

2020

## Dual Credit In Indiana High Schools: What School Barriers Exist For Students?

John Newport  
*Indiana State University*

Follow this and additional works at: <https://scholars.indianastate.edu/etds>

---

### Recommended Citation

Newport, John, "Dual Credit In Indiana High Schools: What School Barriers Exist For Students?" (2020). *All-Inclusive List of Electronic Theses and Dissertations*. 1919.  
<https://scholars.indianastate.edu/etds/1919>

This Dissertation is brought to you for free and open access by Sycamore Scholars. It has been accepted for inclusion in All-Inclusive List of Electronic Theses and Dissertations by an authorized administrator of Sycamore Scholars. For more information, please contact [dana.swinford@indstate.edu](mailto:dana.swinford@indstate.edu).

DUAL CREDIT IN INDIANA HIGH SCHOOLS: WHAT  
SCHOOL BARRIERS EXIST FOR STUDENTS?

---

A Dissertation

Presented to

The College of Graduate and Professional Studies

Department of Educational Leadership

Indiana State University

Terre Haute, Indiana

---

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

---

by

John Newport

December 2020

© John Newport 2020

Keywords: Dual credit, dual enrollment, dual credentials, barriers, school districts barriers

## VITA

John Newport

### EDUCATION

- 2020 Indiana State University, Terre Haute, Indiana  
Ph.D. in Educational Leadership
- 2007 Indiana State University, Terre Haute, Indiana  
Career and Technical Education Director Licensure
- 2006 Indiana State University, Terre Haute, Indiana  
Educational Administrative Licensure
- 2006 Indiana State University, Terre Haute, Indiana  
M.S. in Education Leadership and Administration Foundations
- 2002 Indiana State University, Terre Haute, Indiana  
Industrial Technology Education and Vocational Machine Trades Teacher  
Licensure
- 2002 Indiana State University, Terre Haute, Indiana  
B.S. in Industrial Technology Education and Vocational Machine Trades
- 1998 Vincennes University, Vincennes, Indiana  
A.S. in Tool and Die/Machine Trades

### PROFESSIONAL EXPERIENCE

- 2010-Present Vigo County School Corporation, Terre Haute, Indiana  
Curriculum Coordinator of Assessment, Math, and Science
- 2007-2010 Vigo County School Corporation, Terre Haute, Indiana  
Assistant Curriculum Coordinator/Director of Adult Education
- 2002-2007 Vigo County School Corporation, Terre Haute, Indiana  
Technology Teacher, West Vigo High School
- 2003-2006 Vigo County School Corporation, Terre Haute, Indiana  
Boy's Soccer Head Coach, West Vigo High School

COMMITTEE MEMBERS

Committee Chair: Brad Balch, Ph.D.

Professor of Educational Leadership and Dean Emeritus

Indiana State University

Committee Member: Terry McDaniel, Ph.D.

Professor of Educational Leadership

Indiana State University

Committee Member: Susan Kiger, Ph.D.

Emeritus Professor of Teaching and Learning

Indiana State University

## ABSTRACT

The purpose of this qualitative case study was to examine dual credit policy and what barriers Indiana high schools have in offering dual credit courses. The goal of this study was to answer one grand tour question—What barriers exist for Indiana high school students regarding dual credit availability? Three sub-questions supported this grand tour question and are as follows:

1. How does dual credit policy influence availability in high schools?
2. What is the role of teacher credentialing to offer dual credit opportunities?
3. How do school mission and vision support dual credit availability for high school students?

This study will add new knowledge to the barriers to Indiana high schools' ability to offer dual credit coursework.

A review of existing literature took place focusing on a national perspective on dual credit, background of dual credit in Indiana, dual credit learning options in Indiana, Indiana accreditation requirements for dual credit, benefits of dual credit, and the drawbacks and barriers to student dual credit completion. Through purposeful sampling, six Indiana high schools participated in nine semi-structured interviews with 15 individuals. A targeted sample was one rural and one urban school from the low dual credit participation level, one rural and one urban school from the medium dual credit participation level, and one rural and one urban school from the high dual credit participation level.

Three overarching themes, each with two subthemes emerged during the research. The primary theme of dual credit credentialing for high school teachers is problematic for schools included the following subthemes: (a) school scheduling is challenging when only credentialed teachers can teach dual credit classes and (b) finding teachers qualified to teach dual credit is increasingly hard. The second primary theme of other forms of dual credit such as AP and CTE are easier and more flexible for schools to offer presented the following subthemes: (a) with the AP test being another conduit for offering students college credit, teacher credentialing is removed from the equation and (b) CTE offers dual credit based on credentials that include work experience, not a master's degree. The third primary theme of dual credit requirements creates several barriers for schools in offering more opportunities for students included the following subthemes: (a) the teaching pipeline was not prepared for dual credit requirements, and (b) universities and K–12 schools have worked together to do the best they can.

Three implications came from this study. The first implication asks the question: “What might a streamlined process across multiple stakeholders look like for dual credit?” The second implication was that there are simply not enough educators with master's degrees for dual credit credentialing. The final implication indicated quality teaching outweighs the required master's degree for dual credit credentialing.

Four recommendations came from this study. They were as follows: to investigate an existing model for dual credit, considerations for dual credit policy makers, considerations for K–12 and post-secondary dual credit educators, and considerations for future research.

## ACKNOWLEDGMENTS

Sincere appreciation is extended to my dear family, friends, colleagues, and my dissertation chair and committee for their continued support, encouragement, and guidance throughout this professional experience. I am thankful for the Vigo County School Corporation, specifically for support from Dr. Robert Haworth and Dr. Karen Goeller, as well as continuous support from my fellow curriculum coordinators, Janet Brosmer, Holly Pies, Dr. Katelynn Lieberman, Doug Dillion, Jeff Clutter, and my closest colleague, Debbie McIntosh. My time with Dr. Brad Balch, Dr. Terry McDaniel, and Dr. Susan Kiger has significantly influenced my growth as an educator, and I was honored to have them serve on my dissertation committee. Appreciation is also extended to Michelle Nutter, who embarked on this journey with me at the beginning and continues to motivate and inspire me to do better than her.

I am truly blessed with a beautiful family whose support and understanding have been a great motivation for me to complete this process. I am thankful for the upbringing that I experienced and the values that have been imparted to influence the person I have become. I appreciate the love and support that my wife, Carrie, and children, Jack, Evan, and Lucy, have given me. They truly helped me enjoy this journey by helping me keep my favorite job, being Dad, manageable, fun, and exciting as I worked so many late nights and early mornings.

## TABLE OF CONTENTS

|   |     |
|---|-----|
| COMMITTEE MEMBERS .....                                       | ii  |
| ABSTRACT.....   | iii |
| ACKNOWLEDGMENTS .....   | v   |
| LIST OF TABLES .....  | ix  |
| INTRODUCTION .....  | 1   |
| Statement of the Problem.....                                 | 2   |
| Purpose of the Study .....                                    | 2   |
| Significance of the Study .....                               | 3   |
| Research Questions.....                                       | 3   |
| Personal Statement.....                                       | 4   |
| Definition of Terms.....                                      | 4   |
| Summary and Organization of the Study.....                    | 6   |
| LITERATURE REVIEW .....                                       | 8   |
| National Perspective on Dual Credit.....                      | 9   |
| Background of Dual Credit in Indiana.....                     | 16  |
| Dual Credit Learning Options in Indiana.....                  | 18  |
| Indiana Accreditation Requirements for Dual Credit .....      | 21  |
| Benefits of Dual Credit .....                                 | 23  |
| Drawbacks and Barriers to Student Dual Credit Completion..... | 31  |



|   |           |
|---|-----------|
| Summary .....   | 33        |
| <b>METHODOLOGY .....</b>  | <b>35</b> |
| Design of Research .....  | 36        |
| Theoretical Orientation .....                                       | 37        |
| Research Questions .....  | 37        |
| Data Collection Procedures .....                                    | 38        |
| Trustworthiness .....   | 41        |
| Limitations .....   | 42        |
| Role of the Researcher .....  | 43        |
| Pilot Study .....   | 43        |
| Summary .....   | 44        |
| <b>RESULTS .....</b>  | <b>46</b> |
| Alpha Bravo High School .....                                       | 51        |
| Delta High School .....   | 54        |
| Juliet High School .....  | 60        |
| Oscar Romeo High School .....                                       | 65        |
| Charlie Victor High School .....                                    | 69        |
| Mike Zulu High School .....   | 77        |
| Summary .....   | 85        |
| <b>SUMMARY OF FINDINGS, IMPLICATIONS, AND RECOMMENDATIONS .....</b> | <b>86</b> |
| School Provided Documentation .....                                 | 88        |
| Themes and Subthemes .....  | 90        |

|  |     |
|--|-----|
| Primary Theme 1: Dual Credit Credentialing for High School Teachers Is Problematic for Schools .....                                   | 90  |
| Primary Theme 2: AP and CTE Offer Schools Dual Credit Flexibility .....  | 93  |
| Primary Theme 3: Dual Credit Requirements Create Several Barriers for Schools .....  | 96  |
| Implications.....  | 101 |
| Recommendations.....   | 103 |
| Investigate an Existing Model .....  | 104 |
| Considerations for Dual Credit Policy Makers.....  | 105 |
| Considerations for K–12 and Post-Secondary Dual Credit Educators .....   | 106 |
| Considerations for Future Research.....  | 107 |
| Conclusion .....   | 108 |
| REFERENCES .....   | 110 |
| APPENDIX A: REQUEST FOR EXPERT INFORMATION.....  | 117 |
| APPENDIX B: OUTLINE OF PHONE CONVERSATION WITH DISTRICT SUPERINTENDENT .....   | 118 |
| APPENDIX C: OUTLINE OF PHONE CONVERSATION WITH BUILDING PERSONNEL (SECONDARY SCHOOL PRINCIPAL, GUIDANCE COUNSELOR, TEACHER, ETC.)..... | 119 |
| APPENDIX D: INVITATION TO BUILDING PERSONNEL TO PARTICIPATE.....   | 120 |
| APPENDIX E: INFORMED CONSENT.....  | 122 |
| APPENDIX F: INTERVIEW QUESTION PROTOCOL .....  | 124 |

LIST OF TABLES

|   |    |
|---|----|
| Table 1. Summary of Themes, Subthemes, and Research Questions Represented ..... | 48 |
| Table 2. Summary of Participants and High Schools .....                         | 50 |

## CHAPTER 1

### INTRODUCTION

In the Borden et al. (2013) study, primary objectives of dual credit courses were outlined. Some of these primary objectives were as follows: presenting more challenging courses for students in high school, helping students transition from secondary school to college life after high school, strengthening student success while in high school through academic rigor and a college connection to increase college aspiration, lowering college tuition costs, and building relationships between high school teachers and postsecondary faculty.

This qualitative study focused on a social constructivist worldview by studying “a complexity of views rather than narrowing meanings into a few categories or ideas” (Creswell, 2009, p. 8). Looking at broader conceptual and general perspectives of what barriers exist for the average Indiana student to obtain dual credit in high school can facilitate conversations about solutions to these barriers. Open-ended questions in the research helped the participants interact in more open dialog and engaged them in conversation to construct the meaning of the situation being studied. This dialog took place with participants to understand the school leaders’ struggles with being able to offer more dual credit opportunities to students.

Constructivist researchers often address the processes of interaction among individuals.

They also focus on the specific contexts in which people live and work, in order to understand the historical and cultural settings of the participants. Researchers recognize

that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical experiences. The researcher's intent is to make sense of (or interpret) the meanings others have about the world. Rather than starting with a theory, inquirers generate or inductively develop a theory or pattern of meaning. (Creswell, 2009, p. 8)

By interacting with participants in their real world setting with their real experiences, I was able to record data about what barriers affected the school in offering dual credit opportunities for students.

### **Statement of the Problem**

Education Strategy Group et al.'s (2018) study stated, "Postsecondary credentials matter more today than any time previously in history" (p. 2). When looking at the benefits of dual credit for high school students (preparation for academic rigor of college classes, cost savings for college tuition, easing the transition for the culture shock of university life) the big question remains—What barriers exist that prevent all students from taking dual credit classes? Students in some Indiana schools have opportunities to earn enough credits to qualify for an associate's degree, and others may only have the capability to earn the state minimum of two credits.

Murray (2011) described the importance of creating a college-going culture in K–12 schools. Based on the idea that a simple college fair aimed at juniors and seniors is not enough. Given the importance of college for their future, a culture needs to be built within buildings to help prepare students for the rigors and challenges of postsecondary education. This study took a deeper look at the barriers that exist for some students to earning dual college credit while in high school.

### **Purpose of the Study**

The purpose of this qualitative case study was to identify and understand existing barriers

for Indiana high schools to be able to offer students greater opportunities to obtaining dual credit. Through research into the history and current practices of dual credit locally and nationally, conversations can be had about barriers to offering dual credit in high school. It is hoped that this study will contribute new knowledge to assist in further discussions on solutions to what barriers exist to offering dual credit in high schools in Indiana. These purposeful conversations could hopefully lead to systematic changes to facilitate equal access to dual credit resources throughout Indiana.

### **Significance of the Study**

This qualitative case study outlined a theme that dual credit may be positive for many students in high schools. In reviewing the data, an area that appeared to need more improvement is the area of high school dual credit teacher licensing. In some scenarios, a teacher with a bachelor's degree has the qualifications to teach an advanced placement (AP) class, but not a dual credit class. In Indiana, the requirements for credentialing are determined by the Commission for Higher Education, which requires a master's degree. However, if AP exams offer credit based on an end-of-course exam, why could not a state-wide assessment provide the same for dual credit classes? This example illustrates a seemingly simple solution to a very complicated issue. This study sought to outline the multitude of state and local agencies that are involved with policy development and dual credit implementation. This study sought to impart significant knowledge to all stakeholders to encourage a level of understanding of the issues and challenges for this topic. This knowledge will enable meaningful and informed discussion for the benefits of eliminating barriers for high school students to take classes towards dual credit.

### **Research Questions**

The goal of this study was to answer one grand tour question—What barriers exist for

Indiana high school students regarding dual credit availability? Three sub-questions supported this grand tour question and are as follows:

1. How does dual credit policy influence availability in high schools?
2. What is the role of teacher credentialing to offer dual credit opportunities?
3. How do school mission and vision support dual credit availability for high school students?

### **Personal Statement**

As a curriculum coordinator of math and science of a large Indiana school district, I have garnered a special interest in getting teachers credentialed in dual credit courses so that more students can earn college credits while in high school. In this role, I have counseled several teachers towards credentialing and continuously hit the barrier of a required master's degree in the subject area. Teachers complain that they are expected to fund their own master's degree in order to be dual credit certified, though they will not receive much of a pay increase to offset the cost. To help combat this problem, the district of which I speak sought outside grant funding, and some teachers participated in classes through a partnership with a local university to earn college credit toward dual credit credentials in summer workshops over a three year time frame. This was successful in getting more teachers to be dual credit certified; however, some of those teachers left K-12 with the new master's degrees to teach in postsecondary roles. Seeing how a three-year investment in time and money still left me with unfilled positions in dual credit classrooms resulted in a personal interest in studying the barriers for schools to offer dual credit opportunities to students in areas outside of my own school district.

### **Definition of Terms**

*Advanced placement:* An advanced placement class is “intended to be equivalent to a

similar college level course” (Indiana Department of Education [IDOE], 2018b, p. 12).

*Concurrent enrollment:* Concurrent enrollment, dual enrollment, and dual credit can be used synonymously.

*Dual credit:* Concurrent enrollment, dual enrollment, and dual credit can be used synonymously. A dual credit course is “a course taught by a high school faculty member, a college faculty member, or a college adjunct faculty member that a high school student may take to earn both high school and college credits” (Indiana Code IC 21-43-1-2.5, Sec. 2.5, 2017a).

*Dual credentialed:* A teacher that is credentialed to teach a dual credit course.

*Dual enrollment:* Concurrent enrollment and dual enrollment can be used synonymously. Dual enrollment refers to an Indiana high school student taking a dual credit course where university faculty is the primary instructor.

*Early college:* “An academic program consisting of a series of dual credit courses or concurrent enrollment courses, or both, which allow high school students to earn both a high school diploma and: (1) an associate’s degree that has been approved by the commission for higher education; or (2) up to two (2) years of academic credit toward a baccalaureate degree” (Indiana Code IC 21-43-1-2.7 Sec. 2.7, 2017b).

*High dual credit participation:* Schools categorized in this report as high dual credit participation were in the 67%–100% ranking of Indiana schools with dual credit completion according to their accountability grade.

*Indiana University Advanced College Project:* Indiana University Advanced College Project (IUACP) is a dual-enrollment partnership between Indiana University and select high schools throughout Indiana and surrounding states. Indiana University (IU) courses taught through the Advanced College Project (ACP) program provide both high school and college



credits (known as concurrent or dual enrollment) and allow students to fulfill high school graduation requirements as well as start building their college career. IU Courses are taught during the regular school day by certified high school teachers who hold adjunct lecturer status through IU.

*International baccalaureate (IB):* IB “is an academically challenging and balanced programme of education with final examinations that prepares students, aged 16 to 19, for success at university and life beyond” (Indiana Department of Education [IDOE], 2019a, p. 221).

*Local education agency:* A public school board of education providing administrative control and direction of elementary and secondary schools within a school corporation’s district.

*Low dual credit participation:* Schools categorized in this report as low dual credit participation were in the 0%–33% ranking of Indiana schools with dual credit completion according to their accountability grade.

*Medium dual credit participation:* Schools categorized in this report as medium dual credit participation were in the 34%–66% ranking of Indiana schools with dual credit completion according to their accountability grade.

### **Summary and Organization of the Study**

This chapter described the social constructivist worldview looks at a study through multiple viewpoints. The purpose of the study was to identify and understand existing barriers to students obtaining dual credit in high school throughout Indiana. This study was inspired by a personal experience in helping teachers become dual credit licensed. The requirement for licensure required multiple agencies to come together and was not always consistent among certain subject areas in high schools. I take a special interest in this topic as a curriculum coordinator of math and science.

The design of this study is presented through a five-chapter design. Chapter 1 included an introduction, background of the problem, statement of the problem, purpose of the study, research questions, limitations, delimitations, and definition of terms. Chapter 2 contains a literature review of research materials that are about this topic. Chapter 3 presents the qualitative case study methodology and study design. Chapter 4 shares the findings to the research carried out to answer the research questions proposed in Chapter 1. Chapter 5 includes the summary of the findings, implications, conclusion, and any suggestions for further research.

## CHAPTER 2

### LITERATURE REVIEW

Students in Indiana have the opportunity to obtain college credit while still enrolled in high school through dual credit. Frequently called dual enrollment, concurrent enrollment, or dual credit, dual credit was “the term given to courses in which high school students have the opportunity to earn both high school and college credits” (Indiana Commission for Higher Education, 2017, p. 2). According to Borden et al.’s (2013) study, some of the primary objectives of dual credit courses were outlined as presenting more challenging courses for students in high school, enhancing student success while in high school, facilitating the transition from high school to postsecondary through academic rigor and a college connection to increase college aspiration, lowering cost of college tuition, and fostering a relationship between high school teachers and postsecondary faculty.

This literature review focused on a social constructivist worldview by studying a “complexity of views rather than narrowing meanings into a few categories or ideas” (Creswell, 2009, p. 8). Open-ended questions in the research helped the participants interact in more open dialog and engaged them in conversation to construct the meaning of the situation being studied. This dialog took place with participants to understand the school’s struggles with being able to offer more dual credit opportunities to students.

Constructivist researchers often address the processes of interaction among individuals.

They also focus on the specific contexts in which people live and work, in order to understand the historical and cultural settings of the participants. Researchers recognize that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical, experiences. The researcher's intent is to make sense of (or interpret) the meanings others have about the world. Rather than starting with a theory, inquirers generate or inductively develop a theory or pattern of meaning" (Creswell, 2009, p. 8).

By interacting with participants in real world settings with real experiences, I was able to record data about what barriers affected the schools in offering dual credit opportunities for students. By looking at broader concepts, a general perspective of the barriers that exist for the average Indiana student to obtain dual credit in high school could be interpreted to facilitate conversations to mitigate these barriers

When looking at the benefits to dual credit for high school students, preparation for academic rigor of college classes, cost savings for college tuition, or easing the transition for the culture shock of university life; the big question remains—What barriers exist for students regarding dual credit availability? Students in some Indiana schools are earning enough credits to qualify for an associate's degree, and others only have the opportunity to earn the state minimum of two credits if they are able to take the requisite classes. This literature review took a deeper look at the options that are available to students in Indiana, related them with national guidelines, and outlined some of the barriers that may cause the disparity between student experiences at different schools.

### **National Perspective on Dual Credit**

In the Borden et al. (2013) study, a brief history of dual credit was outlined. High school

students have been able to obtain college credit based on performance of standardized tests, through the College Board's AP program since 1955 and the IB program since 1968. Colleges also allowed high-ability students to enroll in a variety of college-level classes on campus, and in the 1970s offered expanded locations, choices, availability, and participation options.

Growth of these programs continued through the 1990s. By the 2000s, interest in opportunities for high school students to obtain college credit became even more acute prompted by at least three concurrent issues: The increasing importance of a high education degree for economic security and social welfare; low and seemingly intractable degree completion rates; and the rising costs to students for attending college and the attendant growth of college load debt. (Borden et al., 2013, p. 1)

This background laid a foundation from which current dual credit policies have been built.

Borden et al. (2013) outlined the following dual credit objectives that provide a lens to policy and practice as follows:

- Introduce more diverse and challenging courses into the high school curriculum;
- Broaden academic opportunities and course options for students in high school especially in the last year (that is, decrease opportunities for "senioritis");
- Expose students to vocationally oriented courses specifically and focus on students' obtaining technical and vocational skills not offered by the high school;
- Enhance student success while in high school;
- Facilitate the transition from high school into postsecondary education (social and psychological aspects) and prepare students for the academic rigors of college;
- Increase college aspirations;
- Expand higher education access to underrepresented groups of students;

- Shorten students' time to an associate's or baccalaureate degree;
- Lower the cost of college education; and
- Promote relationships between high school teachers and college instructors to foster curricular alignment. (p. 6)

These objectives indicated consistency between Indiana's dual credit objectives and the national Higher Learning Commission's objectives.

