

COMMUNITY COLLEGE PROFESSORS' EXPERIENCES WITH DUAL CREDIT HIGH  
SCHOOL STUDENTS: A HERMENEUTIC PHENOMENOLOGICAL STUDY

by

Aldo Guzman

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

Dr. James Sigler, PhD, Committee Chair

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### **Abstract**

This proposed hermeneutic phenomenological study aimed to explore the experiences of community college professors working with dual-credit high school students in northern Texas. Vygotsky's sociocultural theory guided the study to delve into the professors' experiences working with dual-credit high school students. The central research question of this study was what are community college professors' experiences working with dual credit high school students? The study included 11 community college professors with at least one year of experience teaching dual credit. Data was collected through individual interviews, focus groups, and letter-writing prompts. Data analysis involved transcribing the individual and focus group interviews, identifying and grouping themes, and constructing a narrative capturing the essence of community college professors' experiences working with dual-credit high school students. The study unveiled key insights into educators' challenges and pedagogical strategies in dual credit teaching, identifying four main themes: teaching challenges, student preparedness assessment, pedagogical adjustments, and support systems. Also, professors stressed evaluating student readiness and adapting teaching methods, advocating for better support, communication, and transition programs for dual credit students. The research advocates for a reevaluation of dual credit programs, stressing collaboration and support to improve the transition from high school to college. It significantly advances understanding of dual credit education, suggesting ways to enhance program quality and effectiveness for both teachers and students.

*Keywords:* Dual Credit, Dual Enrollment, Early College, Community College Professors, Dual Credit High School, Hermeneutic Phenomenology, Sociocultural Theory, Zone of Proximal Development

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## **Dedication**

I dedicate this dissertation to God, my Creator, the source of all blessings that have graced my life—before, during, and after this extraordinary journey. Your divine guidance has been a constant beacon of inspiration, reminding me in each step of this process.

I dedicate this work to my beloved wife, Jessie, whose unwavering commitment to enhancing my life has been a boundless source of inspiration. You are not only my rock through this journey but also the guiding star illuminating countless paths of growth and transformation. Your dedication to my well-being has breathed life into my ambitions, and for that, I am eternally grateful.

To my treasured children, Alden, Landon, Ethan, and Nathan, may you forever be emboldened to pursue your dreams with unwavering determination, even in the face of the most daunting obstacles. Your resilience, curiosity, and boundless potential have been a wellspring of inspiration for me.

To my incredible mother, Sara Navarro Ruiz, who overcame numerous challenges to raise all six of her children and who never stopped encouraging and celebrating my academic successes. Thank you for instilling in me a deep passion for personal growth and for being an unwavering source of inspiration in my life.

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**List of Abbreviations**

Advanced Placement (AP)

Early College High School (ECHS)

Early College High School Initiative (ECHSI)

Institutional Review Board (IRB)

Project-Based Learning (PBL)

Socio-Economic Status (SES)

Qualitative Data Analysis Software (QDAS)

Zone of Proximal Development (ZPD)



## **CHAPTER ONE: INTRODUCTION**

### **Overview**

Dual credit programs have emerged as a pivotal and dynamic educational endeavor, extending diverse advantages for high schools, higher education institutions, and all invested stakeholders (An & Taylor, 2019; Taylor et al., 2015; Tucker et al., 2023). Dual credit programs facilitate access to advanced higher education courses, cultivate college readiness skills with exceptional early engagement, and expedite the overarching degree attainment process (Dyer et al., 2022; Witkowsky et al., 2020). However, the current standpoint of faculty members regarding these programs and their execution remains uncertain (Alsup & Depenhart., 2023; Russo, 2020). Some studies underscore the merits of dual credit programs, accentuating their positive impact on high school graduation rates, college enrollment, and even second-year re-enrollment (Clayton, 2021; Garcia et al., 2020; Moore & Williams, 2022). Conversely, critics argue participation in dual credit initiatives might hinder degree completion, especially within community colleges (Lawrence & King., 2019; Lee et al., 2022). Chapter One introduces the study by giving background information, a problem statement, a purpose statement, research questions, definitions, and a summary.

### **Background**

The subsequent sections offer an analysis of dual credit programs' historical, social, and theoretical extents and their relevance to addressing the problem and purpose statements. The historical context provides a concise overview of the evolution of dual credit programs, tracing their history and examining relevant federal policies from their inception to the present. The social context delves into the pivotal roles dual credit programs play, not only for the individuals directly impacted by these initiatives but also in identifying potential beneficiaries who stand to

gain from the findings of this study. Lastly, the theoretical context explores the theoretical underpinnings associated with dual credit programs, closely examining the connections between these theories and the dynamics of professor-student interactions within the dual credit framework.

### **Historical Context**

Community colleges have long played a crucial role in providing accessible education to a diverse student population (Field, 2021; Walk, 2020). Community colleges' involvement in dual credit programs holds tremendous potential to impact the educational trajectory of high school students (Wiseman et al., 2023). The focus on enhancing high school students' academic trajectory originates from federal policies emphasizing the support for instruction in agricultural and trade occupations, exemplified by the Smith-Hughes Act of 1917 (Lewis & Stone, 2013). Building upon this commitment to shaping students' educational pathways, landmark legislation such as the Vocational Education Act of 1963 and the Elementary and Secondary Act of 1965 (ESEA) played a pivotal role in authorizing a substantial increase in financial support. Notably, federal funds were explicitly designated to support this type of research for the first time, reflecting a profound federal-level commitment to ensuring equal opportunity and access to education for all students (Lewis, 2015; Malin et al., 2017). Subsequently, in 1984, the Carl C. Perkins Vocational and Applied Education Act further solidified the support for vocational education by providing federal funding. This act marked a significant step in encouraging students to explore concurrent and dual credit opportunities while still in high school, bridging the gap between secondary and postsecondary education (Lewis & Overman., 2008).

A noteworthy initiative related to dual credit programs entails the emergence of early college high schools (An, 2015). In 2002, the Bill and Melinda Gates Foundation launched the

Early College High School Initiative (ECHSI) to provide high school students with exposure to college-level education and support while they are still in high school. Since its inception, the initiative has established over 240 Early Colleges across 24 states and the District of Columbia (Blankenberger et al., 2017; Lewis & Stone, 2013). Moreover, Walk (2020) stressed the impact of the ECHSI potentially impacting students' academic and career readiness for the future.

The historical evolution of federal policies and legislation has laid a robust foundation for the emergence and expansion of dual credit programs (Lewis & Stone, 2013; Malin et al., 2017). Unfortunately, as community colleges continue to expand their dual credit offerings, college faculty and staff face increased responsibilities, including the essential task of monitoring high-school adjunct instructors to ensure an appropriate level of rigor and orienting high-school students and staff to meet college-level expectations (Ison & Nguyen., 2021). The critical role of community colleges in providing accessible education, alongside the unwavering federal commitment to equal educational opportunities, unequivocally underscores the profound significance of dual credit initiatives in shaping the academic future of high school students (Baumeister et al., 2016; Clayton, 2021; Lee et al., 2022).

### **Social Context**

The social implications of dual credit programs encompass various stakeholders, primarily focusing on those directly involved in these initiatives, namely dual credit educators and high school students (Scarborough, 2022). While dual credit programs frequently utilize community college professors, it is worth noting these courses are often taught by certified high school teachers or adjunct professors (Ison & Nguyen, 2021). This study adopts a perspective centering on the community college's standpoint, elucidating how the escalating demand for these courses significantly strains professors. The increased workload and responsibilities

necessitated by dual credit programs can significantly impact the community college faculty, potentially affecting their teaching effectiveness and overall job satisfaction (Ison & Nguyen, 2021; Liu & Xu, 2022).

The role dual credit programs play on high school students warrants closer examination (Mollet et al., 2020; Witkowsky et al., 2020). Notably, research highlights the advantages of dual credit programs, encompassing enhanced, accelerated degree attainment, improved academic performance, and access to higher education courses otherwise financially inaccessible (An, 2015; Lee et al., 2022; Moore & Williams, 2022). While dual credit programs present immense potential, certain students may face challenges in accessing these programs equally (Allen et al., 2022; Garcia et al., 2020). Moreover, some students may find themselves underprepared for the rigorous expectations and demands of collegiate coursework, and being underprepared may adversely impact program participation and degree completion (Jagesic et al., 2022; Lawrence & King., 2019). Hence, addressing these concerns and supporting equitable access and successful student outcomes is vital to enhancing dual credit programs' overall effectiveness and inclusivity (Lile et al., 2018; Moreno et al., 2021).

### **Theoretical Context**

The theoretical context of dual credit programs draws upon several essential theories from recent literature, such as constructivism, sociocultural theory, and self-efficacy theory. These theories serve as valuable frameworks for researchers to explore the relationships among key stakeholders in dual credit. For instance, constructivism emphasizes the significance of active engagement and meaningful learning experiences for dual credit students, and active engagement is highly relevant from the perspective of professors (Fletcher et al., 2020; Witkowsky et al., 2020). Constructivism is widely utilized in dual credit research due to its

practical and iterative coding processes for data analysis (Durham et al., 2019; Lungu, 2022). In higher education, a common trend in learning approaches is to incorporate constructivism principles, where students play an active role in their learning journey and create their knowledge (Hilmawan et al., 2022; Qureshi et al., 2023; Stockard, 2021).

Constructivism is a significant educational theory emphasizing how students construct knowledge actively as they make sense of the world (Sioukas, 2023). However, there are some challenges associated with the constructivist approach. Implementing a constructivist approach is often a difficult, complex, and intensive process requiring effective, talented educators who can shape the learning culture in the classroom (Harrison & Laco, 2022; Overman et al., 2019). Moreover, diverse subjects or fields of study may also require distinct teaching methods (O'Connor, 2022). Despite its challenges, constructivism remains a viable theory in dual credit and higher education as it allows researchers to explore how students relate to a particular learning environment and examine students' learning experiences (Alismaiel et al., 2022).

Self-efficacy theory provides a valuable perspective when exploring professor-student interactions, as it could unveil how teachers feel about their relationships with students (Borremans & Spilt, 2022). Self-efficacy theory revolves around an individual's belief in their ability to succeed in specific tasks or situations (Van Dinther et al., 2011). Regarding dual credit programs, some suggest enrolling in dual credit enhances students' self-efficacy (Ozmun, 2013). Giani et al. (2023) investigated how students' beliefs and feelings influenced their performance in dual credit courses. The results revealed students who exhibited strong self-belief and valued education performed better in college classes, even when unprepared. Hence, self-efficacy theory emerges as a valuable and relevant framework for understanding the dynamics among educators and students in dual credit programs.

Vygotsky's sociocultural theory underscores the role of social interaction in the cognitive development process, and it has been widely adopted in educational research as a framework for investigating effective strategies for educators (Graham et al., 2023; Lantolf & Poehner, 2023). Vygotsky introduced a pioneering concept known as the zone of proximal development (ZPD) to assess a student's capacity for learning with the guidance of a more knowledgeable individual (Alkhudiry, 2022; Smolucha & Smolucha, 2021). According to Vygotsky's definition, the ZPD represents the elevated level of performance attainable when under the guidance of an adult or through collaboration with peers possessing greater expertise (Smolucha & Smolucha, 2021). This study aims to enhance Vygotsky's sociocultural theory by delving into the experiences of community college professors who serve as knowledge facilitators, assisting dual credit high school students in advancing within their zone of proximal development.

### **Problem Statement**

The problem is professors in community colleges and higher education are increasingly responsible for teaching dual credit courses to high school students, creating significant concerns regarding students' academic preparedness, classroom dynamics, and alignment with higher education expectations (Duncheon & Relles, 2020; Giani et al., 2023; Lee et al., 2022; Xu et al., 2021). By enrolling in Dual Credit or Dual Enrollment programs, students can get a head start on their college education and gain valuable experience preparing them for success in their academic and professional careers (Rios et al., 2020; Spencer & Maldonado, 2021; Wiseman et al., 2023). However, as the popularity and demand of these programs continue to grow, several challenges arise, including inconsistent rigor in dual credit courses and a shortage of qualified dual credit instructors (Jagesic et al., 2022; Lawrence & King, 2019; Torres & Liu., 2020). Despite the integral role of educators in dual credit programs, limited research on faculty

experiences' role in implementing these programs exists (Hornbeck et al., 2023; Ison & Nguyen, 2021; Russo, 2020). Hence, a lack of understanding exists regarding how faculty's perception of dual credit students, curriculum, and assessment impact student success and how effectively designed professional development initiatives can improve faculty buy-in and a greater understanding of dual credit programs (Alsup & Depenhart., 2023; Ferguson et al., 2015).

### **Purpose Statement**

This hermeneutic phenomenological qualitative study explored the experiences of community college professors while working with dual credit students in northern Texas. The study adopted a hermeneutic phenomenological perspective to bridge the knowledge gap and explore the experiences of community college professors working with dual-credit high school students (Dowling, 2007; Sloan & Bowe, 2014; Vagle et al., 2020). Dual credit was generally defined as the educational initiatives allowing high school students to simultaneously enroll in college-level courses and earn high school and college credits (An & Taylor, 2019). Dual Credit or Dual Enrollment programs are gaining popularity nationwide among high schools and higher education institutions (Berry et al., 2022; Garcia et al., 2020). Dual Credit programs offer an unparalleled opportunity for students to access higher education, develop college readiness skills, and significantly reduce the time required to earn a degree (Jagesic et al., 2022; Lawrence & King, 2019; Torres & Liu, 2020). The theory guiding this study is Vygotsky's sociocultural theory, developed in (1978).

