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Dual Credit Programs: Does the State of Illinois Provide Programs that are Efficacious for All Stakeholders?

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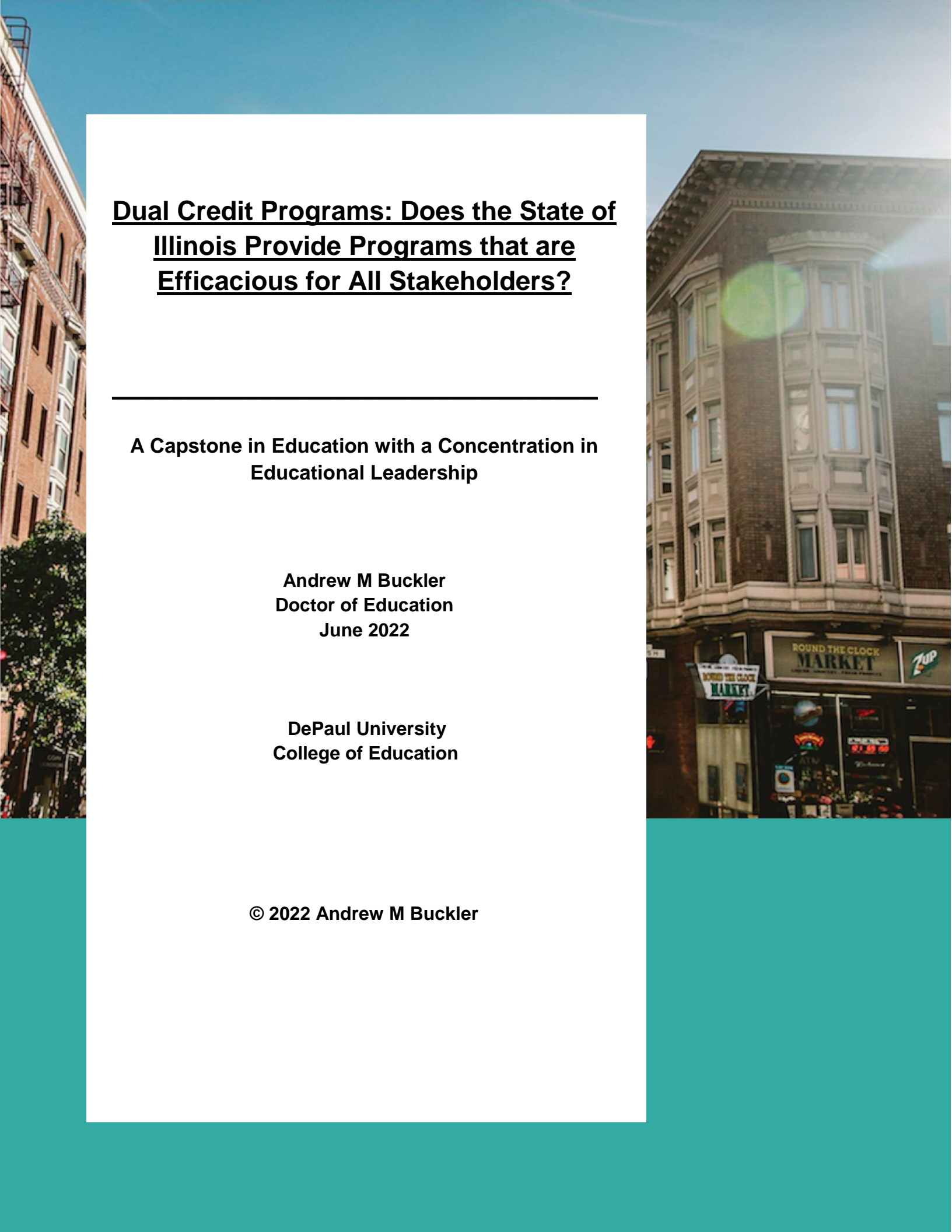


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Dual Credit Programs: Does the State of Illinois Provide Programs that are Efficacious for All Stakeholders?

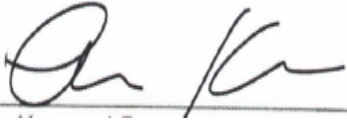
A Capstone in Education with a Concentration in Educational Leadership

**Andrew M Buckler
Doctor of Education
June 2022**

**DePaul University
College of Education**

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I approve the capstone of Andrew M Buckler.

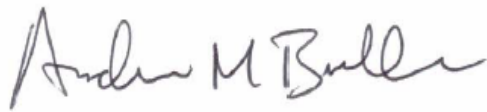
A handwritten signature in black ink, appearing to read 'Andrea Kayne', written over a horizontal line.

Date 5/3/22

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Certification of Authorship

I certify that I am the sole author of this capstone. Any assistance received in the preparation of this capstone has been acknowledged and disclosed within it. Any sources utilized, including the use of data, ideas and words, those quoted directly or paraphrased, have been cited. I certify that I have prepared this capstone according to program guidelines as directed.



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Executive Summary

As dual credit courses have become more and more popular, both in the country as a whole, and in the state of Illinois, many students are taking advantage of the benefits that these courses can provide. The problem that this study focused on was whether or not the state of Illinois is doing all it can to ensure all students are able to benefit. The High School Longitudinal Study (2009) was a national study that provided valuable information on the academic environment in high schools at that time. One of the areas the study looked at was dual credit programs. In 2021, the Illinois Board of Higher Education released its 2020 state report on dual credit education. This study looked at the 2020 statistics and compared them with the data from 2009 in order to see if Illinois had used that wealth of information to improve its dual credit programs or not. Critical Race Theory (CRT) was the lens through which the data was compared. CRT, the very controversial theory being discussed across the country these days, identifies circumstances in which those in power legitimize ways in which minority citizens get treated unfairly in the United States. This study found that while the state of Illinois has made some positive changes to its dual credit programs, in far too many cases, ingrained racism in the education system is still influencing how programs are run. This is not an isolated problem in education. However, in this case educators must not turn a blind eye as many have done in the past. Every student deserves to benefit from saving money, finishing college sooner, and simply being better prepared to enter college, and any other benefit dual credit courses can offer. Schools must find ways to better market these classes to all students. They must focus on methods to help students who are taking the classes succeed, and they must work more closely with higher education institutions in order to provide an easy to follow map for all students to follow.

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Introduction

In the fall of 2015, I had the privilege of sitting in on a dual-credit senior English class at a local high school. While my only interaction with students who had taken this type of class before was teaching them in Composition II, I certainly was interested to see what the class was going to offer the students that would justify receiving credit for both the high school course and Composition I at the local community college. As the semester progressed and I made myself familiar with the curriculum for the class, it soon became apparent that this was going to simply be a regular high school senior English class. There was nothing included that would suggest it was more strenuous than any other class. The teacher, while very dedicated and serious about doing whatever she could to help, simply had too much on her plate already to provide extra time and attention to these particular students. That experience was an eye-opener for me because while there was no additional work, each of those students received college credit. That particular class was made up entirely of white students, and I wondered why there was not a more diverse group of kids. I teach these students in Composition II, and it has become very clear that not all of them are learning the skills needed to succeed in my class. As this type of class becomes more and more popular, it is more important than ever to understand if all students are provided access to these courses and if they are learning what they should be while they are in them. Finding the answers to that question provided the impetus to begin this project and ultimately complete it.

The Current State of Education in the United States

In a recent Programme for International Student Assessment (PISA) test in 2015, which measures the key education skills of 15-year-olds in dozens of countries, DeSilver (2017) noted that the United States placed 38th out of 71 countries in math and 24th in science (par 2). Dana Goldstein (2017) from the New York Times, wrote that “three-quarters of both 12th and 8th graders lack proficiency in writing according to the most recent National Assessment of Educational Progress” (par 10). Goldstein (2017) went on to add that “forty percent of those who took the ACT writing exam in the high school class of 2016 lacked the reading and writing skills necessary to successfully complete a college-level English composition course” (par 10). These are just a few examples of the bevy of recent negative results for the United States in terms of education. Issues such as unqualified teachers, standardized testing, lack of funds, charter schools and the ever-rising cost of college are just a few of the major issues taking a toll on the system. How can these students who are struggling in school go on to college and compete for jobs? As U.S. students continue to be outdone by their peers around the world, those charged with fixing the system are exploring every avenue for ways to help our students compete.

One goal has been to help high school students successfully complete college by getting them a head start on their coursework. Minimizing the amount of time and money spent on college is one way to try and keep as many students as possible in the classroom and progressing. One such way to do that is the dual-credit course.

Overview of Dual Credit Education

Dual credit courses are those courses taken by high school students, usually in the eleventh or twelfth grade, that upon successful completion, will earn the students high school and college credit at the same time. In a 2013 study by the National Center for Educational statistics, 82% of US public high schools in 2010-11 reported that students were enrolled in dual credit courses (Thomas et al., 2013, p. 3). An American Association of Community Colleges (2018) study found that “Over a decade and a half, community college enrollment for part-time students who are younger than 18 has more than doubled, jumping from 287,000 in 2001, to more than 635,000 by 2015 – an increase of 122 percent” (p. 1). That is a huge increase when compared to the meager beginning of dual credit courses. These courses are different from the exam-based Advanced Placement (AP) courses or International Baccalaureate (IB) programs that are also very popular these days (Cubberley, 2009, p. 1). AP courses require students to take a test at the end of the courses, with only those scoring above a certain mark receiving college credit. The IB programs require students to complete a rigorous course load, write various college-level essays, perform public service, and have an understanding of the world as a whole in order to graduate. More and more colleges are establishing a list of criteria that will allow students to use the IB courses to receive college credit. Dual credit courses may be taught on a college campus or on a high school campus. They may be taught by a college instructor or a high school teacher. The majority of the time, where a school is located will decide things such as will there be tuition or fees, what standards are the teachers held to, what the curriculum will include, and who pays for the courses.

There are several advantages to dual credit courses. First, dual credit lowers the cost of college for many students. By earning college credit early, students have fewer courses to take when they arrive in college, and therefore, have less money to pay. Secondly, dual credit courses are thought to be the cure for “senioritis” among high school seniors. These courses are said to hold the attention of seniors because they are covering college level material. Finally, dual credit courses are thought to lower the number of courses duplicated from high school to college. Eliminating redundancy is believed to keep students focused and in school. Stark Education Partnership (2015) explained that taking dual credit courses in high school may provide a key bridging strategy for first generation and other underrepresented populations (p. 3). Swanson (2010) suggested that “dual credit courses introduce first generation students to college expectations and routines, prepare students for collegiate rigor, and expose students to both academic and non-academic college skills and expectations” (p. 43). A recent

national study of 420,439 students found that dual credit decreases time to completion of both associate's and bachelor's degrees. Students who participated in dual credit programs, on average, enrolled for 3 years versus 3.5 years for students without dual credit, while earning an associate's degree: and enrolled for 4.2 years versus 6.0 years, while earning a bachelor's degree (Light, 2016). According to Blankenberger, Lichtenberger & Witt (2017) the primary contribution of their study was to indicate that the greatest improvement to degree attainment associated with dual credit participation accrued to those students who began their postsecondary careers at community colleges rather than more selective institutions.

As with most academic programs, dual credit programs also have some disadvantages in the eyes of researchers. Dougan (2005) noted that some of the most common issues concerned students' academic preparation, the availability of college student services, faculty preparation and training, and lack of formal evaluation measures. States have responded to these concerns in a variety of ways, defining the conditions under which dual-enrollment classes will be delivered. Emphasis has been placed on ensuring that students are eligible for college-level work, that the instructors teaching dual-credit courses are qualified to teach at the college level, and that college credit that students earn in dual-enrollment courses can be transferred to baccalaureate-granting institutions (Andrews, 2000). Also, the higher grades and earlier college completion results are not always seen. There is just not a lot of research results available because there have not been very many rigorous studies completed. The quality of the programs is the second issue commonly brought up by skeptics. The student selection process is questioned, as well as the qualification of the instructors teaching the courses. The financial issues surrounding the programs also raise questions. Who is paying for the programs is a question that is answered differently in many states and among many schools. Zimmerman (2012) noted that both sides of the agreement between secondary schools and colleges benefit financially as dual credit programs gain popularity. Finally, in the midst of the most powerful racial equality protests since the 1960's, dual credit programs are not as readily available to, and do not provide the same advantageous outcomes for students of color, and that is a negative aspect that must be addressed immediately.

So, in the fifty year or so history of dual credit programs, a lot of good things have been accomplished, but a lot of questions have been raised. The answers to those questions will no doubt determine the future of these programs across the United States.