Dual credit has evolved over the years. The Higher Learning Commission (2014) established the following five baselines to ensure dual credit academic integrity:

1. Faculty credentials and qualifications, orientation, and training. The institution requires the same level of credentials and qualifications for faculty in dual credit courses or programs that it does for its regular higher-education courses...  
Additionally, faculty teaching in dual credit courses or programs are appropriately trained with proper orientation for teaching at the higher education level.
2. Rigor of courses or programs and curricular standards. The institution mandates the same level of rigor in dual credit courses or programs as it does for its regular higher-education course or programs.
3. Expectations for student learning and learning outcomes. Expectation for student learning and learning outcomes in dual credit courses or programs are consistent with the same courses or programs that the institution offers at the higher education level.
4. Access to learning resources. Students as well as faculty in dual credit courses or programs have the same level of access to learning resources (libraries, laboratories, databases) as the institution's students and faculty in the same higher-education courses or programs.

5. Institutional monitoring, oversight, and transparency. The institution . . . exercises proper monitoring and oversight of its dual credit activity to ensure that dual credit courses or programs meet higher education standards. (pp. 2–3)

These national guidelines indicated that Indiana is aligned with other states across the nation in terms of dual credit credentialing requirements of high school teachers.

Borden et al. (2015) stated, “One of the most prevalent dimensions of state policy was policy language about which students can participate in dual credit; nearly 80% of state policies regulated dual credit student eligibility” (p. 13). They went on to list students’ “class level, exam requirements, GP requirements, and other eligibility criteria that [are] the same as required for college students” (Borden et al., 2015, pp. 13–14). In addition to eligibility, “Also common in state policies were regulations related to who can teach dual credit courses; nearly 80% of state policies included a provision” (Borden et al., 2015, p. 14). A majority of policies require that course instructors “shall meet the same requirements for appointment as regular faculty at the collegiate institution granting the credit” (Borden et al., 2015, p. 14).

According to Cassidy et al. (2011), “Accelerated learning opportunities are becoming increasingly common strategies to promote high school graduation and encourage college enrollment” (p. 1). The idea that student success in more rigorous high school classes will equal college success is not a new one. Adelman (2006) showed that students’ completion of 20 or more credits by the end of the first year of college was a good predictor of college completion. Hoffman et al. (2009) also estimated that a student’s completion of 20 or more college credits while in high school would indicate a likelihood of college completion. Hoffman et al. (2009) later stated that “dual enrollment becomes a central strategy for increasing college-going rates of high school students” (p. 46).

Karp and Jeong (2008) listed the following reasons why states invest in dual credit programs:

Today, however, many educators believe that dual enrollment participation can have additional benefits, with the ultimate aim of improving student access to, success in, and completion of college. Educators argue that these goals can accrue to a wide range of students, not just those at the top of the academic spectrum. These goals include:

- Increasing the academic rigor of the high school curriculum and encouraging students to take challenging coursework;
- Providing additional opportunities to students who have exhausted their high school's course offerings;
- Helping low-achieving students meet high academic standards and graduate from high school;
- Lowering the need for remediation in postsecondary institutions;
- Increasing student aspirations, particularly for students who do not have college-going role models in their families or communities;
- Helping students acclimate to college life;
- Improving relationships and coordination between secondary and postsecondary education institutions;
- Lowering the cost of college for students and their families; and,
- Improving college graduations rates. (p. 2)

At a national perspective, benefits to the student were also noted. The Higher Learning Commission (2013) stated the following benefits to dual credit: “enhancing and diversifying high school curricula, increasing access to higher education, improving high school and college



relationships, and shortening time to degree and lowering the cost of college” (pp. vii–viii).

Locally, school districts need to consider and gauge stakeholder buy-in for dual credit. Adamson and Balch (2018) defined foundational statements as “those statements used to guide decision making and planning, while defining and providing purpose for the daily performance of every employee in the school district” (p. 89). These statements are important because they provide the vision for every employee to follow and keep everyone working towards the same goal. The IDOE’s (2019b) academic standards stated that several state agencies, including the Indiana Center for Education and Career Innovation, IDOE, Indiana Education Roundtable, and Indiana State Board of Education; confirmed Indiana’s college and career ready academic standards are designed to prepare students for postsecondary life.

This means that students who successfully master these objectives for what they should know and be able to do in Math and English/Language Arts disciplines by the time they graduate from high school will be ready to go directly into the workplace or a postsecondary educational opportunity without the need of remediation. (IDOE, 2019b, p. 1)

Adamson and Balch (2018) defined a vision statement as “the desirable future state of the organization” (p. 92). In education’s case, the vision is the future of the students, not just while in K–12 school, but in life after secondary school. Adamson and Balch (2018) stated, “Great vision statements rely heavily on imagination, not only in their final view of the future, but also in planning and constructing the statement” (p. 92). If the vision statement is the desirable future, then the mission statement is the why. “Answering the why question not only established the context of the conversation during development, but helps to ensure that the statement is more easily committed to memory” (Adamson & Balch, 2018, p. 91). Incorporating postsecondary

skills into a vision and mission statement will bring all schools within a district to the same goal. The School Town of Highland and a personal communication with N. Whal, Superintendent, added the following perspective:

Borrowing a mission statement from one Indiana school district makes this point. Their mission statement is, “Educating today’s students for tomorrow’s challenges” (School Town of Highland, n.d.). One superintendent notes that statements such as this “are a constant reminder to keep us focused on strategic initiatives” (N. Whal, personal communication, January 9, 2017).

By reading Highland’s statement of purpose, it would be difficult to say how its mission would not apply to every school in its district. Furthermore, as the whole district’s statement of purpose, the intent is that every employee has an obligation to fulfill that mission within his or her individual job responsibilities. (as cited in Adamson & Balch, 2018, pp. 91–92)

This will contribute to the long-term culture of college and career readiness within the school corporation.

Murray (2011) supported the vision and mission of a school district to help create an overall mission that leads to a college-going culture. Murray (2011) shared her personal experience of creating a college-going culture; she brought a resolution to the school board to call “on the district to identify itself as being in support of a ‘college-going culture’” (p. 122). These top-down initiatives led to more college-focused activities through the school district at all grade levels.

Additionally, Fullan (2014) expressed that school principals needed to have vision and goals to examine the future of education systems and measure the success in schools. Having a

vision and goals was Fullan's first main element of success. He believed leaders must work with others in schools to craft a collaborative, yet clear, framework for where the school should be headed (Fullan, 2014). Marzano et al. (2005) also addressed school leadership responsibilities and the correlations with student academic achievement. Creating a strong line of communication with and between teachers and students is "a critical feature of an endeavor in which people work in close proximity for a common purpose" (Marzano et al., 2005, p. 45). Likewise, focus is obtained by establishing clear goals and keeping them at the forefront of the school's attention. Specific behaviors and characteristics associated with focus are as follows:

- Establishing concrete goals for curriculum, instructions, and assessment practices within the school
- Establishing concrete goals for the general functioning of the school
- Establishing high, concrete goals, and expectations that all students will meet them
- Continually keeping attention on established goals (Marzano et al., 2005, p. 50)

Additionally, communicating strong ideals and beliefs about schooling is important for school leaders to help shape young people with positive behaviors and characteristics (Marzano et al., 2005).

### **Background of Dual Credit in Indiana**

The research for this literature review found that five different agencies are involved in allowing secondary schools to award dual credit. The Indiana General Assembly enacted the law to amend the Indiana Code to allow for dual credit. The Indiana Commission for Higher Education and IDOE collaborated to implement policy and procedure for dual credit. LEAs must develop school board policy to allow for dual credit to take place within their districts. Finally, individual high schools must work within the confines of an agreement with a local university to

credential teachers and accept the credit into the university. This complicated web of state and local agencies creates multiple layers of bureaucracy for school districts to navigate in order to offer dual credit courses.

On April 30, 1987, the Indiana General Assembly enacted the Postsecondary Enrollment Program (1987) which amended the Indiana Code on education to “promote vigorous academic pursuits by secondary school students and encourage their continuing education at the postsecondary level” (Postsecondary Enrollment Program, 1987, p. 2441). Public Law (P.L.) 230 (1987) allowed for students in Grade 11 and Grade 12 to enroll in both an approved secondary credit class and a postsecondary class. The postsecondary institution must grant baccalaureate or associate’s degrees and be a private or public college located in Indiana. The school corporation must have approved the student’s participation given the following criteria outlined in section 7(a):

- 1) The student’s eligibility to participate
- 2) The courses in which the student is authorized to enroll
- 3) The postsecondary credit the student earns upon successful completion of a course
- 4) The consequences of a student’s failure to successfully complete a course
- 5) The student’s schedule
- 6) The financial obligations of the student and the school under the program
- 7) The responsibilities of the student, the student’s parent or guardian, and the school under the program
- 8) Other matter concerning the program. (Postsecondary Enrollment Program, 1987, pp. 2442–2443)

Dual credit in Indiana is funded through multiple sources. Nationally, 24 states offer dual

credit direct funding (Borden et al., 2013). “Several states have provisions that make dual credit courses available or free to all students while many others offer discounted rates for tuition, fees and books” (Borden et al., 2013, p. vi). In Indiana, each university has its own guidelines for dual credit funding. For example, Ivy Tech Community College (2017) offered dual credit courses on high school campuses that were free to the student in 2017. Indiana State University (2019) offered a significant discount resulting in a cost of \$25 per credit hour for dual credit courses in 2017 (Indiana State University, 2019).

### **Dual Credit Learning Options in Indiana**

There are several learning options for dual credit in Indiana. Indiana code IC 21-43-1-2.5 (2017a) defined a dual credit course as

a course taught by a high school faculty member, a college faculty member, or a college adjunct faculty member that a high school student may take to earn both high school and college credits. Dual credit courses may include any of the following:

(1) A concurrent enrollment college course that is taught:

- in a high school classroom;
- by a regular high school faculty member who is approved by an eligible institution; and
- to high school students who earn high school credit for the course and may also earn college credit through an agreement between an eligible institution and a school corporation under IC 21-43-4-3.5.

(2) An on-campus course, that:

- is taught:
  - on the campus of an eligible institution;

- by a faculty member of the eligible institution; and
- as a regular course offering to postsecondary students attending the eligible institution in which a high school student enrolls and attends; and
- is approved by the high school that the high school student attends for secondary credit requirements.

(3) A college course, that is taught:

- in a high school classroom;
- by a faculty member of an eligible institution; and
- to high school students who may earn both secondary and postsecondary credits.

(4) An online college course, that:

- is taught:
  - by a faculty member of an eligible institution; and
  - as a regular course offering to postsecondary students attending the eligible institution in which a high school student enrolls and attends; and
- is approved by the high school that the high school student attends for secondary credit requirements. (IC 21-43-1-2.5 § 2017a)

Some Indiana high school students also have the opportunity to attend early college.

Indiana Code IC 21-43-1-2.7 (2017b) defined early college as

an academic program consisting of a series of dual credit courses or concurrent enrollment courses, or both, which allow high school students to earn both a high school diploma and: (1) an associate's degree that has been approved by the commission for

higher education; or (2) up to two (2) years of academic credit toward a baccalaureate degree. (IC 21-43-1-2.7 § 2017b)

The Indiana high school college and career readiness course titles and descriptions outlined the following college credit opportunities for Indiana high school students: dual credit was defined as a course where students earn both college and high school credit. AP courses are designed to be like college-level courses (IDOE, 2018b). These courses are governed by the College Board. International Baccalaureate courses “set the global standard for international education” (IDOE, 2018b, p. 30). They are interwoven into student curriculum over a number of years. Career and Technical Education (CTE) falls more in line with policy and procedures of dual credit, but offers a number of pathways through which students can obtain dual credit. Those pathways are CTE: Agriculture; CTE: Business, Marketing, and IT; CTE: Engineering/Technology; CTE: Family and Consumer Sciences; CTE: Health Science; CTE: Trade and Industry; and CTE: Work-Based Learning (IDOE, 2018b).

The Center of Excellence in Leadership of Learning (CELL) at the University of Indianapolis defined *early college* this way: “Early College High School blends high school and college in a rigorous yet supportive program, compressing the time it takes to complete a high school diploma and the first two years of college” (CELL, 2019, p. 3). CELL shared that dual credit is available to any qualifying student; however, early college specifically targets low-income and at-risk students. There is a blend of high school and college curricula that allows students to pursue a specific postsecondary degree or a set of general education core courses by targeting students early on in their high school career (CELL, 2019).

Students in Indiana high schools have multiple opportunities to earn college credit while enrolled in high school, but many do not take these opportunities. “Indiana law currently requires

each high school to offer a minimum of two dual credit courses” (IDOE, 2019c, p. 3). However, many high schools are able to meet the requirements for students to earn more credits via CTE, AP, and DC. Cassidy et al. (2011) reported that “the goals for enrolling students in these courses are to provide them with more rigorous curriculum and prepare them for college coursework and expectations” (p. 1). They went on to mention:

Although dual enrollment began as an option for academically advanced students, similar to AP and IB, it is now also seen as a mechanism to promote college access for a wider range of students. Some programs focus specifically on students traditionally underserved in college. (Cassidy et al., 2011, p. 1)

### **Indiana Accreditation Requirements for Dual Credit**

According to Indiana’s application for an extension to meet Higher Learning Commission dual credit faculty qualifications expectations (Indiana Commission for Higher Education, 2016a), Indiana universities and the Indiana Commission for Higher Education have agreed to have its dual credit faculty follow the Higher Learning Commission’s criteria for teacher dual credit credentialing. An extension approval letter from the Higher Learning Commission (Indiana Commission for Higher Education, 2016b) stated that any credentialed faculty member who was teaching dual credit under an agreement with the university had until September 1, 2022 to be in full compliance. On August 3, 2020, the Higher Learning Commission issued a one-year extension to this deadline “allowing faculty to have more time to earn the required credentials” (Indiana Commission for Higher Education, 2020, para 3).

Cassidy et al. (2011) stated that AP and IB courses adhere to a national curriculum. “The college-level courses are offered by the high school, where students take them with their peers. Students receive college credit by passing an end-of-course exam” (Cassidy et al., 2011, p. 1).



Dual credit courses, however, require a partnership with a postsecondary institution. According to the Higher Learning Commission's (2016) policy, there are guidelines that apply to all faculty members whose primary responsibility is teaching, including part-time, adjunct, dual credit, temporary and/or non-tenure-track faculty. The Higher Learning Commission (2016)

determined that accredited institutions awarding college credit by means of dual credit arrangements must assure that quality and integrity of such offerings and their comparability to the same college credit offered on the institution's main campus or at the institution's other locations. (p. 5)

The Higher Learning Commission (2016) outlined, "Qualified faculty members are identified primarily by credentials, but other factors, including but not limited to equivalent experience, may be considered by the institution in determining whether a faculty member is qualified" (p. 3). Postsecondary instructor credentials (effective September 1, 2017) are identified in a terminal degree program as same level of degree, while other faculty must be credentialed at least one level above what they are currently teaching. "Faculty teaching general education courses, or other non-occupational courses, [should] hold a master's degree or higher in the discipline subfield" (Higher Learning Commission, 2016, p. 3). Faculty members may hold a master's degree in a field other than what they are teaching provided they have also completed at least 18 graduate credit hours in the sub field or discipline in which they are currently teaching. Additionally, "instructors teaching in graduate programs should hold the terminal degree determined by the discipline and have a record of research, scholarship or achievement appropriate for the graduate program" (Higher Learning Commission, 2016, p. 3). The Higher Learning Commission went on to clarify that "if an instructor has not achieved 18 graduate credit hours in the discipline in which he or she teaches, the institution should be able to

explain and justify its decision to assign the individual to the courses taught” (p. 3).

When determining qualifications for secondary dual credit teachers, the Higher Learning Commission maintained the same criteria outlined for postsecondary institutions. The Higher Learning Commission (2016) did recognize “that many high school teachers possess tested experience beyond their years in the classroom that may account for content knowledge for the dual credit courses they may teach” (Higher Learning Commission, 2016, p. 5). These experiences could come in the form of professional development, being active in professional organizations, presentations, and publications relevant to the topic they teach, “However, evidence of students’ achievement, on its own, is not sufficient to demonstrate minimal qualifications” (Higher Learning Commission, 2016, p. 5).

Howley et al. (2013) analyzed interview transcripts and found that postsecondary and K–12 educators need to communicate together to break down the hierarchical relationships. This supports the idea of postsecondary faculty overseeing teacher credentials for dual credit; however, it does not address the unfunded mandates of university staff members working with K–12 teachers (Howley et al., 2013).

### **Benefits of Dual Credit**

The Indiana Commission for Higher Education (2012) stated, “Indiana college tuition and fees have outpaced Hoosier earnings growth more than 100 to 1 over the past decade” (p. 18). Dual credit courses present students with an opportunity to complete costly college courses for far cheaper (and sometimes free) prior to attending college.

There are cost benefits for families with children in dual credit programs. Palaich et al. (2007) outlined that early college high schools have ways of defraying costs so there is little or no cost to the family. The partner university and school district take on the costs of the two years

of college when these are integrated into the high school curriculum. The school district and state may receive additional appropriations through grant, federal, or state funding. This is not unlike funding formulas in Indiana where the school district and postsecondary institution receive funding for students enrolled in both institutions.

Hoffman (2008) outlined that “for many students, the first year of college begins before high school ends. This reality is requiring that educators rethink their traditional notions of the first year” (p. 15). The data point to barriers of poverty. When looking at low-income students who were in the eighth grade, Goldberger (as cited in Hoffman, 2008) found only 11% were projected to complete college by 2014. This was considerably lower than the 52% of their affluent peers (Hoffman, 2008). In Murray (2011), myth number five was that disadvantaged students suffered the most when participating in dual credit. However, to the contrary, Murray (2011) found that “greater rigor—pushing them more than they’ve been pushed before—actually benefits underrepresented students” (p. 9). Similarly, “only 21 percent of high school graduates from the lowest socioeconomic quintile are adequately prepared for college-level work compared to 54 percent of graduates from the middle and upper levels” (Goldberger as cited in Hoffman, 2008, p. 30). Goldberger went on to state, “The more prepared a student is for college, the more likely that student is to enroll” (as cited in Hoffman, 2008, p. 30).

Marx (2015) said that the “breadth, depth, and purposes of education will constantly be clarified to meet the needs of a fast-changing world” (p. 89). Two of his five purposes for education stand out in terms of preparing students for life after high school. Citizenship and employability prepare students for the future but are often held back by an outdated infrastructure. Dalton and St. John (2017) stated that “college access is declining, especially for low-income students” (p. 1). Further noted was evidence that “45.5 percent of low-income

students attended college, and 78.5 percent of high-income students attended college” (Dalton & St. John, 2017, p. 1). This 33% difference is called the opportunity gap, and as the importance of the high school diploma diminishes in society and the college degree becomes the new finish line, finding ways to close the opportunity gap becomes more important. The Indiana Commission for Higher Education (2012) reported that in 2018, 930,000 job vacancies existed. Approximately 506,000 of those vacancies required postsecondary credentials, and 328,000 were available for high school graduates. It was also reported that only 98,000 job vacancies were available for high school dropouts (Indiana Commission for Higher Education, 2012).

Schmoker (2018) stated that “a reasonably good K-12 education can provide virtually all students with what they need to be active, informed citizens, effective workers, and—if they choose—successful college students” (p. 24). The reality is that preparing students for college, citizenship, and careers overlap, and all students need this participation. By providing a literacy-rich curriculum, students will have common academic core and be prepared for college and workforce training (Schmoker, 2018).

There has been some concern that students enrolled in college credit classes in high school are not held to the same rigorous standards as those of their peers. In Murray (2011), myth number two outlined that “some believe that students who traditionally have excelled will wind up with a watered-down education” (p. 5). However, with the requirements of AP end-of-course assessments, students would not be prepared for the rigor and expectations of the AP exam (Murray, 2011). Hansen et al. (2015) pointed out that students who earned dual credit in writing classes in high school did not differ significantly from those who earned credit for first year writing in college. This mixed methods study noted in the quantitative data collected that there was not a significant difference between scores. Although there was not a statistical

difference, the study closed with information about student maturation. One student remarked in the qualitative focus group interview, “Even if I came here as a sophomore with all these credits, I’m still a freshman; I still don’t know what’s going on” (Hansen et al., 2015, pp. 79-80). The authors of this research indicated that although writing did not show a statistically significant difference, it does not mean that students are ready for college. They went on to disagree with the concept of earning college credit in high school in order to move faster through college so one could join the workforce sooner. The authors questioned if it was better to proceed through postsecondary education in a way that was appropriate to his or her social and cognitive development (Hansen et al., 2015). Additionally, Murray (2011) found that because students “were required to take college-prep course work from day one in high school, more students were ready for college-level classes during their sophomore, junior, and senior years” (p. 6).

However, Marzano (2007) shared that “a teacher’s beliefs about students’ chances of success in school influence the teacher’s actions with students, which in turn influence students’ achievement” (p. 162). The responsibility for rigor lies with the teacher. If the teacher believes the students can achieve high expectations, then they will hold their students to high expectations. One must also keep in mind that it is not a one-size-fits-all scenario. Marzano (2007) also commented that the teacher must “become aware of his or her differential expectations for students” (p. 167). Exceptional student learning does not happen by accident or with a common intense curriculum. Marzano and Pickering (2011) stated that “creating a classroom in which students are highly engaged doesn’t happen automatically. On a daily basis, teachers should consider specific engagement strategies to use prior to every unit of instruction” (Marzano & Pickering, 2011, p. 147). These strategies, including effective pacing, intensity and enthusiasm, verbal feedback, and positive teacher-student relations, help to build a quality,

rigorous, and effective teaching environment where students can learn (Marzano & Pickering, 2011). These types of environments are crucial to any classroom and can be accomplished by a devoted and passionate teacher—not just one who meets the desired credentials.