### **Significance of the Study**

The significance of this study is rooted in its exploration of community college faculty perspectives working with dual-credit high school students. The primary objective of this research is to unveil valuable practical insights emerging from the lived experiences and

viewpoints of the study's participants. The study's utility and relevance will be determined by the firsthand experiences and wisdom shared by community college professors engaged in teaching dual credit courses to high school students.

### **Theoretical**

Theoretically, this study expands Vygotsky's (1978) sociocultural theory by examining the professor's role as a facilitator within the student's zone of proximal development. The findings could reveal how social interactions and guidance from a more knowledgeable professor enable high school students to reach advanced cognitive levels (Smolucha & Smolucha, 2021). This proposed study may advance the theoretical understanding of how interpersonal dynamics in the educational context empower students to maximize their learning potential (Graham et al., 2023; Lantolf & Poehner, 2023).

### **Empirical**

Empirically, this research seeks to fill the gap in the understanding of dual credit programs by shifting the focus from quantitative measurements to qualitative exploration. By delving into the lived experiences of community college professors, the study aims to uncover the nuances, challenges, and opportunities associated with teaching high school students in a dual-credit setting. This approach is particularly valuable as it can provide a deeper understanding of the factors influencing the success and effectiveness of dual credit programs from the faculty's perspective.

The existing literature on dual credit programs has predominantly favored quantitative approaches, as they can measure and compare variables effectively (Dyer et al., 2022; Garcia et al., 2020; Jagesic et al., 2022; Clayton, 2021). For instance, researchers have examined the relationship between dual credit and credential completion (Ison et al., 2022), educational



outcomes encompassing high school graduation, college enrollment, and college choice (Lee et al., 2022), as well as the association between dual credit and degree attainment (An & Taylor, 2019). However, despite the merits of quantitative studies, their findings have yielded conflicting results (An, 2015).

Although the exploration of dual credit is still in its preliminary stages within the literature, a handful of researchers have approached the topic from a qualitative standpoint (Allen et al., 2022; Ferguson et al., 2015; Hornbeck et al., 2023; Moore & Williams, 2022). Some have investigated faculty members' perceptions of rigor in dual credit (Ferguson et al., 2015), while others have explored the factors influencing student enrollment after participating in dual credit (Akay, 2022; Moore & Williams, 2022). Hence, to support the empirical aspect of the study, it is essential to consider qualitative research methodologies, such as interviews, surveys, or writing prompts, to allow for a rich exploration of the experiences of community college professors (Van Manen, 2014). These methodologies should be carefully chosen and justified based on their suitability for capturing the in-depth insights and perspectives of the participants (Lincoln & Guba, 1985).

### **Practical**

The practical implications of this study are profound and multifaceted. By gaining a comprehensive understanding of community college faculty perspectives working with dual-credit high school students, this research may offer practical insights and recommendations for various stakeholders, including educators, administrators, policymakers, and even students themselves. Overall, this research aims to deliver valuable practical insights to guide dual credit program improvement while enriching the theoretical knowledge on professor-student relationships and cognitive development.

## Research Questions

The central research question serves as the essential starting point to capture and understand the essence of the participants' experiences (Van Manen, 2014). Sub-Question One explores community college professors' descriptions of the outcomes of teaching dual credit high school students. Sub-Question Two explores pedagogical approaches employed by the participants working with dual-credit high school students. Sub-Question Three explores the participants' perceptions of their role in the effective implementation of dual credit programs.

### Central Research Question

What are community college professors' experiences working with dual credit high school students?

### Sub-Question One

How do community college professors describe the positive and adverse outcomes of teaching dual-credit high school students?

### Sub-Question Two

What pedagogical strategies do community college professors employ with dual-credit high school students?

### Sub-Question Three

How do community college professors perceive their role in effectively implementing dual-credit programs?

## Definitions

1. *Community College Professors* - Community college professors are educators employed by community colleges who teach diverse courses to students pursuing associate degrees or certificates, including dual credit high school students (Mollet et al., 2020).

2. *Dual Credit* - Dual credit programs refer to educational initiatives allowing high school students to simultaneously enroll in college-level courses and earn high school and college credits (An & Taylor, 2019).
3. *Dual Enrollment*- Policymakers typically define dual enrollment as a program enabling high school students to enroll in college courses and earn college credit upon successful completion. (An & Taylor, 2019)
4. *Early College High School*- A dual enrollment program allowing students to earn an associate degree or up to 2 years of college credit during high school at no cost or low cost to their families (Haxton et al., 2016).
5. *Zone of Proximal Development*- the higher level of performance attainable when under the guidance of a more knowledgeable person or through collaboration with peers possessing greater expertise (Smolucha & Smolucha, 2021).

### **Summary**

Chapter One introduced a qualitative study exploring the experiences of community college professors teaching dual credit courses to high school students. Dual credit programs allow high school students to take college courses and earn credit toward both a high school diploma and a college degree (An & Taylor, 2019). The popularity of these programs has grown significantly, but research on faculty experiences implementing them is limited (Ison et al., 2022; Russo, 2020). The problem is that as dual credit offerings expand, professors face challenges regarding student preparedness, classroom dynamics, and alignment with college expectations (Lee et al., 2022; Xu et al., 2021).

The purpose of this hermeneutic phenomenological study is to understand the experiences of community college professors teaching dual credit students in northern Texas.

Vygotsky's sociocultural theory emphasizes social learning and the role of a "more knowledgeable other," providing guidance to the learner (Vygotsky, 1978, p. 149). The central research question asks: What are community college professors' experiences working with dual credit high school students? Sub-questions address teaching outcomes, pedagogical strategies, and perceptions of their role in dual credit programs.

This study is significant because most existing research on dual credit is quantitative and lacks faculty perspectives (Dyer et al., 2022; Jagesic et al., 2022). Exploring professors' lived experiences will provide practical insights to improve dual credit programs. Definitions of key terms like dual credit, dual enrollment, and zone of proximal development are provided. The background summarizes the evolution of federal policies supporting vocational education and initiatives like early college high schools laying the foundation for dual credit expansion. The social and theoretical contexts are also discussed. In summary, this qualitative study aims to address a gap in understanding community college faculty experiences with dual credit students.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

Chapter Two presents a review of the current literature related to the topic of study. The first section addresses Vygotsky's social cognitive theory, focusing on the zone of proximal development concept. Subsequently, the theoretical framework is followed by an overview of recent literature regarding dual credit programs and outcomes, effectiveness, the role of dual credit faculty, and dual credit pedagogical approaches. The culmination of this chapter presents a succinct summary highlighting the discernible research gap in the realm of community college professors' experiences working with dual-credit high school students.

### **Theoretical Framework**

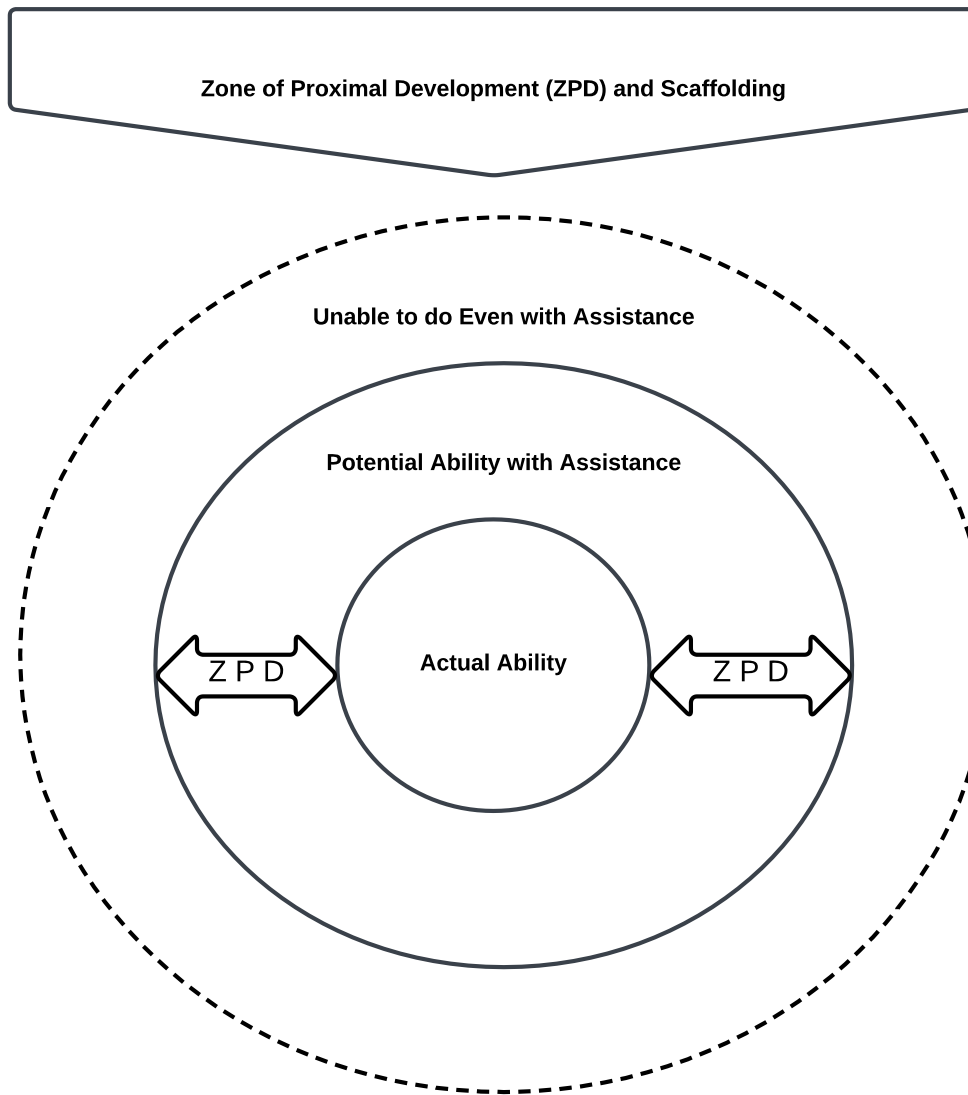
Dual credit programs have garnered substantial attention within higher education due to their unique capacity to enable high school students to earn college credit (Lawrence & King, 2019; Morales-Gracia et al., 2022). Vygotsky's (1978) sociocultural theory stresses the fundamental role of social interaction in the development of cognition. Hence, this study draws upon the construct of Vygotsky's sociocultural theory, focusing on the zone of proximal development (ZPD), to examine the role of community college professors in the success of dual credit students and programs. The (ZPD) framework underscores the critical importance of guided instruction and learning facilitated by individuals possessing greater expertise. In the specific context of this study, this framework highlights the substantial role played by community college professors in facilitating the educational journey of dual-credit high school students.

## **The Zone of Proximal Development**

The theoretical framework for this study incorporates Vygotsky's (1978) sociocultural theory, specifically focusing on the zone of proximal development (ZPD) concept. Vygotsky's theory encompasses critical ideas about developing higher mental functions within sociocultural contexts (Poehner, 2023). Cognitive tasks in the zone of proximal development include internalizing verbal guidance as private speech, teaching in the zone of proximal development, and using object substitutions in pretend play (Smolucha & Smolucha, 2021). This study focuses on the second concept pertaining to the zone of proximal development (see Figure 1). According to Vygotsky's theory, the Zone of Proximal Development (ZPD) refers to the difference between a learner's independent capabilities and their potential level of development with guidance or assistance from more skilled individuals (Sazali et al., 2022).

### **Figure 1**

*The Zone of Proximal Development Illustration*



*Note.* Adapted from “Revisiting and re-representing scaffolding: The two gradient model,” by Malik, 2017, *Cogent Education*, 4(1), p. 3. 1331533. CD BY 4.0.

According to Vygotsky (1978), the (ZPD) has three distinct stages for the learner: (1) tasks beyond their current abilities, even with assistance or guidance from others, (2) tasks they can complete with some help, and (3) tasks students can accomplish independently. Thus, the ZPD measures a learner's ability to achieve greater heights with the proper support (Xi & Lantolf, 2021). In essence, the ZPD suggests teachers should introduce concepts slightly beyond students' current capabilities yet still within their grasp with assistance (Wass & Golding, 2014).

This study applies the ZPD framework to investigate how community college professors interact with high school dual credit students in their ZPD. Therefore, some topics for exploration include analyzing the instructional strategies, support mechanisms, and scaffolding techniques used by these professors to assist students in their learning process. Hence, the focus will be on understanding how professors navigate the ZPD, providing appropriate challenges and guidance to facilitate students' growth and development. Drawing on Vygotsky's sociocultural theory and the concept of the ZPD offers a broad framework for investigating the experiences of community college professors working with dual credit high school students. Moreover, the ZPD illustration allows for studying dynamic interactions and instructional practices promoting students' learning and development within their zone of proximal development.

