courses and pathways that have the strongest successful completion rates for dual enrollment students (Struhl & Vargas, 2012). According to Karp (2007), the most successful dual enrollment programs happen when they meet the needs of the students within the community and offer an array of

different support services. Community colleges consistently accommodate the needs of their environment and communities. As the environment changes so does the organizational structure that support that environment (Williams, 2010). Community colleges need to stay abreast of what students in dual enrollment programs say in order to move forward with needed changes and improvements.

### **Summary**

Dual enrollment programs allow high school students to take college courses while in high school and earn college credit. Historically, dual enrollment programs have focused on high-achieving students. Studies have shown that dual enrollment can be just as beneficial for low-income, minority, and underperforming students. Nationwide, policy makers should encourage dual enrollment courses as a way to increase student readiness and college success. According to Rodriguez et al. (2012), high school students that complete just one college course is associated with increasing the likelihood of these students attending college and eventually graduating. More research needs to be done to determine the students' perceptions on dual enrollment and what can be done to increase their chances of taking dual enrollment classes. Policy makers need to take heed to what these students have to say in order to better prepare high school students for a chance at college.

## CHAPTER III

### RESEARCH METHOD

Chapter three details the research method used to study student perceptions of dual enrollment and dual credit coursework at selected institutions. This chapter provides: (1) research design, (2) research questions, (3) institutional setting, (4) description of participants, (5) review of instrument, (6) data collection procedures, (7) method for data analysis, and (8) summary.

#### **Research Design**

The method for this study is a descriptive, non-experimental study using survey research. This study is constructed to give a detailed analysis of self-reported data by an elite group of individuals (dual enrollment and dual credit participants) at a specific time. The participants were asked a series of questions using a questionnaire to collect data about their dual enrollment experience. All participants were in community college at the time of data collection. Students at a south Mississippi community college were asked to complete dual enrollment and dual credit in Mississippi survey. The descriptive research study was used to obtain information that describes existing opportunities by asking past dual enrollment and dual credit students about their perspectives, attitudes, and beliefs about college preparedness and dual enrollment.

## **Research Questions**

Five research questions guided this study. Descriptive and Spearman Correlation statistics was computed and the data were examined to describe student gender, ethnicity, personal background, and influence factors for dual enrollment participants. The table provided explains how each research question was analyzed as well as the instrument items that were used to guide the research.

The research questions are:

1. Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation prepared them for the challenges of college?
2. Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation helped them develop more realistic expectations about college?
3. Do students perceive that dual enrollment and dual credit promoted self-confidence in their ability to succeed in college?
4. How do students rate and to what extent do students recommend dual enrollment and dual credit to others?
5. Are the perceptions of dual enrollment and dual credit students related to their characteristics?

Table 1

*The overview table provides a breakdown of each research question, the item(s) from the instrument used to guide the research, and the type of analysis.*

<b>Research Question</b>	<b>Instrument</b>	<b>Analysis procedures</b>
Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation prepared them for the challenges of college?	Questionnaire items 7a, 7e, 7f	Descriptive statistics (mean, SD, and percentage)
Do dual enrollment and dual credit students perceive their dual enrollment and dual credit classes helped them develop more realistic expectations about college?	Questionnaire item 7b	Descriptive statistics (mean, SD, and percentage)
Do students perceive that dual enrollment and dual credit promoted self-confidence in their ability to succeed in college?	Questionnaire item 7c, 7d	Descriptive statistics (mean, SD, and percentage)
How do students rate and to what extent do students recommend dual enrollment and dual credit to others?	Questionnaire item 8 and 9	Descriptive statistics (frequency and percentage)
Are the perceptions of dual enrollment and dual credit students related to their characteristics?	Questionnaire items 10, 11, 12, 13, and 14; overall score on items 7a-7f and items 8 and 9	Spearman Correlation

### **Institutional Setting**

Review of the literature showed a need for research on the growing trend of dual enrollment (Karp & Jeong, 2008). This study was conducted at mid-size, southeastern community college offering a comprehensive general educational curriculum and career-

technical programs. The site was chosen because the study is on dual enrollment and dual credit students' perspectives specific to Mississippi, and they were the only one I choose willing to participate.