Baker et al. (2015) investigated the level of academic rigor from the college faculty perspective. The researchers looked at three different subgroups: faculty teaching onsite at the high school, faculty teaching high school students on the college campus, and faculty teaching community college students in general studies classes. “Based on the analysis of course syllabi and faculty interviews, dual enrollment general education courses were at least as rigorous if not more rigorous than general education courses taught to standard students on the community college campus” (Baker et al., 2015, p. 89).

Howley et al. (2013) conducted semi-structured interviews and determined that overall attitudes toward students earning college credit in high school were good because the college credit created additional opportunities for students. “The attitude most mentioned was that early college and dual enrollment programs were beneficial because they offered opportunities for college attendance to students who might otherwise not be able to attend” (Howley et al., 2013, p. 98). The study also pointed out that students may be missing out on everything high school has to offer because they are growing up too quickly. However, in this study, the students were graduating early and were not staying in high school to continue their studies in advanced math, science, and writing courses (Howley, et al., 2013).

There was some argument that more involvement of school administration at the high school level would help students be more successful with dual credit in high school. Malin and Hackman (2017) conducted semi-structured interview data to determine that high school “principals contributed significantly to their schools’ college-and-career readiness reforms and

programming” (p. 606). Empirical research supported the administration’s role in helping to create a shared vision with postsecondary schools, secondary teachers, students, and parents. The building leadership can help provide consistent guidance and connections among various stakeholders to keep students, teachers, and postsecondary schools on a consistent track for young people to follow. Malin and Hackman (2017) also stated, “It is important for the high school principal to foster distributed leadership in order to effectively develop and implement college-and-career pathways” (p. 623).

Edwards et al. (2011) studied eight secondary and postsecondary relationships. Through onsite visits and interviews, they presented different models for implementing dual credit programs and how state and local policies helped to shape them within the community contexts where they resided. One model outlined was the on-campus model. Students are transported to the university to engage in their dual credit class. The class is taught by university personnel. In this case, the school district transported the students to the site. The reports pointed out that “if the school controls the transportation to and from the college, the students will have to attend” (Edwards et al., 2011, p. 14). The drawback would be the sustainability over time of the continued cost of transportation.

Another model detailed by Edwards et al. (2011) was holding dual credit classes on a high school campus. Most of the sites involved in this study hosted their classes on high school sites. “Sixty-nine percent of dual enrollment students in 2009-2010 took college courses at their high school” (Edwards et al., 2011, p. 14). They further noted that holding classes on high school sites allowed for greater integration into high school courses and increased enrollment due to student anxiety of attending on college campus and helped make students more comfortable as they worked to improve the transition to college. Instructor pedagogy for dual enrollment should

be considered when having a high school teacher instruct a college dual credit class. “Ideally, dual enrollment instructors should deliver the same college-level content and assessments as they would in a regular college course, and in ways that engage and support high school students” (Edwards et al., 2011, p. 15).

In interviews conducted during site visits to participating universities, the James Irvine Foundation (as cited in Belfield et al., 2012) found schools were able to offer some insight on promising program strategies. The sites that were visited were very different from each other; however, the implementation strategies they utilized for dual credit classes were in line with each other. The following topics were presented in the qualitative part of the study: dual credit course location, time of day, pedagogy and course content, credit earning, and student mix (Belfield et al., 2012).

Belfield et al. (2012) analyzed the course location during site visits. It was stated that a course offered on a high school campus would have greater success than a course where students would have to travel to attend. The study also pointed out that “offering courses on the college campus can close access to students without transportation” (Belfield et al., 2012, p. 28). Similarly, the time of day the course is offered would be an important factor to high school student success in a college class. Pedagogy, course content, and credit earning together offered insight that the instructor in the classroom can influence the *college level* of the content being learned. This likewise applies to the credit being earned. There are some communication flaws in the system between postsecondary and secondary systems that could be improved in the transmitting of college credits between the two programs. Finally, student differentiation offers a unique dynamic to the dual credit push, as “career-technical education has been found to contribute to students’ likelihood of high school graduation” (Belfield et al., 2012, p. 29).



Indiana Commission for Higher Education's (2019) report concluded the following:

Students who earn dual credit tend to be more likely to persist toward a degree, take and earn more credits throughout their undergraduate career (especially at the subbaccalaurate level), and are more likely to graduate on-time [*sic*] or early. The amount of dual credits a student earns seems to have an effect on these outcomes, and as the more dual credits a student earns, the better they perform on these metrics. (p. 33)

The Indiana Commission for Higher Education (2012) stated that "only one in four college students in remediation today will graduate within six years" (p. 11). It went on to state "Traditional remedial education models do not accurately discern between students who require minimal strengthening of certain skills and those students with significant academic deficiencies who require more intensive intervention" (Indiana Commission for Higher Education, 2012, p. 11). There are ways to help battle this deficiency by helping guide students toward college and career readiness in high school through dual credit classes. Goeller (2018) stated,

By performing well in rigorous courses while still in high school, students build confidence to invest the same efforts in college. Also, taking a more demanding schedule in the senior year will help students establish the momentum needed to persist during college. (p. 27)

Similarly, Hebert (2001) stated that "dual enrollment is not intended to provide a college experience; it is intended to provide college-level content to academically prepared high school students" (p. 35).

When looking at the implications to colleges and universities, Kinnick (2012) reported: Directors of programs with the largest enrollments were more likely to agree that dual enrollment benefits the institution by enhancing student recruitment, that dual enrollment

is relatively easy to initiate, and that it is a practice associated with institutions considered aspirational peers by their home institution. (p. 40)

Kinnick (2012) went on to cite research sponsored by the U.S. Department of Education that “recommends expansion of dual enrollment programs so that all high school students can enter college having completed six college credits” (p. 43). This recommendation is based on student completion of 20 credits by the end of their first year of college as a good indicator of timely college graduation (Kinnick, 2012).

### **Drawbacks and Barriers to Student Dual Credit Completion**

The Higher Learning Commission (2013) noted the following drawbacks to dual credit: “not preparing students for the academic rigor of college, inadequate instructor qualifications, not providing an authentic college experience, and uncertainty of course transferability” (p. 2). However, although these are some drawbacks to dual credit, “In phone interviews and other discussions with senior staff from six regional accrediting agencies representing five of the six regions, the level of concern expressed about dual credit courses was modest” (Borden et al., 2013, p. viii). The authors also mentioned that,

Empirical studies of the education outcomes of dual credit have demonstrated more positive than negative findings, including: improved high school grades and completion rates; increased college-going rates; improved transitions to college (academic, social and psychological preparation); higher college enrollment, grades and persistence rates; and lower costs. (Borden et al., 2013, p. 6)

In Pisarik et al.’s (2017) qualitative study, the pressures on students, to select a career early on in college, were very high. One of the seven participants in the study stated, “You ask a few freshmen in college what they want to do the rest of their life, and last year they had to raise

their hand to ask to go to the bathroom” (Pisarik et al., 2017, p. 344). This brought up a concern that students may be rushed into growing up and making adult decisions too early. The idea of having a head start down an undecided path can be very scary for young people. Pisarik et al. (2017) pointed out that if you came into college with a lot of AP and dual credits, then your time to decide was cut down tremendously. Although this can lead to some anxiety, it can also be offset with career guidance. For some students, a lack of career guidance before college and a lack of career guidance during college resulted in the potential for career anxiety (Pisarik et al., 2017). Pisarik et al. (2017) also stated that through guidance counseling, the anxieties of career decisions can be significantly reduced by efforts to “conceptualize anxiety and provide interventions for managing it” (p. 349).

Baker et al. (2015) shared, “Faculty perceived that students in dual enrollment courses did not behave like college students and were less mature than their older, standard community college students” (p. 90). This could mean a level a support is needed to help younger students be successful. Baker et al. (2015) further indicated:

Examples of support services that could be provided to students include a specialized orientation program, academic advising, career counseling, and possibly tutoring. In addition to satisfying accrediting agency requirements, specialized orientations, advising, career counseling, and tutoring designed to meet the unique needs of dual enrolled students can help ensure their academic success in dual enrollment course and as they transition to college. (p. 91)

Additional wrap-around services, in order to help dual credit programs succeed, can be problematic. Tobolowsky and Allen (2016) shared, “Enhanced comprehensive programs were created with extensive and individualized support. The programmatic needs of these models

require long term financial support to ensure their sustainability” (p. 69). Ensuring student success with additional support would be a cost to universities and high schools.

Karp (2012) concluded, “It is important to remember that college readiness entails more than academic skill” (p. 26). In the case of dual enrollment taking place in high schools, some students did not make the connection that dual enrollment is different than high school. Karp (2012) reported, “Moving dual enrollment to the college campus or at least expecting students to spend significant time on a campus, is likely to increase the program’s impact on college readiness” (p. 27). This seemingly simple solution adds a layer of challenges for high school students when the dual enrollment classes are not held in their home school.

Some challenges exist with how prepared high school counselors are in advising students for college. Duroske (2019) asked high school counselors how prepared they felt they were in advising students about transferability of dual enrollment credits. “Only 41 percent of public school counselor respondents said they felt ‘very prepared,’ despite how prevalent these programs are in public schools” (Duroske, 2019, p. 57). Hanson et al. (2015) suggested “monthly partnership meetings with the high school counselors and principals for program administration and planning of future course offerings and professional development” (p. 80). Both studies indicated the need for professional development for counselors and principals. Hanson et al. (2015) found that high school counselors and principals preferred to meet in person rather than through web meetings. This requires coordination of schedules for university and secondary professionals to meet.

### **Summary**

Dual credit has many benefits that include increased academic rigor in high school, cost savings for college tuition, easing the transition to college, and promoting a relationship between

high school and college instructors. When reviewing all of the opportunities for students to earn college dual credit in Indiana, there are currently many great opportunities through AP, IB, CTE, and dual credit programs. This literature review found that those students, who complete dual credit in high school, were more likely to complete postsecondary education paths. But despite the student's eligibility or ability, there are several paths for teacher qualification with very demanding requirements for teachers to be dual credit certified. Although there were some instances where students felt dual credit did not help them prepare for the rigors and challenges of college life, literature and study findings pointed out that there are more positive than negative findings.

## CHAPTER 3

### METHODOLOGY

The purpose of this qualitative case study was to identify and understand existing barriers for Indiana high school leaders to be able to offer students dual credit opportunities. I utilized purposeful sampling to conduct formal semi-structured interviews with six Indiana high school dual credit administrators, counselors, or teachers. Merriam (2009) stated, “Purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain the most insight and therefore must select a sample from which the most can be learned” (p. 77).

In the proceeding sections of this chapter, I detail steps on how I focused on three rural and three urban high schools that were experiencing low, medium, and high levels of successfully offering dual credit. Site visits were made to gather data and get unique perspectives from school leaders whose schools had high dual credit offerings and schools that had lower dual credit offerings. Existing data composed of curriculum guides were reviewed, and state data indicating special education percentage, demographics of the student population, free and reduced lunch, percent of the school’s population that passed dual credit classes, and the school accountability grade were collected. These variables were not analyzed, but rather collected to offer a rich description of the school from a statewide perspective.

### **Design of Research**

“Qualitative research begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem” (Creswell, 2013, p. 44). The qualitative case study approach allowed me to delve into the successes and challenges of rural and urban high school leaders who were able to offer dual credit to students. Creswell (2013) stated,

A hallmark of a good qualitative case study is that it presents an in depth understanding of the case. In order to accomplish this, the research collects many forms of qualitative data, ranging from interviews to observations, to documents, to audiovisual materials (p. 98).

Flyvbjerg (2001) shared, “The ‘generalizability’ of case studies can be increased by strategic selection of critical cases” (p. 77). In this case, a complete random sampling of schools was not the best strategy. “This is because the typical or average case is often not the richest in information” (Flyvbjerg, 2001, p. 78). A purposeful sample allowed me to interview cases that yielded the most accurate data. This allowed me to “clarify the deeper causes behind a given problem and its consequences [rather] than to describe the symptoms of the problem and how frequently they occur” (Flyvbjerg, 2001, p. 78). Likewise, it also allowed me to “establish a rationale for [my] purposeful sampling strategy for selecting the case and for gathering information about the case” (Creswell, 2013, p. 102).

A comprehensive collection of data from multiple sources helped develop a case description and overall understanding of each case. I analyzed the themes to focus on a few key issues to gain a deeper understanding of the complexity of each case (Creswell, 2013).

## **Theoretical Orientation**

This qualitative study focused on a social constructivist worldview by studying a “complexity of views rather than narrowing meanings into a few categories or ideas” (Creswell, 2009, p. 8). A broader conceptual perspective of what barriers exist for the average Indiana student to obtain dual credit in high school can facilitate conversations about solutions to these barriers. Creswell (2009) stated, “Meanings are constructed by human beings as they engage with the world they are interpreting” (p. 8). By engaging in open dialog with administrative individuals, who are involved with dual credit in high schools, I was able to engage with participants with experiences in their world.

The setting of this study was the state of Indiana’s secondary school dual credit offerings. There is a push locally and nationally to offer more dual credit offerings in high schools. Cassidy et al. (2011) reported that “accelerated learning opportunities are becoming increasingly common strategies to promote high school graduation and encourage college enrollment” (p. 1). The IDOE’s (2019c) report stated that “Indiana law currently requires each Indiana high school to offer a minimum of two dual credit courses” (p. 3). This setting created a dynamic of unfunded mandates with multiple levels of red tape through which schools must navigate.

## **Research Questions**

The goal of this study was to answer one grand tour question—What barriers exist for Indiana high school students regarding dual credit availability? Three sub-questions supported this grand tour question and are as follows:

1. What is the role of policy-based barriers for dual credit availability?
2. What is the role of teacher credentialing to offer dual credit opportunities?



3. How do school mission and vision support dual credit availability for high school students?

### **Data Collection Procedures**

My role as the researcher was to gather the data presented from each of the semi-structured interviews and analyze this data for my final report. The IDOE (2018a) website provided data from school accountability report cards that rated dual credit completion as part of the school's accountability calculation. I rank ordered the schools' dual credit completion according to its calculation in the accountability grade and divided all of Indiana's high schools into three equal categories: low dual credit participation, medium dual credit participation, and high dual credit participation. I also consulted experts from the IDOE to ensure this was the best way to collect this data. Once this list was finalized, I assigned each school a number within each category and used a random integer generator at [www.random.org](http://www.random.org) to select one urban and one rural school from each category. By selecting one rural and one urban school from the low dual credit participation level, one rural and one urban school from the medium dual credit participation level, and one rural and one urban school from the high dual credit participation level, this study obtained unique perspectives from schools that had high dual credit offerings and schools that had lower dual credit offerings. This was intended to target schools based on how many dual credit classes they offered and what made it successful or limited it to offer more classes based on policy rather than based on student demographical subgroups. In addition, with the selection of rural and urban schools, a rich representation of a wide variety of student demographics was present.

Once the list of possible schools was compiled, the district superintendent was first contacted to obtain permission to conduct research within their school district (Appendix A). In

an effort to establish trustworthiness, this contact was a personal contact, not a general mailing. Once permission was obtained, I then contacted the principal of the sample school to obtain permission and make arrangements for a visit (Appendix B). Again, I made a personal contact to help build a rapport with the principal and identify the best person(s) to help me conduct my research. Depending on the size of the school, this person could be the principal, assistant principal, lead guidance counselor, or a dual credit teacher. Following approval from the building principal, I asked permission to send an invitation to all dual credit staff members to participate in focus groups (Appendix C). Given the preliminary research design, it was believed school personnel, such as a high school principal, would have the base knowledge to discuss barriers to the school being able to offer dual credit coursework. The school counselor was also included in this population as a consideration, because some schools may delegate the dual credit responsibilities to them. In order to help maintain data accuracy, the school principal helped narrow down the best dual credit personnel to invite to participate based on their involvement in dual credit offerings within their building. In addition to having a meeting with the principal or school counselor, gathering data from a focus group of teachers on the frontline of dual credit was important. In order to keep participants from feeling coerced by their supervisor, the invitation email (Appendix D) explained that participation in this study was voluntary and confidential. The school leader provided me a secure space where I could conduct my interview at a time convenient for the focus group, and the interview protocol was consistent for all interviews. Subjects responded directly to me via private email to accept the invitation to participate. The building principal did not know who agreed to participate and who did not agree to participate. Following an email communication from the principal to let staff know I had followed protocol to be allowed to conduct research in their building, dual credit staff members

self-selected to participate and emailed me to agree. I then followed up with each participant directly with informed consent and meeting logistics.

Each communication and interview was kept confidential. All email correspondence was done through a password-protected email (@sycamore.indstate.edu). The interviewees had the opportunity to meet with me prior to the interview to ask any questions and receive copies of my project description and approval letter from the Institutional Research Board (IRB). At the meeting, they had the opportunity to sign the informed consent prior to conducting the interview (Appendix E).

This semi-structured interview consisted of nine interview questions. The interview question protocol (Appendix F) was audio recorded and transcribed for line-by-line coding. The line-by-line coding produced a list of raw codes that were analyzed and grouped into thematic elements. The thematic elements were labeled into overarching themes to be presented as data in the final study. During the interview, participants were asked to provide documents that students used to determine any dual credit courses they wanted to take (Curriculum Guide, Program of Study, etc.). These documents were reviewed, not as a variable of the study, but to provide a clear description of participating schools' dual credit communication to students.

Finally, descriptive data for each school were collected from the IDOE website. This data included demographic data for the student population, enrollment, percent of the population that were economically disadvantaged, in special education, or composed of English language learners, the percent of the population that passed dual credit classes, and the school's earned accountability grade. This data were not examined as a variable in the study, but rather used to aid in a rich description of the participating schools. In addition, a review of each school's mission and vision statement helped indicate the core value and beliefs for helping to prepare

students for life after high school. These foundational statements showed the leadership that was “used to guide decision making and planning, while defining and providing purpose for the daily performance of every employee in the school district” (Adamson & Balch, 2018, p. 89).

### **Trustworthiness**

Creswell (2013) offered eight strategies to support trustworthiness in a qualitative study. One trustworthiness strategy I utilized was triangulation of data. “Triangulation is a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study” (Creswell & Miller, 2000, p. 126). To ensure validity and reliability, multiple steps were implemented. There were data collected from the IDOE to develop a rich description of the schools participating in the study. This data, outlined above, included student demographic data, school dual credit data, and mission and vision statements will provide clarity to the image of each participating site.

Detailed transcriptions of robust interviews allowed me to use line-by-line coding to search for key overarching themes. A semi-structured interview took place to help keep the conversation on topic and allowed for follow-up questions in order to obtain a deeper data collection. I also incorporated member checking, a reliability strategy to help verify the themes derived from the data to ensure they captured the intent of their interview statements. This not only helped ensure the participants shared the information they wanted to share, but also ensured I did not misinterpret what the participants said. “When qualitative researchers locate evidence to document a code or theme in different sources of data, they are triangulating information and providing validity to their findings” (Creswell, 2013. p. 251). This was one of the key concepts of interviewing dual credit personnel at multiple levels within a school. I interviewed school leaders of various school sizes. Larger schools were likely to have more individuals familiar with

dual credit policy within the building. Therefore, the building principal may not be the best source of information. To allow for this, the design of this study allowed for triangulation of data to occur through confidential interviews with those closest to dual credit policy, including the principal, assistant principal, school counselor, or dual credit teachers, to get multiple perspectives. This provided valuable data about how employees working at different levels within the schools were involved with dual credit policy and their different roles.

### **Limitations**

One possible limitation could be school personnel's reluctance to share information. In recent years, the field of education has been presented with a competitive culture from state leaders. This may be an effort to encourage competition between schools and school districts to produce student results. However, this non-collegial culture can present a reluctance for school leaders and teachers to share information or best practices among their peers. This was addressed in my initial contact with the school administrator to establish a level of trust. A personal contact and conversation was necessary to explain the purpose of this study and alleviate any anxiety about sharing information with an "outside" person. I was able to ensure confidentiality and establish a personal connection that set the stage for the interview. In this initial contact, I provided all of the written information that would be presented in a "cold mailing," but with this process, I had the advantage of a personal connection. This also contributed to the trustworthiness of this project. By creating a personal connection and level of trust with the participants before I met them, they were more at ease in the interview and less likely to have their guard up. This maintained credible data that were dependable for this study.

Another possible limitation was simple scheduling conflicts when meeting with the study participants. Being an educator myself, times in my schedule that were naturally available for me

to leave my job to interview participants (fall break, spring break), could also be times that the participants were not at work. This was addressed by working my schedule around the participants' schedules. The biggest inconveniences to my schedule was leaving the office and drive time.

### **Role of the Researcher**

As a curriculum coordinator of assessment, math, and science, there is an aspect of bias due to my experience in dual credit certification for teachers of math and science. However, my role as a researcher was to gather the data presented from each of the interviews and analyze the data for my final report. I executed line-by-line coding of the interview transcripts to find the emergent themes. Even though I am familiar with the topic because of the research I have done, line-by-line coding can point to a theme of which I may not be fully aware. I remained unbiased in my interviews and refrained from leading my participants toward answers by only asking open-ended questions to garner more discussion. Follow up questions were probing and open ended to limit any kind of leading on my part. This helped keep the data trustworthy. My role was weighted toward taking an observer role rather than the participant role.

### **Pilot Study**

To determine appropriate personnel to interview for my sample, I conducted an informal pilot study with district-level colleagues. The intent was to gather information to prepare the interview protocol questions, not to collect any kind of data related to this study. For this pilot study, I interviewed three Indiana central office curriculum administrators to gain an idea of how dual credit was offered within their school districts and how it worked in each of their subject areas. The interviews lasted 35–55 minutes each. Follow up and clarifying questions were asked of each participant. The clarifying questions that were asked were unique to each participant as

they were asked based on specific moments in the conversation. Given the feedback I received from my preliminary pilot fieldwork analysis, I believed school personnel, such as a high school principal, had the base knowledge to discuss barriers to the school being able to offer dual credit coursework. The school counselor was also included in this population as a consideration. These school-level staff members had the base knowledge of dual credit regardless of the size of the corporation. This was to help maintain data accuracy. Some schools may delegate the dual credit decisions to the lead counselor. The school principal helped determine this decision during the invitation to participate based on his or her personal confidence and involvement in dual credit offerings within their building.