Context of the Study

This study focused on an aspect of dual credit that many educators do not want to think about. The focus here was on the effectiveness of the dual credit courses in terms of how they enhance education for all students. There are plenty of articles written about the rules and standards for dual credit courses. There are studies such as Wyatt,

Patterson and DiGiacomo (2015), Bowers and Foley (2018), and Houston Independent School District (2019) that focus on how the students fare in college overall after taking a dual credit course. There are studies such as Lichtenberger (2014) that focus on what types of students are taking dual credit courses. The overall GPA of college graduates are broken down based on whether or not a dual credit course was taken. There are many articles such as Mokher and McClendon (2009) that discuss the different ways that colleges try to hold dual credit courses to certain standards. While all of that information is interesting and useful, this study, through the use of Critical Race Theory, provides information that can help educators work to ensure that all students have access to dual credit programs.

Problem Statement

High school students across the country are being told that dual credit courses are very beneficial and will help them succeed in college. The problem here is that no one knows for sure just how effective these courses are at preparing students to succeed or if, as a result of systemic race issues, those courses are being offered to all students equally. Specifically, the problem focused on for this study was whether or not the state of Illinois has made improvements in the last few years to ensure better dual credit programs for all students in the state. With both the high schools and colleges getting some sort of payment for these courses, it is vital that the state ensures that all students are also benefiting from taking these classes.

Purpose and Research Question

The purpose of this study is twofold. First, an analysis of the High School Longitudinal Study (2009-2013) from the dual credit perspective provided a detailed look at the effectiveness and availability of dual credit courses to the over 23,000 students from 900 public and private high schools who participated in the study. Secondly, with the HSLs data providing the baseline, this study used Critical Race Theory to analyze those statistics and learn how the state of Illinois either used or did not use those statistics to improve its dual credit programs. The research question for this study is:

- Based on the High School Longitudinal Study of 2009 and the subsequent 2013 update of that study, how has the state of Illinois used that data to improve upon its ability to give all students access to quality dual-credit programs?

Definition of Terms

Dual Enrollment, Dual Credit, Concurrent Enrollment are terms used to define courses taken by high school students that earn them both high school and college credit. This paper will use the term dual credit. Dual credit courses can be taught on a high school campus, on a college campus or online through the college. For the purpose of

this study, the focus is on the students who take dual credit English courses on their high school campus.

Significance of Problem and Study

In a society that, in many regards, expects instant responses, it is vital that we do not let the education system fall victim to instant gratification. Giving high school students credit for a college course can be a solid idea as long as the students are actually earning those college credits and actually being taught what they are required to know for that class. These programs should also be looked at as effective unless they are providing benefits to students from all backgrounds. This study will provide detailed feedback on which students are being included in these programs in Illinois. College credit should be available to all high school students, regardless of where they live or what they look like.

Chapter Review and Study Organization

Chapter one has provided a brief introduction to the topic of this study. It has also established the research problem and purpose, the research questions and the importance of the study. Chapter two provides a detailed literature review that explains in depth the issues surrounding dual credit programs, as well as gaps in the research that need to be filled. Chapter three includes the methodology for the study. A detailed explanation of the conceptual organization and major underpinnings of the study are provided. Chapters four and five are the analysis and conclusion sections of the study.

Literature Review

Introduction

The topic of dual credit programs has become very popular since the turn of the century. What started out at Syracuse University in the 1970's with a couple hundred students has grown into a phenomenon that Thomas, Marken, Gray and Lewis (2013) wrote included approximately two million high school students in 2010-2011 who enrolled in dual-credit courses, and 82% of all high schools offered the courses. These programs, which provide secondary students with the opportunity to receive credit for both a high school class and the college class they enroll in at their local community college, have spread across the country and are only gaining momentum. Kim, Kirby and Bragg (2006) wrote that the initial reason for creating such programs was to challenge high-achieving high school students. Many other benefits have been identified, including, but not limited to, the relationship fostered between high schools and colleges, the early completion of college coursework, and the ease with which these courses transfer to colleges and universities (Andrews, 2000). Delicath (1999) narrowed it down to four reasons why dual credit courses are beneficial. He listed access as the first reason. The programs give students access to a greater number and types of courses, and they benefit different levels of students in terms of ability. The second reason is that dual credit programs help to reduce the redundancy of coursework. The third benefit according to Delicath (1999) is the fight against senioritis. And finally, dual credit courses help students gain confidence in their ability to have success in a college-level course. With over two million students, hundreds of colleges and universities, countless employees with both the colleges and high schools, and millions of dollars spent to create and support dual credit programs, there is too much at stake to not take a serious look at how these programs are actually benefiting the students. Young Jr. et al. (2014) noted that while growing in numbers, the popularity of dual credit programs is based on minimal empirical evidence. Bragg, Kim & Rubin (2005) believed that questions about access, rigor and funding must be raised because of the tremendous growth of dual credit programs, and the fact that these programs are handled differently in states around the country. Zimmerman (2012) echoed that sentiment by writing that the sheer numbers involved with dual credit programs, from number of institutions and students to the amount of money changing hands, a reevaluation is needed to ensure goals are being met. With many positive and negative arguments surrounding these programs, the impact dual credit courses have on future students depends on continuing to research the finer points of dual credit programs across the country.

History of Dual Credit Courses

Syracuse University's Project Advance (SUPA) program was created in 1972, and it generally is believed to be the beginning of dual credit programs (Kim, Kirby and Bragg,

2006). Following the lead of Syracuse, new programs soon followed with LaGuardia Community College's Middle College High School in 1974, Florida International University's Partners in Progress program in 1982, and Kinsborough Community College's College Now program in 1984 (Kim, Kirby and Bragg, 2006). Each of these programs began for specific reasons. SUPA initially targeted high academic achievers and alleviating the senioritis issue in high school. The Middle College High School program targeted high-risk students. Partners in Progress targeted minority students mainly from inner-city schools. The College Now program aimed to help students meet graduation requirements and become successful in college. While the goals for each program have expanded over time, each was still centered on providing high school students the opportunity to take college courses. The addition of dual credit policy adoptions is believed to have begun in California in 1976 (Mokher and McLendon, 2009). This transformed these well-intentioned groups with positive outcomes at different colleges into official programs that would begin to grow quickly.

There are many reasons for the creation of dual credit courses, and Table 1, created by Young Jr. et al (2014), provides a look at common reasons provided by researchers.

Table 1- Reasons to Create Dual Credit Programs

Researchers	Year	Reasons
Windham	1997	Enrich opportunities and shorten time to degree
Andrews	2001	Acceleration of progress, reduced costs, relief of boredom, and facilitated student recruitment
Andrews & Barnett	2002	Academic rigor, broader range of courses, introduction to college expectations, relevance of course material, and reducing cost

Bailey et al.	2003	Focus to postsecondary educational institutions and can provide an early warning signal regarding whether students are college ready
Krueger	2006	Better relationships between high schools and colleges, enhancing K-12 efficiency, rigorous college-prep curriculum, and reducing remediation
Zeidenberg & Bailey	2009	College credit, shortening time frame, cost savings, course work more challenging, and decrease of culture shock
Barnett & Hughes	2010	Enhance or improve students' prospects for college admission

As each of these goals helped to spur on the creation of more and more programs, the high schools in these districts began to offer dual credit classes. As this took off, the numbers really grew. From the school year 2007-2008 to 2009-2010, dual credit courses in the United States increased by 31% (AIR & Gibson Consulting Group, 2011). Offering the courses on high school campuses at reduced rates opened up that opportunity to students who may not have otherwise had that chance. Rural students were suddenly given the chance to see what college classes were like and help prepare themselves for a smoother transition to college.

Along with these standard reasons for creating dual credit programs, their popularity also grew because of results that supported those reasons. One of the major reasons to enroll in a dual credit program is that it will better prepare students for college. Kim and Bragg (2008) reported that after successfully completing a dual credit reading course, 88.5% of high school graduates in Texas were college ready; 72.3% in Florida were college ready; 88.4% were college ready in Oregon; and 86.2% of Ohio graduates were college ready. These types of positive numbers fuel the growth of these programs nationwide.

Although dual credit programs were initially created to help challenge college-bound students and prepare them for college, the positive impact has expanded its reach. Hoffman (2005) found that dual credit programs were also benefiting historically

underserved students transition to college. As more colleges and high schools expand their programs to provide more access to more students, it becomes even more important to ensure the credibility of the dual credit programs.

In Illinois, dual credit programs have existed since 1984 when the first program began in Ottawa. By the year 2000, Andrews (2000) found that all 48 Illinois state community colleges offered some form of dual credit program to students. Andrews (2000) and Andrews & Barnett (2001) point out that in 1996, a change in funding began the massive growth of dual credit programs in Illinois. This change made it possible for the colleges to receive financial grants for the college credit hours of dual credit students, while at the same time allowing the high schools to collect grants for daily average attendance for those same students. Further expansion came in 2001 as a result of Accelerated College Enrollment grants. Those grants were created to cover part or all of a student's tuition and fees for dual credit courses (Barnett, Gardner & Bragg, 2004). Now, according to the Illinois Community College Board 2018 Fiscal Year Dual Credit Report (2019), there were over 117,000 dual credit students in 2018. That number continues to grow each year.

In Illinois and the United States overall, the growth of dual credit programs is not slowing down. Their popularity is influencing how the high school structure and curriculum are being evaluated and rethought. These programs have some questioning whether or not we should just get rid of the last two years of high school all together. With that much riding on the successful results of these programs, it is most important to critically look at the positives and negatives of dual credit to ensure that students are getting the best education possible.

Theoretical Framework

This study used Critical Race Theory (CRT) for its theoretical framework. Critical Race Theory, as defined by Delgado et al. (2017), "is a collection of activists and scholars engaged in studying and transforming the relationship among race, racism and power" (28). CRT was developed in the 1970's by legal scholars and lawyers such as Bell, Freeman and Delgado. Generally, CRT theorists can be divided into two groups: Idealists and Realists" (Delgado et al., 2017). Idealists believe that race is a social construct, and therefore, changes to the social construct can then change the views on race. Realists, on the other hand, believe that racism is the way society allocates privilege (Delgado et al, 2017). Critical Race Theory can also help understand topics like teacher education. For example, if CRT theorists believe that racism is ingrained in everyday society, then the continued hiring of teachers not equipped to teach to racially diverse classrooms can be seen as the product of a system that is built to support the needs of white society (Sleeter, 2017, p. 157). Another interesting offshoot of Critical Race Theory is the Whiteness as Property construct. Cheryl Harris (1993) presented the idea that over many years of ruling over people of color, there are certain rights and privileges that white

people believe they have a right to, like property. These rights and privileges have also been woven into society and contributed to the unequal treatment of minorities around the world. Understanding how racism has been woven into our country from day one can help open the eyes of those who still don't acknowledge its existence. CRT will help determine the meaning behind all of the statistics for dual credit programs.

The Funding of Dual Credit Courses

Positives

One of the main questions about dual credit programs is funding. This is one area where, generally speaking, dual-credit programs succeed. Funding for dual credit programs can vary significantly from program to program, state to state, and can include federal, state or local dollars, private donations, student fees or funding from post-secondary sources (Griffith, 2009). Frazier (2001) found multiple systems in use across the country, with different amounts of the total cost taken on by different stakeholders. This frequently raises the question of how much money the student should be required to pay if both the high school and the college are receiving money. "A few states split their per-pupil funding between the high school and college...Other states lay the cost on the school district, college, or state board of education. In 22 states, it's up to kids or their parents to pay for college courses" (Kronholz, 2011, p. 30). Due to the multi-dimensional nature of dual credit programs, the funding issues surrounding them tend to be more complex than traditional general education programs. Griffith (2009) provides a list of who is primarily responsible for paying tuition in dual enrollment programs across the country (p. 4):

- Students and parents: 22 states
- Student's school district: 6 states
- Participating postsecondary institution: 3 states
- The state department of education or another state organization: 3 states
- Georgia, Indiana, Louisiana and Missouri have multiple dual enrollment programs that have different groups that are primarily responsible for tuition: 4 states
- No clear funding system in place: 6 states.

States have passed numerous bills that increase the funding for dual credit programs. For example,

In the 2016 legislative session, Idaho passed House Bill 458, which expands access to advanced opportunities through the Fast Forward Program—including dual-credit courses offered to students in grades 7–12—by providing additional

funding to school districts across the state. The Fast Forward Program can pay up to \$75 per credit. In most cases, the cost of these credits is \$65. The program also provides juniors with \$200 per year and seniors with \$400 per year to cover up to 75 percent of the cost of dual-credit courses. (Holton & Pierson, 2016, p. 4).