### **Description of Participants**

The participants included students who previously were dual enrolled or took dual credit classes in high school and are now college students from a south Mississippi community college. A survey was electronically sent out to the entire student body of a south Mississippi community college. Of all the students asked to participate, a total of 114 dual enrolled and dual credit students participated in the survey. To date a Mississippi dual enrollment student is defined as a high school student who is simultaneous enrolled in a community college, junior college or state institution of higher learning and receiving a college credit, and dual credit students receive both high school and college credit (Mississippi Public Universities, 2014). According to Mississippi Public Universities (2014), the eligibility criteria for participation is an overall GPA of 3.0 on a 4.0 scale in all high school courses and successful completion of 14 core high school units and/or junior status along with written recommendation from the principal or guidance counselor, and an overall ACT composite score of 16 or a minimum overall GPA 3.0 on a 4.0 scale on all high school courses, minimum ACT score of 30 or the equivalent SAT score, and written recommendation. According to the Mississippi Institutions of Higher Learning (2014), dual enrolled students can earn up to a semester's worth of community college credit while enrolled in high school. A semester's credit equals 15 credit hours at a Mississippi community college or junior college. One 3-hour university or community college credit equals to one high school Carnegie unit. All

participants were over the age of 18. Only those students who were dually enrolled in high school were allowed to participate in this study. All participants were informed that the survey was voluntary and confidential. The researcher did not include any identifying information on the questionnaire so that all confidentiality and anonymity could be assured. This also limited ethical concerns and protected participants involved.

### **Review of Instrument**

The data was collected through the use of an online questionnaire. The instrument used in this study was obtained from the NACEP at their public domain resource center (NACEP, 2009). The NACEP developed the student follow-up survey to help assist concurrent enrollment programs in meeting certification standards. The instrument for this study was adapted with permission from the NACEP Student Alumni Survey Essential Questions One Year out of High School questionnaire. The content areas developed for this study are basic items about high school enrollment, specific dual enrollment items, and demographic items.

### **Data Collection Procedure**

Once IRB approval was granted, the community college that was approved during the process was contacted. The questionnaire was administered using Survey Monkey. A link was provided to all students through email by student services at the participating community college. The email included a cover letter that described the research and its intended purpose. It informed the participant that any data collected would be used for the purposes of this study only. The data collected were destroyed once the analysis was completed. The participant agreed to participate in the study once he or she clicked on

the hyperlink and the questionnaire began. The participant could stop at any time without penalty. Data collection began when the first survey was received by the researcher and ended after a two week period.

### **Methods for Analysis**

Once the data were collected through Survey Monkey, the data were entered into Statistical Package for the Social Sciences (SPSS) for statistical analysis. The items 7a (By participating in dual enrollment and dual credit, I was better prepared academically for college), 7e (By participating in dual enrollment and dual credit, I improved my study skills), and 7f (By participating in dual enrollment and dual credit, I improved my time management skills) were analyzed using descriptive statistics (mean, standard deviation, and percentage) to answer RQ1: Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation prepared them for the challenges of college?. Each item is on a 5-point Likert scale (1-Strongly Disagree, 2-Disagree, 3-Neither Agree/Disagree, 4-Agree, 5-Strongly Agree).

The item 7b (By participating in dual enrollment and dual credit, I developed more realistic expectations about college) was analyzed using descriptive statistics (mean, standard deviation, and percentage) to answer RQ2: Do dual enrollment and dual credit students perceive their dual enrollment and dual credit helped them develop more realistic expectations about college? The item is on a 5-point Likert scale (1-Strongly Disagree, 2-Disagree, 3-Neither Agree/Disagree, 4-Agree, 5-Strongly Agree).

The items 7c (By participating in dual enrollment and dual credit, I was more confident about my ability to succeed in college) and 7d (By participating in dual enrollment and dual credit, I considered, for the first time, enrolling in college) were

analyzed using descriptive statistics (mean, standard deviation, and percentage) to answer RQ3: Do students perceive that dual enrollment and dual credit promoted self-confidence in their ability to succeed in college?. The items are on a 5-point Likert scale (1-Strongly Disagree, 2-Disagree, 3-Neither Agree/Disagree, 4-Agree, 5-Strongly Agree).

Items 8 (I would rate my overall experience with dual enrollment and dual credit) and 9 (I would recommend dual enrollment and dual credit to current high school students) were analyzed using descriptive statistics (frequency and percentage) to answer RQ4: How do students rate and to what extent to students recommend dual enrollment and dual credit to others? Item 8 is on a 5-point Likert scale (1-Very Poor, 2-Poor, 3-Neither Good/Poor, 4-Good, 5-Very Good). Item 9 is yes or no.