### **Summary**

The purpose of this qualitative case study was to identify and understand existing barriers to students obtaining dual credit in high school throughout Indiana. The IDOE (2018a) website provided data from school accountability report cards that rated dual credit completion as part of the school's accountability calculation. The target sample was one rural and one urban school from the low dual credit participation level, one rural and one urban school from the medium dual credit participation level, and one rural and one urban school from the high dual credit participation level. This study was able to get unique perspectives from schools that had high dual credit offerings and schools that had lower dual credit offerings. This case study focused on identifying themes between each of the sample schools in Indiana school districts. A semi-structured interview with principals or their dual credit staff was analyzed and thematic elements were labeled into overarching themes to be presented as data in the final study. Limitations included scheduling conflicts with the schools and a general reluctance for educators to share information. This was offset by making personal contacts with the educators and creating rapport

with them. Additionally, the line-by-line coding that was completed on the interview protocols aided in keeping my personal bias in check. This line-by-line coding was coupled with pre-existing research in the literature review to develop a conclusion.



## CHAPTER 4

### RESULTS

This study set out to answer one grand tour question—What barriers exist for Indiana high school students regarding dual credit availability? Three sub-questions supported this grand tour question and looked to further define the role of policy-based barriers for dual credit availability, the role that teacher credentialing plays for schools to offer more opportunities, and how school mission and vision support dual credit availability for high school students. This study contributes new knowledge about the real barriers that affect schools in Indiana in trying to offer dual credit. Also, the study offers in-depth criteria composed of multiple measures represented by quantitative data.

This chapter describes the primary themes and subthemes that surfaced from the on-site interviews at six Indiana high schools. Primary themes included the following: (a) dual credit credentialing for high school teachers is problematic for schools, (b) other forms of dual credit such as AP and CTE are easier and more flexible for schools to offer, and (c) dual credit requirements create several barriers for schools in offering more opportunities for students.

The primary theme of dual credit credentialing for high school teachers is problematic for schools included the following subthemes: (a) school scheduling is challenging when only credentialed teachers can teach dual credit classes and (b) finding teachers qualified to teach dual credit is increasingly hard. The primary theme of other forms of dual credit such as AP and CTE

are easier and more flexible for schools to offer presented the following subthemes: (a) with the AP test being another conduit for offering students college credit, teacher credentialing is removed from the equation and (b) CTE offers dual credit based on credentials that include work experience, not a master's degree. The primary theme of dual credit requirements creates several barriers for schools in offering more opportunities for students included the following subthemes: (a) the teaching pipeline was not prepared for dual credit requirements, and (b) universities and K–12 schools have worked together to do the best they can. The primary themes and subthemes are summarized in Table 1. A summary of how primary and subthemes found in this study apply to the grand tour research question and sub questions is outlined in Table 1. Sub-question 3 is outlined within each school's description in the following sections.

Table 1

*Summary of Themes, Subthemes, and Research Questions Represented*

| Themes  | Subthemes   | Research Question Represented |
|---|---|-------------------------------|
| Dual credit credentialing for high school teachers is problematic for schools | School scheduling is challenging when only credentialed teachers can teach dual credit classes  | GTQ, SQ1, SQ2                 |
|   | Finding teachers qualified to teach dual credit is increasingly hard                            | GTQ, SQ2                      |
| AP and CTE offer schools dual credit flexibility                              | AP test awards dual credit credential   | SQ1                           |
|   | CTE offers dual credit based on credentials that include work experience, not a master's degree | SQ1, SQ2                      |
| Dual credit requirements creates several barriers for schools                 | The teaching pipeline was not prepared for dual credit requirements                             | GTQ, SQ1, SQ2                 |
|   | Universities and K–12 schools work together to best serve dual credit students                  | GTQ, SQ3                      |

Six Indiana high schools voluntarily participated in the data collection interviews and are listed in Table 2. There was a balanced representation of one rural and one urban school from three different levels of schools which had students who completed dual credit according to IDOE accountability and dual credit data. The interviews were semi-structured with an interview protocol that was provided to participants in advance. The IDOE served as a resource for access to school dual credit accountability data and contact information for Indiana school corporation superintendents and high school principals. Using the dual credit accountability data, Indiana

high schools were rank ordered from low-to-high in terms of dual credit accountability measures. From there they were divided into three equal categories labeled low, medium, and high and separated into rural and urban schools. Using a random integer generator ([www.random.org](http://www.random.org)), one urban and one rural high school from each category was selected. Superintendents of each high school's district were the first points of contact I made to obtain permission to conduct the study. A transcript conversation took place to introduce them to the study (Appendix B). Following the superintendent's permission, a phone contact was made with the building principal, again, using a transcript conversation (Appendix C). Once the Principal agreed to participate, and a date that worked best for the school leader's schedule was decided upon, an email was sent for each leader to forward to all dual credit staff (Appendix D). Staff members involved with dual credit in the building, along with the building principal, were able to self-select by communicating directly with me to schedule a time to meet on the agreed upon day. I was able to meet with a total of 15 dual credit professionals, including teachers, guidance counselors, assistant principals, and principals, for a total of nine interviews. Participants were given the opportunity to self-select their pseudonyms, and pseudonyms were assigned to schools.

To help ensure trustworthiness with each interview, I also incorporated member checking, a reliability strategy to help verify the themes derived from the data to ensure they captured the intent of their interview statements. A semi-structured interview with an interview protocol (Appendix F) was used to help keep the conversation on topic and allowed for follow-up questions to allow for deeper data collection. I also incorporated member checking, a reliability strategy to help verify the themes derived from the data to ensure that I captured the intent of their interview statements.

Table 2

*Summary of Participants and High Schools*

| Participant   | Dual Credit Role  | High School                   | Dual Credit Rating<br>(High, Medium,<br>Low) | School<br>Setting |
|---|---|-------------------------------|--|-------------------|
| Kyle Murphy,<br>Phyllis Brown                         | Principal<br>School Counselor                           | Alpha Bravo<br>High School    | Low  | Rural             |
| Piper Turner  | Principal   | Delta High<br>School          | Medium                                       | Rural             |
| Elanor Smith,<br>Barbara LeClerq,<br>Miranda Manning  | English Teacher,<br>CTE Teacher,<br>Mathematics Teacher | Delta High<br>School          | Medium                                       | Rural             |
| Patton Dillon<br>Carla Newton                         | Principal,<br>School Counselor                          | Juliet High<br>School         | High   | Rural             |
| Patrick Sparks<br>Adam Price<br>Catherine<br>Michaels | Principal,<br>Assistant Principal,<br>School Counselor  | Oscar Romeo<br>High School    | Low  | Urban             |
| Timothy Taylor  | CTE Teacher   | Charlie Victor<br>High School | Medium                                       | Urban             |
| Phillip Mann  | Principal   | Charlie Victor<br>High School | Medium                                       | Urban             |
| Presley Samuels                                       | Assistant Principal                                     | Mike Zulu<br>High School      | High   | Urban             |
| Peter Marks   | Principal   | Mike Zulu<br>High School      | High   | Urban             |

### **Alpha Bravo High School**

Alpha Bravo High School (pseudonym) was randomly selected from the low dual credit rating list. Kyle Murphy (pseudonym) was the principal of Alpha Bravo High School. Joining us in the conversation was school counselor, Phyllis Brown (pseudonym). The two made up the dual credit administrative team at Alpha Bravo High School. Alpha Bravo High School served fewer than 300 students with dual credit programs in CTE, AP, and dual credit agreements with Ivy Tech Community College and Vincennes University. The CTE programs were offered through a multi-school cooperative program with some in-house classes.

The mission of Alpha Bravo High School was to meet educational needs of students and help them accomplish goals that were transferable. Demographics of the student population included: 0.7% Black/African American, 39.4% Hispanic, 5.6% Multiracial, and 54.3% White. Economically disadvantaged students made up 68.8% of the student population. Special education students made up 9.7% of the student population, English language learners made up 21.9% of the student population, and 45.8% of the school's population passed dual credit classes. The school earned a B for its accountability grade in 2019.

The dual credit program at Alpha Bravo High School centered on programs offered in-house. There was not a CTE career center nearby. Ms. Brown shared, "We also have CTE classes, where the credentialing is a lot easier." Locally, Alpha Bravo High School was able to offer an agriculture pathway that could lead to dual credit for students. Ms. Brown also stated, "We have a co-op with neighboring schools. Students may have to drive 15 or 20 miles in order to take automotive or welding, but it is an option."

When discussing staffing for AP and dual credit classes, Alpha Bravo High School shared the struggles of a small rural school. Mr. Murphy stated,

It's hard to get teachers in a school as rural as ours. One of your questions later asks if we consider credentialing when hiring. We're just happy to have an applicant. This past summer, I spent several hours searching and recruiting for two positions. After an exhaustive search, I was thrilled to have one math teacher apply that was licensed appropriately.

When discussing staffing for the AP mathematics class, Ms. Brown offered her unique answer, "because Brian (pseudonym) was willing to do it." She went on to share that since they only had a few teachers to choose from, the teacher that was most excited about the program got to teach it. With further inquiry about hiring teachers with dual credit credentialing, Mr. Murphy shared,

The number of applicants I get, I don't have the luxury to pick and choose based on credentials. In the one and one-half years I have been here, I have hired eight English teachers for four positions. Only one of them has been here the entire time. It's a struggle to keep them here, let alone find teachers with credentials.

When discussing barriers to be able to offer more dual credit, Alpha Bravo High School is only able to offer dual credit one period per day due to scheduling. However, Ms. Brown shared, "With Vincennes University online, I can offer those classes all day, every day, in any period." This helped them solve the problem of staffing, but there was an incurred cost. Further discussion about barrier brought up university placement testing. Ms. Brown stated:

Another barrier is the need to take Accuplacer to qualify for dual credit at ITCC. I have a pre-calculus class where every student in the class is getting dual credit but one. That one student is carrying a B or better in the class. They are capable of the work, but they don't test well and therefore, can't get dual credit with ITCC. I wish there was a way to allow

dual credit based on recommendation of the teacher and/or counselor. With CTE they don't always require Accuplacer for the placement test.

In terms of the requirement of dual credit credentials for teachers, Ms. Brown stated, "take away the credential requirement." It is restrictive to the school in being able to offer more dual credit opportunities.

Alpha Bravo High School continues to work with university partners to try to offer as much dual credit classes as it can. By offering courses through Vincennes University online, there is additional scheduling flexibility. When looking at ways to expand dual credit within the school, Ms. Brown stated,

Ivy Tech has been wonderful and very easy to work with. VU is online; I've talked to them a few times to get set up. But Ivy Tech in Metro City (pseudonym) nearby is very easy to work with. They usually get back to me within hours when I have a question...I am constantly working with ITCC to see if there are areas we can offer more. We are currently looking to get U.S. history expanded to dual credit.

To summarize Alpha Bravo High School's interview, dual credit credentialing was not a consideration when hiring staff because they were just happy to get an applicant. Finding credentialed staff would be even harder. Other forms of dual credit such as AP classes were easier to offer because teachers just needed to be excited or willing to do it. Alpha Bravo High School and post-secondary institutions work hard to create as many opportunities for students by offering dual enrollment classes online and just plain working together and communicating opportunities for expansion.



### **Delta High School**

Delta High School (pseudonym) was randomly selected from the medium dual credit rating list. Piper Turner (pseudonym) was the principal of Delta High School. Ms. Turner was very knowledgeable of the dual credit programs available to her students and was obviously very involved in its development at the school. I also interviewed a small focus group of teachers who taught dual credit in the building. Elanor Smith (pseudonym) held a master's degree in English composition and taught dual credit English classes. Barbara LeClerq was a CTE business teacher with a master's degree in business education and taught dual credit classes, such as accounting, digital applications, and business management. Miranda Manning (pseudonym) was a math teacher who did not have a master's degree and was currently offering dual credit on the Commission for Higher Education's dual credit credential waiver. She taught dual credit classes in pre-calculus and trigonometry. Documentation provided by the school included a curriculum guide for students which outlined course offerings and communicated information classes that were dual credit eligible and the university the dual credit agreement associated with that class. Delta High School served fewer than 300 students with dual credit programs in CTE, AP, online courses through Ball State University, dual enrollment on the campus of IU East, and dual credit agreements with Ivy Tech Community College and Vincennes University. The CTE programs were offered through a career center as well as some in-house classes.

The mission and vision of Delta High School was to provide opportunities needed to meet the challenges of the world with 21st century skills. Demographics of the student population were 0.7% Black/African American, 3% Hawaiian or Pacific Islander, 1.0% Hispanic, 1.7% Multiracial, and 95.9% White. Economically disadvantaged students made up 55.3% of the students' population. Special education made up 15.1% of the student population,

English language learners made up 0.3% of the student population, and 74.7% of the school's population passed dual credit classes. The school earned an A for its accountability grade in 2019.

Delta High School worked through several credentialing challenges to be able to offer dual credit to their students. Ms. Smith and Ms. LeClerq both had master's degrees in their content areas, so dual credit credentialing was not an issue. Ms. Manning shared her credentialing situation as follows:

I have none. I only have my bachelor's and Ivy Tech told me I had two years of grace period to start my master's and I don't plan on doing that. It's financially not a good place for me to be. My school here will not offer me any money, a raise or stipend or money to get my master's. So the state will start checking sometime between now and fall 2022, and if I don't have my master's, we will lose the program. We don't know when it's going to happen, but I'm hoping if I start the year teaching dual-credit, they will let me finish the year and not have these kids not have a place to go. So, I am not credentialed.

Ms. LeClerq stated that CTE credentialing offered more flexibility. She shared, "I'm obviously more a CTE teacher so we are a little bit more fortunate than we are with math. I do have my master's, I could be credentialed without my master's, but I do have it." Following a probing question, Ms. Smith shared the following concerns and her personal experience about dual credit credentialing:

I get the whole credentialing. I think that totally makes sense. Except, it's almost over the top with it. Almost borderline insulting for some because you know we all have education degrees. I know my colleague, right before she retired, she taught for over 20

years, and they changed the credentialing. She had to prove herself, and she had been teaching the dual credit forever. It's like she suddenly had to prove herself; she had to turn in a master's degree and transcripts and so on, and she was retirement age and been teaching forever. I understand there needs to be some guidelines for it, but maybe the state needs to make it easier for people to get credentialed. Maybe even workshops or something like that . . . I think there needs to be some way for these young people to get credentialed or get their master's. Make it easier for them to be able to do that both financially and time wise. I know that process, when I got my master's I had three little kids. It was tough and financially tough.

Ms. Turner shared that when offered dual credit in world history, "You have to remember we are tiny. I have two high school social studies teachers . . . We have a teacher who was really excited about it and interested in it so he took that one." The school has also been able to get creative with their offering of AP courses utilizing licensed teachers from both the middle school and the high school. Ms. Turner stated,

I just got the three math teachers together, and I said what I needed covered, who wants what, and he said 'I think I could take that on' and then Allen Frampton (pseudonym), who actually is our middle school math teacher, we freed him up a period and he teaches the calculus, he's probably the most math-minded intelligent person I've ever met, and that makes sense to him . . . so that is kind of how it was done.

When discussing how Delta High School worked to expand dual credit, Ms. Turner shared the following information:

I think just looking outside our school. You know we are limited with what we can offer because of our size, so looking at offering lots of opportunities with kids. We are right

now working on partnering with Purdue Polytechnic to see if we can open up some more opportunities because in our area; Purdue Polytechnic, IU East, and Ivy Tech share a campus, so when one hears what the other one's doing that might potentially bring more kids into their program after they graduate high school. The other one says, yes, we want to do that. So right now, we are in talks with Purdue Polytechnic.

Further inquiry found that there were some scheduling barriers due to the travel necessary to attend classes on IU East campus. Ms. Turner stated,

The one barrier with going to IU East is you have to leave 10 minutes at the end of one class and get back 10 minutes later so they miss 10 minutes of a class. Which, you would think, is not that big of a deal in a 90-minute block, but sometimes that last 10 minutes can be really important. So, we are trying to work with teachers to figure out the best solution for that. So those are our biggest issues with scheduling and just our size we're just so small that you can't take everything.

Delta High School worked through the dual credit requirements, but there were some inconsistencies between subjects and partner universities. Ms. Manning stated, when working with one university partner,

Brenda (pseudonym) is very knowledgeable. Not much with high school guidelines, but of the college guidelines. The C-, they have to have a C-. Or we have to take a test called Accuplacer to get the kids the dual credit. When that window closes, I have to test twice because I'm a two-semester course, so I have a lot more going on than these two ladies with the testing. But, Brenda has been a great help.

Delta High School continued to work with university partners to try to offer as much dual credit. When looking at ways to expand dual credit within the school, Ms. Turner stated,

We worked with IU East and they gave us a course selection for our kids, and if you will watch, there is a bus coming and going from our building all day driving kids over to IU East. They actually take college courses on the college campus with other college kids, and we receive dual credits for those. We also have a group of students, who go over to Ivy Tech every afternoon to earn their Certified Medical Assistant certification. So, they are getting dual-credit high school credit for medical terminology, anatomy, things like that . . . But, earning their CMA through Ivy Tech. So, we try not to let the teacher credentials here in the building stifle us because we're working with lots of community partners to get our kids out.

Ms. Turner is very connected to her university partners. As a principal she was in regular communication with various colleges. Ms. Turner offered the following examples of her personal efforts to talk to university partners to expand dual credit:

So, with Ball State, they send us the course guide, and we advertise that to the kids and families, and then kids can sign up for that so there's not much beyond that. If I have a problem, I know who I need to contact. They send us the grades at the end of the semester. I put them in the transcripts. It's pretty simple. I don't have any interaction with the professors that work with the kids. For Ivy Tech, our girls go in the afternoon for their CMA, I have great communication with their instructor. She not only sends me grades; she'll send me emails checking up on the kids or things that they are doing next so I can talk to the kids about them and get them excited about them. She communicates well with the families. Then, IU East . . . that has been a fantastic partnership. The teachers have been really great about communicating with us. Jaxon Miller (pseudonym), who's the person in charge of helping us get the scheduling in, and the chancellor will even

communicate with us frequently. I actually have a meeting over there this afternoon. We check in often about how it's going, what can we be doing better, are kids doing what they need them to do, getting kids involved in the second semester of the senior year, trying to get them involved in social things that go on at IU East because they want to lure them into going their next year . . . Anytime I have an issue, I know I can contact the professor directly or contact Mr. Miller and he can take care of me. So I think that has been one of the hardest things for the professors at IU East. They are used to dealing with kids that advocate for themselves.

Ms. LeClerq shared ways that she, as a teacher, has worked to help the school expand dual credit through working with university partners. She stated,

I wanted the accounting here, I worked, I looked, and I researched. I tried to find a place where we could get the accounting over to dual credit, so I found it. I made sure, I wanted it to happen. But only accountants can get credentialed through Ivy Tech for dual credit, so Vincennes was an easier path for us.

Further discussion into barriers for students taking dual credit found the Accuplacer test was listed as a concern. Ms. Manning shared, "I've got kids who can pass the Accuplacer with scores of 100 to 120 . . . The testing requirement is getting it done in time or taking class time out. The scores are suspicious sometimes." Additional inquiry discovered that other universities do not require a test like Accuplacer. This inconsistency between university requirements causes some difficulty to the school.

Further inquiry centered on how dual credit could be done better as a system. Ms. Turner shared communication with students is key. She said,

creating this pathway for kids and making it really clear from their eighth grade year and on that if they're thinking of 'I want to go in the business pathways and I want to focus on accounting,' then we know these are the classes you need to take in this order. So if you know that and we are intentional about it, we have these 12 kids going in that pathway scheduling, you can figure something out scheduling-wise for them. And, we have not been very intentional for them in the past.

Further inquiry offered ideas such as summer school and partnerships with community business to expand opportunities for students.

Delta High School's participants' interviews indicated dual credit credentialing was problematic when Ms. Manning shared that she was not able to afford to get credentialed and when the waiver period was up, she was not sure what the school would be able to do. Other forms of dual credit such as AP classes were easier to offer by reaching out to math staff at the adjoining middle school to teach a period of AP math. Ms. Turner stated that by working with post-secondary institutions that shared the same campus, she was able help her students get the most dual credit they could.

### **Juliet High School**

Juliet High School (pseudonym) was randomly selected from the high dual credit rating list. Patton Dillon (pseudonym) was the principal of Juliet High School (pseudonym). Joining in the conversation was Carla Newton (pseudonym), the school's counselor. The two made up the dual credit administrative team at Juliet High School. Documentation provided by the school included a curriculum guide for students which outlined course offerings and communicated information about classes that were dual credit eligible and the university the dual credit agreement associated with that class. Juliet High School served fewer than 350 students with

dual credit programs in CTE, AP, dual credit agreements with Ivy Tech Community College, Indiana University, and Vincennes University, and a dual enrollment agreement with Ivy Tech State College. The CTE programs are offered through a multi-school cooperative program with some in-house classes.

The mission of Juliet High School was to provide students with an education to help them become contributing members of society. Documentation provided by the school included a curriculum guide for students. This guide outlined course offerings and included information on which classes were dual credit eligible and what university was associated with the dual credit agreement. Demographics of the student population were 0.6% Asian, 0.9% Hispanic, 2.3% Multiracial, and 95.9% White. Economically disadvantaged students made up 41.2% of the student population. Special education made up 18.4% of the student population, there were no English language learners, and 78.5% of the school's population passed dual credit classes. The school earned an A for its accountability grade in 2019.