Different programs like this one have popped up across the country in an effort to help cut the cost for students. In order for these programs and new legislation to truly benefit all students, it must be ensured that no matter what the funding source is, all students should receive that benefit. If there is any fee at all, then not all students will be able to participate. Are schools that are not as well financially supported themselves actually able to help students pay for dual credit courses? Could funding issues cause an imbalance in terms of which students can enroll in dual credit courses? Critical Race Theory clearly shows there is inequality here, and it helps educators see clearly that this is an area that needs attention.

Negatives

Keeping that in mind, the studies done on dual credit have also found issues with how programs are funded. There are programs around the country that need to adjust how they fund these programs in order to truly give students the relief they need. “Taking dual credit courses may have less impact on a student’s ability to obtain a college degree faster and with less remedial coursework than does that student’s general academic aptitude...Any savings the state might realize from having students graduate faster are not necessarily a direct function of the state’s \$54.4 million annual dual credit investment” (“Is 54M”, 2017, p. 1). Questioning the cost effectiveness of dual credit programs is something many states are looking at closely.

Illinois Specific

In Illinois, a report on funding models by Taylor, Fisher & Bragg (2014) clearly breaks down who is paying for what in the state. In the report it stated that 64% of the state community colleges did not charge tuition for dual credit courses, while 36% did charge tuition. In terms of fees for the student, 39% did not charge fees, while 47% did charge fees, and 14% of the colleges did not respond to the survey. When those percentages are combined, the report showed a 50/50 breakdown of colleges that did or did not charge tuition and/or fees. This type of information fuels the questioning of why students have to pay anything when both the high schools and the colleges are getting paid. Taylor, Fisher & Bragg (2014) continued by noting that colleges may vary the tuition and fees depending on where the course is and who is teaching the course. “For example, one college reported that the tuition for one course was \$345 if a college professor taught the course, compared with \$45 if a high school teacher taught the course. Another college reported that the course would be free if taught on a high school campus by a high school teacher, compared to \$157 if the college professor taught the

course on the high school campus” (Taylor, Fisher & Bragg, 2014, p.2). Understanding the current way both the high school and the college receive money based on attendance, and the use of ACE grants, students can obviously be held to different standards that may be out of their control when it comes to paying for dual credit courses. Finally, Taylor, Fisher & Bragg (2014) reported that close to 60% of the colleges feel that the state funding system for dual credit programs does not provide enough support. These issues clearly show a need to rethink how the state of Illinois funds dual credit programs, and how those funds are used by the state community colleges.

Saving Students Money

Positives

Maybe the most popular and successful argument in favor of dual credit programs is the fact that they do allow families to save a great deal of money. With college tuition rising, families are rightfully excited about a chance to save some money. Hoffman (2005) wrote that students and their families can save thousands of “precious” dollars. Because of this, the popularity of these programs has only grown. Neither parents nor state legislatures want to continue paying the rising costs of higher education. On a national level, shortening the amount of time it takes students to get through a BA program has become a popular option. It has become normal to see freshmen with 30-60 credits before they even begin their college journey (Guzy, 2016). There is growing fiscal benefit to students, families, and the community, potentially as high as \$2,132,560 in 2008-09 (Rochford, O’Neill and Gelb, 2009). In an interview with a former president of Gateway Technical College in Wisconsin, it was noted that partnerships forged between Gateway Technical College and area school districts helped to save high school students \$1.44 million in college tuition costs for the 2016-17 academic year through dual enrollment. A total of 3,435 students earned college credit while in high school through dual credit, an effort which allows students in participating high schools to earn high school and Gateway credit at the same time free of charge (“Dual Credit”, 2018). In Stark and Wayne counties in Ohio, this type of partnership provided a potential tuition savings between \$5,163,200 at a two-year public and \$27,104,721 at a four-year private college or university. Textbook savings would amount to another \$761,600 (Rochford et al, 2014). In Florida, Hoffman et al (2007) found that the state requires students who are taking college courses in high school to take the dual credit version. The thinking is that achieving a degree quicker will save the student and the state money in the long term. These statistics and concepts clearly support the idea that students are saving money because of dual credit courses.

This topic, again, allows CRT to point out where the inequalities are for non-white students. Because of the amount of money students and families can save, all students must have access. Schools should be fighting to get the word out to all students that these

benefits are real. It is not good enough to simply make the programs available in schools if only certain groups are aware of the benefits and continuously take advantage.

Negatives

Believe it or not, there are some negatives when it comes to saving students money. Many times it has been found that schools just want to pad their resumes in order to lure future students. The goal many times becomes to scare parents and students into AP, IB or dual-credit courses. One school was found to be paying students \$100 to take AP exams without any interest in the scores. The results would simply pad the statistics under the “tests taken” category (Guzy, 2016). It also can be argued that money is not saved if students are required to retake the same courses when they reach the college level. Duroske (2019) found that while dual credit courses did provide many benefits for students, many universities still review students on a case-by-case basis. How high school counselors relate this information to students can be misleading when it comes to college admissions. “In the course sequences we reviewed, only a small percentage of dual credit students retake courses in college that they had satisfactorily passed as high school dual credit. Nevertheless, the repeat rate for courses taken as dual credit is higher than for similar courses taken in a college setting” (Jacobs & North, 2008, p.1). Mangan (2018) even found that in Texas, students who graduated from college in four or five years only saw a meaningful savings in debt if they entered college with at least 60 credit-hours. Furthermore, students who entered college with one to 15 credit-hours actually ended with more debt.

Illinois Specific

In Illinois, dual credit programs are saving students money just like many other states in the country. While students are left to pay for some of the cost in some locations, overall, the price is lower for both tuition and fees in most circumstances. Andrews (2000) goes so far as to say that the savings to the state government will be in the hundreds of millions. His focus when making that statement is not only the actual monetary savings, but also the money that will be saved because of the shortened time to degree for the students. The newly amended Dual Credit Quality Act (Public Act 96-0194) went into effect on January 1, 2019. The Act requires that the Illinois Community College Board and the Illinois Board of Higher Education will create policies regarding dual credit. Among other things, this Act includes the Illinois First clause that prohibits school districts from offering out-of-state dual credit courses without asking the local community college first. This law is in place to make college more affordable for students.

It seems that Illinois, like most states in the country, are trying to create ways to provide more opportunities for dual credit courses while keeping the cost to students as low as possible.

The Effectiveness of Dual Credit Courses

Dual enrollment is a strategy that, if sufficiently leveraged, can help meet the nation's postsecondary completion goals. By strategically linking high schools and colleges and requiring these two types of institutions to change how they operate, dual enrollment requires educators and policymakers to rethink how they structure and deliver education to students on the cusp of high school graduation and college entry (Karp, 2015). Ozmun (2013) conducted a study that focused on the self-efficacy of students before they registered for dual-enrollment courses. Varying reasons have been suggested for the growth phenomenon in dual-credit enrollment. Among the top reasons is the value that dual-credit programs provide high school students in terms of affordability and reduced time-to-degree completion (Ozmun, 2013). A third benefit is early exposure to higher education, which may serve to lower student apprehension about going to college (Ozmun, 2013). In keeping with this theme, researchers and policy makers consider dual credit a strategy that helps a broad range of students make the transition from high school to college (Golann & Hughes, 2008) and dual-credit programs have been shown to help improve students' preparation for college, their transition into college, and their academic success in college (Lemer & Brand, 2006). By providing high school students with access to college courses, usually for college credit, dual-credit programs may actually contribute to student success in terms of matriculation and persistence (Bailey & Karp, 2003).

Are High Schools Preparing Students Properly?

Unfortunately, the United States education system overall is not preparing high school students for college. "Many secondary students in the United States graduate high school unprepared for the challenge of postsecondary work. In a telling survey, college professors estimated that 42% of students were not adequately prepared for college, and only 28% believed that public high schools adequately prepared students for college" (Achieve, 2004, p. 2). The unfavorable results continue to be brought to light by a bevy of different sources. "The National Assessment of Educational Progress (NAEP) reported that 38% of the nation's 12th-grade students were college ready in reading, and 40% were college ready in mathematics" (Fields, 2014, p. 8). Many unprepared students either do not attend college or do need remediation upon entering college. Although estimates of remediation rates vary, one report estimates remediation rates to be approximately 28% of all first-year students (Wirt et al, 2004, p. 4). Remediation is associated with markedly lower postsecondary graduation rates (Wirt et al., 2004). For example, 17% of students enrolled in a remedial reading course graduated within eight years, compared to 58% of students who did not take any remedial courses" (Wyatt, Patterson & DiGiacomo, 2015, p. 5). These statistics support the idea of trying something different in order to improve the college readiness of these students. Supporters of dual credit programs point to these statistics as proof that a more streamlined system that

challenges students is needed. However, those who wish to slow down and rethink dual credit programs also point to these statistics. Much of the current information has clearly been gathered during a time in which dual credit programs are reported to have been thriving and helping students. Wyatt, Patterson & DiGiacomo (2015) compared the graduation rates of AP and dual credit students. Overall, the results indicated that AP students who scored a 3 or higher on at least one AP Exam had more positive college outcomes than did dual enrollment students who took a dual enrollment course(s) affiliated with either a two-year or four-year institution. Students taking AP but scoring below a 3 performed as well or better than the students taking dual enrollment affiliated with a two-year institution on every college outcome. The issue is how to boost the number going on to, and successfully completing, college and how to do so now. Expanding *high school based dual credit* is one answer (Rochford, O'Neill and Gelb, 2009, p. 5). Proponents argue that dual credit/enrollment is a conduit for improving high school curriculum, raising student motivation to attend college, and helping students adjust to college (Blankenberger & Lichtenberger, 2017). Dual and concurrent enrollments enable students to earn postsecondary credits while still in high school. The 2006 Perkins legislation encourages such enrollments as a component of programs of study. There is evidence that students who earn dual enrollment credits have slightly (typically 4% to 5%) more positive outcomes in postsecondary education than similar students who do not. These effects, however, may be due to self-selection into dual credit courses. The modest advantages associated with dual enrollment may not be sufficient to justify the effort to develop and implement such programs (Lewis & Overman, 2008). "In Ohio, the direct college-going rate of HSBDC students is 84.2%, exceeding Stark County's direct rate of 63%, the state at 62.7% and the national average of 63.3% for all students. This rate also betters Stark's college-going rate of 73% within two years of graduation. Stark County at 49.3% and the City of Canton at 54.3% have a greater percentage of young adults, age 18 to 24, in the college education pipeline than Ohio at 45.4% or the nation at 46%" (Rochford et al, 2014, p. 8). The idea that early college access programs can serve anyone but the top students is relatively new. More importantly for Baltimore City, early college access models also show promise for underachieving and/or disadvantaged students who are at risk of dropping out of high school ("A Jump Start," 2007). There is no doubt that dual-credit programs tend to help students, but the question is how much do they help, and are they helping all students. These statistics show that there is much to build on to increase the benefit to students.

What Type of Student Benefits From Dual Credit?

When dual credit classes began in the 1970's, the majority of the students who benefitted from them were highly motivated students who had ambitions of going to college. The students generally did well in school, but they needed a little extra to stay motivated. In today's world, the opportunity to help prepare a student for college should

be one afforded to all students. Gewertz (2018) wrote that many schools tend to deny that opportunity to middle and low-performing students. Gewertz (2018) continued by suggesting an alternative way of thinking about dual credit courses because “In 17 states students need a teacher recommendation to take a dual credit course, six states require a minimum grade- point average, and twenty-four other states require some other kind of eligibility requirement” (p. 1). This issue can be seen in states across the country.

The Indiana Commission for Higher Education (2019) found that in 2017, “only 16% of Black students and 25% of Hispanic students” earned what the state calls the Academic Honors Diploma upon graduation from high school (p. 1). At the same time, “40% of White students earned that diploma.” That same study found that all students in Indiana in 2017 who graduated with the Academic Honors Diploma “perform better in college and achievement gaps are smaller.” Earning that specific diploma requires a more vigorous course selection, which leads one to wonder why the Black and Hispanic students did not take more challenging courses. If not for the myriad of roadblocks, more Black and Hispanic kids could take dual credit courses and therefore perform better in college, and Schools in Oklahoma are targeting first-generation students citing how expensive college can be and that massive debt that can be accrued (Dual Enrollment, 2018).