Vygotsky's theory highlights the significance of interaction with a more knowledgeable person in facilitating a child's higher level of development (Smolucha & Smolucha, 2021). The guidance and support of a knowledgeable other, like a teacher or peer, is crucial in helping learners acquire new knowledge and skills they may not have achieved independently (Cooper & Lavie, 2021; Warren & Goins, 2019). The recent surge in the popularity of the ZPD is evident, given its application in multiple educational settings, including early childhood education and high school (Smolucha & Smolucha, 2021). Scholars have shown increasing interest in operationalizing the ZPD to explore several topics in education, including how instruction influences conceptual development and exploring the role of emotions regarding students' ZPD (Clarà, 2017; Tošić-Radev & Pešikan, 2023). Moreover, the ZPD aligns with other theories relevant to teaching and learning, such as social-cognitive and sociocultural theories, emphasizing the reciprocal relationship between individuals and their environment (Eun, 2019; Zaretsky, V. K., & Kholmogorova, 2020).



Cooper and Lavie (2021) emphasized using ZPD in higher education as it can potentially uncover insights for effective teaching and learning. Moreover, the literature indicated community college professors in dual credit programs serve as knowledgeable guides, facilitating interactions between students and their peers as they progress from one level of knowledge to the next (Harrison & Laco, 2022; Leibel et al., 2021; Stephens et al., 2022). Consequently, faculty members are crucial in establishing rules, guidelines, and expectations shaping students' interactions and differentiating dual credit courses from other educational options (Stein & Klosterman, 2020). The acquisition of insights from community college professors regarding the construct of a more knowledgeable other has the potential to make a valuable contribution to the currently limited literature on instructional strategies and learning outcomes in dual-credit high school courses (Duncheon & Relles, 2020; Ganzert, 2014; Martinez et al., 2018).

Social interactions are pivotal in facilitating the Zone of Proximal Development (ZPD), offering invaluable contributions to the educational landscape. Social interactions serve as a vital instrument for understanding the intricate interplay between the act of teaching and the learning process (Harrison & Laco, 2022; Hill & Smith., 2023). Extensive research has underscored the indispensable role of social learning in elucidating how students acquire knowledge and how educators can harness social interactions to enhance learning outcomes (Albusaidi, 2019; Kahlke et al., 2019).

A compelling argument favoring prioritizing social interaction and learning revolves around equipping students with robust interpersonal skills, particularly in areas such as teamwork and collaboration, essential in professional work settings (Mertens et al., 2018). Moreover, researchers emphasized the educators' responsibility to integrate interpersonal skills

into their teaching methodologies, nurturing a comprehensive and successful student learning experience (Jang & Kim, 2020; Rios et al., 2020). Consequently, Vygotsky's sociocultural theory, with its foundational tenets including the Zone of Proximal Development, serves as an overarching theoretical framework informing and enriching the critical examination of the existing scholarly literature on dual credit programs.

### **Related Literature**

Dual credit programs and initiatives have gained significant momentum nationwide across higher education institutions and high schools (Blankenberger et al., 2017; Lee et al., 2022). A comprehensive literature review of dual credit programs may yield vital insights for stakeholders, including policymakers, administrators, students, educators, and researchers. Accordingly, the forthcoming sections delve into the latest research on the evolution of dual credit programs, focusing on their outcomes. Furthermore, this literature review examines factors impacting the effectiveness of dual credit programs and underscores the pivotal role of faculty members who instruct such courses. Finally, this literature review unveils findings on teaching techniques relevant to dual credit programs.

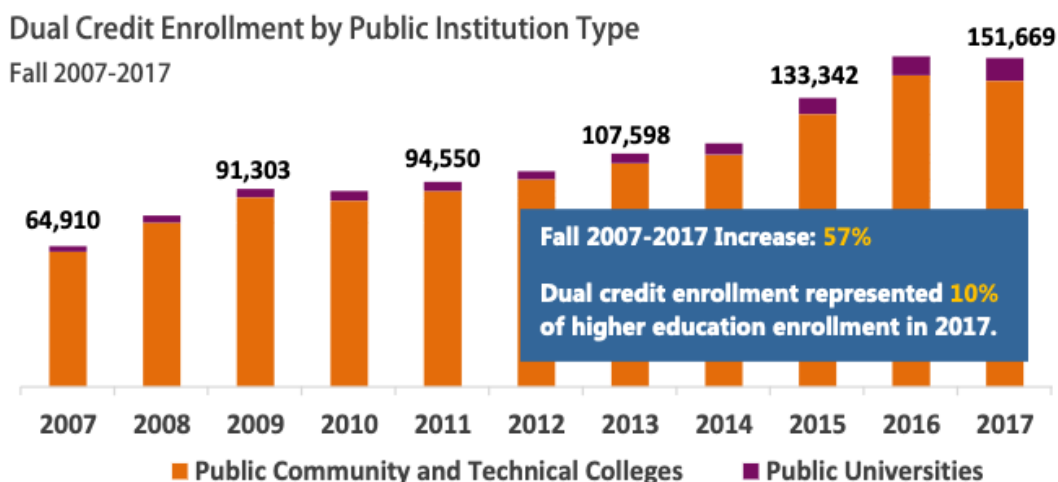
### **The Growth of Dual Credit Programs**

Scholars may utilize interchangeable phrases such as dual credit, concurrent credit, and dual enrollment in their scholarly works (An & Taylor, 2019; Clayton, 2021; Torres & Liu, 2020). Thus, the term dual credit will be used for consistency and clarity, signifying high school students also enrolled in college courses (An & Taylor, 2019). The literature shows consistent growth and demand for dual credit programs as they are prevalent in community colleges and higher education institutions (Duncheon & Relles, 2020; Field, 2021; Garcia et al., 2020). To help put the growth of dual credit into perspective, Xu et al. (2021) showed the popularity and

demand for dual credit programs in the United States are escalating quickly, from 680,000 participants to more than 1.4 million in the most recent national count. Additionally, in Texas, dual credit enrollment shows consistent growth (see Figure 2).

**Figure 2**

*Dual Credit Growth Illustration*



*Note.* From “Overview: Dual Credit,” by The Texas Higher Education Coordinating Board, n.d. (<https://reportcenter.highered.texas.gov/agency-publication/miscellaneous/dual-credit/>). CC BY 2.0.

Another factor contributing to the popularity of dual credit programs is the societal expectation for high school students to graduate and pursue higher education (Haskell, 2016). High school students are expected to attend college and participate in opportunities for academic acceleration from expectations set by their families (Hertzog et al., 2021) and academic advisors promoting postsecondary preparation and college credit (Witkowsky et al., 2020). The expectation to attend college is also present in students’ daily lives through media, including shows, movies, novels, the internet, and social media (Nuñez, 2018). In addition to the student’s

expectations for attending college, dual credit enrollment has become a sizable percentage of community college enrollment in the United States (Ison & Nguyen, 2021).

Although initially, dual credit or concurrent enrollment focused on academically advanced students (Clayton, 2021), the current trend involves expanding enrollment efforts to include more students, including traditionally underrepresented populations and students from lower socioeconomic backgrounds (Lee et al., 2022; Partridge et al., 2021). Therefore, the literature shows consistent growth in the popularity and proliferation of dual credit as an essential education policy (Hornbeck & Malin, 2019) and the constant search for a solution addressing a decrease in college enrollment, increases in tuition costs, and the need for enrollment of more diverse student population (Dyer et al., 2022). Additionally, researchers have explored and presented the advantages and several benefits for students looking to enroll in the diverse types of dual credit programs, including dual or concurrent enrollment and the recent trend of early college high schools (An & Taylor, 2019; Ison et al., 2022; Sazali et al., 2022). As a result, multiple topics emerged in reviewing the dual credit literature, and these topics will follow.

### **Dual Credit Positive Outcomes**

Dual credit programs benefit students and institutions involved- the high school and community college. From the perspective of dual-credit students, dual-credit programs offer an opportunity for high school students to explore college classes as early as ninth grade while taking advantage of the low to zero cost to the student (Duncheon & Relles, 2020; Field, 2021; Xu et al., 2021; Garcia et al., 2020). Dual credit programs also benefit institutions. For instance, considering community colleges' perspectives, dual credit provides several advantages, including a pipeline from dual credit students to traditional matriculated students, lower faculty

compensation expenses since credential instructors in high school often teach for little financial compensation, and increased collaboration between colleges and high schools (Berry et al., 2022; Ison & Nguyen, 2021). Hence, it is not surprising over three-quarters of high school students in the United States participate in dual credit programs (Nordquist & Lueck, 2020). The following section will address salient themes uncovered in the literature review addressing the benefits of dual credit, including access to college credit by reducing cost and time, degree attainment, and student college readiness.

### *Access to College Credit*

Dual credit allows students to experience college courses, whereas experiencing college traditionally would not be accessible due to several roadblocks (Hooper & Harrington, 2022; Phelps & Chan, 2016). Monetary and financial considerations play a critical role in a student's decision to join a dual credit program, as many states provide a free or discounted cost of attendance, making it a more affordable option for students interested in earning college credit (An & Taylor, 2019). Also, dual credit programs give students access to various courses in various formats. Dual credit courses are available during the school day at the high school with educators accredited by the college, on the college campus by college faculty, or online synchronous and asynchronous courses (Clayton, 2021). The availability of faculty, diverse course offerings, and college environment enable students to sample courses in a future path or career they may be interested in pursuing.

Another essential aspect is the students interested in dual credit pursuing a different environment than their high school can offer. For instance, some students may perceive high school as too easy, may feel their high school courses are unrelated to their career goals, or are ready for a more challenging experience, and dual credit provides challenges and incentives

otherwise not available (Burrus et al., 2013; Zheng et al., 2020). Hence, dual credit programs offer access to several students, including those searching for more rigor, personalization, various higher education options, and the opportunity to gain skills necessary as they transition to postsecondary education.

### ***College Readiness***

For numerous students pursuing a college degree, dual credit courses are often their initial introduction to college life. Consequently, participating in dual credit courses allows high school students to acquire the necessary skills for a smoother, more enjoyable transition to college. (Malin et al., 2017; Morgan et al., 2018; Witkowsky et al., 2020). Additionally, researchers have presented positive results regarding student self-efficacy, self-concept, academic performance, and persistence when investigating dual credit and practical college readiness skills (An & Taylor, 2019; Clayton, 2021; Dyer et al., 2022). Moreover, participating in dual credit programs can positively impact the integration of traditionally underrepresented students into the college environment (Ganzert, 2014; Roach et al., 2015; Salerno et al., 2023). Studies have shown dual credit programs can boost students' self-confidence and provide them with the necessary skills to successfully transition from high school to college (Chumbley, 2016; Tucker et al., 2023).

The increasing availability of dual credit classes for students as young as 14 has prompted concerns regarding their college readiness, the potential for mismatched expectations, and their ability to persist in higher education (Alsup & Depenhart., 2023; Corin et al., 2020). Several distinct factors have been identified as potential concerns affecting dual credit students, including issues related to their maturity and readiness for the competitive landscape post-graduation, a possible overestimation of their competence leading to hesitancy in seeking

assistance, and the constraints on time available for the cultivation of essential collegiate skills (Dyer et al., 2022; Witkowsky et al., 2020). These notable concerns have instigated inquiries into the influence of dual credit participation on college outcomes and impacts, most notably degree attainment.

### ***Degree Attainment***

While dual credit programs offer numerous opportunities, the scholarly exploration of the intricate relationship between participation in these programs and attaining advanced degrees remains limited (Chumbley, 2016; Field, 2021). A noteworthy concern centers on the extended time typically required for undergraduate students to complete their degrees, often exceeding the five-year mark (Witteveen & Attewell, 2019). As a result, the appeal of dual credit programs lies in their potential to expedite degree completion and increase the likelihood of obtaining postsecondary credentials compared to their non-dual credit counterparts (An & Taylor, 2019; Ison, 2022). Existing literature broadly confirms a positive correlation between participation in dual credit programs and the achievement of postsecondary degrees (Blankenberger et al., 2017; Tucker et al., 2023).

While there are differing viewpoints, some claim enrolling in dual credit programs may not necessarily enhance degree attainment or postsecondary credentials but might hinder students' progress toward earning a degree at community colleges, inadvertently affecting their completion rates (Scarborough, 2022; Zinth & Taylor., 2019). Conversely, other scholars caution community colleges to consider their approach to dual credit recruitment carefully, as certain research indicates students enrolled in these programs may be more inclined to attend a four-year university when pursuing a bachelor's degree (Ison & Nguyen, 2021; Lawrence & King., 2019). Therefore, it is essential to comprehend the implications of dual credit programs on academic

outcomes and the roles played by each participant in these programs. Therefore, understanding the outcomes regarding participation in dual credit programs represents a significant research opportunity, as further investigation could yield practical recommendations for practitioners and researchers.