Juliet High School was a small school and struggled to staff teachers in dual credit classrooms. When looking at available teachers for teaching dual credit, Mr. Dillon shared, Historically it went to the tenured teachers; the ones with the most experience ended up having the upper level classes. We have a very young staff here, and so now the qualifications shifted to who's qualified . . . We lost our dual-credit chemistry teacher and she was an awesome teacher. But now we have a young teacher in the building we're hoping will take advantage of the IU ACP accelerated program where they can get their master's degree for free and be credentialed to teach dual-credit as long as you agree to three years with IU classes. So, I'm trying to push this young teacher to do that so we can



get the chemistry dual-credit portion back. It's definitely shifting from tenured to who's got the master's degree.

With further inquiry about looking for teachers that were already credentialed, Mr. Dillon shared,

We got lucky and found us a math teacher this year that has a master's degree already in math and is qualified . . . She was able to negotiate her salary because she had that credentialing that she knew we needed.

Additional inquiries about barriers for schools to offer dual credit were shared. When asked about barriers to offer more dual credit, Mr. Dillon stated, "Number one is the credentialing." Further inquiry discussed a regional-type person to be able to offer the credentialing while the teacher would be able to follow the guidelines of dual credit.

When it came to requirements for Juliet High School's teacher to teach AP classes, Mr. Dillon shared,

There really isn't anything written as far as AP. We make sure that our best teachers are teaching AP but with our limited scheduling abilities . . . if we don't get the teachers with the credentialing they have to have by having their master's degree in their subject area. We're probably going to, in some cases, only be offering AP, because it's going to be the only chance for kids to have a chance at earning college credits in that subject area.

Juliet High School leadership shared some of the troubles with getting teachers to get their dual credit certifications. Mr. Dillon stated,

She's also to the point where she may have 10 years teaching left. 'I already have a master's degree so what's my motivation to go back and get another one within 10 years? I'll never recover the cost.' Our English dual-credit teacher falls in that category as well, same scenario, already has a master's degree, not interested in going back, and we don't

offer any incentives for teachers to go back and get credentialed. Dual credit or AP, there's no stipends involved or anything. So therefore, if they've already got their master's degree, going to get another one, there is no incentive to them other than they get to keep teaching the dual-credit classes.

Juliet High School worked with three universities in order to offer dual credit. Mr. Dillon shared some information about working with multiple universities,

So, we love our relationship with Ivy Tech. In a perfect world, we would be solely Ivy Tech. This ACP program at IU that's offering master's degrees for free, for the teachers it's great. It is an incentive for some of our teachers because they're offering it for free. But by the requirement of us to offer that IU dual-credit course for three years, they charge our students \$75 apiece. That's how they recoup the funding for the master's degree, so I understand why they do it but it's a tax on our kids. If it's an Ivy Tech course, it's free.

Ms. Newton continued the conversation and shared information about working with colleges from her perspective as a counselor,

Ivy Tech, they have representatives here all the time. That's why I feel like they're just part of our school. Even our kids know them by name. We don't have that face for IU or Vincennes. They do at the career center but not here necessarily.

Further inquiry about communication with university representatives took place. Ms. Newton also shared, "The reason why I enjoy the Ivy Tech so much is I guess the proximity but it's just a good relationship. I speak to one of the representatives on the phone often; it's just a lot better communication."

When discussing barriers for students to take dual credit courses, Mr. Dillon shared that cost was a barrier for students. He stated,

Cost. We pay for our dual enrollment that leaves campus, the total fee for class is approximately \$450. We pay for half of it; the school pays for \$200, and the students are responsible for the other \$250. Even then, though, we still have barriers as far as kids being able to afford the tuition and books.

Additionally, student transportation was shared as a barrier for off-campus classes. Ms. Newton stated, "I'd say transportation is becoming more and more a problem. Kids just don't drive as early as they used to. They don't have vehicles."

Communication was discussed among stakeholders as further inquiry delved into how dual credit could be done better. Mr. Dillon shared,

I don't think parents understand why some courses are no longer offered, the older brother got the credit, younger one can't, and they just think we're not doing a good job. That we're offering their kids less and don't understand the credentialing from higher learning.

To summarize Juliet High School's interview, dual credit credentialing was a factor when determining a teacher's schedule. In one case, they were able to hire a teacher by allowing her to negotiate her salary, based on her dual credit credentialing. However, with AP classes, they did not have to worry about credentialing. In some cases, they were looking to expand their AP offering because it was the only way to get dual credit in those subject areas. When looking at barriers for schools to offer more dual credit, there was a concern on the cost for taking classes. However, the school and the universities did work together to communicate dual credit offerings to parents.

### **Oscar Romeo High School**

Oscar Romeo High School (pseudonym) was randomly selected from the low dual credit rating list. Patrick Sparks (pseudonym) was the principal of Oscar Romeo High School (pseudonym). Joining in the conversation were Adam Price (pseudonym), assistant principal, and Catherine Michaels, (pseudonym) the lead school counselor. The three made up the dual credit administrative team. Documentation provided by the school included a curriculum guide for students which outlined course offerings and communicated information on classes that were dual credit eligible. Oscar Romeo High School had a population of over 2,250 students with dual credit programs in CTE, AP, and dual credit agreements with Ivy Tech Community College, Indiana University, and Purdue University. The CTE programs were offered in-house rather than at a career center, and they considered themselves a comprehensive high school.

The mission and vision of Oscar Romeo High School was to do whatever it took for every child, inspired students and provided an environment for students to reach their highest potential from a global perspective. Demographics of the student population were 0.8% Asian, 66.2% Black/African American, 18.3% Hispanic, 4.9% Multiracial, and 9.6% White. Economically disadvantaged students made up 61.2% of the population. Special education made up 13.9% of the student population, English language learners made up 1.8% of the student population, and 32.1% of the school's population passed dual credit classes. The school earned a B for its accountability grade in 2019.

The dual credit program at Oscar Romeo High School consisted of AP courses. Dual credit agreements with Ivy Tech Community College were mostly in CTE areas. Mr. Sparks shared, "We have a career consortium inside of our school, which is CTE. We offer many dual credit courses with CTE . . .fire rescue, radio and TV, construction." Ms. Michaels stated, "We

also offer dual credit with a couple of the honors or AP level courses. Physics, chemistry, U.S. history, Spanish, and pre-calculus.” Mr. Sparks added:

Traditionally, those would be the dual credit classes that most places offer. If you take a look, you’re going to find that we’re much more unique because of the CTE component, and that we have pulled out of a career center and started our own and have over 32 teachers that are CTE certified.

This described more of a comprehensive high school model when looking at CTE and dual credit programming. With further inquiry, Mr. Sparks stated,

So, the definition of a comprehensive high school, you walked into one. We have . . . five family and consumer science teachers. But then, who has a full-time fire rescue? Who has full time criminal justice . . . you know, we have guys teaching full sections of that.

Mr. Sparks further shared how the school had worked to expand its CTE programs for a number of reasons. The main reason is simple, “Graduation pathways came up” she stated. It was also a revenue source for the district, “Last year’s CTE was over 4,000 credits” for the school. With further inquiry, Mr. Sparks shared some of the struggles with expanding their CTE dual credit programming:

We kind of stumbled out of the gate because we’re expecting teachers to pay for their own certification and take what they needed to teach the class to make us more money.

Until we fell on our head and so we woke up and said we’ll pay for you to go down and get certified.

In further discussion, Mr. Sparks shared one of the challenges in offering dual credit was finding people. Mr. Sparks went on to say,

You still have to run a school. Finding class sizes that still meet a specification. The latest barriers would be you get the upper level classes, and you have three or four kids in the class, it's hard to justify having a teacher.

Mr. Sparks also talked about how they looked for teachers by first looking at the courses from the IDOE that were a good fit for the school. He shared,

Well, when we are looking to hire new people, we're looking for the list that's on the IDOE website for these certain classes. So, if we had an opening for any of our CTE courses in particular, we'd be looking for all of those things that are on the website: master's in the content area, certifications, most importantly, how many hours in the field if they're going for a workplace specialist license.

When looking at teacher qualifications for teaching AP versus dual credit, Ms. Michaels shared,

As far as we know, the teachers for Advance Placement, the teachers aren't required to have a master's, where dual credit most of our teachers have that. Not in CTE area, but in the higher-level academic ones. With AP, they have to follow curriculum, they are required to go to different AP conferences, seminars, workshops, that kind of thing to fulfill, you know, their knowledge of it. Like I said, with dual credit, it's a little different. It's hard to make a blanket statement. Because, like, with honors pre-cal, chemistry, physics, they all had to have a master's, they all had to go through training through their perspective colleges, IU, Purdue. In a sense . . . like be certified through them to be able to teach the content.

With further discussion, we delved into the placement of teachers to teach dual credit classes.

Ms. Michaels shared,

The department chairs help and assist me on who's going to teach what because I can't possibly know who's certified in what. But then there's also the key ones, especially the CTE. Those ones I'm getting to know a bit better so we know, like, teacher A will always teach health science. Or teacher B will always teach . . . because they're the ones licensed in the certification.

Mr. Price offered the following examples of her personal efforts to talk to university partners to expand dual credit:

Our relationship with, I can speak to the CTE side, is really good with Ivy Tech. Anytime we need them, they're right here. Literally, they'll come right down the road here and help us with Accuplacer testing. Or help train teachers doing rosters, to get kids registered. The last couple of years, they've been very, very helpful and everything we've done here with dual credit.

The interview ended with conversation about how dual credit can be done better. Some of the ideas discussed were the use of the Accuplacer test. Ms. Michaels shared, "It's hard for them to take it serious, to understand sometimes they have the perception too that it's Ivy Tech, so I don't need to really try." Mr. Sparks discussed that communication among stakeholders was vitally important. He summed up his thoughts by saying,

Knowing who the stake holders are. Getting everyone on the same page. Having a great guidance department that has a vision on how to bring kids in. How to meet with them. How to recruit, having a staff that's willing to see the importance in that. Recruiting a staff that's good at it.

Oscar Romeo High School was a comprehensive high school with a large CTE program offered onsite. As they had worked in recent years to expand their CTE programming, one area

they struggled was with credentialing teachers to teach dual credit. When hiring teachers, they took a deep look at credentialing. It was also noted that AP classes did not require any form of credentialing. Oscar Romeo worked closely with post-secondary area colleges to meet requirements for dual credit classes, such as Accuplacer testing. In the end, it boiled down to communication and getting everyone on the same page.

### **Charlie Victor High School**

Charlie Victor High School (pseudonym) was randomly selected from the medium dual credit rating list. Philip Mann (pseudonym) was the principal of Charlie Victor High School. I also interviewed Timothy Taylor (pseudonym), computer teacher, in a separate interview. Charlie Victor High School had a unique approach to dual credit by focusing more of their classes on an AP model. Both participants were knowledgeable about dual credit policy and procedures within their building. Timothy Taylor was unique in that he taught both an AP class and was in the process of expanding into a dual credit class in the same subject matter. Documentation provided by the school included a curriculum guide for students which outlined course offerings and communicated information on classes that were dual credit eligible. Charlie Victor High School served over 530 students with dual credit programs in CTE, AP, and dual credit agreements with Ivy Tech Community College and Indiana University. Much of their CTE programs were offered at an off-site career center.

The mission of Charlie Victor High School was to inspire students and prepare them for responsibilities of today and possibilities of the future. Demographics of the student population were 6.1% Asian, 23.9% Black/African American, 16.5% Hispanic, 5.0% Multiracial, and 48.2% White. Economically disadvantaged students made up 57.3% of the student population. Special education made up 12.4% of the student population, English language learners made up 14.7%



of the student population, and 46.2% of the school's population passed dual credit classes. The school earned an A for its accountability grade in 2019.

Inquiry about the forms of dual credit offered at Charlie Victor High School brought up a model that was not experienced at the other sites. Charlie Victor High School centered most of their dual credit around an AP model. Mr. Mann shared,

The nice thing about Advanced Placement is there is no prerequisite for teacher credentialing. So, it offers us a lot more flexibility in terms of who can teach those classes. Obviously, we want master teachers in every classroom but especially in our AP. So, the only thing that we do require for our teachers is that they . . . go through the summer institute trainings.

Mr. Taylor discussed his experiences as a classroom teacher. Mr. Taylor taught both AP and dual credit. Inquiry into the difference between his certifications, Mr. Taylor shared,

For AP, I went to a weeklong workshop a couple of years ago . . . A local company that works with promoting computer science education paid for me to go to this workshop. Then they provided four or five Saturday workshops as follow-ups and that was just to get me ready to teach the principles class. It wasn't a required thing, I just chose to do it. I did it so my kids would have a better chance to be ready, so I was more familiar with the curriculum. To teach the AP Computer Science A, there aren't really any requirements for me, I know the school will want me to go to an AP summer institute. For the ACP at IU, I will have to submit a syllabus to show how my regular class would be different from a college level class. Then, they have to accept me into the program, and then I have to take classes through IU so I can get 18 credit hours to meet the higher education requirement.

With Charlie Victor High School's unique approach to AP courses being the primary dual credit offering, there was flexibility to which teachers teach taught an AP class. Mr. Mann stated,

Basically, I choose who teaches what and it is strictly based on, obviously licensure areas, but then teacher strength and weaknesses. So, going with an old adage, not only do you need the right people on the bus, you need the right people in the right seats . . .

There are two big guidelines I try to go by. I try to keep my teachers with no more than two preps and then I also try to make sure that we are maximizing everybody's strengths as a teacher. So, whoever can teach or classes whether it be our higher-level classes or our lower level classes the best is who we put in those places.

Mr. Taylor shared, from his perspective as a teacher, how he was chosen to teach AP and dual credit at Charlie Victor High School. He stated,

I think, they knew that previous school I had started computer science there, and they were looking to start computer science here. That's what they wanted. So I think those things were a big part of why I was selected for this position. So, they knew I had experience teaching computer science and starting a program and I had a pretty well-defined plan.

Further inquiry into how Charlie Victor High School scheduled dual credit courses, Mr. Mann shared the following:

Well, because of the limited offerings of dual credit, we purposefully set up our curriculum, our course offerings, so our AP programs and our dual credit programs don't compete. I have found . . . if a student has a choice of dual credit or AP, most students will go the easiest route, which is the dual credit. So, we purposefully set up our

programs, so those two things don't compete. So, in the areas where we offer AP, you will not find dual credit. We have used dual credit then to extend our AP program into those areas that don't have AP. For instance, Tech Ed, obviously with the engineering courses and with the advanced manufacturing, those are two things that are obviously courses that we feel prepare kids for their next level after high school regardless of whether they are going into engineering or advanced manufacturing. The skills that they are developing in those classes carry over into many different areas. So, we have obviously pushed hard in getting our dual credit in those areas. The Spanish worked out well because we could tag dual credit to those levels that come before the AP and then we are currently in the process trying to offer dual credit in our computer science which is currently AP. So, it will be the outlier of the one program that we have both AP and dual credit in one. There is a reason for that, the biggest reason is for students to get tech honors diplomas. They have to have six credit hours. We are taking a little bit of a different approach to the pathways in terms of trying to create pathways for our students in areas that again don't pigeon hole them into a career, but, give them skills that will help them regardless of what career they go into.

Charlie Victor High School also had dual credit options for students who are not on an AP track. Mr. Mann shared these CTE options from a local career center, Area 31,

We have Area 31; we send probably somewhere of 30–35 students a year. So that is an option, especially for mainly the students that go there are students that are wanting to go right into the workforce after high school or they are wanting that associate degree to get them into their field faster. Cosmetology is very popular; the auto programs are very popular over there, and then we have had a few kids that have done the radio and TV

because that is what they wanted to study in college so it was a nice addition for them. It does give us another avenue for expanding our offerings for our students.

Charlie Victor High School experienced barriers in offering dual credit courses as an option for students. Mr. Mann stated,

The biggest barrier on dual credit is the credentialing required for teachers. Even now that we are in the waiver period, with that deadline looming, there's no sense in starting a program with a teacher that's not going to meet those future credential requirements with no guarantee that they'll ever get them. So, that is obviously one hurdle. Especially when you look at the AP side where it requires no special credentialing. The other side of that obviously is the level of rigor in AP . . . that exam that holds everyone accountable.

Holds teachers accountable to the rigor, holds students accountable to the rigor, and you have good data on whether . . . students are actually learning at the level they need to learn on in those courses. The one downside to dual credit, unless it's a dual credit class that the college requires the kid to take the college level exam, is there's really no safeguards in place to ensure the rigor in the course actually meets college level rigor.

And that is not a bash on dual credit. I'm a big fan of dual credit. It's just if we can choose one or the other then we're going to go with AP over dual credit. However, in those areas we talked about where we can't get AP we want our kids to get as many college credits as possible. So, we are trying to make sure that, or try to at least tie as many of our non-AP areas to dual credit as we can. Hence, why we are trying to get that into our computer science even though we do have AP computer science. It's why we have it in our Tech Ed with our engineering and advanced manufacturing, but we have

AP everywhere else. So, there isn't a single area in our curriculum that doesn't have one or the other.

Mr. Taylor also offered perspective, as a teacher, on barriers he had experienced offering dual credit. Mr. Taylor stated,

So, here there is not really any interest in the dual credit with university partners, so some of those opportunities have been pushed back. Now, administrators are looking at the new graduation requirements and seeing the need to have dual credit classes to get technical honors. That's why they are looking at me to say, hey, can you get ACP through IU, are you interested, so that's been the only barrier. They saw several years ago there was a lack of rigor in the university partners program that they were using before. So, they went away from it.

Inquiry into how dual credit could be better, Mr. Mann's shared his personal perspective experience with staffing, based on AP and dual credit,

From my philosophy, I don't think the teacher credentialing is necessary, the reason being is, in the trenches you learn very quickly the degrees that a teacher holds has way less impact on their effectiveness than other things, their passion, their desire, their drive, their philosophy towards education, their ability to build relationships, all of those things . . . you are dictating who can teach classes based on credentials, not level of competency or skill. Secondly, which I understand the end goal, the end goal of that is to try and ensure rigor in their course work. I think a model more like AP, meaning whatever final exams or major assessment that a student will be expected to take in this course if they were on a college campus, should be the same assessments that they are required to be able to pass if they are in the dual credit class. To me that maintains and ensures rigor

way better than the teacher credentialing and it removes the barrier of only having certain teachers that can teach the class.

Inquiry into how Charlie Victor High School worked to break down barriers brought an interesting incentive-based model. Students and teachers were offered incentive for every student who passed their AP tests with a score of three or better. Mr. Taylor shared,

Encouragement for the students to take the class was that, through the grant, they would offer \$100 to any student who passed. Also, they offer a \$100 to the teacher for every student who passes. There is an incentive for the teachers to make sure the kids are getting ready for the exam and an incentive for the students to do the work they need to do so they can get that incentive too. So, there is that incentive and AP classes here are weighted so they count as a five instead of four in their GPA. Dual credit classes through university partners are not weighted. Those are the incentives here and there is still emphasis on class rank, so like I said the kids worry about that weighted grade.

Even with the AP culture that Charlie Victor High School had created, there was still significant communication with post-secondary. Mr. Mann stated,

Right now, we work with Ivy Tech which is extremely easy to work with. They are great. They make the process easy and they are very responsive when we have issues. We are currently trying to work through IU. We are still early in the process so not sure yet how well that will go. But again, this is just personal philosophy the only hesitancy . . . like working with Ivy Tech for instance . . . even their dual credit sometimes doesn't transfer to other institutions.

The interview ended with conversation about how dual credit can be done better. Some of the ideas discussed were the use of more online options for students. Mr. Mann stated,

I wondered if it would be possible to offer more online options. So that, let's say I as the classroom teacher could be a facilitator in my classroom with students, while a university professor, or someone is actually the one who is developing the content and if that means I have to go to a workshop during the summer that I'm prepared. I know there are online communities that can be formed to support the teachers so we can say post questions.

Hey this is where I am and my kids are having trouble with this, what are you guys doing and just have support that way.

To summarize Charlie Victor High School's interview, there was a great appreciation that AP did not require credentialing to teach it. This offered the school greater flexibility in scheduling teachers and within each department. However, for dual credit, teachers were selected based on their dual credit credentialing and not necessarily who was best for the role. Mr. Mann pointed out that dual credit credentialing requirements was the biggest barrier for them to offer more courses. This was one reason why Charlie Victor had put such an emphasis on AP classes. Mr. Mann would like to see more of an AP model when considering dual credit in the future. By having a test be responsible for issuing credit, the best teacher could be the instructor, not just the one who had a master's degree. Charlie Victor High School leadership had been able to work with post-secondary to make as much dual credit available as possible under current policy was not a consideration when hiring staff because they were just happy to get an applicant. Finding credentialed staff would be even harder. Other forms of dual credit, such as AP classes, were easier to offer because teachers just needed to be excited or willing to do it. Alpha Bravo High School and post-secondary institutions worked hard to create as many opportunities for students by offering dual enrollment classes online and just plain working together and communicating opportunities for expansion.

### **Mike Zulu High School**

Mike Zulu High School (pseudonym) was randomly selected from the high dual credit rating list. Peter Marks (pseudonym) was the principal of Mike Zulu High School. I also interviewed Presley Samuels (pseudonym). Ms. Samuels was the assistant principal of curriculum. The two were very involved in the dual credit decisions of the building and were very knowledgeable about dual credit policy and procedures within their building.

Documentation provided by the school leaders included a curriculum guide for students which outlined course offerings and communicated information on classes that were dual credit eligible and the university the dual credit agreement associated with that class. Uniquely, the curriculum guide also offered a cost estimate for the course. Although some courses, such as dual enrollment, would not qualify for the \$25 per credit hour state limit for dual credit. Mike Zulu High School served over 1,330 students with dual credit programs in CTE, AP, dual enrollment with Indiana University, and dual credit agreements with Ivy Tech Community College, Indiana University, and Vincennes University. There were CTE programs offered in-house as well as a career center.

The mission and vision of Mike Zulu High School was to inspire students and prepare them for making contributions to society while being a leading school community in the state of Indiana. Demographics of the student population were 0.8% Asian, 0.5% Black/African American, 2.2% Hispanic, 3.3% Multiracial, 0.4% Native American, and 92.6% White. Economically disadvantaged students made up 33.7% of the student population. Special education made up 9.4% of the student population, English language learners made up 0.6% of the student population, and 67.5% of the school's population passed dual credit classes. The school earned a B for its accountability grade in 2019.