Mangan (2018) found that “From 2001 to 2015, 10.6 percent of black students and 15.6 percent of Hispanic students took a dual-credit course during their junior or senior years, compared with 24.7 percent of white students. Most of the gap in participation rates could be explained by family income, academic preparation, and the types of high schools students attended, the report said” (p. 2). Socio-economic background should not determine if a hard-working student can or cannot take a dual credit course. The report “also found that not everyone benefits equally. White, well-off students were more likely to take dual-credit classes than were low-income and minority students. And when they did, white students were more likely to benefit from them” (Mangan, 2018, p. 2). So the issue is not only are more Black and Hispanic students unable to take the courses, but also even when they do gain access to the courses, they do not see the same rewards. Nelson and Waltz (2019) found similar results. They found that the dual credit courses did benefit students in many ways, but that white students seemed to be impacted more by those benefits than did minority students. “More than a third of all high school students take college-credit courses while still in high school, a new federal report shows—but students are much more likely to take dual-credit courses if they're white or Asian or have college-educated parents” (Gewertz, 2019, p. 1). “Data released by the U.S. Department of Education show 42 percent of students whose parents have bachelor's degrees take dual-credit courses, versus 34 percent of all students and 26 percent of those whose parents didn't complete high school. Likewise, 38 percent of white and Asian students took such courses, compared with 30 percent of Hispanic students, 27 percent of African-American students, and 30 percent of students of other races” (Gewertz, 2019). These statistics beg for questions that ask why these differences are so common and what can

be done to create an even playing field. Finally, Plucker et al (2018) conducted a study of what they called “excellence gaps”. That is, high-ability low-income students who are not given access to higher-level courses, such as dual credit courses. This study goes so far as to say “Lacking access to the enriched academic opportunities, differentiated learning, and counseling afforded to wealthier students, high-ability, low-income children are becoming what one team of researchers has termed a *persistent talent underclass* — underserved and therefore prevented from fully developing their talents” (p. 1). This reflects the class disparity seen currently in the United States, and it threatens to widen the gap between low/ middle class families and the upper class. This is a major question for dual credit supporters. Millions of dollars are being used to popularize dual credit programs. Is that money worth it to taxpayers if it is not being used to help all of the students?

Lack of Research

As dual credit expands to more institutions and a larger number of students, there is little rigorous evidence about the impact of dual credit participation on students’ access to and success in college, and there is less evidence about how dual credit policies affect different groups of students (Taylor, 2015). Despite the growing popularity of dual-credit courses as a college readiness strategy, numerous reviews of the literature have noted a number of important limitations to the research on the effects of dual-credit on student postsecondary outcomes (Allen, 2010; Bailey & Karp, 2003; Karp et al., 2007; Lerner & Brand, 2006; Jenkins, 2019). Much of the research on dual-credit has used observational methodologies, such as Ordinary Least Squares (OLS) regression, to study the effects of dual credit on postsecondary outcomes (Allen, 2010). This technique can result in biased estimates of the effects of dual-credit given that students who participate in dual-credit are often higher achieving than their peers and may differ on unobserved characteristics, such as motivation or postsecondary aspirations. While researchers are increasingly utilizing more sophisticated quasi-experimental techniques, such as regression discontinuity (Speroni, 2011b), difference-in-difference designs (Allen & Dadgar, 2012), and propensity score matching (An, 2013) to reduce self-selection bias, quasi-experimental research on dual-credit is still limited. Most studies of dual-credit utilize fairly restricted samples (Allen, 2010; Karp et al., 2007), which prevents the findings from being broadly generalizable (Giani & Reyes, 2014). Young Jr., Slate, Moore & Barnes (2014), in their literature analysis of dual credit work, found that minimal research had been done in terms of the effects of dual credit on students who attend four-year colleges or universities. That was the case because the majority of research that was done was completed by community colleges. In the end, dual credit programs are growing at a phenomenal rate, but they are doing so based on minimal research.

Rigor

One area of concern for dual credit skeptics is the lack of rigor in courses. Camp and Walters (2016) had reservations about the quality of college course equivalencies offered in high schools. They believed this problem to be not so much the failing of individual teachers, but more as a systemic problem: “most high school teachers are removed from a disciplinary community and from other professionals engaged in similar work, and they lack the materials, time, and rewards to sustain and innovate their college-level teaching” (p. 27). Goral (2016) believed that taking a college-level course is probably more important than taking an advanced placement course. This again stresses the importance of taking a class that is absolutely at college level, rather than a dual credit class. If students believe that dual credit is more advantageous than an AP course, the quality of those dual credit courses must be a high priority.

What is College-Level Work?

Hoffman & Voloch (2012) pushed for a clear definition for “College-level” in order to help this issue – “The complaint that high school students are not capable of college study or that this level of study is not intended for them raises the question of defining college-level learning, especially in the area of general education, a difficult task within the context of diverse disciplines and academic departments, institutional variation, and faculty prerogatives”(p. 102). Over half of the teachers in a study done in Ohio find *high school based dual credit* content harder than regular courses (Rochford, O’Neill and Gelb, 2009). One example of a program that takes this seriously is in Ohio, where *high school based dual credit* courses in Stark and Wayne Counties adhere to college syllabi and meet college standards for content, instruction and grading. Each *high school based dual credit* course pairs a high school teacher/adjunct with a college professor/mentor. In 2013-14, a duplicated count of 5,577 students accounted for 11,200 enrollments in three-hour college course equivalents (Rochford, O’Neill and Gelb, 2009). In a very thorough report by the Education Commission of the States (2019), the majority of states have some sort of requirement for faculty and course quality. For example, the Louisiana Department of Education (2019) believes that “College courses offered for dual enrollment credit should be differentiated from regular high school courses in content and performance expectations”(p. 3). That same document provides no clear process for how that difference will be proven. However, each state that does have a set policy has its own requirements, and there is no uniformity at all.

Illinois Specific

In Illinois, Andrews (2000) found that the standards mentioned the most to combat rigor issues were ensuring that students completed a placement test, and that the teachers met the “qualifications and competencies” of the college. Barnett, Gardner & Bragg (2004) found that faculty teaching dual credit courses are “universally” expected to

meet the same criteria as adjunct instructors at the college. In addition to teaching credentials, Illinois community colleges mentioned several other factors, including meetings with the college faculty, reviews by the college department chair, and frequent reviews of syllabi to ensure the high school and college versions match.

Location

One major question about dual-credit courses is where is the best place for them to be held. As previously noted, dual credit courses can be taken online, on a college campus, or on a high school campus. Waits, Setzer & Lewis (2005) found that enrollment for dual credit were broken down into 74% on high school campuses, 23% on college campuses, and 4% were online students. A 2019 study by Shivji and Wilson which was a longitudinal study of more than 23,000 2009 high school freshmen, found that 80% of those students took dual credit courses on their high school campuses. That was followed by 17% on college campuses, 8% online, and 6% on a high school campus other than their own. That is only a positive thing if those high schools are of high quality and can be trusted to run those programs effectively.

In the decades since *A Nation at Risk* was published in 1983, educators have made numerous attempts to improve secondary schools. But international assessments indicate that U.S. schools do poorly in comparison with other industrial democracies (Zimmerman, 2012). “At my institution, dual enrollment sections of English 101 are taught by high school teachers often in rural areas. English faculty members, in turn, play a supervisory role. While lending institutional support to dual enrollment offerings in our region potentially constricts the number of students who might be served onsite by our English 101 course, university administrators encourage us to be involved in dual enrollment to generate revenue and to foster positive relationships with public school systems and communities in the region” (Camp and Walters 2016, p.26). Teachers of high school classes for which students can receive college credit are included under the commission’s new academic requirements for college instructors. They would have to get a master’s degree in the subject they specialize in, or a master’s degree in another subject and at least 18 graduate credit hours in their teaching subject (“Accreditor Considers Extension for New Academic Requirements” 2015). However, college courses present more than an academic challenge. Soft skills and “college knowledge” (such as willingness to accept criticism, acceptance of critical feedback, problem solving, and critical thinking) are necessary for successful completion of online dual credit courses (Stark Education Partnership, 2015). Jenkins (2019) in his article “5 Steps to Building a Top-Notch Dual credit Program” writes that having high school teachers teaching dual credit is absolutely the worst option. That belief is based not on the teacher’s inability to teach, but on the belief that if students see a high school teacher, they will simply feel like they are taking another high school class and then not sign up for the course. Following that train of thought, it would not matter who taught the class if it was still located at the

high school. Florida International University takes the opposite stance with a course called “Strategies for Success.” That successful online course boasts two positive attributes not mentioned by many other schools. Cram and Bejar (2019) explain having a college faculty mentor observe throughout the semester is very helpful in verifying how the curriculum is being conveyed to students. The second point is creating a master class. That can help the high school teacher focus on delivery and understanding rather than recreating the wheel each semester. This presents the perfect example of conflicting results that require more research. To help fix the issue of keeping qualified teachers in dual credit classrooms, Hooker (2019) suggests a “systemic” change is needed. Hooker suggests creating a “pipeline” of educators for dual credit courses to properly “fulfill the potential” of these programs. Examples of successful efforts in this area are cited in Colorado and Minnesota.

According to the most recent national data on dual enrollment offerings at public high schools, dual enrollment courses are more likely to be offered at a secondary school than at a postsecondary campus or online. While some urban and suburban high schools offer dual enrollment courses led by postsecondary faculty who travel to the high school campus, longer commutes in rural areas can render these arrangements unrealistic (Zinth, 2014). To help ensure that high school staff teaching dual enrollment are equipped to teach college content, many state policies require high school instructors to meet the same qualifications as postsecondary faculty at the partnering institution (i.e., for academically-oriented courses, have completed a master’s degree and a minimum of 18 credit hours master’s-level content in the subject of the course). Yet rural districts may have greater difficulty recruiting and retaining teachers with these advanced qualifications (Zinth, 2014). Some questions have arisen as to how classes taught at high schools by high school teachers can be considered genuine college courses (Hughes, 2010). "An expert faculty member is a critical element in ensuring that dual-enrollment students have a college experience that is as rigorous as the college experience they would have had by taking the same class on campus from a college faculty member. A college or university must assure that faculty members teaching dual-credit courses hold the same minimal qualifications as the faculty teaching on its own campus" (Gewertz, 2015, p. 1).

Illinois Specific

In 1996, the Illinois Community college board changed its rules to permit both school districts and colleges to claim dually enrolled students for funding based on average daily attendance or credit hours (Andrews & Barnett, 2002). This was a critical change because it ensured colleges and high schools would receive payment regardless of where the courses were taught. The number of students attending college-level classes on high school campuses in Illinois rose to 71.2 percent in 2018 (“Dual Credit in the Illinois Community College System”). Andrews and Hoffman believe that as long as the schools follow the policies created by the state, the courses will continue to be a great

option for students. Critical Race Theory will say that if the schools are not funded equally and don't have the same resources, that all schools can't possibly provide the same high level of education.

Senioritis

Dual enrollment emerged in a decentralized way over the 1970s and 1980s to keep talented students challenged, help smooth the transition between high school and college, develop vocational readiness, and give students momentum toward a college degree (Burns and Leu, 2019; Bailey and Karp 2003; Adelman 2006). Today, dual enrollment is as diverse as the state laws and individual agreements negotiated between colleges and high schools to govern the partnerships. Programs are located on college campuses or in high schools and are taught by college or high school faculty. Students earn college credit from the sponsoring college by fulfilling course requirements (Klopfenstein & Lively, 2012). If the high schools are working with the colleges, the hope would be that the work required to satisfy the college requirements would keep the students motivated and focused. Andrews (2001) agreed with both Botstein (2001) and McCarthy (1999) who wrote about the vast majority of college bound students found their last year of high school to be a waste of time. In Andrews' opinion, circumstances have changed so much for students that enlightened faculty and administrators developed dual credit programs to challenge them and help prepare them for college. The senior year of high school can often be described as dismissive, as students tend to be lackadaisical and often take less rigorous courses. This ever-prevalent trend was brought to light in October 2001 by a report conducted by the National Commission, which recommended that school districts provide more rigorous courses and that students be encouraged to enroll in such courses (Mansell & Justice, 2014).

The call for an alternative to the current high school setup has been around for a long time. An article by Andrews & Davis (2003) quoted then President of the Bard College, Leon Botstein, who believed that students should graduate from high school at the age of 16. Botstein felt like heading to college, the workforce, or even some sort of national service would be better options at that point. This also supports the feeling that there is too much overlap between the coursework in 12th grade with the coursework as a freshman in college.

Conclusion

Wyatt, Patterson, Di Giacomo (2015) believe that "the body of literature on dual enrollment is less extensive, possibly because it is more difficult to obtain dual enrollment course data"(p. 6). Wyatt, Patterson and DiGiacomo (2015) continue, "Dual enrollment programs are decentralized by institution or system, and there is not one single repository of data available for large-scale controlled studies. In addition, different grading standards

between courses and institutions likely make it more difficult to obtain results that are representative of dual enrollment experiences throughout the nation”(p. 6).