### **Dual Credit Unintended Outcomes**

Upon initial examination, the perceived benefits of dual credit programs may lead one to assume their unquestionable advantages. However, a literature review reveals a more nuanced perspective, with critics highlighting certain drawbacks and areas for improvement (Jagesic et al., 2022; Dyer et al., 2022). Although research highlights the advantages of dual credit programs, such as increased access to college opportunities and improved college readiness (An & Taylor, 2019; Hornbeck & Malin, 2019; Lee et al., 2022), it is crucial to consider concerns raised by experts in the field. For example, several studies have identified potential drawbacks, including the negative impact on minoritized and low socioeconomic students, concerns about the rigor of dual credit courses, and the importance of qualified dual credit faculty (Johnson & Mercado-Garcia, 2022; Tucker et al., 2023).

Critics have also pointed out disparities in access and success rates among minoritized and low socioeconomic students, highlighting the need for targeted support and interventions to ensure these students can fully benefit from dual credit opportunities (Buckley et al., 2022; Hemelt et al., 2020; Salerno et al., 2023). Moreover, concerns have been raised regarding the consistency and rigor of dual credit courses (Heavin & Ma, 2022; Torres & Liu, 2020). Variations in course content, instructional methods, and assessment practices have been identified as potential factors compromising the quality and integrity of the educational experience across different dual credit offerings (Liu & Xu, 2022; Taylor et al., 2015).



Moreover, Dyer et al. (2022) argued the effectiveness of dual credit programs relates to the qualifications and expertise of the instructors. Challenges related to teacher shortages and the need for specialized training and certification for teaching dual credit courses have been acknowledged as potential barriers to program success (Moreno et al., 2021; Lawrence & King., 2019). Therefore, ensuring the availability of qualified dual-credit faculty is essential for maintaining the overall quality and impact of educational programs (Sutcher et al., 2019; Carver-Thomas & Darling-Hammond, 2019).

### **Negative Impact on Minoritized and Low SES Students**

The literature indicates essential considerations regarding the outcomes of traditionally underrepresented students, such as minorities and students of low socioeconomic status who participate in dual credit programs (An, 2015; Lee et al., 2022; Xu et al., 2021). While dual credit programs provide academic benefits for traditionally underrepresented students, challenges and barriers must be addressed (Liu, 2021; Nelson et & Waltz, 2019). Students from low socioeconomic backgrounds face limited access to dual credit programs, hindering their participation in and benefit from these opportunities (Bettinger et al., 2022).

Furthermore, when assessing student attributes linked to collegiate success, researchers have emphasized the significance of self-concept and a sense of belonging as pivotal predictors of achievement in dual credit programs (McMahon et al., 2008; Strayhorn, 2018; Raufelder & Kulakow, 2022). Nevertheless, students from economically disadvantaged and minoritized backgrounds confront a multitude of challenges impacting their self-concept and sense of belonging, including external obligations, geographic distance to campus, class size and rigor, and a perception of social isolation (Allen et al., 2022; Garcia et al., 2020; Strayhorn, 2018). Research shows despite efforts and the programs enacted to support minorities and low

socioeconomic students, the cost was still a significant barrier for this demographic (Garcia et al., 2020; Hooper & Harrington., 2022; Nelson & Waltz, 2019). Likewise, Xu et al. (2021) empirically observed disparities in the availability of college acceleration programs nationwide, underscoring merely allocating resources is insufficient. Moreover, they emphasized the necessity for purposeful initiatives to ensure equitable access to address and rectify racial disparities.

### ***Course Rigor***

Several concerns became evident in reviewing the dual credit literature regarding rigor (Allen et al., 2022; Morgan et al., 2018). Ferguson et al. (2015) claimed dual credit courses were at least as rigorous as traditional courses; however, faculty perceived dual credit students as less mature and did not behave like their older, traditional college students and thus required significant support. Moreover, dual credit programs impact dual credit students and the rigor and experience of conventional students. Additionally, college students exposed to higher proportions of dual credit students showed higher repetition rates and lower passing grades, and exposure to dual credit students during a typical student's initial semester may reduce college persistence (Liu & Xu, 2022).

The literature shows criteria for identifying the rigor in dual credit, including the types and forms of dual credit courses options, who is eligible to enroll in these courses, and procedures for ensuring the quality of dual credit offering, including review processes, accountability, and oversight (Hornbeck et al., 2023; Taylor et al., 2015). In addition, the literature revealed the role of each state in standard dual credit policies regarding rigor, including eligibility and admission requirements, course quality, transferability of credits, the expectation for faculty and instructor qualifications, and professional development (An & Taylor, 2019).

However, regarding quality assurance provisions, although 30 states have annual reporting requirements on dual credit, only 16 states have policies requiring or encouraging the monitoring of student outcomes (Taylor et al., 2015).

### ***Mismatched Expectations***

The existing literature indicates a certain degree of apprehension regarding dual credit programs, primarily due to the varying expectations and capabilities of participating high schools and colleges (Metz & Metz, 2022; Garcia et al., 2020; Nordquist & Lueck, 2020). Hence, challenges emerge when there are disparities in the expectations of dual credit programs between high schools and colleges, as high schools may possess comparatively lower academic standards or distinct success criteria in contrast to colleges, creating a misalignment in expectations leading to students being unprepared for the academic rigor and demands of college-level coursework (Hemelt et al., 2020; Lee et al., 2022; Xu et al., 2021). Similarly, instructors may find their expectations of students' college readiness do not always align with the reality of their students' preparedness, leading to frustration and the need for adjustments in teaching strategies (Curci et al., 2023; Mollet et al., 2020; Hornbeck et al., 2023).

The literature shows dual credit teachers often struggle with understanding their roles as high school teachers and college instructors and attaining a clear distinction can be challenging without guidance (Garcia et al., 2020; Hooper & Harrington, 2022; Hornbeck et al., 2023). In their 2017 study, Dare et al. emphasized dual credit programs can enable high-ability students to achieve their full potential by ensuring the pace of their education matches their abilities. Furthermore, they underscored the significance of comprehending students' motivations for enrolling in dual credit programs, highlighting its crucial implications for educational practice.

### **Dual Credit Program Effectiveness**

The literature offers a range of approaches to assess the efficacy of dual credit programs, drawing from the viewpoints of administrators (Garcia et al., 2020; Hornbeck & Malin, 2019), advisors (Witkowsky et al., 2020), and students (Allen et al., 2022; Bettencourt, 2021; Moore & Williams, 2022). While these diverse perspectives illuminate various facets of dual credit programs, a consistent theme surfacing is the pivotal role played by dual credit educators in shaping the success of educational programs (Curci et al., 2023; Mollet et al., 2020; Duncheon & Relles, 2020). The role of educators is evident in the literature listing factors such as teacher availability and certification as influential in dual credit program effectiveness (Hornbeck & Malin, 2019; Young et al., 2013).

Moreover, concerns have been raised regarding the preparedness of high school teachers to deliver college-level courses with the required rigor and depth, especially considering the complexities arising from diverse state regulations and policies related to dual credit (Ison & Nguyen, 2021; Hornbeck & Malin, 2019; Moore & Williams, 2022). With the continued growth and demand of dual credit programs, professors in higher education are increasingly expected to teach dual credit high school students (Torres & Liu, 2020). Hence, exploring the experiences of community college professors with dual credit high school students can provide valuable information to optimize dual credit program outcomes, foster student success, and establish meaningful collaborations between high schools and colleges (Duncheon & Relles, 2020; Lile et al., 2018; Liu & Xu, 2022).

### ***Student Sense of Belonging***

Research shows the importance of students' sense of belonging in several areas, including the social and academic experiences for students (Williams, 2021; Strayhorn, 2018).

Belonging becomes even more relevant when dealing with multiple institutions, especially when considering students in dual credit programs may have classes at the college or their high school. Research shows caring faculty, the learning environment, and location play a role in students considering continued participation in dual credit programs (Moore & Williams, 2022). Conversely, faculty's remarks and comments, including complaints about having to teach dual credit or similar responsibilities, have decreased student comfort, performance, feelings of exclusion, and a lack of belonging (Fleming et al., 2020).

Although it is not entirely up to the faculty, dual credit instructors play a significant role in helping students feel like they belong. Faculty may influence students' experiences by fostering campus relationships, cultivating a sense of student belonging and involvement, and helping students see their work in the classroom as relevant (Ridinger-Dotterman et al., 2020). Some research shows engaging in dual credit programs can smooth their transition into college, increasing subsequent college matriculation and promoting positive social class identity development among low-social class dual credit students (Hornbeck & Malin, 2019; Morgan et al., 2018). Also, Duncheon and Relles (2020), along with Lee et al. (2022), contend that dual credit students' immersion in the college environment and classroom settings provides them with crucial insights into the "hidden curriculum" of college life. Hence the collegiate exposure facilitates student interaction with faculty, heightens awareness of the social and academic expectations of college classes, and enhances the ability to navigate the complexities of the college environment.

### ***Dual Credit Program Assessment and Evaluation***

The assessment and evaluation of dual credit programs play a critical role in ensuring participating students' effectiveness and academic success (Torres & Liu, 2020). Hence,

educators and administrators need to understand how to assess and evaluate the performance and progress of dual credit students (Bettinger et al., 2022; Young et al., 2013). Assessing and evaluating dual credit programs can be done by analyzing student outcomes, conducting surveys or interviews with students and faculty, and reviewing course materials and curricula (Dare et al., 2017; Martinez et al., 2018). However, some concerns have been raised about the potential misalignment between the academic standards enforced in secondary education and college, and despite meeting the standards set by their high schools, students entering college through dual enrollment programs may still be underprepared for college-level coursework (Chumbley, 2016; Wiseman et al., 2023; Witkowsky et al., 2020). Also, Torres and Liu (2020) argued dual credit courses are less challenging as dual credit typically involves formative assessment and not the stressors associated with other forms of dual enrollment such as Advanced Placement (AP) examinations.

The discrepancy in standards may lead to difficulties for students transitioning from high school to college. One potentially adverse aspect of inconsistent assessment and evaluation entails the possibility of a student failing a college-level course or adversely impacting their high school graduation and overall academic trajectory (Chumbley, 2016; Witkowsky et al., 2020). Evaluating the impact of dual credit programs on educational outcomes is essential, particularly for underserved students. Although dual credit and dual enrollment programs are advertised as strategies to promote college access and completion for students, there is concern the credit-only model may not adequately address the disparities in educational outcomes. Thus, stronger partnerships, consistent communication, and a consistent evaluation and assessment process among dual credit programs are required for the overall effectiveness of dual credit programs (An, 2013; Chumbley, 2016; Kazu & Yalçın, 2022; Young et al., 2013).

**Dual Credit Program Policy.** Dual credit program policies establish the guidelines and criteria for high school students to earn college credit before graduation (Hornbeck et al., 2023; Phelps & Chan, 2016). Dual enrollment policies have progressed, starting as bilateral agreements between secondary school districts and local colleges to provide advanced curriculum options for high-achieving students (Tucker et al., 2023). However, more recent policy trends have shifted the focus of dual enrollment programs towards traditionally underrepresented populations in higher education and students from lower socioeconomic backgrounds (An, 2013; Moreno et al., 2021; Urquhart et al., 2023; Xu et al., 2021). Duncheon & Relles (2020) suggested dual credit policies expanding the dual credit program options for underrepresented populations are essential in bridging educational inequalities and increasing college access for historically marginalized students. Moreover, according to Zinth and Taylor (2019), underrepresented student populations make academic gains through dual enrollment programs, but improvements are lower than those of more privileged students. Consequently, a salient theme in recent research indicates dual-credit enrollment programs have the potential to benefit underrepresented students, although there are barriers and challenges need to be addressed to maximize student success in these programs (Harmon & Johnson, 2023; Hooper & Harrington, 2022; Liu & Xu., 2022).

**Dual Credit Program Implementation.** Dual Credit program implementation in schools nationwide emphasize earning college credits while in high school, dual credit programs have gained popularity due to their promise of providing students with an early college experience and the opportunity to save money through state or school district-funded programs (Ison, 2022). Hence, the implementation of dual credit programs varies significantly depending on the state and the decisions between high schools and colleges. Some states allow high school students to enroll in courses offered by local colleges, while others require colleges to provide courses on

high school campuses. Additionally, the requirements for eligibility and the transferability of credits earned through dual credit vary from state to state. These varying policies can impact the access and success of students in dual credit programs. Considering the dual credit implementation disparities, recent research encourages policymakers and educational institutions to prioritize the development of inclusive policies promoting equal access to dual credit programs.

Bettinger et al. (2022) suggested increasing awareness and information about dual credit programs among students, parents, and school counselors. Also, the literature shows many students, particularly those from underrepresented backgrounds, may not be aware of the benefits and opportunities afforded by dual credit (Harmon & Johnson, 2023; Moreno et al., 2021; Roach et al., 2015). Li and Li (2022) highlighted the need for standardized eligibility requirements and transferability of credits across states to ensure all students have an equal opportunity to participate in dual credit programs. Inconsistencies in eligibility requirements can create barriers for certain groups of students, particularly those from lower-income backgrounds or underrepresented communities (An, 2015; Jagesic et al., 2022). Therefore, there is an agreement in the literature involving the need for dual credit policies ensure a seamless transfer of credit earned through dual credit programs from high schools to colleges or universities (Radunzel, 2021; Lee et al., 2022; Moore & Williams, 2022; Yang et al., 2018).