The items 5 (The number of college credits I earned through dual enrollment and dual credit courses), 10 (Gender), 11 and 12 (Race), 13 (Parent's educational Level), 14 (Free/Reduced Lunch Program), overall scores of items 7a-7f, and items 8 and 9 were analyzed using Spearman Correlation to answer RQ5: Are the perceptions of dual enrollment and dual credit students related to their characteristics? Spearman Correlation was used to look for relationships in students' perceptions based on individual characteristics. Spearman Correlation was chosen so the Likert scales items may be converted to numerical data and considered ordinal.

### **Summary**

A study was conducted to view past dual enrollment and dual credit students' perceptions. The data were collected through an online questionnaire and was administered to students at a south Mississippi community college. The instrument used in this study was obtained from the NACEP, (2009). The study results will help provide

information that will guide dual enrollment and dual credit decisions made by educators, high schools, community and junior colleges, as well as policy makers.

## CHAPTER IV

### RESULTS

The purpose of this study was to investigate students' perceptions of academic preparation and college student role preparation due to their participation in dual enrollment and dual credit courses offered to them as high school students. A total of 114 community and junior college students participated in this study.

Five research questions guided this study. Descriptive and Spearman Correlation statistics was computed and the data was examined to describe student gender, ethnicity, personal background, and influence factors for dual enrollment and dual credit participants. The table provided explains how each research question was analyzed as well as the instrument items that were used to guide the research.

The research questions are:

1. Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation prepared them for the challenge of college?
2. Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation helped them develop more realistic expectations about college?
3. Do students perceive that dual enrollment and dual credit classes promoted self-confidence in their ability to succeed in college?
4. How do students rate and to what extent do students recommend dual enrollment and dual credit to others?
5. Are the perceptions of dual enrollment and dual credit students related to their characteristics?

### **Background of Characteristics**

Table 2 displays the frequency counts for selected variables. The majority of the students surveyed had attended public high school (88.6%). Their high school GPAs ranged from “1.0 to 2.0 (3.5%)” to “Higher than a 4.0 (4.4%)” with the median GPA being 3.5. The overall dual enrollment and dual credit experience for the majority of the students was considered to be “very good” (87.7%) and all but two respondents would recommend dual enrollment and dual credit to others (98.2 %). About two-thirds of the students were female (67.5%). The most common racial/ethnic groups were White (59.6%) or Black (22.8%). Sixty-one percent (61%) of the mothers and 62.3% of the fathers had not attended college themselves. Fifty-eight percent (58%) of the respondents had received a free or reduced price lunch in high school (Table 2).

Table 3 displays the descriptive statistics for selected variables. These variables were the number of college course/classes taken ( $M = 2.39$ ) and the number of college credits earned ( $M = 4.20$ ) (Table 3).

Table 2

*Frequency Counts for Background Characteristics (N = 114)*

Variable	Category	<i>n</i>	%
Type of High School			
	Public	101	88.6
	Private	12	10.5
	Home Schooled	1	0.9
High School GPA <sup>a</sup>			
	1.0 to 2.0	4	3.5
	2.1 to 3.0	39	34.2
	3.1 to 4.0	66	57.9
	Higher than a 4.0	5	4.4
Overall Dual Enrollment and Dual Credit Experience			
	Neutral	1	0.9
	Good	13	11.4
	Very Good	100	87.7
Recommend Dual Enrollment and Dual Credit to Others			
	No	2	1.8
	Yes	112	98.2

<sup>a</sup> High School GPA: *Mdn* = 3.5.

Variable	Category	<i>n</i>	%
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Table 2 (Continued)

Gender			
	Male	37	32.5
	Female	77	67.5
Race/Ethnicity			
	American Indian	1	0.9
	Asian	6	5.3
	Black or African American	26	22.8
	White	68	59.6
	Multiracial	8	7.0
	Latino	5	4.4
Variable			
	Category	<i>n</i>	%
Mother's education			
	HS not completed	32	28.1
	HS completed	37	32.5
	Some college	10	8.8
	Technical Certificate or Diploma	5	4.4
	Associate's degree	4	3.5
	Bachelor's degree	12	10.5
	Graduate degree	14	12.3
Father's education			
	HS not completed	39	34.2
	HS completed	32	28.1

Table 2 (Continued)

	Some college	2	1.8
	Technical Certificate or Diploma	11	9.6
	Associate's degree	2	1.8
	Bachelor's degree	14	12.3
	Graduate degree	14	12.3
Free/reduced lunch			
	No	48	42.1
	Yes	66	57.9