The dual enrollment research that has been conducted has generally found positive results. For example, dual enrollment students were found to have a higher likelihood of enrolling in a four-year college (Swanson, 2008), to have a smaller decline in high-school-to-college grades (University of Arizona, 1999), to have a higher likelihood of persisting (Eimers & Mullen, 2003; Hughes et al., 2012; Struhl & Vargas, 2012, Swanson, 2008), to have earned more college credits and higher college grades (Allen & Dadgar, 2012; Karp et al., 2007), and to have had higher graduation rates (Speroni, December 2011; Struhl & Vargas, 2012) than did students not taking dual enrollment. However, dual enrollment research lacks uniform results. For example, some studies found that dual enrollment is related to college enrollment only for on-campus locations and only for certain subjects (Speroni, November 2011, December 2011). Furthermore, some studies were unable to establish an association between dual enrollment participation and persistence (Allen & Dadgar, 2012; Karp et al., 2007). For these reasons, it is vital that we take a very focused look at what dual credit courses really do. Of course, participating in dual enrollment is no guarantee that students will successfully navigate the path into and through postsecondary education, and some dual enrollment students are still lost on the way to a college degree. However, it does seem that dual enrollment can make it easier for students to move along and complete the high school to college pipeline (Karp, 2015). Dual-credit offers educators the opportunity to look at the current model for education and to explore ways in which that model can be molded to adapt, eventually, to the needs of all students. The lessons that can be learned from dual-accreditation are very simple, yet they are seminal to the wellbeing of society (Richardson, 2007). All of the issues looked at in this section need to be examined in terms of how they work for schools in general, and also how they work with schools that mainly serve minority students. Once again, it is so important to look at the numbers, but it is also important to focus on what other issues those numbers may be hiding.

Methodology

Introduction/Overview

Quality research design is vital to conducting solid research. For this mixed method, postmodern study, data collected from a previous study will be used to set a baseline, and then a comparison of that data with current data will be analyzed using Critical Race Theory to ensure an understanding of the issues at hand from multiple perspectives. With a basic understanding of the topic, the methodology makes perfect sense. By comparing the data from 2013 with the most current data on this topic, progress or lack thereof, will be clear. By looking at that comparison through the lens of Critical Race Theory to understand why those particular results occurred, this study will provide educators with information that can be used immediately to improve dual credit courses/programs.

This chapter describes the design and methodology of the study. Included in this chapter will be the research questions, research model, description of data collection and analysis, and limitations.

This study will focus on answering this research question:

- Based on the High School Longitudinal Study of 2009 and the subsequent 2013 update of that study, how has the state of Illinois used that data to improve upon its ability to give all students access to quality dual-credit programs?

Rationale for Mixed Method Research Design

Psychologists Campbell and Fiske (1959) were the first researchers to use different methods in the same study. Mixed method studies have been called many names over the years, including “combined”, “hybrid” and “multi method” (Creswell et al, 2007). It is important to understand that mixed method can refer to using qualitative and quantitative methods, or it can refer to using multiple methods under one of those areas (Cara, 2017). As would be expected, mixed method research has some positives and negatives. Supporters note that researchers can be more confident in their results because of the multiple perspectives on the topic, and the level of data collected is believed to be of higher quality (Jick, 1979). Detractors simply believe that one cannot combine data from the two sides because they are based in such opposite ways of thinking (Cara, 2017).

The data collected in this project will come from both qualitative and quantitative methods. On the quantitative side, the data from the High School Longitudinal Study (2009) will provide a clear look at how the state of Illinois measured up with other states at that time. The most recent data on Illinois dual credit programs will help gage how Illinois has progressed from that time in developing those programs for the benefit of all students. As for the qualitative part of the research, studies done using Critical Race Theory and the basic tenets of Critical Race Theory will be used to understand why Illinois

is where it is in terms of dual credit programs. I believe that the mixture of these two types of data will provide results that will reflect the true quality of these dual credit programs, and that will also help to provide all parties impacted by these programs solid data to use for improvement.

Rationale for Using Critical Race Theory

The Postmodern critical approach Critical Race Theory (CRT) provides a forward-thinking perspective on the topic of dual credit. Bloomberg and Volpe (2012) described postmodernism as searching for meaning rather than knowledge because those in positions of power have decided what knowledge is beneficial to have. Grbich (2007) wrote that, “Deconstruction of grand narratives is viewed as an important way of removing their power.” Critical Race Theory looks to peel back the layers of power in order to allow all individuals to benefit from the same knowledge. When deciding whether dual credit programs are accessible to all students, looking at the issue through the eyes of those consistently denied power, in this case African-Americans, can provide meaningful insight into how to make improvements.

Project Summary

This study began by breaking down the High School Longitudinal Study (2009). That study included over 23,000 9th graders from 944 schools across the country. This study included a follow-up in 2012 and another in 2016. The National Center for Education Statistics and the U.S. Department of Education created Web Tables that focused solely on Advanced Placement, International Baccalaureate, and dual-enrollment statistics from HSLs (2009). That data included statistics on topics like the percentage of dual credit students in certain areas of the country, in certain types of schools, with parents of certain education levels, and whose schools offered dual credit courses. The data from the Web Tables was used to gain an understanding of how the state of Illinois was handling dual enrollment courses in 2009. The goal was to create a clear picture of dual credit in Illinois. The most recent Illinois Dual-Credit Report (2021) was then analyzed in an effort to see how Illinois has adjusted its handling of dual-enrollment programs since 2009. For example, what percentage of African American students in Illinois took a dual credit course in 2020 compared to 2009? Depending on whether those numbers reflect improvement or not was the focus of the study. All positive and/or negative changes will then be analyzed through the Critical Race Theory lens. That analysis helped to uncover disparities between students in regard to the access to dual-enrollment programs and the benefits they provide.

Limitations

With large data sets come limitations. With surveys and questionnaires, as were used in the HSLs (2009), there is a very real chance that some subjects may purposefully

answer incorrectly. There can also be many questions left unanswered. The intended meaning of the question may not be clear to the subject. Each of these problems can add to the unreliability of the data collected. The data from HSLs (2009) was broken down in many cases by geographic region of the country. That meant that to get an idea of what the state of Illinois was doing in 2009, the data from the "Midwest" region was associated with Illinois. While many of the statistics did accurately represent the Illinois numbers, this did allow for some inaccuracy to occur.

Conclusion

This non-experimental, mixed - method case study provided specific results not found in many other studies focused on dual credit courses. The goal of dual credit courses should be to allow all students to progress through general education courses in a quicker fashion. Hearing the viewpoints of all stakeholders in dual-credit programs provided rich data that can only positively impact these programs. The results of this study are important for department meetings around the country. Dual credit courses can be very good things, but only if all students are able take advantage of the benefits they can provide.

Findings

The High School Longitudinal Study of 2009

In order to establish a baseline that can be compared to the current situation regarding dual-credit programs, The High School Longitudinal Study of 2009 needed to be broken down for the relevant statistics for this study. According to the HSLs of 2009, the majority of students at the participating schools who took dual credit classes were white. In this case, African-American students were third in total numbers, also trailing the Hispanic students. In 2020, Illinois saw very similar numbers. 58.8% of the high school students who took dual-credit courses were white. Hispanic students accounted for 18.8% of the students, followed by African-American students at 9.1%. Just over eighty-eight percent of the African-American and Hispanic students' schools offered Dual-Enrollment courses. While that number seems positive, those students still trailed each of the other groups except for the Asian students. In 2020, all Illinois community colleges offered dual-credit courses, meaning almost all Illinois high schools offer at least one dual-credit course. The question that these statistics raise is, if the percentages of schools that offered dual credit did not vary by that much, why are the overall number of students so different? The following Tables are taken from the United States Department of Education Web Tables (2019). These tables focused on statistics from the HSLs (2009) centered around Advanced Placement courses, International Baccalaureate courses and Dual Credit courses.

Table 2 breaks down the data in terms of where dual-credit programs are found, city schools (83.3%) trailed all other areas by quite a bit, including Suburbs (89.1%), Towns (97.8%), and rural areas (90.3%).

Table 2 - Courses Offered by School

Selected student and parent characteristics	School offered AP courses, IB courses, or a dual-enrollment program ¹	Offered by student's school		
		AP or IB courses	Dual-enrollment program ²	AP or IB courses and dual-enrollment program ³
Student's race/ethnicity (2009) ⁴				
Asian	100.0 ⁵	95.8	78.4	74.2
Black/African American	100.0 ⁵	92.3	88.1	80.3
Hispanic/Latino	99.9	94.9	88.1	83.1
Other	99.1	93.4	91.4	85.7
White	99.7	90.0	89.6	79.8

Student's school sector (2012)				
Public	99.9	92.0	91.7	83.9
Regular	99.9	92.1	91.9	84.2
Charter or special-program school	100.0 ⁵	94.0	86.1	79.7
Career/technical/vocational or alternative school	99.5	81.0 [!]	99.5	81.0
Private	99.1	90.0	54.3	44.8
Student's school region (2012)				
Northeast	100.0 ⁵	94.9	84.9	79.8
Midwest	99.3	84.8	91.1	76.7
South	99.9	92.6	93.7	86.3
West	100.0 ⁵	95.7	81.4	77.1
Student's school locale (2012)				
City	100.0 ⁵	97.4	83.3	80.6
Suburb	99.7	96.8	89.1	86.2
Town	100.0 ⁵	84.9	97.8	82.8
Rural	99.7	84.8	90.3	75.4

Note: from "Advanced Placement, International Baccalaureate and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders: 2013" by United States Department of Education. Copyright 2019 by the United States Department of Education. Web Table 1, p. 6

Looking at the characteristics of the dual-credit programs, of the three sections of the country with enough responses to calculate, the Midwest again trailed in both the opportunity to complete a certificate program and the option to complete an Associate's degree. Only 14.9% of the dual-credit programs in the Midwest offered auto-acceptance to a partner college.

Table 3 provides more interesting data. In the Midwest, only 50.4% of the dual enrollment programs offered provided the option to complete a certificate program. That trailed both the West (52.8%) and the South (64.1%). Along those same lines, only 14.7% of the programs offered the option to complete an associate's degree, and 14.9% offered the option for automatic acceptance to a partner college. Once again, the South (28.8%) and the West (29.7%) were far superior to the Midwest in the associate's degree area, and the South was superior in the automatic transfer category (21.9%). Table 3 also references the school locale. While City schools fared well with certificate programs (52.3%) compared to Suburbs (51.2%), Town (54%) and Rural (57.7%), they were very low in both the associate's degree area (14.8%) and the automatic acceptance area (14.2%).

Table 3 - Dual Enrollment Characteristics

Selected student and parent characteristics	Dual-enrollment program ¹ characteristics		
	Option to complete certificate program	Option to complete associate's degree	Automatic acceptance to partner college
Student's school sector (2012)			
Public	55.4	22.1	18.1
Regular	55.2	21.9	17.0
Charter or special-program school	65.2	30.7 !	‡
Career/technical/vocational or alternative school	‡	‡	91.2 !
Private	16.4!	‡	‡
Student's school region (2012)			
Northeast	37.5	‡	‡
Midwest	50.4	14.7	14.9
South	64.1	28.8	21.9
West	52.8	29.7	14.7
Student's school locale (2012)			
City	52.3	14.8	14.2 !
Suburb	51.2	25.4	15.0
Town	54.0	26.8	13.5 !
Rural	57.7	20.7	24.7
Student's race/ethnicity (2009) ²			
Asian	49.2	10.6	14.3
Black/African American	59.1	27.1	27.3
Hispanic/Latino	54.3	25.2	19.2
Other	58.6	24.9	21.6
White	52.3	19.1	14.4

Note: from "Advanced Placement, International Baccalaureate and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders: 2013" by United States Department of Education. Copyright 2019 by the United States Department of Education. Web Table 3, p. 18

Table 4 clearly shows the African-American students trailing considerably in both categories. Table 5 also shows the Midwest trailing the other four regions with only an average of 2.0 high school credits earned through Dual Enrollment classes, and it shows that city schools trail, along with towns, with only 2.3 average high school credits earned via dual enrollment courses.