### **High School and College Collaboration**

The collaboration between high school and higher education is seen as a potential solution to various challenges students face during their transition between these educational levels as they enhance students' success in navigating the collegiate environment (Berry et al., 2022; Duncheon & Relles, 2020; Yang et al., 2018). Dual credit programs offer high school



students the opportunity to learn in a college-level environment alongside undergraduate students. This unique classroom setting can have a positive effect on students' college persistence rates, as they are exposed to the rigors of college-level coursework and can adapt to the expectations and challenges of collegiate life earlier on (Chen et al., 2023; González et al., 2022). Additionally, research has indicated students who participate in dual credit courses are more likely to pursue higher education and persist in college than their peers who do not participate in such programs (Tucker et al., 2023; Wozniak & Bierlein Palmer, 2013; Zinth & Taylor, 2019).

Some concerns may impact the relationships and collaboration between high schools and higher education institutions aiming to offer dual credit courses. For instance, one concern is participation in dual credit programs may inadvertently contribute to academic burnout and increased stress levels among high school students due to the pressure to excel in college-level coursework while still fulfilling the requirements of their high school curriculum (Elisa Navarro Morales & Londoño, 2019; Nelson & Waltz, 2019). Another concern is dual credit programs may not adequately prepare students for the unique demands of college, and even though students may earn college credits, the depth and rigor of the coursework may be diluted to accommodate high school students. (Giani et al., 2014; Kolluri, 2018). There are concerns regarding the allocation of time and resources to dual credit programs, as some argue that these resources could be better used to improve the foundational curriculum or provide additional support services to students who do not have access to such programs (Alsup & Depenhart, 2023; Kolluri, 2018).

### **The Role of Dual Credit Faculty**

The effective implementation of dual credit programs relies heavily on the effectiveness of the teacher or Faculty (Stockard, 2021). The existing literature emphasizes the importance of

high schools ensuring their teachers receive certification to administer dual credit courses on their campuses because dual credit teachers play a pivotal role in shaping student development's academic and social facets (Garcia et al., 2020; Hornbeck & Malin, 2019; Carter & Smith, 2019). Further research delves into the perspective of college faculty collaborating with high schools, indicating faculty engaged in both K-12 and higher education sectors tend to exhibit enhanced adaptability in formulating solutions and providing support for dual credit students (Mollet et al., 2020; Xi & Lantolf, 2021). Therefore, further exploration into the perceptions of dual credit faculty, particularly regarding their self-perceived effectiveness and mindset toward high school dual credit students, is necessary and likely to yield significant insights (Clayton, 2021).

### ***Community College Professor Roles and Responsibilities***

Community college professors teaching dual credit courses must meet specific qualifications and adhere to established standards (Young et al., 2013). Community college professors' responsibilities go beyond teaching dual credit courses, including setting student expectations, ensuring alignment with college-level standards, and assisting students in meeting the academic rigor expected in higher education (Corin et al., 2020; Garcia et al., 2020; Lile et al., 2018). Furthermore, community college professors teaching dual credit courses are responsible for assessing and evaluating student performance and providing timely and constructive feedback, decreasing the interaction gap between distance education and traditional settings (Allen et al., 2022; Shambour & Abu-Hashem, 2022). Likewise, Taylor et al. (2015) stressed the importance of community college professors establishing clear learning objectives and outcomes for dual credit courses to provide students with a comprehensive understanding of the subject matter.

Community college professors teaching dual-credit courses play a crucial role in preparing students for the demands of college-level coursework, and they must be ready to address maturity-related challenges and provide appropriate support and guidance to dual-credit students (Hemelt et al., 2020). Despite the concerns expressed by some educators about the maturity of dual credit students, research suggests some dual credit students become motivated and dedicated to their studies when guided by a teacher, advisor, or counselor (Lee et al., 2022; Allen et al., 2022). Similarly, research by Ferguson et al. (2015) found community college faculty generally have positive perceptions of dual credit students' motivation and dedication to their coursework.

In addition to their instructional responsibilities, community college professors teaching dual credit courses also have administrative duties, including maintaining accurate records of student attendance and grades, attending faculty meetings and professional development sessions, and participating in curriculum development and assessment activities (Lichtenberger et al., 2014; Taylor et al., 2015). The roles and responsibilities of community college professors are multifaceted, rousing the need for more research to understand further how to support the diverse needs of dual credit students (An, 2013; Chumbley, 2016; Howard, 2019).

### ***Instructor-Student Relationships***

Community college professors are pivotal in enhancing high school students' learning journey, given their responsibility for crafting, and delivering college-level curricula and offering essential guidance, support, and rigorous assessments to ensure students' academic progress (Destin & Kosko, 2016; Taylor et al., 2015). These dedicated educators face a unique blend of challenges and opportunities while working with dual credit high school students, given the diverse backgrounds, the varying levels of abilities among their students, and the distinct

expectations and standards inherent in both high school and college education (Chumbley, 2016; Witkowsky et al., 2020).

Dual credit programs permit high school students to earn college credits and present a potential mutual benefit for these students and community college professors. Teaching dual credit courses enables community college professors to engage with a younger and often more motivated student demographic, significantly contributing to their professional growth and experience (Tam, 2017; Young et al., 2013). However, one of the primary challenges community college professors encounter when instructing dual credit high school students is the disparity in maturity levels (Hemelt et al., 2020; Yang et al., 2018; Young et al., 2013). While these students exhibit academic excellence, they may not possess the emotional and social maturity typically expected of college students. Consequently, the discrepancy in emotional and social development can pose challenges in the classroom, affecting student interactions and engagement (Fletcher & Djajalaksana, 2014; O'Brennan et al., 2020).

Additionally, the expectations and standards for dual credit students can vary significantly between high schools and colleges, encompassing differing grading scales and academic requirements. Consequently, community college professors involved in dual credit programs must adeptly navigate these disparities to avoid variations in student performance and engagement within the dual credit classroom (Torres & Liu 2020; Young et al., 2013). Despite these complexities, research on faculty members' expectations and perceptions of dual credit students remains limited but suggests community college professors generally perceive these students as highly motivated and dedicated (Chumbley, 2016; Witkowsky et al., 2020; Zheng et al., 2020).

### ***Qualified Faculty and Teacher Shortage***

The literature on dual credit programs reveals a balance of positive outcomes and drawbacks, consistently emphasizing the crucial role of qualified faculty. In education, teachers play a pivotal role in the effectiveness of an educational institution. However, it is essential to note a significant nationwide shortage the teaching profession faces. For instance, there was an estimated annual teacher shortage of approximately 112,000 teachers in the 2017 school year, with an additional 109,000 individuals either not certified or not in teaching positions (Sutcher et al., 2019).

The literature emphasizes the significance of qualified teachers in enhancing school effectiveness, job satisfaction, and a positive relationship with student success and long-term educational success (Antonsen et al., 2023; Lee, 2018). Still, factors impacting teacher shortage worth noting include teacher turnover rates, administrative support, teacher compensation, certification programs, and staff development as critical elements for the success of any educational program (Carver-Thomas & Darling-Hammond, 2019; Sutcher et al., 2019). Moreover, research suggests high-rigor dual credit courses can have significant academic benefits and increase the availability of course options contributing to college success (Morgan et al., 2018; Wozniak & Bierlein Palmer, 2013). However, the increasing demand for dual credit options also highlights the need for community college professors to be prepared and equipped to teach diverse courses across different disciplines and academic levels (Alsup & Depenhart., 2023; Li & Li, 2022).

Some encourage efforts to attract and retain qualified teachers, develop robust certification programs, and invest in ongoing professional development as crucial to enhancing the quality and outcomes of dual credit initiatives (Miah et al., 2019; Jagesic et al., 2022).

Consequently, staffing educational institutions with qualified educators seems to be a concern in the literature and a potential avenue to ensuring dual credit programs succeed and continue providing valuable opportunities for students (Alismaiel et al., 2022; Kim et al., 2020).

### **Pedagogical Approaches**

Pedagogical approaches used by community college professors teaching dual credit courses may vary depending on the subject matter and student population, with some professors employing a more traditional lecture-based approach. In contrast, others may incorporate more interactive and experiential learning methods. Although research on community college professors' pedagogical approaches regarding dual credit is scant, the literature calls for professors to develop ways of teaching diverse students (Castillo-Montoya, 2019; Marín & Salinas, 2022; Wang & Li, 2021). Some strategies mentioned in the literature regarding diverse students or non-traditional students include cognitive empowerment, classroom exercises, collaborative learning exercises, and testing student limits to guide mastery of the material (Brown & Cope, 2022; Qureshi et al., 2023).

Brücknerová et al. (2020) explored non-traditional students, labeling them deferrers, returners, and recurrent learners, and offered tailored recommendations for supporting each type of non-traditional student. However, dual credit students are unique non-traditional students, and community college professors must be aware of their specific needs and challenges as high school students engaged in college-level coursework (An & Taylor, 2019; Edenfield & McBayer, 2021). The following sections expand on salient pedagogical strategies such as collaborative and cooperative learning, blended learning, project-based learning, flipped classrooms, and active learning. Researchers argue in favor of several pedagogical approaches highlighting their ability to increase student engagement and academic success in different

educational contexts, including high schools (Chi et al., 2022; Dare et al., 2017; Said, 2017; Xu et al., 2021).

### ***Collaborative and Cooperative Learning***

Collaborative learning in dual credit courses allows students to engage in group work to participate in their learning actively and can help foster critical thinking skills, collaboration, and problem-solving abilities (Downes et al., 2016; Hosman & Jacobs, 2018). Similarly, some studies address a synonymous pedagogical practice called cooperative learning, encouraging students to work together in small groups to achieve a common goal (Mamo et al., 2016; Overman et al., 2019; Said, 2017). In other words, collaborative learning emphasizes shared responsibility and equal participation among group members, while cooperative learning focuses on dividing tasks and allowing each member to contribute their expertise (Hong et al., 2022; Wang & Li, 2021).

Effective cooperative and collaborative pedagogical strategies within the classroom encompass a range of approaches, including group discussions, case studies, project-based learning, and peer review of assignments (Chen et al., 2023). However, applying collaborative methods is challenging. For example, Wang & Li. (2021) identified individuals assuming diverse roles within a group often reflected their distinct social statuses, necessitating a delicate balance between self-interest and adherence to the group's norms and objectives. Furthermore, Wang & Li spotted the importance of a well-defined plan significantly enhanced group cohesion and effectiveness, accentuating mere physical proximity alone did not guarantee efficient collaboration.

### ***Blended Learning***

Blended learning combines face-to-face instruction with online components, allowing students to engage in traditional classroom activities and independent online learning opportunities (Chi et al., 2022). Recent literature presented encouraging findings regarding the effectiveness of blended learning, considering advancements in digital educational technologies (Bruggeman et al., 2021; Castro, 2019; Hill & Smith., 2023). However, these studies emphasized two critical factors for successful implementation: the educator's capacity to creatively integrate these technologies into the learning experience and a profound grasp of the pedagogical principles underpinning blended learning.

Challenges associated with blended learning include inadequate technology resources, poor internet connections, dissatisfaction with the quality of the learning management systems, inadequate professional development, and a lack of training opportunities (Brenya, 2023; Drugova et al., 2023). Hence, Verdonck et al. (2022) encouraged educators to equip themselves for the emotional engagement inherent in blended learning strategies, including being responsive and adaptable in content delivery methods and the content itself. Hence, the literature underscores the importance of shared responsibility in blended learning, suggesting educators should strike a delicate equilibrium between providing guidance and fostering self-regulated learning among students. Simultaneously, students are encouraged to embrace autonomy and agency in their learning journey when engaging with blended learning strategies (Alebrahim & Ku, 2020; Malin et al., 2017).

### ***Project-Based Learning***

Project-based learning (PBL), renowned for its emphasis on active learning, collaboration, and real-world application, has garnered increasing attention in recent years as an



effective strategy for engaging students in their learning journey (Cazorla-Montero et al., 2019; Meng et al., 2023; Saavedra et al., 2022). PBL is a strategy widely applied in education to stimulate learning motivation, cultivate implementation capability, and improve learning effectiveness (Chang et al., 2018). PBL's appeal lies in its ability to provide students with real-world, hands-on experiences connecting theoretical knowledge to practical applications, promoting critical thinking, problem-solving skills, collaboration, and communication - essential skills for success in the modern workforce and society (Leggett & Harrington, 2021; Meng et al., 2023; Yoon et al., 2023). Moreover, PBL is a valuable tool in curriculum development where students may struggle to gain knowledge from more conventional teaching methodologies (Belwal et al., 2021).

Although PBL can effectively provide students with real-world experiences and promote critical thinking, it may not be suitable for all subjects and learning objectives (Sukacké et al., 2022; Torrijo et al., 2021). Similarly, the literature highlights teachers' need for careful planning, coordination, and continuous monitoring to ensure students make discernible progress toward predefined learning objectives and project completion (Apriadi et al., 2020; Artama et al., 2023). Additionally, researchers encouraged an updated approach to student progress and assessment because skills, knowledge, and ability may not be successfully measured through standardized tests, thus encouraging the use of rubrics, self-evaluation, and reflection as alternatives (Aifan, 2022; Bell, 2010; Rohm et al., 2021).