Table 3

*Descriptive Statistics for Number of Classes taken and Credit Earned (N = 114)*

Variable	<i>M</i>	<i>SD</i>	Low	High
Number of college courses/classes	2.39	1.04	1	8
College credits earned	4.20	2.80	1	16

### **Research Question One**

Research question one asked, “Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation prepared them for the challenge of college?” Table 4 displays the ratings of dual enrollment and dual credit statements sorted by the highest mean ratings. These ratings were given using a 5-point

metric: 1 = *Strongly Disagree* to 5 = *Strongly Agree*. To address this question, the ratings were as follows: statement 7a, “Was better prepared academically for college” ( $M = 4.71$ , 80.7% strongly agreed); statement 7e, “Improved my study skills” ( $M = 4.69$ , 82.5% strongly agreed); and statement 7f, “Improved my time management skills” ( $M = 4.68$ , 81.6% strongly agreed).

### **Research Question Two**

Research question two asked, “Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation helped them develop more realistic expectations about college?” Table 4 displays the ratings of dual enrollment and dual credit statements sorted by the highest mean ratings. These ratings were given using a 5-point metric: 1 = *Strongly Disagree* to 5 = *Strongly Agree*. To address this question, the rating for statement 7b, “Developed more realistic expectations about college” was  $M = 4.71$  and 81.6% strongly agreed.

### **Research Question Three**

Research question three asked, “Do students perceive that dual enrollment and dual credit promoted self-confidence in their ability to succeed in college?” Table 4 displays the ratings of dual enrollment and dual credit statements sorted by the highest mean ratings. These ratings were given using a 5-point metric: 1 = *Strongly Disagree* to 5 = *Strongly Agree*. To address this question, the ratings were as follows: statement 7c, “Was more confident about my ability to succeed in college” ( $M = 4.74$ , 83.3% strongly agreed); and statement 7d, “Considered, for the first time, enrolling in college” ( $M = 3.74$ , 46.5% strongly agreed).

### Research Question Four

Research question four asked, “How do students rate and to what extent do students recommend dual enrollment and dual credit to others?” As previously shown in Table 2, the overall dual enrollment and dual credit experience for the majority of the students was considered to be “very good” (87.7%) and all but two respondents would recommend dual enrollment and dual credit to others (98.2 %).

Table 4

*Ratings of Dual Enrollment and Dual Credit Statements Sorted by Highest Mean (N = 114)*

Item	<i>M</i>	<i>SD</i>
7c. Was more confident about my ability to succeed in college	4.74	0.74
7a. Was better prepared academically for college	4.71	0.75
7b. Developed more realistic expectations about college	4.71	0.76
7e. Improved my study skills	4.69	0.81
7f. Improved my time management skills	4.68	0.83
7d. Considered, for the first time, enrolling in college	3.74	1.36

*Note.* Ratings based on a 5-point metric: 1 = *Strongly Disagree* to 5 = *Strongly Agree*.

### Research Question 5

Research question five asked, “Are the perceptions of dual enrollment and dual credit students related to their characteristics?” Tables 5 and 6 display the Spearman correlations for the eight dual enrollment and dual credit opinion statements with the

eight demographic variables. For the resulting 64 correlations, 19 were significant at the  $p < .05$  level.

Table 5

*Spearman Correlations for Dual Enrollment and Dual Credit Statements with Selected Variables*  
( $N = 114$ )

Statement	College		GPA	Gender <sup>a</sup>
	Courses	Credits Earned		
Overall Opinion Scale	.20 *	-.32 ****	-.01	.09
7a. Was better prepared academically for college	.07	.18	-.30 ****	-.11
7b. Developed more realistic expectations about college	-.01	.12	-.30 ****	-.15
7c. Was more confident about my ability to succeed in college	-.04	.04	-.22 *	-.17
7d. Considered, for the first time, enrolling in college	.30 ****	-.42 ****	.10	.10
7e. Improved my study skills	.00	.07	-.19 *	-.08
7f. Improved my time management skills	.00	.10	-.19 *	-.05
8. Overall Dual Enrollment and Dual Credit Experience	.06	.13	-.28 ***	-.03

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

<sup>a</sup> Gender: 1 = Male 2 = Female.