Table 4 - Schools Offering Dual Credit

Selected student and parent characteristics	Student's school offered dual-enrollment program		Student's school did not offer dual-enrollment program	
	Courses may be taken for credit at community colleges	Courses may be taken for credit at 4-year colleges and universities	Courses may be taken for credit at community colleges	Courses may be taken for credit at 4-year colleges and universities
Student's school sector (2012)				
Public	1.45	3.27	5.93	13.05
Regular	1.56	3.42	6.53	14.22
Charter or special-program school	†	12.80	32.83	†
Career/technical/vocational or alternative school	35.57	†	†	†
Private	6.63	8.40	12.40	12.33
Student's school region (2012)				
Northeast	4.78	7.45	3.36	17.76
Midwest	3.43	5.44	13.53	12.99
South	2.03	4.18	†	†
West	2.04	8.13	5.43	22.28
Student's school locale (2012)				
City	3.05	6.46	9.16	16.48
Suburb	0.98	4.23	10.26	15.81
Town	5.18	8.78	†	†
Rural	2.97	6.03	14.64	16.07
Student's race/ethnicity (2009)				
Asian	1.17	6.41	8.94	†
Black/African American	4.04	5.66	18.70	†
Hispanic/Latino	1.53	6.31	3.00	16.63
Other	2.25	4.98	11.49	14.34
White	1.66	3.14	6.88	7.51

Note: from "Advanced Placement, International Baccalaureate and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders: 2013" by United States Department of Education. Copyright 2019 by the United States Department of Education. Web Table 5, p. 30

These numbers are important because the whole point of dual-credit programs is to increase the number of credits earned while still in high school. The inability to increase those credits earned could reflect a program that is not working at the level it should be.

Table 5 continues the trend of finding African-American students falling behind when it comes to options for early college credit, including dual credit courses. For example, in schools where white students comprised 65-100 percent of the population, just under sixty percent of the white students earned at least some early college credit. For the African-American students, when they made up 65-100 percent of the school population, only just over thirty-two percent of those students earned advanced college

credit. Table 6 also shows African-American students earning more early college credit in the Midwest than any other region. Of all of the students in the study who graduated in 2012, 61.1% of the white students earned some early college credits, and only 38.1% of the African-American students had received any early college credit by the time they graduated.

Table 5 - Percent of High School Credits

Selected student and parent characteristics	Percent earning any high school credits in AP, IB, and dual-enrollment courses ¹					Average high school credits earned by students earning any high school credits in AP, IB, and dual-enrollment courses ²				
	Black/African American		Hispanic/Latino	Other ³	White	Black/African American		Hispanic/Latino	Other ³	White
	Asian	American				Asian	American			
Student's school sector (2012)										
Public	77.3	33.6	41.2	42.8	47.9	5.2	3.1	3.5	3.4	3.7
Regular	75.7	32.9	39.1	43.7	48.3	5.1	2.8	3.3	3.5	3.7
Charter or special-program school	96.1	45.9	74.8	39.5	54.5	6.3	5.0	4.6	3.4	4.0
Career/technical/vocational or alternative school	‡	‡	‡	‡	‡	1.9!	‡	‡	‡	‡
Private	70.0	47.9	67.5	60.3	58.9	4.6	2.1	3.4	3.2	3.1
Student's school region (2012)										
Northeast	71.0	23.4!	30.6!	33.9	47.7	4.3	3.9	3.8	3.5	3.7
Midwest	72.3	40.3	40.2	48.1	46.9	5.2	2.3	3.5	2.3	2.9
South	79.8	35.4	52.9	45.5	50.6	6.5	3.0	4.2	3.7	4.1
West	79.2	33.0	37.0	44.9	51.8	4.7	3.4	2.4	3.7	3.6
Student's school locale (2012)										
City	83.7	38.1	43.8	46.9	61.1	5.3	3.2	3.6	3.6	4.2
Suburb	72.4	38.7	46.5	52.9	53.8	5.3	3.1	3.9	3.5	3.6
Town	46.6!	24.7!	34.2	30.4 !	39.8	3.6!	1.7!	1.8	2.6	2.6
Rural	72.8	26.9	35.2	39.2	42.4	4.7	2.6	3.1	3.5	3.5

Note: from "Advanced Placement, International Baccalaureate and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders: 2013" by United States Department of Education. Copyright 2019 by the United States Department of Education. Web Table 6, p. 36

Table 6 reflects the idea that socio-economic status does impact the students' choices when it comes to early college credit. When breaking the students up into three categories, lowest fifth, middle three fifths and highest fifth), African-American students consistently underperformed when compared to the other students.

Table 6 - Average High School Credits

Selected student and parent characteristics	Percent earning any high school credits in AP, IB, and dual-enrollment courses ¹			Average high school credits earned by students earning any high school credits in AP, IB, and dual-enrollment courses ²		
	Lowest fifth	Middle three-fifths	Highest fifth	Lowest fifth	Middle three-fifths	Highest fifth
	SES ³	SES ³	SES ³	SES ³	SES ³	SES ³
Student's race/ethnicity (2009) ⁴						
Asian	57.1	72.7	89.7	4.4	4.7	5.9
Black/African American	23.7	34.2	55.9	2.0	2.9	4.2
Hispanic/Latino	36.1	41.5	71.8	2.9	3.4	5.0
Other	25.3	40.6	64.3	2.1	3.0	4.6
White	25.0	42.3	69.0	2.5	3.3	4.1

Note: from "Advanced Placement, International Baccalaureate and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders: 2013" by United States Department of Education. Copyright 2019 by the United States Department of Education. Web Table 7, p. 43

Table 7 illustrates the fact that students who take early college credit classes, including dual enrollment, generally score better on the SAT and ACT tests than do those students who do not complete any early college credit courses. City schools scored lower on the SAT and ACT tests than did the suburb, town and rural schools. Students from the Midwest schools did score fairly well on the SAT and ACT test when compared to their peers in other areas of the country.

Table 7 - Average SAT or ACT Score

Selected student and parent characteristics	Average SAT or ACT exam score on the SAT scale ¹		
	Earned no AP, IB, or dual-enrollment credits ²	Earned up to 3 AP, IB, and dual-enrollment credits ³	Earned more than 3 AP, IB, and dual-enrollment credits ⁴

Student's race/ethnicity (2009) ⁵			
Asian	860	1004	1202
Black/African American	790	866	1055
Hispanic/Latino	831	928	1049
Other	841	993	1141
White	928	1052	1180

Note: from "Advanced Placement, International Baccalaureate and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders: 2013" by United States Department of Education. Copyright 2019 by the United States Department of Education. Web Table 9, p. 54

All of these findings help create a clear picture of how African-American students were benefiting or not benefitting from dual-enrollment courses from 2009 – 2012. Unfortunately, the results did not look very promising. Across the board, African-American students were either not offered dual-enrollment courses, or they did not take advantage of them for one reason or another. By comparing these results to the current statistics in the state of Illinois, one can see if the state has learned from the past or simply continues to make the same mistakes.

The 2020 State of Illinois Dual Credit Report

In 2020, there were a total of 69,299 high school students enrolled in dual credit courses in Illinois. All community colleges in the state offered at least one dual credit course. Annual dual credit enrollment increased 8.1 percent in 2020. High school students enrolled in dual credit courses made up 14.7 percent of all credit enrollments in Illinois community colleges. These numbers support the belief that the popularity of dual enrollment courses is only rising.

Figure 1 in the 2020 Illinois Dual Credit Report shows the ethnicity breakdown for dual credit students. The breakdown shows African-American students comprising 9.1 percent of the total, which is quite a drop-off when compared to the 18.8 percent of Hispanic students and the 58.8 percent of white students.

The annual report also breaks down the dual credit enrollment by geographic region. The report breaks the state down into four regions – North (32,720), Central (17,122), South (15,120) and Chicago (4,337). Those numbers represented an increase from 2016 of 58.5 percent in Chicago, an increase of 47.5 percent in the North, a rise of 19.3 percent in the Central region, and a decrease of 3.1 percent in the South. Once again, these numbers support the overall rise in popularity of dual credit programs.

The final area of the annual report that needs to be mentioned is the community college graduation rate of students based on ethnicity and whether or not those students took at least one dual credit course before graduating from high school. Table 7 clearly shows that the graduation rates for students with dual credit experience are significantly

higher. However, the numbers for the African-American students are generally much lower than the White or Hispanic students. There was not only a larger percentage of students who had not taken a dual credit course, but the graduation rates were also lower for the students who had taken a dual credit course.

Analysis

The data in this study was analyzed using what Delgado, Stefancic and Harris (2017) call the “basic tenets” of CRT. The first tenet of CRT is that racism is ordinary (p. 8). This simply means that racism is just an everyday experience that most have come to just expect, which makes it hard to address. In the case of dual credit courses, HSL:09 showed that African-American students attended schools that 88.1 percent of the time provided dual credit courses. Of the Midwestern schools that participated in HSL:09, 91.1 percent of the schools offered a dual credit program, and city schools offered dual credit courses 83.3 percent of the time. Those numbers seem positive, but of the over 121,000 African-American students in the city of Chicago, only 4,337 of them took a dual credit class in high school (Illinois Community College Board, 2020, p. 7). As school districts are able to say that they offer dual credit courses to just about all of the students, it has now become “ordinary” that such small numbers of African-American students take advantage of them. The blame falls on the students for not taking the courses, rather than on the schools for not promoting them more and making them more accessible to all students.

The second tenet of CRT is Interest Convergence (Delgado et al., 2017, p. 9). Because racism inevitably benefits white people (both elite and working class), there is no incentive to make changes. Derrick Bell’s writing about the famous *Brown v. Board of Education* case is an example of this tenet. Bell, generally considered the father of CRT, wrote that the government only agreed to all that they did in that famous case because The United States was getting bad press around the world regarding their treatment of black people. “The interests of whites and blacks, for a brief moment, converged” (Delgado et al., 2017, p. 9). The successful completion of dual credit courses has proven to be a major advantage for students heading to college. Jenkins (2019) wrote that, “DE can help ... students succeed in higher education by giving them a realistic idea of what college requires and ... a head start on college- level work. Dual enrollment is also associated with higher rates of college enrollment and persistence, greater credit accumulation, and higher college GPA”(par. 4). The need to offer such classes in all schools would seem to benefit both white and black students. However, for various reasons, more white students take advantage of dual credit classes than their African-American counterparts. Mangan (2018) found that “not everyone benefits equally. White, well-off students were more likely to take dual-credit classes than were low-income and minority students. And when they did, white students were more likely to benefit from them. From 2001 to 2015, 10.6 percent of black students and 15.6 percent of Hispanic

students took a dual-credit course during their junior or senior years, compared with 24.7 percent of white students. Most of the gap in participating rates could be explained by family income, academic preparation, and the types of high schools students attended. The disparities extended to the outcomes of students who did participate. For black and Hispanic students, dual-credit participation increased enrollment at two-year colleges but did not meaningfully influence college completion rates," the report said. "Of particular concern, we found that, on average, the impact of dual-credit participation for students who were eligible for free or reduced-price lunch was negative for most outcomes"(p. 1). The Illinois Community College Board (2020) shows that the city of Chicago saw an increase of 58.5 percent from 2016 until 2020. That total number of students in 2020 (4,337) pales in comparison to the 32,720 students in the northern region of the state (p. 1). So while the percentage is up, the actual number is very low, meaning fewer African-American students are able to take advantage of those dual credit courses.

The next tenet of CRT is Social Construction (Delgado et al., 2017, p. 9). CRT theorists believe that race is a social construction. These different groups labeled as "races" predominantly focus on the differences between people rather than scientifically proven commonalities. The construction of these "races" is what leads to unequal treatment. Numbers from around the country reflect what Illinois is dealing with. In neighboring Indiana, "About 79% of Asian students, 65% of White students, 57% of Black students and 53% of Hispanic students go straight to college after high school. While Black and Hispanic students represent the fastest growing high school populations, college-going rates remain lower than their peers" (Indiana Commission for Higher Education, 2019, p. 1). African-American students are not the only ones trailing when it comes to dual-enrollment. "A lower percentage of Hispanic students (30 percent) and Black students (27 percent) took courses for postsecondary credit in high school than did White or Asian students (both 38 percent)" (Shivji, Wilson and National Center for Education Statistics, 2019, p. 1). That being said, even those African-American students who took a dual-enrollment course did not always see the benefits. "Self-identified Black students graduated less quickly than all other students. The variables for self-identified Black students and enrolling in a semester other than Fall were statistically significant and increased a student's expected time to graduation; however, the magnitude of the effects for both variables were both likely small" (Burnes et al, 2019). In many cases, race is not the only variable where one sees a difference. Income-level is another variable that makes a case for unequal access to dual-enrollment courses. "A growing body of research offers evidence that high-ability students from lower-income families are far less likely than wealthier students to be identified for advanced level course work and opportunities. They are also less likely to achieve at high levels, despite their aptitude. Lacking access to the enriched academic opportunities, differentiated learning, and counseling afforded to wealthier students, high-ability, low- income children are becoming what one team of researchers has termed a *persistent talent underclass* — underserved

and therefore prevented from fully developing their talents” (Plucker et al, 2018). It is important to remember that there are members of most races in any category one chooses to look at. However, generally speaking, in the country as a whole and in Illinois, when it comes to many things, including dual credit, white students are impacted the least in a negative way. Social Construction makes sense because the focus never seems to be in the right place, including when evaluating dual-credit programs in Illinois.