### ***Flipped Classroom***

The flipped classroom approach in higher education has gained popularity in recent years, and the literature shows a moderate effect on learning achievement and motivation (Galindo-Dominguez, 2021; Ge et al., 2020; Zheng et al., 2020). The flipped classroom approach

involves students engaging with pre-recorded lectures or readings before class, allowing for more interactive and collaborative activities during class time (Jang & Kim, 2020; Kazu & Yalçin, 2022). To further illustrate the flipped classroom approach, as per Zheng et al. (2020), the activities in a traditional classroom comprise a five-minute warm-up, 20 minutes of review, 30 minutes of lecture, and 20 minutes of practice or lab activity. In contrast, a flipped classroom involves a five-minute warm-up, 10 minutes of Q&A on the video, and 75 minutes of practice or lab activity.

One of the main drawbacks of the flipped classroom approach is its heavy reliance on students being self-motivated and proactive in completing the pre-class work, placing a burden on students who may not have the necessary time management and self-discipline skills to effectively engage with the material outside of class (Alebrahim & Ku, 2020; Nachatar Singh et al, 2019; Smith & Johnson, 2023). Moreover, the literature shows the flipped classroom approach may not be suitable for all subjects or learning objectives, such as those requiring a more direct and structured approach, or in other educational stages where traditional methods are more common, such as in primary education (Galindo-Dominguez, 2021; Strelan et al., 2020).

### ***Active learning***

Active learning encompasses various pedagogical methods such as collaborative learning, case studies, peer-to-peer teaching, inquiry-based learning, problem-based learning, and project-based learning (Baranyi & Molontay, 2021; González et al., 2022; Hemelt et al., 2020). Active learning approaches emphasize student engagement and participation in teaching and learning by encouraging students to move from a passive to an active role (Revell & Ayotte, 2020; Khan et al., 2017). Khan et al. (2017) asserted active learning is effective in certain subjects, contributing to students' literacy and indicators of quality graduates in 21st-century society. Moreover,

researchers have highlighted several positive outcomes involving active learning approaches, including enhancing students' problem-solving ability, critical thinking skills, and scientific literacy (Metz & Metz, 2022; Rossi et al., 2021; Shi et al., 2020). Similarly, Park & Xu (2022) suggested professional development emphasizing active learning strategies can potentially improve student outcomes.

Downing et al. (2020) emphasized student anxiety related to negative evaluation is the primary factor in active learning and suggested instructors work to alleviate this anxiety to foster more welcoming classrooms. Also, although some argue active learning is challenging to observe, lacks focus, and can lead to confusion and feelings of incompetence among learners (Dall'Alba & Bengtson, 2019), others demonstrated integrating active learning techniques in the classroom can have a positive impact on students' self-efficacy, social anxiety levels, and perception of their performance (Downing et al., 2020; Hood et al., 2021). Moreover, research by Yep et al. (2023) suggested incorporating partially anonymous activities during active learning can help alleviate student anxiety and increase participation.

### **Summary**

This hermeneutic phenomenological qualitative study delves into the experiences of community college professors working with dual-credit high school students. The study is guided by Vygotsky's (1978) sociocultural theory and the zone of proximal development (ZPD) framework, focusing on how professors support the learning and growth of dual credit students (Brown & Cope, 2022; Mollet et al., 2020).

Dual credit programs enable high school students to enroll in college courses are expanding rapidly, offering advantages such as early exposure to college, access to college credits, and enhanced college readiness (An & Taylor, 2019; Blankenberger et al., 2017; Garcia,

et al., 2020; Hornbeck & Malin, 2019). However, the increasing growth of dual credit programs brings forth concerns regarding the outcomes of underrepresented students, the rigor of dual credit courses, student maturity, and the need for qualified faculty (Dyer et al., 2022; Garcia et al., 2020; Strayhorn, 2023; Xu et al., 2021).

When assessing the effectiveness of dual credit programs, it becomes evident faculty members are pivotal in determining program success. Nevertheless, their readiness to instruct college-level courses may exhibit notable disparities (Dyer et al., 2022; Clayton, 2021; Witkowsky et al., 2020). Furthermore, the efficacy of these programs is intricately linked to numerous factors, including students' sense of belonging, their interpersonal relationships with faculty, and the uniformity of academic standards (Allen et al., 2022; Garcia et al., 2020; Goodenow, 1993; Strayhorn, 2018).

This study delves into the various roles of community college professors in dual credit programs. Dual credit professors go beyond educating students; additional functions include handling administrative tasks, developing assessments, and supporting students (Harrison & Laco, 2022; Giani et al., 2023; Li & Li, 2022). Professors teaching dual credit courses face challenges in addressing maturity gaps among students and gaining experience teaching motivated individuals (Dyer et al., 2022; Witkowsky et al., 2020). Additionally, professors must navigate the varying academic cultures and expectations of high schools and colleges to ensure a smooth transition for dual credit students (Metz & Metz, 2022; Garcia et al., 2020; Nordquist & Lueck, 2020). Regarding pedagogical approaches, research indicates collaborative, blended, project-based, and active learning strategies are engaging for high school students in dual credit programs (Aifan, 2022; Qureshi et al., 2023; Shi et al., 2020).

This literature review offers valuable context for understanding the complexities and nuances of community college professors and dual credit programs, shedding light on the challenges and opportunities inherent in high school-college partnerships. It lays the foundation for the subsequent qualitative exploration of community college professors' experiences in this unique educational landscape.

## **CHAPTER THREE: METHODS**

### **Overview**

Chapter Three presents the methodology for a qualitative study exploring the lived experiences of community college professors teaching dual-credit high school students in northern Texas. The research is a hermeneutic phenomenological design utilized to gain deep insights into this phenomenon. The setting encompasses multiple community college campuses collaborating with area high schools. This study comprised a diverse cohort of 11 participants who are full-time community college faculty varying in ages, gender, and teaching backgrounds with at least one year of experience teaching dual credit high school students. Moreover, Chapter Three explains the research design and questions, the researcher's positionality, and the research procedures. The data collection methods included individual interviews, focus groups, and letter-writing prompts. The rich, descriptive data was analyzed using Van Manen's (2014) approach to hermeneutic phenomenology and involved extensive engagement with participants' narratives to interpret the essence of their shared experiences. Lastly, methodological rigor was established through credibility, transferability, dependability, and confirmability measures.

### **Research Design**

The research design is a hermeneutic phenomenological qualitative study exploring the lived experiences of community college professors teaching dual-credit high school students in northern Texas. The central research question examined participants' overall experiences, and three sub-questions addressed teaching outcomes, pedagogical strategies, and perceptions of their role (Creswell & Poth, 2018). Van Manen's (2014) hermeneutic phenomenology principles guided the study. A purposeful snowball sampling method (Palinkas et al., 2013) helped identify 17 potential participants. Subsequently, 11 participants were recruited for the study. These

individuals constitute diverse community college professors with at least one year of dual-credit teaching experience. Data collection involved semi-structured online interviews, focus groups, and letter-writing prompts to achieve triangulation (Patton, 2015). Van Manen's (2014) iterative hermeneutic circle analysis and Colaizzi's (1978) systematic seven-step method helped interpret the data. Strategies for credibility, transferability, dependability, and confirmability helped establish trustworthiness (Lincoln & Guba, 1985). In summary, this rigorous qualitative design elicits a rich, in-depth understanding of community college professors' experiences with dual-credit students.

### **Research Questions**

Creswell and Poth (2018) recommended the research study comprise a single, comprehensive central research question and several sub-questions. The central research question served as the essential starting point, aiming to capture and understand the essence of these experiences. The sub-questions were developed to elicit an understanding of community college faculty members' experiences with dual-credit high school students guided by Vygotsky's sociocultural theory. Also, the sub-questions explored community college faculty's perceptions of dual credit high school students' college readiness, their perceptions of the effectiveness of social learning and the learning environment, and the role of a more knowledgeable other in their pedagogical practices.

#### **Central Research Question**

What are community college professors' experiences working with dual credit high school students?

#### **Sub-Question One**

How do community college professors describe the positive and adverse outcomes of

teaching dual-credit high school students?

### **Sub-Question Two**

What pedagogical strategies do community college professors employ with dual-credit high school students?

### **Sub-Question Three**

How do community college professors perceive their role in effectively implementing dual-credit programs?

## **Setting and Participants**

### **Setting**

The setting comprised a consortium of community college professors in northern Texas. To ensure the confidentiality of participants, pseudonyms were assigned to academic institutions. The first institution consisted of seven community college campuses pseudonymized Central Community College. The second institution includes nine campuses and is referred to as Northern Community College. Significantly, the participating community colleges boast an extensive network of campuses and strong affiliations with numerous high schools across northern Texas. Both institutions adhere to a centralized administrative model, characterized by a well-defined chain of command, and centralized decision-making processes, aligning with the prevalent organizational structure of community colleges in the region. This structure typically includes a governing board of trustees responsible for major policy decisions and oversight, a chancellor serving as the chief executive officer, and a president leading each of the community college campuses. Dual credit courses are taught either on college or high school premises, providing an opportunity for a comprehensive exploration of the participants' experiences in both educational settings.



The instructional settings encompassed various formats, including traditional face-to-face classes conducted at the community college campus, virtual online instruction, and on-site sessions hosted at collaborating high school campuses. Typically, each community college campus maintains collaborative partnerships with neighboring high schools, thus extending the reach of these professors' experiences across a broad geographic expanse, engaging with numerous schools across Texas. However, the primary mode of data collection involved the utilization of Microsoft Teams for capturing these experiences, owing to the platform's wide availability, practicality, and convenience.

### **Participants**

This study comprised a qualified group of full-time community college faculty with at least one year of experience teaching dual credit courses. The participants were diverse in gender, age, and cultural background, ensuring a more comprehensive and inclusive analysis of the phenomenon being explored. The dual credit courses the participants teach encompass various subjects, including mathematics, language arts, business, political science, and technology. According to Creswell and Poth (2018), participants must have all experienced the phenomenon being explored and can articulate their lived experiences. Hence, the selection of participants was carefully considered to ensure only individuals who have experienced the phenomenon being explored were included because such a criterion is essential in a phenomenological study. The researcher employed a convenience sampling strategy based on professional connections and utilized a snowball sampling technique to construct a diverse pool of participants for the study.

### **Recruitment Plan**

The study involved a purposefully selected sample of 11 full-time community college

faculty members with at least one year of experience teaching dual-credit high school students. These participants were drawn from various community colleges in northern Texas. Initially, the researcher prioritized individuals from his professional network who meet the specific inclusion criteria. As Creswell and Poth (2018) advocated, purposeful sampling guided the participant selection process, ensuring that individuals who could offer the most relevant and valuable insights regarding the research problem were included in the study. Furthermore, to complement purposeful sampling, snowball sampling helped identify additional participants who met the established criteria. This approach involved requesting assistance from the initial participants who returned the consent form and leveraging their connections and recommendations to identify other potential participants. By using snowball sampling, the study broadened the participant pool beyond those first identified through purposeful sampling, ultimately enhancing the sample's diversity and comprehensiveness.

Ensuring adequate participants is essential to achieve saturation in qualitative research. Saturation is attained when the researcher determines data comprehensiveness, theoretical insights, and the absence of new codes, categories, or meanings have been reached (Guest et al., 2020; Saunders et al., 2018). Researchers concur approximately 11 or 12 interviews were necessary to achieve saturation in their respective studies (Lincoln & Guba, 1985; Suddick et al., 2020; Woodgate et al., 2021). Therefore, for this study, a comparable number of interviews were conducted to maximize the depth and richness of the data.

After obtaining Institutional Review Board (IRB) approval and upholding ethical standards, potential participants receive detailed information about the voluntary nature of the study and their right to withdraw at any point without repercussions. In addition, consent forms were provided, containing comprehensive background information about the study, specific

procedures for their participation, potential risks and benefits, details on compensation (not applicable), and assurances about protecting their identity. Finally, participants signed the consent form indicating participation in the study. These measures were crucial in obtaining informed consent and ensuring participant autonomy and confidentiality throughout the research process.

### **Researcher's Positionality**

The impetus behind this study derives from my involvement in teaching dual credit courses at both the high school and collegiate levels, where the successful implementation of dual credit programs has impacted institutional outcomes. Consequently, my research motivation stems from the desire to delve into the experiences of others to discern whether common threads emerged, potentially leading to the identification and exploration of overarching themes. Just as one's perspective on the world inherently shapes the process of interpretation and understanding, my philosophical standpoint served as the foundation through which I engaged, grasped, and interpreted the multifaceted narratives shared by the participants in this study.

Our unique backgrounds and experiences shape how we perceive and understand the world. I approached research by understanding that truth is complex and can be seen from many different perspectives. As a researcher, I worked alongside participants to co-create and co-author the story of their experiences. My philosophy is based on a balance between intellectual understanding and emotional connection to the subject matter. While I acknowledge my presence may influence the interpretation of the data, I strived to be transparent and respectful of the participants' voices. I aim to bring forth a rich and nuanced understanding of the participants' experiences.