Inquiry into how Mike Zulu High School scheduled and organized their dual credit courses was studied. Mr. Marks shared,

So, the easiest way to get a teacher to be able to teach dual credit right now is more of our CTE programs, where they just need their, basically teachers' licenses, in that area. For example, our AG classes, construction trades, those are much easier. There is no additional qualifications really needed in order for them to be a teacher. With AP, we are committed to making sure our teachers that are going to teach AP classes are able to go to AP summer institutes . . . the AP ones don't have to have that training but for success we know that's their best interest to do that . . . the hardest teacher qualification for dual credit is the new requirement in the 18 graduate hours in content and a master's degree or a master's degree in content area. We do have a gentleman who has a master's degree in journalism, so he's able to do a little bit of that at dual credit. We have a lot of others that are not that way. We have been able to get teachers into partnerships with IU to get training to get that dual credit credentialing, to get those required hours. We have had an English teacher there; we have a math teacher currently involved. So, looking at those opportunities I'm really worried that once we get to the point where you can't . . . where we can't continue to train people. I'm really worried about our availability to continue to offer . . . dual credit classes. Right now, we have only one teacher who has those credentials in math. If she leaves us, we have another one going through the process, so IU will take her. I don't know if Ivy Tech will accept her to teach the Ivy Tech dual classes because she doesn't meet that requirement. IU accepts her because she's in their program training her. We have an English teacher and if she leaves, we have one other English teacher, and I would have to pull him out of . . . he also does our radio/TV

program, so I would have to pull him out of radio/TV to teach the English courses. He is the only one that has that English credentialing. I'm concerned that if certain people leave in the next couple of years what impact that's going to have. Right now, we're in good shape, I have a social studies teacher that's going to retire in the next few years that teaches dual credit history and dual credit government. Right now, I don't have anybody who could replace her that can teach those dual credit classes. So, what is going to happen to those dual credit classes. An easy fix would be to switch them to AP but that's not necessarily best for our kids.

Similarly, Ms. Samuels shared points about dual credit and AP teacher scheduling as follows:

As long as they are licensed teachers on their end of the requirements, they don't have to necessarily have a master's to be able to teach Advanced Placement classes, as they have to be at least working toward for the dual credit. IU has come up with a nice program to help in that regard. One of our teachers is taking advantage of that but the Advanced Placement we send our teachers to, basically College Board hosts some workshops regarding the AP classes we offer.

Inquiry into how Mike Zulu High School selected who was going to teach certain subjects, Ms. Samuels stated,

So, we have to abide by the credentialing in regard to dual credit. With AP, since we are able to determine their training and provide that for them, then we look at basically their teaching performance over time. We look at their teacher licensure, for instance, the teacher who teaches AP chemistry also teaches a regular chemistry because that's her licensure. To make those decisions outside of the core it's a little bit more open, for

instance, our engineering teacher went through the [Project Lead the Way] training and so he teaches those courses and inherently been there.

With further inquiry about hiring teachers already with dual credit credentials, Ms. Samuels stated,

It's not the only factor but it's a factor. I know we had a science opening this year and that teacher has actually taught AP before so we looked at that and looked at coursework if that's available, but it's balanced with a number of other considerations.

Mr. Marks echoed those sentiments and also offered his perspective on how they placed teachers in dual credit and AP courses. He shared,

One of the things, especially with dual credit, we have to look at their credentialing. Do they have those hours, do they not have those hours, are they willing to do the work to get those hours? We don't pay for that advanced course work. Right now, we do not have the incentive for the teachers to do that. With the dual credit, we can say 'hey you get to teach these dual credit classes.' That's our incentive. Smaller class sizes because there are some limits that the university has set on us of how many kids can be in a dual credit class as part of our agreement. So, it might be a little bit smaller class size in some ways some of those difficulties. Then with AP we look at teacher interest and the quality of instruction. We want to make sure that the teacher that is teaching is capable of teaching that class and will do a good job teaching that. We don't want to kill an AP class because the teacher's not very good. We want to make sure the teacher is a good teacher, that they have expertise and are willing . . . to teach AP environmental science. We had a turnover in that program you are going to need to go to the AP summer institute. So, their

willingness to do the extra training, their ability to teach, and their content knowledge is kind of a combination.

Ms. Samuels shared her perspective on how teacher credentialing created some barriers for Mike Zulu High School with placement, scheduling, and student interest. She stated,

The credentialing piece is tricky; for instance, there is only one math teacher, there is a time of day with her schedule . . . We try to balance out the math schedule overall . . .

The other piece I would say, would be student interest. It's hard to justify a . . . for five kids . . . Especially at one point we had introduced AP statistics instead of a dual credit.

The first year that a teacher teaches anything they are getting used to it. The word of mouth is everything with high schoolers, you know, 'that course is great you should take it' or 'I really didn't like it; I thought it was going to be easier' or whatever it is they may say. Depending on how it initially gets rolled out impacts whether there's additional student interest in the following years. We had a tough time offering that as AP and that's why we are going to attempt to do the dual credit instead and see if that works out better since we can at least start with a smaller group and hopefully grow it.

When working to break down barriers to dual credit, Mike Zulu High School leaders worked diligently with university representatives to make sure they were offering all that they

could. Mr. Marks had a very positive outlook on how they handled barriers. He stated,

I don't know that we necessarily have barriers, because I feel like we have had some challenges on some things that we had to address . . . We have had to convince people the benefits of dual credits as far as our kids and our parents. We've had to work with our staff to educate them. I would say a lot of these challenges have been just educating on the benefits of these programs. On how we can make it work and I have not run into any

barrier, where it's been a barrier that has stopped us. But, there have been challenges that we've had to address together to try and figure out how we can make it work here in our school.

Mr. Marks also shared his personal experience with working with post-secondary to expand dual credit programming at Mike Zulu High School. He said,

Over the years we have had numerous discussions with Ivy Tech. We have an Ivy Tech campus right here in town, which has been really good. We have talked with their campus administrator. I probably have met with him twice this semester at least where we have specific discussions around this area. Talking about how we can expand, what we can do, what are you offering, what are we looking at, and I would say this has really intensified over the past few years with us. I would say before it was once a semester. Before that, we would talk with Ivy Tech, now we talk with them quite regularly. IU, which we have some classes through, but probably not as many as Ivy Tech, we have had discussions when we have gone to their counselor/administrative day. What can we possibly offer, some of that kind of stuff, we have had some general conversations but not near the conversations we've had with Ivy Tech. A lot of that has to do with the fact they are right here in town.

Ms. Samuels also shared a very similar experience in dealing with post-secondary institutions. She stated,

We go to a big IU ACP meeting annually, and we communicate probably more regularly electronically with those people . . . also look at things again to see if there's anything we need to expand. Similarly, Ivy Tech, we basically have a liaison assigned to our area of the state. She comes here to meet with us, and she meets with the teachers but then she

provides us with any updates in a crosswalk. Then, again, we look at things to see if there's anything we can expand. Fortunately for us we have an Ivy Tech here in town so their director is very interested in partnering with us. We are able to get in touch with him if we have any questions and if he sees anything that is beneficial, he is happy to contact us.

Further inquiry into how Mike Zulu High School worked with post-secondary, Ms. Samuels shared her challenges with working with multiple universities and their various entrance requirements. She stated,

One thing that is tricky, for instance is, specifically with Ivy Tech, is they don't use an SAT or ACT necessarily, like IU would for instance. But they use Accuplacer. So we have so many tests going on already that it is kind of tough for us to pull those kids from class and to find time to proctor that because you have to go through training and whatnot. So they are going to come here in the spring and proctor that for us. That's one hurdle they are helping us to jump over.

The interview ended with conversation about how dual credit could be done better. Mr. Marks stated,

I think the biggest challenge is that there are so many different universities with all of their own expectations, with all of their own wishes and desires, that there is not an alignment at the post-secondary level, so that makes it challenging at our level. My daughter, for instance, is attending a private university in northern Indiana. Of course, then they accepted all of her credits; however, she still had to do their English and social studies courses as a freshman. She has to do some of that for their requirements, and I'm fine with their requirements . . . but when each university has their own thing it makes it

hard when I'm talking with a sophomore or a freshman and they're not sure where they want to go at all . . . so, I think that is one thing we don't do well. I think a second thing in this is because the game changed, two or three years ago whenever the credentialing changed, we are not prepared. Our teaching pipeline is not prepared for this. Also just in general our teaching pipeline is a drip, not a flow, and it's making it harder and harder to find qualified teachers to teach period much less to have the advanced credentials necessary and the teaching skill necessary to successfully teach college level coursework to high school students.

Ms. Samuels had a keen perspective as well. She shared, "I would say any way to streamline registration with kiddos is beneficial just on the kids' end. That can be a hiccup and can cause frustration for them." This began a theme of the need for good communication. She noticed that changes in the process were even difficult for her to follow, and she stated,

I'm thinking, if I'm a parent, how much greater is that level of confusion going to be. I think that sometimes just all the different options parents don't necessarily always understand why we have to offer AP versus dual credit one or the other. So, trying to help them understand those intricacies and what that means to their kid and inform, I mean, we can't over communicate. So anyway, to streamline that would be beneficial because I feel like they don't really understand it until they've had their first kid go through it.

Then, another kid comes along and it's like, oh well, now we know this. We think we're communicating, but maybe we can do it better.

Mike Zulu High School participants shared that one of the easiest ways to get dual credit offered in their building was through CTE teacher credentialing. Although they offered their AP teachers training at the summer institutes, it was acknowledged that they did not need any kind

of formal degree to teach AP. When hiring teachers, dual credit credentialing was not the only factor, but it was a factor they looked for in candidates. Mr. Marks shared that there was not adequate incentive for teachers to get the dual credit credentialing required. However, with AP teachers, they could look at teacher excitement and interest, which was helpful in making sure the teacher does a good job. Dual credit credentialing did cause challenges for scheduling, and communication to families can be tough. Post-secondary conversations had a very positive tone, as local universities worked diligently with Mike Zulu High School to offer as many dual credit programs that they could.

### **Summary**

Fifteen education professionals represented their high schools as participants in nine interviews. A wide range of professionals were represented with six principals, two assistant principals, three school counselors, and four dual credit teachers. Three primary themes were identified, as well as six subthemes, each was tracked back to either the research grand tour question or sub-questions.



## CHAPTER 5

### SUMMARY OF FINDINGS, IMPLICATIONS, AND RECOMMENDATIONS

This qualitative case study identified existing barriers for Indiana high school leaders to be able to offer students greater opportunities to obtaining dual credit. I studied six Indiana high schools chosen from the IDOE accountability report card rating dual credit completion. All Indiana high schools were rank ordered by dual credit completion according to each school's calculation in its accountability grade and divided into three equal categories: low dual credit participation, medium dual credit participation, and high dual credit participation. Next, I assigned schools a number within each category and used a random integer generator ([www.random.org](http://www.random.org)) to select one urban and one rural school from each category. By selecting one rural and one urban school from the low dual credit participation level, one rural and one urban school from the medium dual credit participation level, and one rural and one urban school from the high dual credit participation level, I was able to get unique yet realistic perspectives from school systems that had high dual credit offerings and school systems that had lower dual credit offerings. During the study, I conducted a total of nine interviews at six sites with a representation of six principals, two assistant principals, three school counselors, and four dual credit teachers.

Overarching themes emerged during the interviews. The first theme revealed that dual credit credentialing for high school teachers is problematic for schools. This primary theme

included the following two subthemes: (a) school scheduling is challenging when only credentialed teachers can teach dual credit classes and (b) finding teachers qualified to teach dual credit is increasingly hard. The second primary theme that emerged was that other forms of dual credit, such as AP and CTE, are easier and more flexible for schools to offer. The second primary theme had the following subthemes: (a) with the AP test being another conduit for offering students college credit, teacher credentialing is removed from the equation and (b) CTE offers dual credit based on credentials that include work experience, not a master's degree. The third primary theme of dual credit requirements creates several barriers for school leaders in offering more opportunities for students included the following subthemes: (a) the teaching pipeline was not prepared for dual credit requirements and (b) universities and K–12 schools must work together to do the best they can. The primary themes, subthemes, and research questions that they applied to were summarized earlier in this study in Table 1.

My role as a researcher was to gather and analyze the data presented from each of the interviews. I utilized line-by-line coding of the interview transcripts to find the emergent themes. Even though I am familiar with the topic because of the research I have done, line-by-line coding pointed to information of which I was not fully aware. I sought to remain unbiased in my interviews and refrained from leading my participants toward answers by utilizing a consistent interview question protocol (Appendix F) and asking open-ended questions to garner robust discussion. Follow up questions were probing and open-ended to limit any kind of leading on my part. This helped keep the data trustworthy. My role was weighted toward taking an observer role rather than the participant role.

Of note, I was very impressed with the administrative team at each school. There was a cohesiveness where the common goal of dual credit seemed to bring them together for the good

of students. I was also impressed with the knowledge of the inner workings of dual credit by the building principal. I assumed that in a larger school, the principal would not be as involved in dual credit due to the responsibilities that come with larger schools and the ability to delegate to other staff. Likewise, I assumed that in a smaller school, the principal would be more involved because there is not enough staff to share the load. However, I found that the size of the school did not matter. In both situations, the school principal was knowledgeable and actively involved in dual credit procedures and partnerships. Likewise, in both scenarios, there was also a member of the administrative team who handled most of the day-to-day operations of dual credit.

### **School Provided Documentation**

When visiting each site, it was helpful to gather school-provided documentation to help verify communication of policy and procedures. This documentation was not examined as variables in the study, but rather used to aid in rich descriptions of each of the participating schools. When reviewing the school vision and mission statements, it was evident that all six schools had a vision for student success after high school. Every mission statement included language that was supportive of student learning now and in the future; further, strong alignment was found in the statements relative to the dual credit priorities. To ensure confidentiality, the following mission and vision statements have been paraphrased for each school:

- Inspire students and prepare them for making contributions to society while being a leading school community in the State of Indiana.
- Inspire students and prepare them for responsibilities of today and possibilities of the future.
- Do whatever it takes for every child, inspire students and provide an environment for students to reach their highest potential from a global perspective

- Provide students with an education to help them become contributing members of society.
- Provide opportunities needed to meet the challenges of the world with 21st century skills.
- To meet educational needs of students and help them accomplish goals that are transferable.

As previously cited in Adamson and Balch (2018), foundational statements are “those statements used to guide decision making and planning, while defining and providing purpose for the daily performance of every employee in the school district” (p. 89). The foundational statements of all six sites included language that sets a tone that each site’s educators are preparing students for life after high school. This is supportive of schools having dual credit opportunities in their buildings and creating a college-going culture in research previously cited in this study (Adamson & Balch, 2018; Murray, 2011).

Each school leader provided curriculum guides that had documentation on course offerings in dual credit. It was evident in the documentation that all schools interviewed tried to communicate dual credit offerings to students and families in its curriculum guides. The data indicated that schools worked with all of their university partners to communicate requirements; however, it was evident that there were not consistent criteria for what was expected for dual credit classes. As noted in Mike Zulu High School’s curriculum guide, some classes that were dual enrollment (e.g., dual credit provided on the college campus or taught by the college professor online), carried an expensive price tag of \$450–\$500. The high school leaders worked to provide some alternate funding for students in need; however, this is still a significant cost. This, along with the individual interviews, brought to light the inconsistencies among

partnerships with post-secondary dual credit partnerships. Each university has its own criteria, and K–12 schools are confined to each university’s dual credit agreements. For example, one university required an entrance assessment for students to take, regardless of the subject area. Another university provided teachers with free master’s level training provided their students signed up for dual credit at that same institution. These requirements were based on conversations and meetings with individual teachers with each university with which they were associated. For schools, it is difficult to keep track of the complicated array of requirements. Alternatively, when one considers the dual credit requirements with the College Board for AP classes, it is consistent for all programs, schools, and subject areas working within their system.

### **Themes and Subthemes**

#### **Primary Theme 1: Dual Credit Credentialing for High School Teachers Is Problematic for Schools**

Data from this study yielded a recurring primary theme that dual credit credentialing for high school teachers is problematic for Indiana high schools. Previously cited in this study, a high school dual credit teacher needs to have a master’s degree in the content area or have a master’s degree in another content area plus 18 credit hours in the content area (Higher Learning Commission, 2016). Each of the participants interviewed identified that dual credit credentialing caused challenges for them to be able to offer dual credit classes. One teacher at Delta High School, who did not have her master’s degree, noted, “I only have my bachelor’s degree . . . it’s financially not a good place for me.” She went on to share that her school or district was not able to offer her financial assistance and shared her concern about the waiver expiring. Her reference to the waiver was the previously cited extension approval letter from the Higher Learning Commission (Indiana Commission for Higher Education, 2016b) stating that any credentialed

faculty member who had been teaching dual credit under an agreement with the university had until September 1, 2022 to be in full compliance. Another teacher shared that she felt the requirement of a master's degree was too over-the-top. The principal at Charlie Victor High School shared his concern with dual credit credentialing. Mr. Mann noted, "The biggest barrier on dual credit . . . is the credentialing required for teachers." He later shared that a teacher's personal philosophy and work ethic was a better predictor of ability to teach dual credit over credentialing. Mr. Mann stated:

From my philosophy, I don't think the teacher credentialing is necessary, the reason being is, in the trenches you learn very quickly the degrees that a teacher holds has way less impact on their effectiveness than other things, their passion, their desire, their drive, their philosophy towards education, their ability to build relationships, all of those things . . . you are dictating who can teach classes based on credentials, not level of competency or skill.

***Subtheme A: School Scheduling is Challenging When Only Credentialed Teachers Can Teach Dual Credit Classes***

A subtheme surfaced in the data that showed school scheduling is challenging when only credentialed teachers can teach dual credit classes. The data indicated that with dual credit credentialing being such a big requirement, few teachers had the credentialing. This meant that teachers who were credentialed were locked into a schedule. Balancing that one teacher's schedule is hard, especially at a small school, to keep the dual credit courses available in a way that would work for student schedules too. Mr. Dillon at Juliet High School shared that they used to have the most tenured teachers teach dual credit courses, but as they had experienced retirements and turnover, their staff was much younger. The dual credit chemistry teacher retired

and a younger teacher, who was not credentialed, replaced her. They were trying to encourage this young teacher to get her credentials, but Mr. Dillon noted, “It’s definitely shifting from tenured to who’s got the master’s degree.” In a larger school, it is the same problem, but on a larger scale. At Oscar Romeo High School, Ms. Michaels utilized department chairs to help keep track of who was licensed and who could teach what courses. Ms. Michaels described,

The department chairs help and assist me on who’s going to teach what because I can’t possibly know who’s certified in what . . . teacher A will always teach health science. Or teacher B will always teach . . . because they’re the ones licensed in the certification.

Mr. Mann at Charlie Victor shared that when their credentialed dual credit English teacher leaves, they will have to pull a teacher who has built a successful radio/TV program to fill the void due to the required credentialing. He summed it up when he stated, “I am concerned that if certain people leave in the next couple of years, what impact that’s going to have.”

Mr. Sparks addressed the concern about school scheduling specifically when he shared his experience,

You still have to run a school. Finding class sizes that still meet a specification. The latest barriers would be you get the upper level classes, and you have three or four kids in the class, it’s hard to justify having a teacher.

### ***Subtheme B: Finding Teachers Qualified to Teach Dual Credit Is Increasingly Hard***

Another subtheme was finding teachers qualified to teach dual credit is increasingly hard. Alpha Bravo school shared one of their primary concerns as simply finding an applicant, let alone an applicant with dual credit credentialing. Mr. Murphy noted, “We’re just happy to have an applicant . . . after an exhaustive search, I was thrilled to have one math teacher apply that was licensed appropriately.” He went on to share,

The number of applicants I get, I don't have the luxury to pick and choose based on credentials. In the one and one half years I have been here, I have hired eight English teachers for four positions. Only one of them has been here the entire time. It's a struggle to keep them here, let alone find teachers with credentials.

The Juliet High School administrator was relieved to have found an applicant that was dual credit credentialed. Mr. Dillon shared that they had to negotiate salary to get her to commit as she was being courted by several schools. He noted, "We got lucky and found us a math teacher this year that has a master's degree already in math and is qualified . . . she was able to negotiate her salary because she had that credentialing that she knew we needed." Mike Zulu High School's Mr. Marks shared his perspective and noted, "I'm really worried about our availability to continue to offer . . . dual credit classes. Right now, we have only one teacher who has those credentials in math." Mr. Dillon summed up Juliet High School system's ability to find teachers to teach AP versus dual credit when he stated,

We make sure our best teachers are teaching AP but with our limited scheduling abilities if we don't get the teachers with the credentialing . . . having their master's degree . . . we're going to . . . be offering AP, because it's going to be the only chance for kids to have a chance at earning college credits in that subject area.

### **Primary Theme 2: AP and CTE Offer Schools Dual Credit Flexibility**

Research from this study found a recurring primary theme where other forms of dual credit, such as AP and CTE, are easier and more flexible for schools to offer. One interesting point that was echoed at several locations was that the teachers who were excited to teach the higher-level subjects were able to teach AP because a dual credit credential was not necessary. As cited previously in this study, Cassidy et al. (2011) stated that AP and IB courses adhere to a



national curriculum. “The college-level courses are offered by the high school, where students take them with their peers. Students receive college credit by passing an end-of-course exam” (Cassidy et al., 2011, p. 1). This is outlined further in the subtheme of AP test offers another conduit for awarding students college credit. Mike Zulu High School’ participant summed up dual credit credentialing flexibility with Mr. Marks who stated, “The easiest way to get a teacher to be able to teach dual credit right now is more of your CTE programs, where they just need their, basically teacher licenses, in that area.”