The “unique voice of color” is the final tenet of CRT according to Delgado, Stefancic and Harris (2017, p. 11). The idea here is that individuals who are members of a minority group are then qualified to talk about race with their White peers and enlighten them about topics dealing with oppression they don’t already know. Getting its start in the field of law, CRT stressed the importance of African American individuals sharing their experiences dealing with law enforcement in general. Hearing from students and teachers about the inequities and difficulties when it comes to dual-credit can also be very helpful. For many, hearing first-hand stories can be their introduction to the rampant racism that lies in education. Derrick Bell, who coined the term "racial realism," argued that a racial realist perspective "enables us to avoid despair, and frees us to imagine and implement racial strategies that can bring fulfillment and even triumph" (Tichavakunda, 2019, p. 653). In the case of dual credit programs, racial realism can finally clarify to many people that racism clearly exists. These programs are most definitely benefitting certain groups more than others. Focusing attention and research on discovering if racism does play a part in dual-credit programs is simply a waste of time. The definitive answer is yes, and future research and discussion needs to focus on how to make improvements on the current system. Listening to “the unique voice of color” can open the eyes of certain people who refuse to admit that issues exist.

Conclusion

After finding these many ways in which the state of Illinois has fallen short of the goal to provide dual credit programs to all students fairly, just how can the state make the needed changes to its dual-credit programs? One option would be to restrict dual-credit courses to upper-class-men. Jenkins (2019) wrote that, “I also believe that dual enrollment should be limited to high-school juniors and seniors, with few exceptions. Remember, dual-enrollment courses, generally speaking, are not remedial courses; they’re actual, college-level courses that require a degree of academic preparation and maturity” (par. 18). This would give younger students time to adjust to high school and mature before attempting to take college-level courses. The state of Illinois is attempting to adjust the curriculum map in an attempt to allow equal access to dual credit programs. “Finally, Public Act 101-0654 (known as the Education and Workforce Equity Act) requires by no later than the beginning of the 2023-2024 school year that each school district’s accelerated placement policy include provisions for automatic enrollment, in the following school term, of a high school student into the next most rigorous level of advanced coursework. The next most rigorous level may include early college programs (dual credit, advanced placement, and international baccalaureate). The intent with the automatic enrollment approach is to allow even more equitable access and opportunity, regardless of student background, for advanced coursework including early college courses like dual credit” (ICCB, 2021, pg. 5). Another option is for Illinois colleges and universities to take on directly the issue of equality in these programs. Florida International University, who has developed a well-respected program for students in south Florida, has recognized the problem. “As FIU looks to the future, it becomes increasingly clear that universities must proactively address college readiness gaps that occur long before a student applies for admission. At a time when performance-based funding is placing increasing pressure on institutions to adopt policies that may decrease equity, programs such as these can work proactively to ensure that we provide students from all backgrounds with the opportunity to gain skills that translate into academic and career success” (Cram and Bejar, 2019, p. 80). Making much needed changes that upset the status quo will be very difficult. “Building the political will to tackle an issue that can be seen as a threat to the traditional autonomy of educators within the silos of high schools, community colleges, and universities will require shifting mindsets beyond adult self-interests, and toward the common interest in the potential benefits for students” (Hooker & Jobs for the Future, 2019, p. 4). The negative critiques will come from every direction, but schools must always keep focused on what is best for all kids. It may even take something drastic to make the needed changes. “We could create entirely new higher education institutions that span grades 11- 14. Explicitly designed to build our nation’s talent supply, they would offer high-value credentials, associate’s degrees, or transfer to four-year degree

programs” (Vargas & Jobs for the Future, 2019, p. 11). Creating a new way of looking at education overall may be what is needed to address the equity issues. Lee (2018) explained that one does not need to be racist to “engage or perpetuate a racist system”(p. 80). Illinois simply needs to pull back the curtain on racist issues in its education system, and be open to the findings that Critical Race Theory brings to light. Good statistics don’t always mean good system. All students deserve a quality education.

References

- Abell, F. (2007). A "Jump Start" on College: How Early College Access Programs can Help High School Students in Baltimore City. *Abell Foundation*
- Accreditor Considers Extension for New Academic Requirements. (2015). *Community College Week*, 28(9/10), 8. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=111925874&site=ehost-live&scope=site>
- Achieve Inc. (2004). 2005 National Education Summit Briefing Book.
- Adelman, C., & Office of Vocational and Adult Education, E. W. D. (2006). The Toolbox Revisited: Paths to Degree Completion From High School Through College. *US Department of Education*.
- AIR & Gibson Consulting Group. (2011). Educational and Operation Efficiency Study – Executive Summary.
- Allen, D. (2010). Dual enrollment: A comprehensive literature review & bibliography. New York, NY: The City University of New York. Retrieved from http://www.cuny.edu/academics/k-to-12/databook/library/DE_LitReview_August2010.pdf
- Allen, D., & Dadgar, M. (2012). Does Dual Enrollment Increase Students' Success in College? Evidence from a Quasi-Experimental Analysis of Dual Enrollment in New York City. *New Directions for Higher Education*, 158, 11–19.
- American Association of Community Colleges. (2018). Dual-Enrollment Increases. DataPoints. Volume 6, Issue 8. *American Association of Community Colleges*.
- Andrews, H. A. (2000). Lessons Learned from Current State and National Dual-Credit Programs. *New Directions for Community Colleges*, 2000(111), 31. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9175129&site=ehost-live&scope=site>

- Andrews, H. A. (2001). *The Dual-Credit Phenomenon! Challenging Secondary School Students across 50 States*.
- Andrews, H., Barnett, E., & Illinois Univ., C. O. of C. C. R. and L. (2001). Dual Credit/Enrollment in Illinois: A Status Report. In Brief. In *Office of Community College Research and Leadership*. Office of Community College Research and Leadership.
- Andrews, H., Barnett, E., & Olney Central College, I. (2002). *Dual Credit/Enrollment in Illinois: A Status Report. In Brief*. In *Office of Community College Research and Leadership*. Office of Community College Research and Leadership.
- Andrews, H. A., & Davis, J. (2003). When High School Is Not Enough. *American School Board Journal*, 190(8), 38.
- Bailey, T & Karp, M. (2003). *Promoting college access and success: A review of credit-based transition programs*. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Barnett, E., Gardner, D., Bragg, D., & Illinois Univ., C. O. of C. C. R. and L. (2004). Dual Credit in Illinois: Making It Work. *Office of Community College Research and Leadership*.
- Bell, D. A. (1992). *Racial realism*. *Connecticut Law Review*, 24 (2), 363 – 379.
- Blankenberger, B., Franklin, D., Lichtenberger, E., & Witt, M. A. (2017). Diverse Students, High School Factors, and Completion Agenda Goals: An Analysis of the Illinois Class of 2003. *Education & Urban Society*, 49(5),518–545. <https://doi.org/10.1177/0013124516644047>
- Bloomberg, L. D., & Volpe, M. (2018). Completing your qualitative dissertation: A road map from beginning to end.
- Botstein, L. (2001). The Future of High School: A Radical Proposal. *Presidency*, 4(1), 22–26.
- Bowers, D., & Foley, V. P. (2018). Advanced Placement and Dual Enrollment as Related to College Readiness and Retention at a Tennessee University. *Journal of Academic Administration in Higher Education*, 14(1),5–10.

- Bragg, D. D., Kim, E., & Rubin, M. B. (2005). Academic pathways to college: Policies and practices of the fifty states to reach underserved students. Office of Community College Research Leadership, Department of Educational Organization and Leadership, University of Illinois at Urbana-Champaign.
- Burns, L., Leu, K., National Center for Education Statistics (ED), & RTI International. (2019). Advanced Placement, International Baccalaureate, and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders--2013. Web Tables. NCES 2019-430. *National Center for Education Statistics*.
- Burns, M. V., & Lewis, A. L. (2016). How the Project Approach Challenges Young Children. *Gifted Child Today*, 39(3), 140–144.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological bulletin*, 56(2),81.
- Camp, H. C., & Walters, G. E. (2016). A Dual Perspective on AP, Dual Enrollment, and Honors. *Journal of the National Collegiate Honors Council*, 17(2), 25–30. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=121108221&site=ehost-live&scope=site>
- Cara, O. (2017). Mixed Methods in Education Research. *Designing Research in Education: Concepts and Methodologies*, 193-216.
- Cram, B., & Béjar, E. (2019). Achieving College Readiness through a Dual Enrollment Course: “Strategies for Success.” *Metropolitan Universities*, 30(2), 73–83.
- Creswell, J. W., Hanson, W. E., Plano Clark, V. L., & Morales, A. (2007). Qualitative Research Designs: Selection and Implementation. *Counseling Psychologist*, 35(2), 236–264.
- Cubberley, M. S. (2009). Advanced Placement, International Baccalaureate, and Dual Enrollment Programs: A Seniors to Sophomores Primer. *AURCO Journal*, 15, 71–85.

- Delgado, R., Stefancic, J., & Harris, A. (2017). *Critical race theory : an introduction* (Third edition.). New York University Press.
- Delicath, T. A. (1999). The Influence of Dual Credit Programs on College Students' Integration and Goal Attainment. *Journal of College Student Retention, 1*(4), 377–398.
- DeSilver, D. (2017). US students' academic achievement still lags that of their peers in many other countries. *Pew Research Center, 15*.
- Dougan, C. P. "The Pitfalls of College Courses for High-School Students." *Chronicle of Higher Education, 2005, 52*(10), B20.
- "Dual Credit Effort Saves Area Students Over \$1 Million in Tuition." (2018). *Interface (Wisconsin Technology Education Organization), 57*(3),9. Retrieved from <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=129378344&site=ehost-live&scope=site>
- "Dual Enrollment Programs Targets First-Generation College Students." (2018). *Community College Week, 30*(22), 37.
- Durosoko, H. (2019). Challenges in Transferring Dual Enrollment Credit. *Journal of College Admission, 242*, 56–58.
- Education Commission of the States. (2019). Individual State Profile – Dual Enrollment. Retrieved from: <http://ecs.force.com/mbdata/mbprofall2?Rep=DE19A>
- Eimers, M. T., & Mullen, R. (2003). *Dual credit and Advanced Placement: Do they help prepare students for success in college?* Paper presented at Association of Institutional Research Annual Forum, Tampa, FL.
- Fields, R., & National Assessment Governing Board. (2014). Towards the National Assessment of Educational Progress (NAEP) as an Indicator of Academic Preparedness for College and Job Training. In *National Assessment Governing Board*. National Assessment Governing Board.
- Frazier, C.M. (2001). Dual enrollment: A fifty-state overview. Dual Credit Study (Tech. Rep. No. 2). Seattle, University of Washington: Institute for Educational Inquiry.

- Gewertz, C. (2015). Dual-Credit Classes Put at Risk by Ruling. (cover story). *Education Week*, 35(8), 1–13. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=110434829&site=ehost-live&scope=site>
- Gewertz, C. (2018). College and Career Readiness. *Education Week*, 37(31), 5.
- Gewertz, C. (2019). “Dual Enrollment: Participation and Characteristics.” *Education Week*, 38(21), 4.
- Giani, M., Alexander, C., & Reyes, P. (2014). Exploring Variation in the Impact of Dual-Credit Coursework on Postsecondary Outcomes: A Quasi-Experimental Analysis of Texas Students. *High School Journal*, 97(4), 200–218. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1026262&site=ehost-live&scope=site>
- Goldstein, D. A. N. A. (2017). Why kids can't write. *The New York Times*, E8.
- Grbich, C. (2007). An introduction: Qualitative data analysis. *London, UK: Sage. Grootenhuis, MA, & Last, BF (1997). Predictors of parental emotional adjustment to childhood cancer. Psycho-Oncology, 6(2), 115-128.*
- Griffith, M., & Education Commission of the States. (2009). Funding Dual Credit Programs: What Do We Know? What Should We Know? The Progress of Education Reform. Volume 10, Number 1. *Education Commission of the States*. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED512139&site=ehost-live&scope=site>
- Golann, J., & Hughes, K. (2008). Dital enrollment fiolicies and {factices: Earning college credit in California high schools. San Francisco, CA: The James Irvine Foundation.
- Goral, T. (2016). Achieving the American dream, with less debt. *University Business*, 19(10), 10–12. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=118550130&site=ehost-live&scope=site>

- Guzy, A. (2016). AP, Dual Enrollment, and the Survival of Honors Education. *Journal of the National Collegiate Honors Council*, 17(2), 3–11. Retrieved from: <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=121108218&site=ehost-live&scope=site>
- Harris, C.I. (1993). Whiteness as Property. *Harvard Law Review*, 106(8), 1707-1791.
- Hoffman, N., & Jobs for the Future, B. M. (2005). Add and Subtract: Dual Enrollment as a State Strategy to Increase Postsecondary Success for Underrepresented Students. *Jobs for the Future*.
- Hoffman, N., Vargas, J., Venezia, A., Miller, M. S., & Harvard University, G. S. of E. (2007). *Minding the Gap: Why Integrating High School with College Makes Sense and How to Do It*. Harvard Education Press.
- Hofmann, E., & Voloch, D. (2012). Dual enrollment as a liminal space. *New Directions for Higher Education*, 2012(158), 101–107. <https://doi-org.ezproxy.depaul.edu/10.1002/he.20019>
- Holten, B., Pierson, A., Regional Educational Laboratory Northwest (ED), & Education Northwest. (2016). Getting Ahead with Dual Credit: Dual-Credit Participation, Outcomes, and Opportunities in Idaho. *Regional Educational Laboratory Northwest*. Retrieved from: <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED570982&site=ehost-live&scope=site>
- Hooker, S., & Jobs for the Future. (2019). Addressing a Major Barrier to Dual Enrollment: Strategies to Staff Up and Scale Up. In *Jobs for the Future*. Jobs for the Future.
- Houston Independent School District, H. D. of R. and A. (2019). Dual Credit Report: Student Enrollment, Performance, and Program Effects, 2018-2019. Research Educational Program Report. In *Houston Independent School District*. Houston Independent School District.