Table 6

*Spearman Correlations for Dual Enrollment and Dual Credit Statements with Selected Variables (N = 114)*

Statement	White <sup>a</sup>	Mother's Education	Father's Education	Free Lunch <sup>a</sup>
Overall Opinion Scale	.20 *	-.30 ****	-.23 **	.07
7a. Was better prepared academically for college	.14	-.27 ***	-.14	.12
7b. Developed more realistic expectations about college	.09	-.24 **	-.16	.10
7c. Was more confident about my ability to succeed in college	.02	-.23 **	-.18	.14
7d. Considered, for the first time, enrolling in college	.18	-.21 *	-.18	.01
7e. Improved my study skills	.05	-.25 **	-.15	.12
7f. Improved my time management skills	.12	-.21 *	-.09	.05
8. Overall Dual Enrollment and Dual Credit Experience	.07	-.06	-.03	.11

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

<sup>a</sup> Coding: 0 = No 1 = Yes.

Cohen (1988) suggested some guidelines for interpreting the strength of linear correlations. He suggested that a weak correlation typically had an absolute value of  $r =$

10 (about 1% of the variance explained), a moderate correlation typically had an absolute value of  $r = .30$  (about 9% of the variance explained) and a strong correlation typically had an absolute value of  $r = .50$  (about 25 % of the variance explained). Therefore, for the sake of brevity, the following discussion will primarily highlight those correlations that were of at least moderate strength to minimize the potential of numerous Type I errors stemming from interpreting and drawing conclusions based on potentially spurious correlations.

Using the Cohen (1988) criteria, 6 of the 64 correlations were of moderate strength. Specifically, those respondents who attempted more college courses were more likely to believe that the program helped them consider enrolling in college for the first time ( $r_s = .30, p = .001$ ). For students who had earned more college credits, they had a lower overall opinion of the dual enrollment and dual credit program ( $r_s = -.32, p = .001$ ) and the less likely they had considered college for the first time ( $r_s = -.42, p = .001$ ) (statement 7d). Respondents with higher high school GPAs had less agreement that the dual enrollment and dual credit program had better prepared them academically for college (statement 7a) ( $r_s = -.30, p = .001$ ) and less agreed that the program helped them to develop more realistic expectations about college ( $r_s = -.30, p = .001$ ). In addition, respondents whose mothers had less formal education had better overall opinions about the program ( $r_s = -.30, p = .001$ ).

### **Summary**

In summary, this study used surveys from 114 participants to investigate students' perceptions of academic preparation and college student role preparation due to their participation in dual enrollment and dual credit courses offered to them as high school

students. The overall dual enrollment and dual credit experience for the majority of the students was considered to be “very good” (87.7%) and all but two respondents would recommend dual enrollment and dual credit to others (98.2 %). Respondents believed that the program gave them more confidence, better college preparation, more realistic expectations and improved both their study and time management skills. In addition, opinions about the program were generally more favorable for respondents who had lower high school GPAs and those whose mothers had personally completed less formal education. In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn, and a series of recommendations will be suggested.

CHAPTER V  
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

**Introduction**

This chapter concludes this dual enrollment and dual credit study. This summation gives the following information: (1) overview of the study, (2) summary of results, (3) discussion of the findings, (4) Implications, (5) limitations (6) recommendations, and (7) summary.

**Overview of the Study**

Dual enrollment and dual credit programs is a topic for students, policy makers, and the state of Mississippi. Dual enrollment and dual credit programs allow high school students to take college courses while in high school and earn college credit at the same time. Historically, dual enrollment and dual credit programs have focused on high-achieving students. Studies have shown that dual enrollment and dual credit can be just as beneficial for low-income, minority, underperforming and first generation students (Howley et al., 2013). Research is still limited on students' perspectives on dual enrollment and dual credit programs; however, it is seen as an attractive alternative to create better relationships between K-16, reduce the cost of higher education, and increase senior motivation in high school (Karp, 2007).

## Summary of Results

The following conclusions are based on the results of the study conducted with regard to the students' perceptions of dual enrollment and dual credit.

Research Question 1: Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation prepared them for the challenge of college?

Overall, students view that dual enrollment and dual credit participation prepared them for the challenge of college. Of all the participants who participated ( $n=114$ ), 92 students strongly agree, 17 students agree, 2 students remain neutral, and 3 students strongly disagree that dual enrollment and dual credit better prepared them for college.

Conclusion #1: Dual enrollment and dual credit helps prepare students for college.

Research Question 2: Do dual enrollment and dual credit students perceive their dual enrollment and dual credit participation helped them develop more realistic expectations about college?