## **Interpretive Framework**

The chosen interpretive framework for this study is based on constructivism. Social constructivism emphasizes the importance of understanding the world from the participant's point of view (Lincoln & Guba, 1985). Within the framework of social constructivism, participants play an active role in co-constructing knowledge (Rahayu et al., 2020). Moreover, social constructivism acknowledges the impact of social and cultural factors on their experiences. The interpretive framework guided the research toward identifying themes and interpretations rooted in participant perspectives and contextual understandings (Miah et al., 2019). Social constructivism aligns with hermeneutic phenomenology as it acknowledges the subjective nature of human experiences and emphasizes the importance of understanding these experiences within their social and cultural contexts (Rahayu et al., 2020). Hence, through a comprehensive exploration of shared experiences, the essential essence of phenomena was revealed (Van Manen, 2014).

## **Philosophical Assumptions**

As a researcher, I acknowledge my beliefs and philosophical assumptions significantly influenced the selection and direction of my research, as highlighted by Creswell and Poth (2018). Therefore, I must articulate how these assumptions and beliefs will be reflected in my study. Articulating my philosophical assumptions will make me aware of the many ways of thinking that may filter into my research, leading to a more transparent and rigorous study. As emphasized by Creswell and Poth (2018), it will be essential for me to convey, define, and discuss how my assumptions are illustrated in the study. By doing so, readers can better understand my perspective and how my assumptions may shape the study's design and interpretation. Thus, in the following section, I provide a transparent account of my philosophical

assumptions, including ontological, epistemological, and axiological assumptions.

### ***Ontological Assumption***

Researchers must possess a profound understanding of the nature of reality and adhere to the principles of accuracy in their reporting (Creswell & Poth, 2018). As a Christian, I believe God's truth embodies a singular reality; however, I recognize not all individuals share the same ontological assumptions. Therefore, as a researcher, it is incumbent upon me to transparently disclose my own beliefs and remain attuned to how my study participants perceive their own experiences. A recent study by Walsh et al. (2015) underscored the importance of the principle of actuality, placing significance on current logic, potential alternatives, and emerging possibilities in research. Walsh et al. (2015) argued researchers should possess a keen awareness of the present moment and the presence of the individuals and environments they investigate to produce truly relevant research. Thus, as a researcher, maintaining mindfulness of my ontological assumptions while acknowledging the existence of multiple realities among participants can significantly enhance the value and overall quality of a study.

### ***Epistemological Assumption***

The epistemological assumptions underlying qualitative research involve an interpretive approach to knowledge generation, where researchers immerse themselves in participants' perspectives to obtain subjective evidence considered supporting evidence (Lincoln & Guba., 1985). As a full-time community college faculty member, I am acutely aware of the potential for bias and continuously monitor my thoughts and preconceptions, ensuring the experiences, interviews, feedback, and contributions of the participants guide the direction of my study. Furthermore, to ensure the production of high-quality findings, I am committed to collecting data in various formats from diverse participants, studying, learning, and thoroughly analyzing these

data to reflect their experiences accurately. Therefore, I must present the viewpoints and experiences of the participants as the primary source of knowledge in my research.

### ***Axiological Assumption***

To ensure transparency in the research process, researchers must acknowledge and articulate their axiological assumptions, including their values and biases and the value-laden nature of the collected information (Lincoln & Guba, 1985). Hence, my values stem from believing we have a God-given purpose. Therefore, I strongly desire an effective educational system that encourages, nurtures, and supports teaching and learning. As a practitioner in the classroom and a researcher, I am committed to serving God's purpose while helping others.

### **Researcher's Role**

When conducting qualitative research, the primary approach to collecting data is through open and natural conversations with participants led by the researcher using semi-structured individual interviews (Erlandson et al., 1993; Lauterbach, 2018). As the human instrument in the study, I had no authority over the participant, and our relationship had no financial implications (Lincoln & Guba, 1985). Furthermore, implementing data validation methods was crucial to ensure accuracy and depth of information, particularly when conducting a study in the workplace (Creswell & Poth, 2018). As a full-time faculty member at a community college and someone passionate about research, my role and interests influenced the interview questions asked. Before my current position, I worked as a high school teacher with multiple dual credit classes allowing me to build relationships with several dual credit instructors at the high school and community college levels. My experience teaching dual credit at both levels has given me a unique perspective, enabling me to consider multiple angles.

Creswell and Poth (2018) discussed the importance of building rapport to obtain the most

valuable data. So, I have built relationships with community college faculty who also teach dual-credit high school courses. According to the teacher agency theory, teachers have the power to bring about change both within and outside the classroom (Xu & Fan, 2022). Xu and Fan (2022) highlighted the significance of recognizing and promoting teacher agency in curriculum development to foster teachers. Therefore, I aim to empower educators through this study by highlighting their vital role in shaping the dual credit experience for high school students. In hermeneutic phenomenology, the hermeneutic circle is used to interpret data and comprehend the essence of the participant's experiences (Heidegger, 2008; Van Manen, 2014). Significant new themes emerged by analyzing each participant's responses concerning the research topic.

### **Procedures**

Procedures included obtaining permission from the Institutional Review Board (IRB) at Liberty University (see Appendix A) to ensure compliance with ethical standards. A purposeful, criterion-based snowball sampling strategy was used to identify qualified participants as the population of community college professors with experience in dual credit programs was not easily accessible through traditional random sampling methods (Rhodes et al., 2022). Also, snowball sampling was an effective method for researchers to identify additional participants for their study by starting with a few eligible participants and gradually expanding the sample through referrals (Kennedy-Shaffer et al., 2021).

To select the most suitable participants for this study, the initial identification of up to 14 community college professors who have taught dual-credit high school students for a minimum of one year commenced through professional connections, educational networks, and any available institutional resources (Khamzina et al., 2017). Following the initial identification, recruitment letters were thoughtfully crafted and distributed to eligible community college

professors via email. The recruitment letters provided a detailed overview of the research purpose, participation guidelines, and the expected commitment from participants (Creswell & Poth, 2018). Lastly, all participants were given a consent form and requested to complete and return it within two weeks of receipt. The informed consent process ensured participants fully understood the research, their rights and part, and voluntarily agreed to participate (Golder et al., 2017).

### **Data Collection Plan**

The data collection methods selected for this study included semi-structured individual interviews, focus groups, and letter-writing prompts. Incorporating multiple data collection methods leads to a more comprehensive understanding of a research problem by allowing the collection of rich and nuanced data (Patton, 2015). The first method of data collection entailed semi-structured individual interviews to gain a deeper insight into the experiences of the research participants, allowing them to uncover insights and perspectives that may have otherwise remained hidden (Van Manen, 2014).

The individual interviews provided valuable insights and perspectives and were used to inform the focus group questions, enabling a more profound exploration of the topics (Littlewood & Greenfield, 2018). The second data collection method involved focus groups and were instrumental in gathering diverse views, inviting a more engaging dialogue amongst participants, and the opportunity of potential contrasting opinions on a given subject matter or topic (Paré et al., 2019). Moreover, focus groups are particularly valuable in academic research, where it is essential to capture a broad spectrum of perspectives to ensure the validity and reliability of the findings (Miles & Huberman, 1994).

The last method in this study's data collection involved letter-writing prompts. These

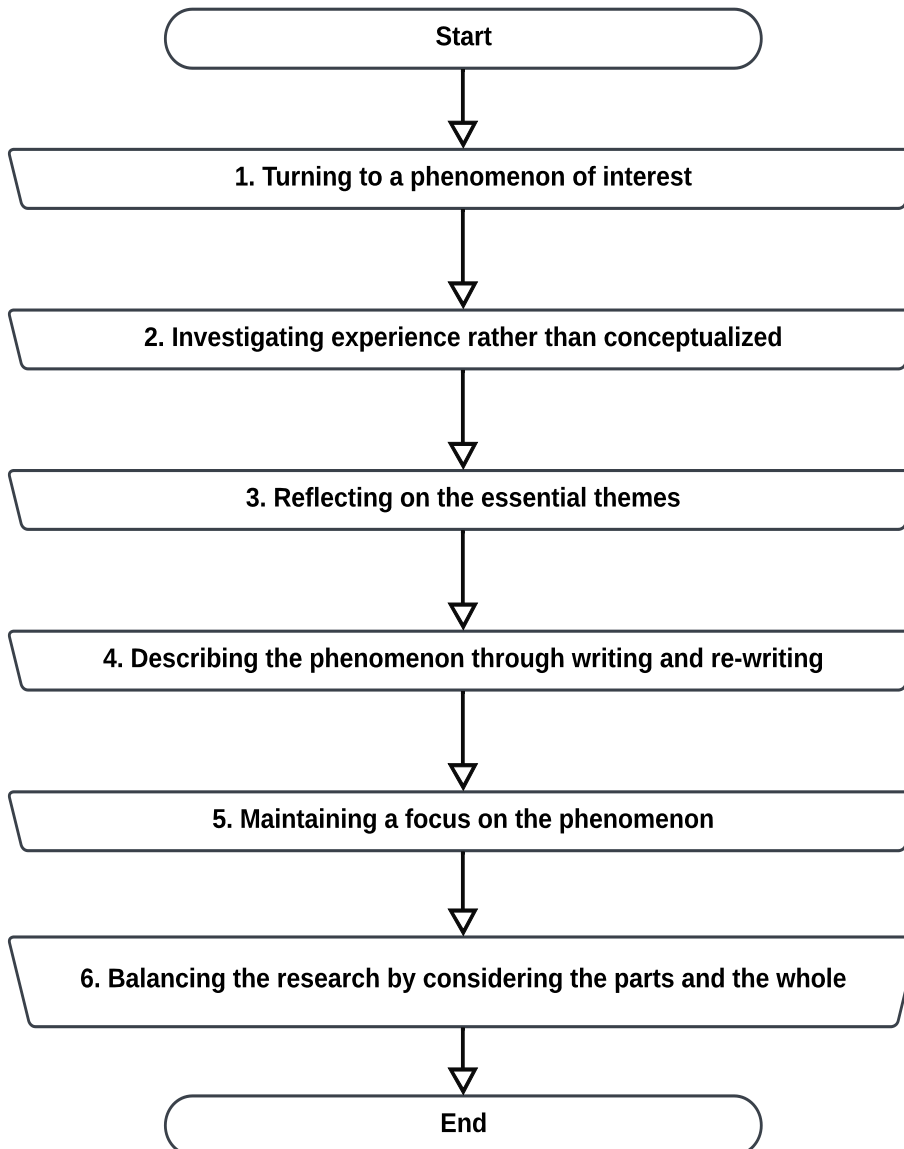


prompts were valuable as they encouraged participants to engage in self-reflection and self-reporting, allowing them ample time to contemplate and record their thoughts, feelings, and experiences privately in a naturalistic manner (Miles & Huberman, 1994). Additionally, incorporating letter-writing prompts as an added means of gathering data allowed participants to engage in introspection and deeper contemplation of their thoughts and experiences (Patton, 2015). The extended period of reflection provided participants with a platform to offer valuable insights otherwise overlooked through the previous data collection methods. Moreover, this approach facilitates researchers in capturing any changes, developments, or fluctuations in participants' perceptions over time (Miles & Huberman, 1994).

The data collection plan for this study draws from Van Manen's work on hermeneutic phenomenology, providing a framework for researchers to explore the lived experiences of individuals and uncover their essential meaning (Van Manen, 2014). While hermeneutic phenomenology does not offer specific procedures, this study adopted Van Manen's six steps in conducting a phenomenological inquiry (see Figure 3). These steps involve: (1) turning to a phenomenon of interest, (2) investigating the experience as lived rather than conceptualized, (3) reflecting on the essential themes, (4) describing the phenomenon through writing and rewriting, (5) maintaining focus on the phenomenon, and (6) balancing the research by considering both its constituent parts and whole.

### **Figure 3**

#### *Six Steps in Phenomenological Inquiry*



*Note.* Adapted from “What is moral distress in nursing? A feminist empirical bioethics study.”  
By Morley et al., 2020, *Nursing Ethics*, 27(5), 1297-1314, p. 6. CC BY 4.0.

The subsequent sections elaborate on the details of each approach used for data collection, encompassing the specific strategies employed, logistical considerations in conducting the collection, and the corresponding approaches to analyze the collected data for each data collection method.

## **Individual Interviews**

Individual interviews represent a versatile and widely employed data collection method in qualitative research, allowing for a thorough exploration of participants' experiences, perspectives, and narratives (Miles & Huberman, 1994). Individual interviews offered a unique opportunity for social interaction between the interviewer and interviewee, facilitating the co-construction of knowledge (Roberts, 2020). Semi-structured interviews in qualitative research are notable for their flexibility in accommodating various research contexts. The interviewer was pivotal in creating a conversational and engaging atmosphere, encouraging participants to share their perspectives and experiences (Patton, 2015). Individual semi-structured interviews were used to gain insights into the research question and sub-questions investigating the participants' experiences working with dual-credit high school students. The individual interviews aimed to capture community college professors' experiences and identify emerging themes based on their responses (Van Manen, 2014).