Charlie Victor High School’s participant further illustrated AP requirements being more appropriate at his school when he shared his concern on the amount of rigor required with dual credit when compared to AP College Board requirements. Mr. Mann shared, “It’s just if we can choose one or the other, then we’re going with AP over dual credit.” Ms. Samuels echoed this sentiment when she shared, “As long as they are licensed teachers on their end of the requirements, they don’t have to necessarily have a master’s to be able to teach Advanced Placement classes.”

***Subtheme A: The AP Test Offers Another Conduit for Awarding Students College Credit***

One subtheme that surfaced in the research was that the AP test offers another conduit for awarding students college credit. In this scenario, teacher credentialing is removed from the equation. By having a format where the College Board syllabus sets the standards, the teacher adheres to that set curriculum standard, and an AP test qualifies the credit, the teacher’s credentials have nothing to do with the perceived quality of education. Ms. Turner at Delta High School shared, “Allen Frampton (pseudonym), who actually is our middle school math teacher, we freed him up a period and he teaches the calculus. He’s probably the most math-minded intelligent person I’ve ever met, and that makes sense to him.” What is so interesting about this

is that a middle school teacher is teaching the AP calculus class, because he is interested in it and smart enough to do it. Not because he has a master's degree. He is the best fit for that small school to teach high level math.

Mr. Marks at Mike Zulu High School described the difference between having his staff teach an AP class or a dual credit class when he shared,

With AP, we are committed to making sure our teachers that are going to teach AP classes are able to go to AP summer institutes . . . the AP ones don't have to have that training but for success we know that's their best interest to do that . . . the hardest teacher qualification for dual credit is the new requirement in the 18 graduate hours in content and a master's degree or a master's degree in content area.

This further supported the idea of having a teacher teach an AP class because they are the best teacher for the job, and not just based on their qualifications. In addition, Mr. Marks from Mike Zulu High School noted,

With AP we look at teacher interest and the quality of instruction. We want to make sure that the teacher that is teaching is capable of teaching that class and will do a good job teaching . . . We don't want to kill an AP class because the teacher's not very good. We want to make sure the teacher is a good teacher that they have expertise and . . . their ability to teach and their content knowledge is kind of a combination.

Ms. Samuels echoed those comments when she shared, "We have to abide by the credentialing in regard to dual credit. With AP, since we are able to determine their training and provide that for them, then we look at basically their teaching performance." This flexibility in being able to choose licensed teachers to teach AP helps keep the right teachers in the right courses.

***Subtheme B: CTE Offers Dual Credit Based on Credentials that Include Work Experience, Not a Master's Degree.***

Another subtheme that was found in the data was that CTE offers dual credit based on credentials that include work experience, not a master's degree. Oscar Romeo High School system had spent the past several years building an in-house CTE program to enable them to offer more dual credit courses in their school. Expansion into CTE had been fueled by the state's graduation pathway requirements for dual credit and accountability measures. Mr. Sparks stated, "We have pulled out of a career center and started our own and have over 32 teachers that are CTE certified." Additionally, the Charlie Victor High School system was able to offer dual credit opportunities at a local career center. Mr. Mann described some of the programs their students take advantage of and stated, "It does give us another avenue for expanding our offerings for our students." CTE offers schools some greater flexibility in some of the university requirements. For example, Ms. Brown at Alpha Bravo pointed out, "I wish there was a way to allow dual credit based on recommendation of the teacher and/or counselor. With CTE they don't always require Accuplacer for the placement test."

**Primary Theme 3: Dual Credit Requirements Create Several Barriers for Schools**

The primary theme of dual credit requirements creates several barriers for schools in offering more opportunities for students. One of the barriers that was presented by several participants was the cost. Mr. Dillon at Juliet High School noted, "We pay for our dual enrollment that leaves campus, the total fee for class is approximately \$450 . . . the school pays for \$200, and the students are responsible for the other \$250." This was a case where the school leaders recognized the cost barrier and worked out a way to help the high school students with the cost and offset about half of it. It is unfortunate that a student in high school can get a dual

credit class for \$25 per credit hour if the class is taught in the high school, but if the student needs to access the class either online or on the college campus, the cost is much higher. Alpha Bravo also reported a similar barrier with cost; however, it was also noted that the online format of the dual enrollment course allowed for flexibility in scheduling.

Another barrier reported by school participants was the difference of criteria for each university that they needed to work with. Ms. Brown at Alpha Bravo High School shared, “Another barrier is the need to take Accuplacer to qualify for dual credit.” This is unique to one university and illustrated the different requirements for classes for dual credit. Another university can offer the same class as dual credit and not have any tie to a general admissions assessment. Ms. Manning at Delta High School also noted that testing a general admission assessment, such as Accuplacer, was an additional burden at the end of the semester that teachers of other subject areas do not have. Mr. Marks from Mike Zulu High School also noted, “I think the biggest challenge is that there are so many different universities with all of their own expectations . . . that makes it challenging at our level.”

Ms. Brown at Alpha Bravo High School made a pointed comment when asked how dual credit could be done better as a whole. She stated, “Take away the credential requirement.” She explained that dual credit credentialing is restrictive to how dual credit classes can be offered. Another school participant shared how changes in staffing can create dual credit problems. Mr. Dillon at Juliet High School stated, “I don’t think parents understand why some courses are no longer offered.” When an older sibling had the same class, they were able to get dual credit. But, when a teacher left or was needed to teach another course to make the scheduling work, a younger sibling could not get the dual credit. If credentialing were not required, another teacher could have filled in the role, then both siblings could be eligible for dual credit and parents are

happy. Ms. Turner at Delta High School noted, “We try not to let the teacher credentials . . . stifle us because we are working with lots of community partners to get our kids out.” Although this is a positive outlook on how they work with their community partners, it still illustrates how teacher credentialing really provides a barrier to dual credit offerings at the school.

***Subtheme A: The Teaching Pipeline Was Not Prepared for Dual Credit Requirements***

A subtheme that surfaced in the research was that the teaching pipeline was not prepared for dual credit requirements. As cited earlier in this study, “Faculty teaching general education courses, or other non-occupational courses, [should] hold a master’s degree or higher in the discipline subfield” (Higher Learning Commission, 2016, p. 3). Most Indiana teaching licenses are backed by a bachelor’s degree. So, the requirement for a master’s degree to teach a high school class to college requirements, in itself, creates a hurdle for teachers that do not have the credentials required. Mr. Marks from Mike Zulu High Schools summed it up when he shared,

The game changed, two or three years ago, whenever the credentialing changed, we are not prepared. Our teaching pipeline is not prepared for this. Also, just in general, our teaching pipeline is a drip, not a flow, and it’s making it harder and harder to find qualified teachers to teach period. Much less to have the advanced credentials necessary and the teaching skill necessary to successfully teach college level coursework to high school students.

Ms. Smith at Delta High School had a similar concern with the master’s degree requirements.

Ms. Smith was a seasoned veteran and shared the difficulty in teachers getting a master’s degree, which makes the teaching pipeline difficult.

I get the whole credentialing. I think that totally makes sense. Except, it’s almost over the top with it. Almost borderline insulting for some because you know we all have

education degrees. I know my colleague, right before she retired, she taught for over 20 years, and they changed the credentialing. She had to prove herself, and she had been teaching the dual credit forever. It's like she suddenly had to prove herself; she had to turn in a master's degree and transcripts and so on, and she was retirement age and been teaching forever. I understand there needs to be some guidelines for it, but maybe the state needs to make it easier for people to get credentialed . . . I think there needs to be some way for these young people to get credentialed or get their master's . . . I know that process, when I got my master's I had three little kids. It was tough and financially tough. Ms. Smith recognized that the cost, time, and effort for a master's degree falls to the teacher. She also noted that the master's requirement was too much. She felt that licensed teachers have education degrees and the master's requirement is not a fair measurement of whether the teacher is capable of teaching dual credit. Additionally, she felt that when one considers the cost for the teachers, the Indiana state legislature's removal of master's degree pay bumps, finding dual credit teachers will become increasingly harder.

***Subtheme B: Universities and K–12 Schools Have Worked Together to do the Best They Can***

Another subtheme that surfaced was how universities and K–12 schools work together to try to find a common ground for dual credit. Every site that was a part of this study had a participant comment on the ease of working with Ivy Tech Community College. This can likely be attributed to the college connection coaches that Ivy Tech has implemented. The college connection coaches were mentioned several times when discussing their relationships with post-secondary. Mr. Mann at Charlie Victor High School noted, “We work with Ivy Tech which is extremely easy to work with . . . They make the process easy and they are very responsive when we have issues.” The college connection coach appears to be an attempt to address student

support as they prepare for post-secondary. This is important as cited earlier in this study as indicated in Baker et al. (2015),

Examples of support services that could be provided to students include a specialized orientation program, academic advising, career counseling, and possibly tutoring. In addition to satisfying accrediting agency requirements, specialized orientations, advising, career counseling, and tutoring designed to meet the unique needs of dual enrolled students can help ensure their academic success in dual enrollment course and as they transition to college. (p. 91)

Mr. Price at Oscar Romeo High School credited their relationship with post-secondary as one of the keys to their dual credit expansion in recent years. Ms. Turner at Delta High School shared how a nearby multi-university campus can cause each college to take notice of an agreement with her school. It can create a little bit of a competition between them to work closer with the secondary school.

At all six sites that I visited, communication with post-secondary was present on a variety of levels. I noticed that each site had a specific process about how the communication took place for each university. With one partnership, there is a college connection coach. With another partnership, there is an annual meeting. Ms. Samuels at Mike Zulu High Schools outlined both of these scenarios when she shared,

We go to a big IU ACP meeting annually and we communicate, probably more regularly electronically with those people . . . Similarly, Ivy Tech, we basically have a liaison assigned to our area of the state. She comes here to meet with us, and she meets with the teachers . . . we look at things to see if there's anything we can expand.

## Implications

For dual credit to be available for high schools, it takes several organizations to make it happen. The state legislature enacted a law, and the IDOE and Indiana Commission for Higher Education both have policy and procedures for schools to follow. Local school districts have to pass board policy, and finally, each school must have a formal agreement with a university for a specific subject. The research in this study found that every participating high school had agreements with multiple universities for multiple subjects. This alone is a challenge as multiple participants pointed out that different universities have different criteria for dual credit credentialing. Mr. Marks from Mike Zulu High School shared,

There are so many different universities with all of their own expectations, with all of their own wishes and desires that there is not an alignment at the post-secondary level so that makes it challenging at our level . . . when each university has their own thing it makes it hard when I'm talking with a sophomore or a freshman and they're not sure where they want to go at all.

Moving forward, a streamlined agreement process that enable schools to work with multiple universities should be considered. What might a streamlined process look like across multiple stakeholders?

When looking at the themes and the data from the research, one question was very evident—Is a master's degree necessary for dual credit credentialing in high school? As cited earlier in this study, the Higher Learning Commission (2016) outlined that “qualified faculty members are identified primarily by credentials, but other factors, including but not limited to equivalent experience, may be considered by the institution in determining whether a faculty member is qualified” (p. 3). I am reminded of my time as an undergraduate student where a



graduate student was teaching a 100-level class. This outlines a situation where non-master's-degree-holding professionals are able to teach in post-secondary. The Higher Learning Commission now has criteria in place to regulate this example, but, as cited earlier, there is flexibility for post-secondary provided it can be justified. Since there are so many dual credit subjects being taught in K–12 classrooms by education professionals, could we allow flexibility in K–12? Of course, there would need to be policies and procedures in place to help monitor. The Higher Learning Commission also outlined that “if an instructor has not achieved 18 graduate credit hours in the discipline in which he or she teaches, the institution should be able to explain and justify its decision to assign the individual to the courses taught” (Higher Learning Commission, 2016, p. 3). As cited earlier in this study, the teacher pipeline has not been prepared to offer a consistent path for teachers to get dual credit credentialing. One implication is that there simply are not enough teachers with a master's degree to allow K–12 schools the scheduling flexibility needed to offer students the most dual credit opportunities they can. There are programs that have popped up across the state, such as the Indiana University Advanced College Project, to help teachers get dual credit credentialing. However, in my own personal experience, we made an effort to obtain outside grant funds to help offset the costs for teachers work over the course of three years to get master's degrees in their content areas. Although we did make an impact on the number of credentialed dual credit teachers in our district, an unfortunate side effect was that several of them left with their new master's degree for jobs in post-secondary.

Several participants in my research indicated that the master's degree was not always a good measure for a K–12 teacher's ability to teach dual credit. Mr. Mann at Charlie Victor High School stated,

I understand the end goal, the end goal of that is to try and ensure rigor in their course work. I think a model more like AP, meaning whatever final exams or major assessment that a student will be expected to take in this course if they were on a college campus, should be the same assessments that they are required to be able to pass if they are in the dual credit class. To me that maintains and ensures rigor way better than the teacher credentialing and it removes the barrier of only having certain teachers that can teach the class.

As cited earlier in Borden et al.'s (2013) study, the primary objectives of dual credit courses were outlined as presenting more challenging courses for students in high school, enhancing student success while in high school, facilitating the transition from high school to postsecondary through academic rigor and a college connection to increase college aspiration, lowering cost of college tuition, and fostering a relationship between high school teachers and postsecondary faculty. Another implication is that the data in this study supports the idea that a deep understanding and knowledge base coupled with the ability to deliver quality teaching outweighs the required master's degree for dual credit credentialing.

### **Recommendations**

This study set out to find what barriers kept Indiana high schools from offering more dual credit opportunities for students. After a review of literature and a collection of data from six Indiana high schools, there were four components to this recommendation. They are as follows: a recommendation toward an existing model, a recommendation for dual credit policy makers to consider, a recommendation for K–12 and post-secondary to consider, and recommendations for future research.

### **Investigate an Existing Model**

The data in this study are clear that the requirement of the master's degree for dual credit coursework is stifling to school leaders. It was especially challenging for small rural school systems to be able to recruit and hire dual-credit credentialed teachers. To make a recommendation to simply remove the requirement of a master's degree would be irresponsible without applying additional criteria for K–12 schools to follow. Some of the participants in this study understood the need for a credential, but also questioned if a master's degree was really needed. An array of pathways to dual credit could be considered—not just a master's degree. One trending idea was to thoughtfully review the AP dual credit as a model for dual credit in Indiana. The AP model uses a defined syllabus, a week-long training session, and a credentialing test work together to allow students the opportunity for dual credit. This model supports an excellent teacher, who is already astute in effective classroom teaching strategies, being a dual credit instructor, regardless of credential. As earlier cited by Marzano et al. (2005), focus in the classroom is obtained by establishing clear goals and keeping them at the forefront of the school's attention. Specific behaviors and characteristics associated with focus are as follows:

- Establishing concrete goals for curriculum, instructions, and assessment practices within the school
- Establishing concrete goals for the general functioning of the school
- Establishing high, concrete goals, and expectations that all students will meet them
- Continually keeping attention on established goals (Marzano et al., 2005, p. 50)

Additionally, communicating strong ideals and beliefs about schooling is important for school leaders to help shape young people with positive behaviors and characteristics (Marzano et al., 2005). These strategies, with a complete syllabus, curriculum, and assessment could be a reliable

measure of dual credit ability, not a credential. In contrast, the AP model is not without its flaws. Guzy (2016) shared,

While some of my Honors Composition students generally felt that their AP teachers were well-qualified, others had long lists of specific complaints: the class was taught by a student teacher, the teacher was far out of field for the subject matter, an AP Statistics class was taught by a long-term substitute PE teacher, and AP Calculus class was taught by the freshman remedial math teachers, and so on (p. 7)

Although these kinds of scenarios were not found in the schools that were a part of this study, it is a point that further supports the need to having the best teacher for the position, regardless of credential.

### **Considerations for Dual Credit Policy Makers**

A recommendation for a dual credit model, like the AP model would take the coordination of several organizations. As cited earlier, the state legislature, the IDOE, the Indiana Commission for Higher Education, local school corporations, and universities are all involved in dual credit implementation. Although it would be no small feat, these organizations should be brought together in a representative fashion to cultivate a discussion to lead towards the end goal of more dual credit opportunities for Indiana students. A standing joint committee between the IDOE, Indiana Commission for Higher Education, and K–12 stakeholders can meet to hash out the discussions of the need to expand dual credit and report back if an AP model would be sustainable as a state. Further study is needed into how an already existing state-assessment infrastructure could help identify if an end-of-course assessment could be utilized state-wide to issue dual credit. Although the data in this study supports this idea, the need for stakeholders at all levels to have opportunity for input is vital. Adams (2014) stated,

Last year, Dartmouth College announced it would no longer award credit for AP, saying it wanted students to take courses with its faculty on campus to the greatest extent possible . . . Dartmouth still considers AP in admissions and for placement (para. 27).

This outlines a key example as to why it is important for all stakeholders to be onboard for a comprehensive dual credit system.

A consideration to investigate multiple pathways for dual credit could be helpful in determining multiple pathways for teachers to be dual credit certified. Although a model, like the AP model, may work in some schools where a university is not close by, a model where criteria equivalent to a master's level of training for a specific subject area could warrant a dual credit relationship much like we currently have.

### **Considerations for K–12 and Post-Secondary Dual Credit Educators**

It was evident in the data that K–12 school leaders sometimes struggle to follow each university's procedures for each subject area. An alignment of procedures would be helpful for K–12 school leaders as they work with multiple universities for multiple subject areas. The data collected for this study did point to a successful model with the college connection coaches at Ivy Tech. Every school that participated in this study commended the efforts of their college connection coach in working with them to get dual credit set up. The college connection coach serves as both a resource to the school and a resource to students for academic advising and counseling. This is supportive of previously cited Baker et al. (2015), when they shared “Examples of support services that could be provided to students include a specialized orientation program, academic advising, career counseling, and possibly tutoring” (p. 91). It was evident in this study that K–12 and post-secondary dual credit educators have a wonderful working relationship. This important relationship will need to continue to work together to find

ways to get more teachers credentialed and make sure the most qualified teachers are placed in dual credit classrooms.

### **Considerations for Future Research**

A recommendation for future research could focus on a quantitative study to get an idea of the qualified content teachers who do not possess a master's degree and are in the teaching field already. By looking at classroom pedagogy (e.g., Marzano et al.'s pedagogical strategies earlier cited) and content knowledge (e.g., a content test in the content area), one may be able to learn the dual credit workforce that is available, but not credentialed. As previously cited, Mr. Mann from Charlie Victor High School summed it best when he shared,

In the trenches you learn very quickly the degrees that a teacher holds has way less impact on their effectiveness than other things, their passion, their desire, their drive, their philosophy towards education, their ability to build relationships, all of those things . . . you are dictating who can teach classes based on credentials, not level of competency or skill.

In addition to looking at pedagogy, there is a need to consider professional development. For some of the higher-level content, teachers may need some refresher courses on the content. A partnership with post-secondary could really help address this. This would help quantify the ability to offer more dual credit courses in high schools across the state.

Another recommendation for future research alluded to earlier in this study is the ability to utilize existing infrastructure to administer dual credit assessment across the state.

Stakeholders, such as the IDOE and Indiana high schools, could be surveyed in a quantitative study to garner the feasibility for schools to administer state dual credit assessments. Is the existing state-assessment platform capable? Should we look toward the College Board's platform

for AP, would it be feasible to develop our own or utilize a free Learning Management System, such as Moodle? Looking toward the experts in the field at all levels will bring robust and comprehensive data for decision makers to facilitate conversations on feasibility.

Finally, the research in this study interviewed three school counselors and one assistant principal who was a former school counselor. A future study might include K–12 school counselors and post-secondary admissions counselors on how dual credit is facilitated from each perspective. One study could focus on the challenges of navigating and following procedures from a counselor perspective with the Core Transfer Library and how it relates to secondary and post-secondary. Further research could be on the challenges of keeping up with dual credit acceptance procedures at different universities and how to guide students and their parents of these differences. This is supported by Mr. Marks' comments earlier cited in this study, "When each university has their own thing it makes it hard when I'm talking with a sophomore or a freshman and they're not sure where they want to go at all."

### **Conclusion**

This study revealed that there are 15 individuals determined to make dual credit work from the schools where I interviewed. Despite the challenges that are put in front of them, they will do what it takes to work with post-secondary to ensure students have dual credit opportunities in their buildings. Through a total of nine interviews, the 15 participants shared their experiences to derive three common themes, each with two subthemes. Three implications came from this study. The first implication was: "What might a streamlined process across multiple stakeholders look like for dual credit?" The second was, there are simply not enough educators with master's degrees for dual credit credentialing. Finally, the third implication was quality teaching outweighs the required master's degree for dual credit credentialing. Four

recommendations came from this study. They were as follows: to investigate an existing model for dual credit, considerations for dual credit policy makers, considerations for K–12 and post-secondary dual credit educators, and considerations for future research. Future research could help expand knowledge about dual credit faculty at all levels. I believe that collaborative conversations with legislators, the Commission for Higher Education, the IDOE, and local universities and schools districts has the capability to lead to a comprehensive dual credit system that will enable more school systems to offer students dual credit opportunities than ever before.