Overall, students view that dual enrollment and dual credit participation helped them develop more realistic expectations about college. Of all the participants who participated ( $n=114$ ), 93 students strongly agree, 15 students agree, 3 students remain neutral, and 3 students strongly disagree that dual enrollment and dual credit participation helped them develop more realistic expectations about college.

Conclusion #2: Dual enrollment and dual credit helps students develop more realistic expectations of college. Many students may realize they can complete college work and or classes, while others may realize that college is not for them at the present time.

Research Question 3: Do students perceive that dual enrollment and dual credit promoted self-confidence in their ability to succeed in college?

Overall, students view that dual enrollment and dual credit participation promoted self-confidence in their ability to succeed in college. Of all the participants who participated ( $n= 114$ ), 95 students strongly agree, 14 students agree, 2 students remain neutral, and 3 students strongly disagree that dual enrollment and dual credit participation promoted self-confidence in their ability to succeed in college.

Conclusion #3: Students, for the most part, perceive dual enrollment and dual credit promoted self-confidence in their ability to succeed in college; therefore, giving them the confidence they need to take more college classes.

Research Question 4: How do students rate and to what extent do students recommend dual enrollment and dual credit to others?

Overall, students rate their dual enrollment and dual credit experience as very good. Of all the participants who participated ( $n=114$ ), 100 students rate dual enrollment and dual credit as very good, 13 students rate dual enrollment and dual credit as good, and 1 student remains neutral. Of all the participants who participated ( $n= 114$ ), 77 students would recommend dual enrollment and dual credit to others and 2 students would not recommend dual enrollment and dual credit to others.

Conclusion #4: Students rate their dual enrollment and dual credit experience as positive and would recommend it to other students.

Research Question 5: Are the perceptions of dual enrollment and dual credit students related to their characteristics?

Overall, there was a significant positive correlation between the overall perceptions of dual enrollment and dual credit and the number of college courses taken. On the other hand there was moderate negative correlation as the amount of credits increased there was less of an opinion. Students with less educated mothers benefited more from dual enrollment and dual credit than others. Students with low high school GPA's had more realistic expectations of college and benefited more form dual enrollment and dual credit courses. Finally, there was no significant correlation of gender.

Conclusion #5: Dual enrollment and dual credit benefited students with low GPA's and families where the mother was less educated. Dual enrollment and dual credit could have helped these students see they were capable of going to college.

### **Discussion of Findings**

According to Karp (2006, 2007), and American Association of Colleges and Universities (2002), dual enrollment and dual credit participation prepared students for the challenges of college. The results from the current study clearly indicate that participants who participated in dual enrollment and dual credit classes were better prepared for the challenges of college. This finding also agrees with Tinto's (1997) research that reveals the importance of establishing both social and academic integration in order for students to be successful and remain in college. Tinto's (1997) integration model suggests that students' persistence is influenced by the degree to which students are able to academically and socially integrate into the institution of higher learning.

Previous research on dual enrollment and dual credit participation helped students develop more realistic expectations about college (Bailey et al.; Karp, 2007; and Karp et

al., 2007). The results from the current study support this research. Students who participated in dual enrollment and dual credit programs reported to have more realistic expectations about college. On the end of the spectrum, the more college credits students took, the less of an opinion they had toward dual enrollment and dual credit programs. This could have been because they took more classes than they were prepared for.

Huntley and Schuh (2002); Burns and Lewis (2000), conducted studies that examined dual enrollment and dual credit students' self-confidence in their ability to succeed in college. The studies found that dual enrollment and dual credit did help students develop more realistic expectations about college. The current study found this to be true as well. Midcap (2002), Stransberry (2013), and Edwards & Hughes (2011) also agree that dual enrollment and dual credit help students develop more realistic expectations about college, setting them on the path to an educational level beyond high school. They also stated that through dual enrollment and dual credit they were able to realize their flaws in terms of work and academic ethics, working on their downfalls early so that they could attend college after graduation from high school.

American Association of State Colleges and Universities (2002) revealed in previous studies that dual enrollment and dual credit helped assist low-achieving students. The current study furthers these findings by determining that students with low GPAs found dual enrollment and dual credit more beneficial. Karp et al., (2007) revealed in a previous study that students who took dual credit coursework in high school showed more persistence when enrolling in college credits regardless of family income, gender, or race. The current study shows that students who participated in the study felt that dual enrollment and dual credit was good and they would recommend it to other students.