- Hughes, K. L. (2010). Dual Enrollment: Postsecondary/Secondary Partnerships to Prepare Students. *Journal of College Science Teaching*, 39(6), 12–13. Retrieved from: <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=51309048&site=ehost-live&scope=site>
- Hughes, K. L., et al. (2012). Broadening the Benefits of Dual Enrollment: Reaching Underachieving and Underrepresented Students with Career-Focused Programs. Insight. In *James Irvine Foundation*. James Irvine Foundation.
- Illinois Community College Board (2015). Dual Credit In The Illinois Community College System – Fiscal Year 2015. Retrieved from https://www.iccb.org/iccb/wp-content/pdfs/reports/2015_Dual_Credit_Report.pdf
- Illinois Community College Board. (2019). Dual Credit In The Illinois Community College System – Fiscal Year 2018. Retrieved from https://www.iccb.org/iccb/wp-content/pdfs/reports/2018_Dual_Credit_Report.pdf
- Illinois Community College Board. (2021). *Dual Credit in the Illinois Community College System in Fiscal Year 2020*. Springfield, IL: Author.
- “Illinois Report Card 2020-2021 – City of Chicago SD 299. (2021). Illinois State Board of Education. Illinoisreportcard.com
- “Illinois Report Card 2020-2021 – State of Illinois. (2021). Illinois State Board of Education. Illinoisreportcard.com
- Indiana Commission for Higher Education. (2019). College Readiness Report 2019 (2017 High School Graduates). In *Indiana Commission for Higher Education*. Indiana Commission for Higher Education.
- “Is \$54M Annual Investment in College Courses for HS Students Worthwhile?” (2017). *Community College Week*, 29(26/27), 13. Retrieved from <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=127965317&site=ehost-live&scope=site>

- Jacobs, J., North, T., & Oregon University System (OUS). (2008). Dual Credit in Oregon: An Analysis of Students Taking Dual Credit in High School in 2005-06 with Subsequent Performance in College. *Oregon University System*. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED545218&site=ehost-live&scope=site>
- Jenkins, R. (2019, September 29). 5 Steps to Building a Top-Notch Dual-Enrollment Program. *Chronicle of Higher Education*, 66(5), N.PAG.
- Jick, T. (1979). Mixing Qualitative and Quantitative Methods: Triangulation in Action. *Administrative Science Quarterly*, 24(4), 602-611.
doi:10.2307/2392366
- Karp, M. M. (2015). Dual Enrollment, Structural Reform, and the Completion Agenda. *New Directions for Community Colleges*, 2015(169), 103–111.
<https://doi-org.ezproxy.depaul.edu/10.1002/cc.20137>
- Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., Bailey, T. R., & National Research Center for Career and Technical Education, S. P. M. (2007). The Postsecondary Achievement of Participants in Dual Enrollment: “An Analysis of Student Outcomes in Two States.” In *Community College Research Center, Columbia University*. Community College Research Center, Columbia University.
- Kim, J., & Bragg, D. D. (2008). The Impact of Dual and Articulated Credit on College Readiness and Retention in Four Community Colleges. *Career and Technical Education Research*, 33(2), 133–158.
- Klopfenstein, K., & Lively, K. (2012). Dual Enrollment in the Broader Context of College-Level High School Programs. *New Directions for Higher Education*, 158, 59–68.
- Kronholz, J. (2011). High Schoolers in COLLEGE. *Education Next*, 11(3), 26–31. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=61203663&site=ehost-live&scope=site>

- Kim, J., Kirby, C., Bragg, D. D., & Illinois Univ., C. O. of C. C. R. and L. (2004). Dual Credit: Then and Now. In Brief. In *Office of Community College Research and Leadership*. Office of Community College Research and Leadership.
- Lee, J.A. (2018). Affirmation, Support, and Advocacy: Critical Race Theory and Academic Advising. *NACAD Journal*, v38 n1, 77-87.
- Lemer, J., & Brand, B. (2006). The collège *ladder*: Linking secondary and postsecondary education for success for all students. Washington DC: American Youth Policy Forum.
- Lewis, M. V., & Overman, L. (2008). Dual and Concurrent Enrollment and Transition to Postsecondary Education. *Career and Technical Education Research*, 33(3), 189–202. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ863491&site=ehost-live&scope=site>
- Lichtenberger, E., et al. (2014). Dual Credit/Dual Enrollment and Data Driven Policy Implementation. *Community College Journal of Research and Practice*, 38(11), 959–979.
- Light, N., & Washington Student Achievement Council. (2016). *Dual Credit Report*. Washington Student Achievement Council. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED573073&site=ehost-live&scope=site>
- Louisiana Department of Education. (2019). 2019-2020 Louisiana High School Planning Guidebook: A Path to Prosperity for Every Student. *Louisiana Department of Education*.
- Mangan, K. (2018, August 20). Dual-Credit Classes Serve Some Students in Texas Well. But Not All of Them -- and They Might Not Be Saving Any Money. *Chronicle of Higher Education*, 64(40), 1.
- Mansell, N., & Justice, M. (2014). Learning from the Past: Dual Credit. *Administrative Issues Journal: Connecting Education, Practice, and Research*, 4(1). Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1058483&site=ehost-live&scope=site>

- McCarthy, C. R. (1999). Dual-Enrollment Programs: Legislation Helps High School Students Enroll in College Courses. *Journal of Secondary Gifted Education*, 11(1), 24–32.
- Mokher, C. G., & McLendon, M. K. (2009). Uniting Secondary and Postsecondary Education: An Event History Analysis of State Adoption of Dual Enrollment Policies. *American Journal of Education*, 115(2), 249–277.
- National Center for Educational Statistics. (2009). High School Longitudinal Study (2009).
- Nelson, S.L. & Waltz, S.J. (2019). Dual Enrollment Programs: Litigation and Equity. *Educational Policy*, 33(2), 386-417.
- Ozmun, C. D. (2013). College and Academic Self-Efficacy as Antecedents for High School Dual-Credit Enrollment. *Community College Enterprise*, 19(1), 61– 72.
- Plucker, J., et al. (2018). Equal Talents, Unequal Opportunities: A Report Card on State Support for Academically Talented Low-Income Students. 2nd Edition. *Jack Kent Cooke Foundation*.
- Richardson, T. (2007). Dual-credit: "A key to the future". *On the Horizon*, 15(4), 239-244. doi:<http://dx.doi.org.ezproxy.depaul.edu/10.1108/10748120710836255>
- Rochford, J. A., et al. (2009). Advancing College Opportunity: An Impact Evaluation of the Growth of Dual Credit in Stark and Wayne Counties, Ohio. *Stark Education Partnership*. Retrieved from: <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED509358&site=ehost-live&scope=site>
- Rochford, J. A., et al. (2014). *Expanding College Opportunity: An Annual Report on Dual Credit and Other Post Secondary Opportunities for Stark County High School Students*. Stark Education Partnership. Stark Education Partnership. Retrieved from: <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED556241&site=ehost-live&scope=site>

- Shivji, A., Wilson, S., & National Center for Education Statistics (ED). (2019). Dual Enrollment: Participation and Characteristics. Data Point. NCES 2019-176. In *National Center for Education Statistics*. National Center for Education Statistics.
- Sleeter, C.E. (2017). Critical Race Theory and the Whiteness of Teacher Education. *Urban Education*, 52(2), 155-169.
- Speroni, C. (2011). Determinants of students' success: The role of advanced placement and dual enrollment programs. An NCPER Working Paper. National Center for Postsecondary research. Retrieved from ERIC database (ED527528)
- Stark Education Partnership. (2015). *Do Facilitated Online Dual Credit Classes Result in Deep Learning?* Stark Education Partnership. Stark Education Partnership. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED556125&site=ehost-live&scope=site>
- Struhl, B., Vargas, J., & Jobs for the Future. (2012). Taking College Courses in High School: A Strategy Guide for College Readiness--The College Outcomes of Dual Enrollment in Texas. In *Jobs for the Future*. Jobs for the Future.
- Swanson, J. (2010) Dual Enrollment: The Missing Link to College Readiness *Principal Leadership* 10(7):42-46.
- Taylor, J. L. (2015). Accelerating Pathways to College: The (In)Equitable Effects of Community College Dual Credit. *Community College Review*, 43(4), 355–379. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1074005&site=ehost-live&scope=site>
- Taylor, J., Fisher, D., & Bragg, D. (2014, July). *Dual credit funding models in Illinois community colleges*. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana- Champaign.
- Thomas, N., Marken, S., Gray, L., Lewis, L., National Center for Education Statistics (ED), & Westat, I. (2013). Dual Credit and Exam-Based Courses in U.S. Public High Schools: 2010-11. First Look. NCES 2013-001. *National Center for Education Statistics*.

- Tichavakunda, A. A. (2019). An Overdue Theoretical Discourse: Pierre Bourdieu's Theory of Practice and Critical Race Theory in Education. *Educational Studies: Journal of the American Educational Studies Association*, 55(6), 651–666.
- University of Arizona. (1999). *Community college and AP credit: An analysis of the impact on freshman grades*. Tucson, AZ: Author. Internet: www.aer.arizona.edu/Enrollment/Papers/dualenr.pdf
- U.S. Department of Education. (2019). "Advanced Placement, International Baccalaureate, and Dual-Enrollment Courses: Availability, Participation, and Related Outcomes for 2009 Ninth-Graders: 2013. Web Tables.
- Vargas, J., & Jobs for the Future. (2019). Breaking the Boundaries between High School and College: How to Scale Success for Low-Income Students. In *Jobs for the Future*. Jobs for the Future.
- Waits, T., Setzer, J. C., Lewis, L., National Center for Education Statistics, E. W. D., & Westat, I. . R., MD. (2005). Dual Credit and Exam-Based Courses in U.S. Public High Schools: 2002-03. E.D.TAB. NCES 2005-009. *National Center for Education Statistics*.
- Wirt, J., Choy, S., Rooney, P., Provasnik, S., Sen, A., Tobin, R., MPR Associates, B. C., American Institutes for Research, K., MD., Education Statistics Services Inst., W. D., & National Center for Education Statistics, E. W. D. (2004). The Condition of Education 2004. NCES 2004-077. *US Department of Education*.
- Wyatt, J.N., Patterson, B.F., Di Giacomo, T.F. (2015). A Comparison of the College Outcomes of AP® and Dual Enrollment Students. College Board.
- Young Jr., et al. (2014). Dual Credit Programs: A Conceptual Analysis of the Literature. *Journal of Education Research*, 8(1/2), 79–106. Retrieved from: <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=96270104&site=ehost-live&scope=site>
- Zimmermann, S. (2012). Double-Dipping for Course Credit. *Phi Delta Kappan*, 93(6), 38–41. Retrieved from: <https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ985087&site=ehost-live&scope=site>

Zinth, J. D., & Education Commission of the States. (2014). *Dual Enrollment: A Strategy to Improve College-Going and College Completion among Rural Students*. Education Commission of the States. Education Commission of the States. Retrieved from:
<https://ezproxy.depaul.edu/login?url=https://search.ebscohost.com/login.a?direct=true&db=eric&AN=ED561909&site=ehost-live&scope=site>