## REFERENCES

- Adams, C. J. (2014). Colleges vary on credit for AP, IB, dual classes. *Education Week*, 34(14).  
<https://www.edweek.org/ew/articles/2014/12/10/colleges-vary-on-credit-for-ap-ib.html>
- Adamson, M., & Balch, B. (2018). *Building great school board—superintendent teams: A systematic approach to balancing roles and responsibilities*. Solution Tree Press.
- Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through college*. U.S. Department of Education.
- Baker, P., Burnett, D., Ferguson, C. (2015). Faculty members' perceptions of rigor in dual enrollment, accelerated programs, and standard community college courses. *New Directions for Community Colleges*, 2015(169), 83–91. <https://doi.org/10.1002/cc.20135>
- Belfield C., Edwards L., Hughes K., & Rodriguez, O. (2012). *Broadening the benefits of dual enrollment*. The James Irvine Foundation; Columbia University.  
<https://ccrc.tc.columbia.edu/publications/broadening-benefits-dual-enrollment.html>
- Borden, V., Park, E., & Taylor, J. (2015). *State dual credit policy: A national perspective*. In J. L. Taylor & J. Pretlow (Eds.), *Dual enrollment policies, pathways, and perspectives: New directions for community colleges* (pp. 9–19). Wiley. <https://doi.org/10.1002/cc>
- Borden, V., Taylor, J., Park, E., & Seiler, D. (2013). *Dual credit in U.S. higher education: A study of state policy and quality assurance practices*. Higher Learning Commission.  
<https://www.hlcommission.org/Publications/dual-credit-programs-and-courses.html>

- Cassidy, L., Keeting, K., & Young, V. (2011). *Dual enrollment: Lesson learned on school-level implementation*. U.S. Department of Education.  
<https://www2.ed.gov/programs/slcp/resources.html>
- Center of Excellence in Leadership of Learning. (2019). *Early college vs. dual credit*. University of Indianapolis. <http://cell.uindy.edu/our-work/early-college-high-school/early-college-vs-dual-credit.html>
- Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage.
- Creswell, J. (2013). *Qualitative inquiry & research design: Choosing among five approaches*. Sage.
- Creswell, J., & Miller, D. (2000). Determining validity in qualitative inquiry. *Theory Into Practice*, 39(3), 124–130.
- Dalton, R., & St. John, E. (2017). *College for every student: A practitioner's guide to building college and career readiness*. Routledge, Taylor and Francis.
- Duroske, H. (2019). Challenges in transferring dual enrollment credit. *Journal of College Admission*, 242, 56–58.
- Education Strategy Group, Advance Career Technical Education, Council of Chief State School Officers. (2018). *Credential currency: How states can identify and promote credentials of value*. <http://edstrategy.org/resource/credential-currency/>
- Edwards, L., Hughes, K., & Weisberg, A. (2011). *Different approaches to dual enrollment*. The James Irvine Foundation, Columbia University.  
<https://ccrc.tc.columbia.edu/publications/different-approaches-to-dual-enrollment.html>

- Flyvbjerg, B. (2001). *Making social science matter: Why social inquiry fails and how it can succeed again*. Cambridge University Press.
- Fullan, M. (2014). *The principal: Three keys to maximizing impact*. Jossey-Bass.
- Goeller, K. (2018). *Six steps to boost student learning: A leader's guide*. Routledge, Taylor and Francis.
- Guzy, A. (2016). AP, dual enrollment, and the survival of honors education. *Journal of the National Collegiate Honors Council*, 17(2), 3–11.  
<https://files.eric.ed.gov/fulltext/EJ1132010.pdf>
- Hansen, K., Jackson, B., McInelly, B., & Eggett, D. (2015). How do dual credit students perform on college writing tasks after they arrive on campus? Empirical data from a large-scale study. *Journal of the Council of Writing Program Administrators*, 38(2), 56–92.
- Hanson, J. M., Prusha, T., & Iverson, C. (2015). Principal, teacher, and counselor views of concurrent enrollment. *New Directions for Community Colleges*, 169, 71–81.  
<https://doi.org/10.1002/cc.20134>
- Hebert, L. (2001). A comparison of learning outcomes for dual-enrollment mathematics students taught by high school. *Community College Review*, 29(3), 22–38.  
<https://doi.org/10.1177/009155210102900302>
- Higher Learning Commission. (2013). *Dual credit in U.S. higher education: A study of state policy and quality assurance practices*.  
<https://www.hlcommission.org/Publications/dual-credit-programs-and-courses.html>
- Higher Learning Commission. (2014). *Dual credit for institutions and peer reviewers*.  
<https://www.hlcommission.org/Publications/dual-credit-programs-and-courses.html>

Higher Learning Commission. (2016). *Determining qualified faculty through HLC's criteria for accreditation and assumed practices.*

<https://www.hlcommission.org/Publications/determining-qualified-faculty.html>

Hoffman, N. (2008). Rethinking the transition. *New Directions for Higher Education*. (144), 15–25.

Hoffman, N., Vargas, J., & Santos, J. (2009). New directions for dual enrollment: Creating stronger pathways from high school through college. *New Directions for Community Colleges*, 145, 43–58.

Howley, A., Howley, M., Howley, C., & Duncan, T. (2013). Early college and dual enrollment challenges: Inroads and impediments to access. *Journal of Advanced Academics*, 24(2), 77–107.

Indiana Code IC 21-43-1-2.5 Sec. 2.5 (2017a). *Dual enrollment; college credit earned by high school students; technical certificates of achievement.*

<http://iga.in.gov/legislative/laws/2017/ic/titles/021#21-43>

Indiana Code IC 21-43-1-2.7 Sec. 2.7 (2017b). *Dual enrollment; college credit earned by high school students; technical certificates of achievement.*

<http://iga.in.gov/legislative/laws/2017/ic/titles/021#21-43>

Indiana Commission for Higher Education. (2012). *Reaching higher, achieving more.*

[https://www.in.gov/che/files/2012\\_RHAM\\_4\\_26\\_12.pdf](https://www.in.gov/che/files/2012_RHAM_4_26_12.pdf)

Indiana Commission for Higher Education. (2016a). *Extension approval letter.*

[in.gov/che/files/ExtensionApprovalLetter\\_HLC.pdf](http://www.in.gov/che/files/ExtensionApprovalLetter_HLC.pdf)

Indiana Commission for Higher Education. (2016b). *Indiana's application for an extension to meet HLC dual credit faculty qualifications expectations.*

<https://www.in.gov/che/files/Indiana%27s%20Dual%20Credit%20Application.pdf>

Indiana Commission for Higher Education. (2017). *Indiana dual credit Q & A.*

<http://www.doe.in.gov/sites/default/files/ccr/dual-credit-faqs-final-2016-17-9-16-2.pdf>

Indiana Commission for Higher Education. (2019). *Early college credit: Dual credit, AP, and the broader landscape of earning college credits in high school.*

<https://www.in.gov/che/3155.htm>

Indiana Commission for Higher Education. (2020). *Higher learning commission extends deadline for dual credit instructors.*

[https://www.in.gov/che/files/200803\\_RELEASE\\_HLC%20Dual%20Credit%20Extension.pdf](https://www.in.gov/che/files/200803_RELEASE_HLC%20Dual%20Credit%20Extension.pdf)

Indiana Department of Education. (2018a). *Find school and corporation data reports.*

<https://www.doe.in.gov/accountability/find-school-and-corporation-data-reports>

Indiana Department of Education. (2018b). *High school college and career readiness course titles and descriptions.* <https://www.doe.in.gov/standards/course-titles-and-descriptions>

Indiana Department of Education. (2019a). *High school college and career readiness course titles and descriptions.* <https://www.doe.in.gov/standards/course-titles-and-descriptions>

Indiana Department of Education. (2019b). *Indiana academic standards.*

<https://www.doe.in.gov/standards>

Indiana Department of Education. (2019c). *Indiana dual credit: Frequently asked questions.*

<https://www.doe.in.gov/school-improvement/student-assistance/dual-credit>

Indiana State University. (2019). *College challenge frequently asked questions*.

<https://www.indstate.edu/extended-learning/college-challenge/info/educators/registration-process/students-parents/faq>

Ivy Tech Community College. (2017). *Dual credit information for high school students and parents*. <https://www.ivytech.edu/dual-credit/11377.html>

Karp, M. (2012). "I don't know, I've never been to college!" Dual enrollment as a college readiness strategy. *New Directions for Higher Education*, 158, 21–28.

<https://doi.org/10.1002/he.20011>

Karp M., & Jeong, D. (2008). *Conducting research to answer your questions about dual enrollment*. Columbia University.

<https://ccrc.tc.columbia.edu/media/k2/attachments/questions-about-dual-enrollment.pdf>

Kinnick, K. N. (2012). The impact of dual enrollment on the institution. *New Directions for Higher Education*, 158, 39–47. <https://doi.org/10.1002/he.20013>

Malin, J., & Hackman, D. (2017). Urban high school principals' promotion of college-and-career readiness. *Journal of Educational Administration*, 6, 606–623.

Marx, G. (2015). *21 trends for the 21st century*. Education Week Press.

Marzano, R. (2007). *The art and science of teaching*. Association for Supervision and Curriculum Development.

Marzano, R., McNulty, B., & Waters, T. (2005). *School leadership that works*. Association for Supervision and Curriculum Development.

Marzano, R., & Pickering, D. (2011). *The highly engaged classroom*. Association for Supervision and Curriculum Development.

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. Jossey-Bass.

- Murray, L. (2011). *Diploma matters: A field guide for college and career readiness*. Jossey-Bass.
- Palaich, R., Augenblick, J., & Maloney, M. (2007). *Return on investment analysis of integrating grades 9–14*. In N. Hoffman, J. Vargas, A. Venezia, & M. Miller, (Eds.). *Minding the gap: Why integrating high school with college makes sense and how to do it* (pp. 183–189). Harvard Education Press.
- Pisarik, C., Rowell, C., & Thompson, L. (2017). A phenomenological study of career anxiety among college students. *The Career Development Quarterly*, 65, 339–352.
- Postsecondary Enrollment Program. (1987). P.L. 230-1987. IC 20-10.1-15.
- Schmoker, M. (2018). *Focus*. Association for Supervision and Curriculum Development.
- Tobolowsky, B. F., & Allen, T. O. (2016). On the fast track: Understanding the opportunities and challenges of dual credit. *ASHE Higher Education Report*, 42(3), 7–106.  
<https://doi.org/10.1002/aehe.20069>

APPENDIX A: REQUEST FOR EXPERT INFORMATION

John Newport  
1501 S. Paul Dresser Ave.  
Terre Haute, IN 47803  
812-240-6723  
[Jnewport2@sycamores.indstate.edu](mailto:Jnewport2@sycamores.indstate.edu)

August 21, 2019

Dr. Jennifer Jensen  
Indiana Department of Education  
Direction for Curriculum and Instruction

Dear Dr. Jensen,

My name is John Newport. I am a doctoral candidate at Indiana State University in Terre Haute, Indiana.

I am conducting a qualitative research study about barriers that prevent schools from being able to offer dual credit secondary courses. This research will be focused on the programming and practices of six Indiana public secondary schools.

In order to identify the schools with effective programming that have various levels of dual credit according to the Indiana Department of Education dual credit accountability data, I am seeking your experience and knowledge of dual credit schools in Indiana and am requesting your expert assessment regarding dual credit to identify six schools to generate a purposeful sample of schools. To vet the selection process to fit this study, I will need district and school names.

Thank you in advance for your consideration of this request. I look forward to hearing from you soon.

Regards,

John Newport  
Doctoral Student  
Indiana State University



APPENDIX B: OUTLINE OF PHONE CONVERSATION WITH DISTRICT  
SUPERINTENDENT

“Hello. My name is John Newport. I hope you are well today.”

“I am a doctoral candidate at Indiana State University, and I am in the early stages of my dissertation research. I am studying in the Department of Educational Leadership pursuing a doctorate in Educational Administration. My dissertation topic is focused on barriers for schools to be able to offer more dual credit opportunities for students. I have worked with the Indiana Department of Education to identify six rural and urban secondary schools that have various levels of dual credit offerings. There is a school in your district that was named as one of these schools within Indiana. I would like to visit your school and research your programming and services.”

“I would like to know if you would be willing for (school) in your district to participate in my research. This would include interviews with the principal and/or guidance counselor, I can complete my needed interviews and document collection in one school day.”

“If you agree to allow your school to participate, I can easily provide you with a list of the questions that I will ask before I make my visit. Additionally, you should know that all responses will be kept confidential. No participant in this study will be reasonably identifiable as pseudonyms will be used for yourself and your institution.”

“May I have your permission to work with (school) to help complete my study?”

*[If no]* “Thank you for your time.”

*[If yes]* “I appreciate you allowing me to work with (school). Are there any days that would not work well for my visit? I will let you know when we have arranged my visit. I look forward to meeting you on that day. May I have your email address so that I can send you additional information as the study progresses? If you need to contact me, please call me at 812-240-6723 or email me at [jnewport2@sycamores.indstate.edu](mailto:jnewport2@sycamores.indstate.edu). My university supervisor is Dr. Brad Balch, and he may be contacted with questions or concerns at [Brad.Balch@indstate.edu](mailto:Brad.Balch@indstate.edu) or (812) 237-2802. Thanks again for your time.”

## APPENDIX C: OUTLINE OF PHONE CONVERSATION WITH BUILDING PERSONNEL

(SECONDARY SCHOOL PRINCIPAL, GUIDANCE COUNSELOR, TEACHER, ETC.)

“Hello. My name is John Newport. How are you today?”

“I am a doctoral candidate at Indiana State University, and I am in the early stages of my dissertation research. I am studying in the Department of Educational Leadership pursuing a doctorate in Educational Administration. My dissertation topic is focused on barriers for schools to be able to offer more dual credit opportunities for students. I have worked with the Indiana Department of Education to identify six rural and urban secondary schools that have various levels of dual credit offerings. Your school was named as one of these schools within Indiana. I would like to visit your school and research your programming and services.”

“(Superintendent) gave me permission to work with (school) for my research. The research process would include interviews with you, as principal, along with staff knowledgeable of the dual credit offerings in your building (guidance counselor) as recommended by you. I can complete my needed interviews and document collection in one school day.”

“I would like to visit you and conduct an interview and collect documents at a date that is convenient for you. Prior to our interview we will review your rights as a human subject and there will be a consent form to sign. Participation in this study is voluntary, and you may withdraw from participation at any time. I have a panel of questions that will be asked, and they can be provided ahead of time. It should take only 30-60 minutes to complete an interview with you and collect documents.”

“I am required to keep all responses, evidence collected, and observations confidential, whether they are handwritten or digitally recorded. I will only report aggregated results in my published dissertation. Participants will not be referred to by their given names, but will be assigned a pseudonym, such as John Jones.”

“Would you be interested in participating in the case study? What would be a good date for the visit? Would you want a phone call or text 24 hours before the visit as a reminder?”

“Thank you for agreeing to participate with this research study. I will be sending a follow up e-mail to confirm your participation. If you need to contact me, please call me at (812)240-6723 or email me at [jnewport2@sycamores.indstate.edu](mailto:jnewport2@sycamores.indstate.edu). My university supervisor is Dr. Brad Balch, and he may be contacted with questions or concerns at [Brad.Balch@indstate.edu](mailto:Brad.Balch@indstate.edu) or (812) 237-2802. Thanks again for your time. I look forward to seeing you on our agreed upon date.”

## APPENDIX D: INVITATION TO BUILDING PERSONNEL TO PARTICIPATE

Dear Principal,

Thank you for taking the time to talk to me about my study concerning dual credit. Per our conversation, I would like to extend an invitation to all of your dual credit staff to participate in a 30-minute focus group discussion about barriers to your school being able to offer more dual credit coursework. Staff may “self-select” their willingness to participate by emailing John Newport directly at [jnewport2@sycamores.indstate.edu](mailto:jnewport2@sycamores.indstate.edu). Please forward the following email to all staff involved with dual credit:

Hello. I am a doctoral candidate at Indiana State University, and I am in the early stages of my dissertation research. I am studying in the Department of Educational Leadership pursuing a doctorate in Educational Administration. My dissertation topic is focused on barriers for schools to be able to offer more dual credit opportunities for students. My research questions are as follows:

What barriers exist for Indiana high school students regarding dual credit availability? Three sub-questions support this grand tour question and are as follows:

1. How does dual credit policy influence availability in high schools?
2. What is the role of teacher credentialing to offer dual credit opportunities?
3. How does school mission and vision support dual credit availability for high school students?

I have worked with the Indiana Department of Education to identify six rural and urban secondary schools that have various levels of dual credit offerings. Your school was named as one of these schools within Indiana. I would like to visit your school and research your programming and services.

(Superintendent and Principal) gave me permission to work with (school) for my research. The research process would include a voluntary interview with staff knowledgeable with the dual credit offerings in your building. I can complete my needed interviews and document collection in one school day.

I would like to visit you and conduct an interview and collect documents on (date determined okay by principal). Prior to our interview we will review your rights as a human subject and

there will be a consent form to sign. Participation in this study is voluntary, and you may withdraw from participation at any time. I have a panel of questions that will be asked, and they can be provided ahead of time. It should take only 30-60 minutes to complete an interview with you and collect documents.

I am required to keep all responses, evidence collected, and observations confidential, whether they are handwritten or digitally recorded. I will only report aggregated results in my published dissertation. Participants will not be referred to by their given names, but will be assigned a pseudonym, such as John Jones.

Based on the research questions listed above and the criteria outlined, would you be interested in participating in the case study? If you agree, please reply with a convenient time of day and I will make every effort to accommodate that. I will be sending a follow up e-mail to confirm your participation once I hear from you. If you need to contact me, please call me (812)240-6723 or email me at [jnewport2@sycamores.indstate.edu](mailto:jnewport2@sycamores.indstate.edu). My university supervisor is Dr. Brad Balch, and he may be contacted with questions or concerns at [Brad.Balch@indstate.edu](mailto:Brad.Balch@indstate.edu) or (812) 237-2802. Thanks again for your time and consideration.

## APPENDIX E: INFORMED CONSENT

## Indiana State University

You are being invited to participate in a research study conducted by John Newport and faculty sponsor, Dr. Bradley Balch, from the College of Graduate and Professional Studies, Department of Education Leadership at Indiana State University. This study aims to identify barriers to schools being able to offer dual credit in Indiana high schools and is being done for the purposes of a Ph. D. dissertation. This document will help you decide if you want to participate in this research by providing you information about the study and what you are asked to do. The purpose of this qualitative case study is to identify and understand existing barriers to schools being able to offer dual credit in high schools throughout Indiana. Please read the information below and ask questions about anything you do not understand before deciding whether or not to participate.

Some reasons you might want to participate in this research are that this information may be beneficial to schools around the state in the areas of dual credit offerings and spawn new conversations with state leaders about the barriers for schools to offer more classes for dual credit. Any information reported in the study will be done with confidentiality by utilizing pseudonyms. Some reasons you might not want to participate in the study is if you feel you are not knowledgeable on the subject of barriers for schools to offer more dual credit classes.

This study asks you to participate in an interview, provide relevant documents for study, and review/critique the themes of the research. If you volunteer to participate in this study, we will ask you to participate in the following:

1. Review and sign the Informed Consent form.
2. Participate in an interview of approximately 30 minutes in length.
3. Provide documents that students use to determine any dual credit courses they want to take (Curriculum Guide, Program of Study, etc.)
  - a. Provide researcher with explanation, if needed, regarding the documents.
4. Verify the themes derived from the data, which will be emailed to you to ensure they capture the intent of your interview statements, ensure reliability, and provide any critiques, insights, and feedback.

The choice to participate or not is yours; participation is entirely voluntary. You can decline to participate in the interview, provide documents, or respond to the follow up email; or you may withdraw at any time simply by notifying John Newport at the contact information below. If you decide not to participate, to decline some activities, or withdraw, you will not lose any benefits which you may otherwise be entitled to receive. If a participant wishes to withdraw from the study, they must contact John Newport within two weeks after the site visit.

Every effort will be made to protect your confidentiality. Information about the school, staff, students, and any other participants will be kept confidential and will only be recognized by coded identifiers. Any data and evidence collected will be kept secured for three years, at which time it will be destroyed. Individuals from the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

There are some potential risks. This includes a breach of confidentiality. Every precaution has been taken to reduce this risk. All information will be stored on password-protected computer of the primary researcher; however, there is still a very low likelihood of risk.

It is unlikely that you will benefit directly by participating in this study, but the research may benefit high school students. It is hoped this study will contribute new knowledge to assist in further discussions on solutions to what barriers exist to offering dual credit in high schools in Indiana. These purposeful conversations will hopefully lead to systematic changes in the system to facilitate equal access to dual credit resources throughout Indiana.

If you have any questions, please contact:

John Newport  
1501 S. Paul Dresser Ave.  
Terre Haute, IN 47803  
812-240-6723  
[jnewport2@sycamores.indstate.edu](mailto:jnewport2@sycamores.indstate.edu)

Dr. Brad Balch, faculty sponsor  
401 North 7<sup>th</sup> Street  
Bayh College of Education  
University Hall, Room 303A  
Terre Haute, IN 47809  
812-237-2802  
[brad.balch@indstate.edu](mailto:brad.balch@indstate.edu)

If you have any questions about your rights as a research subject, or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at [irb@indstate.edu](mailto:irb@indstate.edu).

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Printed Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

IRBNet #: 1495743-2

Approved Date: November 7, 2019

## APPENDIX F: INTERVIEW QUESTION PROTOCOL

Time of Interview:

Date:

Location:

Interviewee:

Position of interviewee:

### **Overarching research questions**

What barriers exist for Indiana high school students regarding dual credit availability? Three sub-questions support this grand tour question and are as follows:

1. How does dual credit policy influence availability in high schools?
2. What is the role of teacher credentialing to offer dual credit opportunities?
3. How does school mission and vision support dual credit availability for high school students?

### **Background**

Legislation requires all secondary schools to offer a minimum of two dual credit opportunities for students. There are multiple avenues for schools to provide this opportunity (i.e. Advanced Placement, Career and Technical Education, dual credit through university partnerships); however, the requirements for each opportunity differs greatly. My dissertation will delve into the structure of schools' programming, staffing requirements, and practices that work to meet students' needs.

### **Purpose of the Study**

The purpose of this qualitative case study is to identify and understand existing barriers to students obtaining dual credit in high school throughout Indiana.

### **Interview Questions**

1. In what ways is dual credit offered in your school(s)?
2. Can you give some examples of teacher qualifications for Advanced Placement (AP) or dual credit classes?
3. How was the teacher picked to teach AP or dual credit?
  - a. Probing Question: What kind of discussions did you have with the University Specialist?
4. How was the teacher picked to teach dual credit?
  - a. Probing Question: Do you look for credentials before hiring?
5. In what way has your school worked to expand dual credit?

6. What barriers have you experienced in offering more classes for dual credit?
7. Describe your relationship with postsecondary institutions in offering dual credit classes.
  - a. Probing Question: How have you continued your relationship since its initial start?
8. What barriers do you think exist for students to take dual credit classes?
  - a. Probing Question: How can these barriers be removed or reduced?
9. Is there anything you want to clarify or talk about that I didn't ask about?