These perceptions were especially true for those students with lower high school GPA's and in families where the mother had less education.

### **Implications for Practice**

A concern with dual enrollment and dual credit is does the program benefit students of all walks of life. The implication is that all students who participated in dual enrollment and dual credit gain valuable academic skills necessary for college, and those classes help them continue on with college classes regardless of race, gender, and socio-economic standing. With more research on students' perceptions of dual enrollment and dual credit policy makers, high schools, and community colleges all can help better prepare students for college and reduce the overall cost of a college degree as well as diminish time to degree.

### **Limitations of the Study**

After conducting the research, limitations became apparent to the researcher. The number of responses from the sample may be small due to the number of participants who voluntarily chose to participate in the completion of the survey, and the results may have limited generalizability compared to other states. The researcher acknowledges that the study is limited by the items contained on the survey instrument. Other limitations include students with disabilities or English as a second language.

### **Recommendations**

Positive outcomes from this study provide justification for program expansion and development of dual enrollment and dual credit classes. Community college employees and decision makers can benefit from this study by offering more dual enrollment and

dual credit classes. The survey responses indicated that dual enrollment and dual credit students are pleased with dual enrollment and dual credit programs. This study shows that dual enrollment and dual credit classes better prepare students for college, develop more realistic expectations about college, and promote self-confidence. Policies need to be in place to help foster and meet the needs of students in dual enrollment and dual credit classes. This study focused on data from one community college in south Mississippi. The study was limited. A future study for dual enrollment and dual credit could investigate several south Mississippi community colleges to do a comparison of how dual enrollment and dual credit has made an impact on high school graduation rates and college enrollment. Another study might investigate dual enrollment and dual credit in a given region or area in south Mississippi over a 5 year period. Long term data would provide a better picture of the benefits of dual enrollment and dual credit. Future research could encompass a larger population representing populations of the United States to demonstrate a more thorough understanding of dual enrollment and dual credit.

Table 7 shows the positives outcomes of dual enrollment and dual credit programs. The table outlines positive outcomes and literature research to back up the findings.

Table 7

*Positive Outcomes of Dual Enrollment and Dual Credit Programs*

Positive Outcomes	Literature Citations
<ul style="list-style-type: none"> <li>Increases college completion rate and time to degree</li> </ul>	<ul style="list-style-type: none"> <li>Karp &amp; Hughes (2008, p.4); Rodriguez, Hughes, &amp; Belfield (2012, p. 20)</li> </ul>
<ul style="list-style-type: none"> <li>Foster better relationships between K-12 and higher educational institutions</li> </ul>	<ul style="list-style-type: none"> <li>Karp (2007, p. 14)</li> </ul>
<ul style="list-style-type: none"> <li>Reduce barriers that inhibit disadvantaged students from attending college</li> </ul>	<ul style="list-style-type: none"> <li>Rodriquez, Hughes, &amp; Belfield (2012, p. 15)</li> </ul>
<ul style="list-style-type: none"> <li>Lowers high school drop-out rate, helps students acclimate to college life, and lowers that overall cost of college</li> </ul>	<ul style="list-style-type: none"> <li>Karp &amp; Hughes (2008, p. 19); Karp (2007, p. 20); Rodriguez, Hughes, &amp; Belfield (2012, p.20)</li> </ul>
<ul style="list-style-type: none"> <li>Helps promote first generation minority students to attend college</li> </ul>	<ul style="list-style-type: none"> <li>Stansberry, (2013, p,20)</li> </ul>
<ul style="list-style-type: none"> <li>Helps minority and middle class students successfully transition to college</li> </ul>	<ul style="list-style-type: none"> <li>Pretlow &amp; Wathington (2014, p. 21)</li> </ul>
<ul style="list-style-type: none"> <li>Shows larger gains in GPA</li> </ul>	<ul style="list-style-type: none"> <li>Karp, Calcagno, Hughes, Jeong, &amp; Bailey (2007, p. 21); Edwards &amp; Hughes (2011, p. 21)</li> </ul>

**Summary**

Chapter V summarized the research findings and presented conclusions drawn by the researcher. Each of the research questions was examined in more detail. The findings were discussed and conclusions were drawn based on the data. Implications for practice and recommendations for research interested in future research relating to students’ perspectives of dual enrollment and dual credit were discussed. The chapter concluded with a discussion of the study finding and their comparison to other research studies.

As we recognize the growing need to better educate our students for the future, we must look at ways to help them facilitate the goal of increased degree productivity. Dual enrollment and dual credit is a program that can help students realize their abilities, successfully pursue a college degree, and save money by reducing time to degree.

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APPENDIX A  
MSU IRB APPROVAL EMAIL

**Protocol Title: Student Perceptions of Dual Enrollment in a Mississippi Community College**

**Protocol Number: 15-244**

**Principal Investigator: Ms. Belisa Smith**

**Date of Determination: 7/24/2015**

**Qualifying Exempt Category: 45 CFR 46.101(b) (2)**

**Attachments: Stamped informed consent in separate email**

**Dear Ms. Smith:**

**The Human Research Protection Program has determined the above referenced project exempt from IRB review.**

**Please note the following:**

- **Retain a copy of this correspondence for your records.**
  
- **An approval stamp is required on all informed consents. You must use the stamped consent form for obtaining consent from participants.**
  
- **Only the MSU staff and students named on the application are approved as MSU investigators and/or key personnel for this study.**
  
- **The approved study will expire on 5/31/2016, which was the completion date indicated on your application. If additional time is needed, submit a continuation request. (SOP 01-07 Continuing Review of Approved Applications)**
  
- **Any modifications to the project must be reviewed and approved by the HRPP prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project.**
  
- **Per university requirement, all research-related records (e.g. application materials, letters of support, signed consent forms, etc.) must be retained and available for audit for a period of at least 3 years after the research has ended.**
  
- **It is the responsibility of the investigator to promptly report events that may represent unanticipated problems involving risks to subjects or others.**

**This determination is issued under the Mississippi State University's OHRP Federal wide**

**Assurance #FWA00000203. All forms and procedures can be found on the HRPP website:**

**[www.orc.msstate.edu](http://www.orc.msstate.edu).**

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at [nmorse@orc.msstate.edu](mailto:nmorse@orc.msstate.edu) or call **662-325-5220**.

Finally, we would greatly appreciate your feedback on the HRPP approval process. Please take a few minutes to complete our survey at <https://www.surveymonkey.com/s/PPM2FBP>.

Sincerely,

Nicole Morse, CIP  
IRB Compliance Administrator

cc: Stephanie B. King, Advisor

APPENDIX B  
DUAL ENROLLEMNT AND DUAL CREDIT STUDENT PERSPECTIVES  
SURVEY

## Participation Requirement

**\* People who are under 18 years of age should not complete survey.**

\* 1. Are you 18 years of age or over?

- Yes  
 No

Next

## Participation Requirement 2

**\* People who have not taken dual enrollment classes should not complete survey.**

\* 2. In high school, were you dual enrolled (taking high school courses as well as college courses at the same time)?

- Yes  
 No

Prev

Next

## High School

3. How would you classify your high school?

- Public  
 Private  
 Parochial  
 Home School  
 Other (please specify)

4. While in high school, how many college courses/classes did you take?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8+

5. While in high school, how many college credits did you earn?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16+

6. What was your GPA while in high school?

- Lower than 1.0
- 1.0 - 2.0
- 2.1 - 3.0
- 3.1- 4.0
- Higher than a 4.0

Prev   Next

### Dual Enrollment Recommendations

7. By taking college classes while still in high school, I:

Was better prepared	<input type="radio"/>				
Developed more realistic expectations about college	<input type="radio"/>				
	<input type="radio"/>				
	<input type="radio"/>				
	<input type="radio"/>				
	<input type="radio"/>				

Prev   Next

### Dual Enrollment Recommendations

8. How would you rate your overall dual enrollment experience?

Very Poor                      Poor                      Neutral                      Good Very Good



9. Would you recommend dual enrollment courses to high school students?

Yes	No
<input type="radio"/>	<input type="radio"/>

[Prev](#) [Next](#)

## Demographics

10. I am:

- Male
- Female

11. Do you consider yourself Latino?

- Yes
- No

12. Which category best describes your race?

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White
- Multiracial
- Decline Response

13. To the best of my knowledge, the highest education level achieved by my mother and father is:

Some

High School High School College- Technical not Diploma or level work  
Certificate Associate's Bachelor's Graduate I do not  
completed Equivalent completed or

Diploma	Degree	Degree	Degree	know					
		<input type="radio"/>							
Father		<input type="radio"/>							

14. While in high school, I was eligible for the Free/Reduced Price Lunch Program:

- Yes
- No

Prev

Done