To ensure convenience and accommodate the availability of participants, the online platform Microsoft Teams was used to conduct individual interviews. Conducting online interviews is particularly valuable in studies involving participants with busy schedules or who are geographically dispersed (McIntosh & Morse, 2015). Furthermore, using video and audio recordings in Microsoft Teams was essential in documenting participants' interactions, as this facilitates accurate transcription at a later stage (Pan et al., 2009).

### **Table 1**

#### *Individual Interview Questions*

1. Please describe your educational background and career progression CRQ
2. What are the perceived implications of teaching dual credit as a community college faculty member? CRQ

3. Please describe your experience working with dual-credit high school students at the college campus, online, and at the high school. SQ2
4. How do you feel when it is time to teach dual-credit high school students? CRQ
5. Please describe your experience teaching non-dual credit high school students. SQ1
6. What influences your teaching methods between dual-credit high school and traditional students? SQ2
7. How has your experience teaching dual-credit high school students influenced your view of dual-credit programs? CRQ
8. To what extent does working with dual-credit high school students influence your current teaching performance? SQ1
9. How do you perceive the influence of your teaching role in the dual credit program on its overall effectiveness? SQ3
10. Please describe your experience working with dual-credit high school students outside of teaching. SQ3
11. Thinking of the most significant experiences you had with dual credit high school students, what stood out? What made it significant? CRQ
12. What advice would you give other community college faculty members considering teaching dual credit high school courses? SQ3
13. What else would be essential for me to know about your experience teaching dual-credit high school students? CRQ

The opening question, often called the grand tour question, prompted participants to share their firsthand experiences and helped them feel comfortable sharing their stories (Peoples, 2021). The grand tour question is often utilized in interviews to gather a general overview of

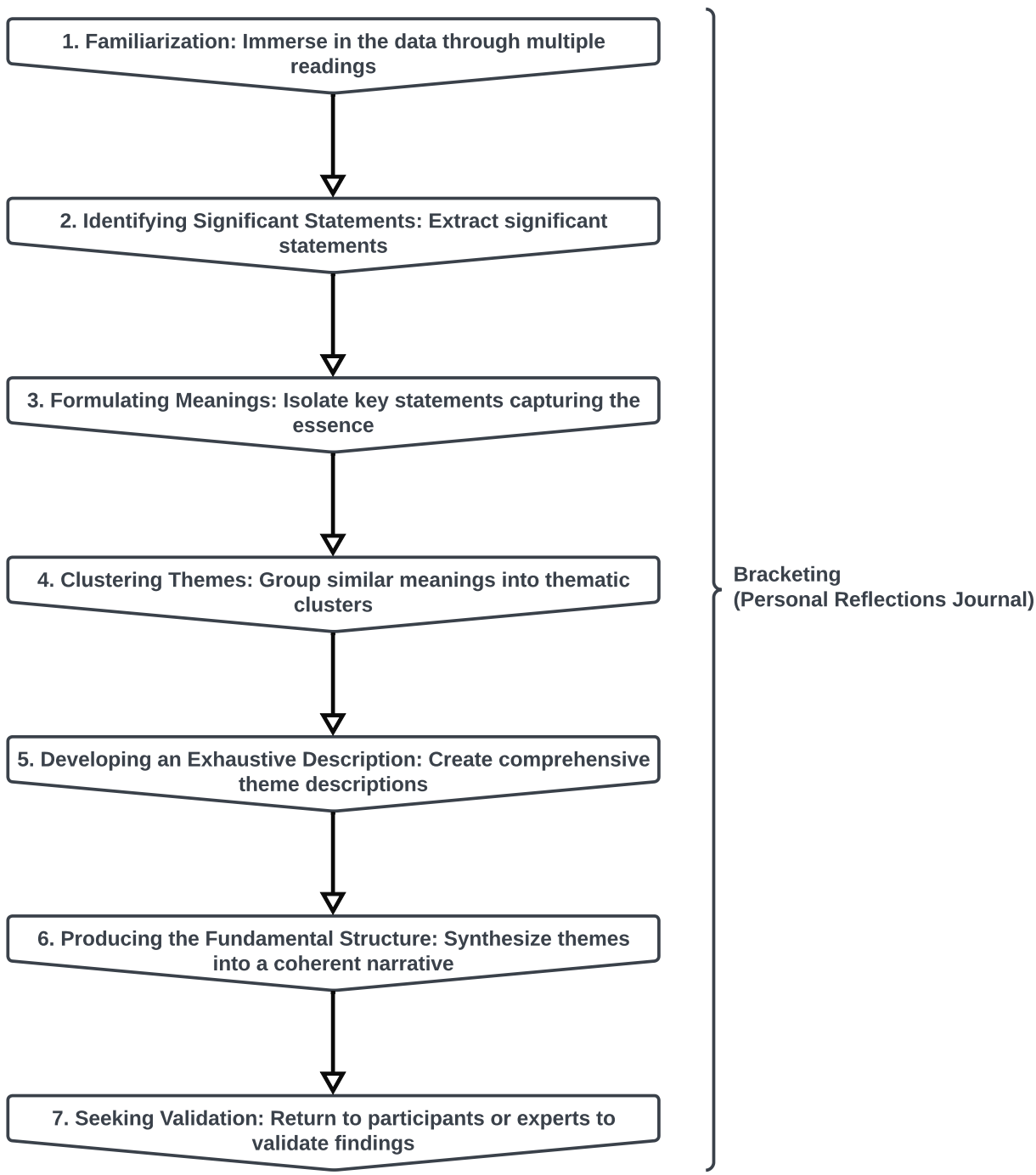
events or occurrences and establish the groundwork for more focused inquiries (Salmi, 2021). Questions two, four, seven, eleven, and thirteen examined the central research question about community college professors' experiences working with dual-credit high school students. Questions five and eight concerned sub-question one of how community college professors describe the outcomes of teaching dual credit students. Questions three and six addressed sub-question two, exploring community college professors' pedagogical practices with dual-credit high school students. Questions nine, ten, and twelve addressed sub-question three, exploring how community college professors perceive their role in effectively implementing dual credit programs.

#### ***Individual Interviews Data Analysis Plan***

This study employed a triangulation approach to data collection, incorporating individual interviews, focus groups, and letter-writing prompts to bolster the validity and reliability of qualitative findings (Patton, 2015). Moreover, the data analysis process involved implementing Colaizzi's (1978) data analysis method (see Figure 4). Colaizzi offers a well-defined, coherent, and systematic series of steps useful in phenomenological studies, and complementing Van Manen's more conceptual approach.

#### **Figure 4**

##### *Data Analysis Flow-Chart*



*Note.* Adapted from “The application and tailoring of Colaizzi’s phenomenological approach in a hospital setting,” by Northall et al., 2020, *Nurse Researcher*, 28(2), 20-25, p. 23. CC BY 4.0

The initial stage in data analysis involved thoroughly reading the interview transcripts to gain a holistic understanding of the phenomenon, a fundamental step for conducting consistent data comparisons throughout the process (Miles & Huberman, 1994; Northall et al., 2020). To ensure the accuracy of individual interview transcription, the researcher verified it by reviewing the recording, watching video interviews, and comparing it with the written transcript. The researcher also made notes and corrections in the transcript to maintain its integrity. Once confirmed, participants were asked to verify the content for accuracy. In addition, the researcher documented any emerging thoughts, emotions, and ideas due to prior work with dual-credit high school students in a personal reflection journal, instrumental in uncovering the underlying and universal structure that defines the participants' experience with the phenomenon (Van Manen, 2014).

The next step involved identifying and extracting important statements from the approved transcripts. These statements were then contextualized by including the participant number (to maintain anonymity), the page number of the transcript, and the corresponding paragraph numbers where they were found (Colaizzi, 1978). The third step involved formulating meanings by isolating key statements through an inductive approach, allowing the data to reveal concepts or codes representing the essence of the participant's experiences (Saldaña, 2021).

The fourth step involved grouping common themes among all participants while consciously setting aside any preconceived notions to stay closely aligned with the lived experience of the phenomenon as described by the participants (Van Manen, 2014). According to Van Manen (2014), "bracketing" refers to setting aside one's preconceptions, biases, and personal beliefs when engaging with and analyzing the experiences and perspectives of participants. Bracketing is crucial in phenomenological research, allowing researchers to

approach their study with an open mind and listen to participants' experiences without bias (Dörfler & Stierand, 2020; Dahlberg & Dahlberg, 2019).

Step five entailed an exhaustive description of the phenomenon by integrating all the findings, reexamining the transcripts, thematic clusters, and themes multiple times to study any contradictions or different perspectives and ensure the interpretation of the exhaustive description is thorough (Colaizzi, 1978). In qualitative research, providing a rich context for the findings is crucial to making them more interpretable and meaningful (Patton, 2015). Step six involves creating a fundamental structure by integrating themes into a cohesive storyline, eliminating redundant or inaccurate descriptions, and arranging the remaining themes logically and significantly (Colaizzi, 1978).

The last step entailed participant validation using the exhaustive description, and the fundamental structure of the phenomenon can be revised to confirm it accurately depicts the participants' experiences of the phenomenon. Moreover, member checking sought participant feedback to ensure the findings' accuracy and authenticity (Lincoln & Guba, 1985). Validation or member checking in this study occurs after the initial step, where participants were requested to confirm the accuracy of the updated transcribed data. Additionally, rigorous discussions and feedback sessions were conducted with the research supervisor to ensure the validity of the findings, a collaborative process that helped establish a level of confidence in the accuracy and reliability of the findings.

Qualitative data analysis software Delve assisted with several steps because of its transcription, coding, and classification capabilities. Qualitative data analysis software allows researchers to store, categorize, and handle qualitative data effectively with various tools to visually explore the data, facilitating a more comprehensive comprehension of the information



(Peoples, 2021). The researcher's objective was to improve understanding of the data by delving deeper into its details by examining the intricacies, contradictions, and variations within each theme to understand their significance comprehensively (Van Manen, 2014). Also, throughout the data analysis process, the researcher implemented reflective practice by consistently examining biases, assumptions, and perspectives, essential for maintaining rigor and objectivity in qualitative research (Oliveira et al., 2015; Patton, 2015).

### **Focus Groups**

Focus groups fostered a collaborative environment encouraging the exchange of ideas and perspectives, thus enhancing the depth of understanding regarding the participants' lived experiences (Nimehchisalem, 2018). Also, focus groups are respected in accommodating and fostering participant collaboration (Creswell & Poth, 2018). Focus groups are valuable as they can help researchers ensure a comprehensive and diverse understanding of the research topic by prioritizing focus groups as a data collection method (Richard et al., 2021). Focus groups comprising two to twelve participants are well-suited for in-depth topic exploration and achieving saturation (Kim et al., 2020; Patton, 2015). Hence, upon completing the individual interviews, six participants were invited to participate, and three of those were able to contribute to the focus groups to delve deeper into the participants' experiences working with dual-credit high school students.

The interactive nature of focus groups allowed participants to share their experiences, perspectives, and ideas freely, resulting in valuable insights (Paré et al., 2019). Interviews and focus groups can complement each other in qualitative research, providing a comprehensive and in-depth understanding of participants' experiences (Rabiee, 2004). Hence, insights gathered from individual interviews provided valuable input for formulating questions in subsequent focus

group sessions, enabling a more thorough exploration of the emerging issues and themes raised during the one-on-one interviews.

**Table 2**

*Focus Group Questions*

1. How do you adapt your teaching methods to accommodate dual credit high school students' diverse learning backgrounds and abilities? CRQ and SQ3
2. Please share other perceived additional responsibilities when teaching Dual Credit, I should be aware of. CRQ and SQ1
3. Describe your perceived role in engaging dual credit high school students in the college experience beyond just the coursework. CRQ and SQ3
4. How do you navigate the differences between high school and college-level expectations when teaching dual credit courses? SQ2
5. From your perspective, what strategies or initiatives could be implemented to strengthen collaboration between community college professors and other key stakeholders involved in the dual-credit program? CRQ
6. What else would you like to add about the topic?

These questions explored community college faculty's experiences, challenges, and perspectives when teaching dual credit high school students. These questions were aligned with the central research question and sub-questions one through three. The foundation for the focus group questions consisted of four potential ideas: adaptation, engagement, bridging gaps, and collaboration. The first two questions specifically addressed the idea of adaptation and sought to investigate how community college professors adapt their teaching strategies when working with dual-credit high school students. Additionally, these questions aimed to explore additional responsibilities professors may take on in dual credit programs.

The third question for the focus groups dealt with student engagement and aimed to explore the participants' experiences engaging dual-credit students in the college experience beyond the coursework. Question four entailed bridging gaps and aimed to investigate how participants assisted in closing the disparity between high school and college-level expectations for dual credit high school students. The final question examined the concept of collaboration and allowed participants to contribute their insights on how collaborative efforts can enhance dual credit programs. Question five allowed individuals to share their experiences and perspectives, shedding light on potential strategies for strengthening dual credit programs. The final inquiry offered a valuable platform for participants to expound upon or divulge experiences previously unshared or have arisen throughout the process.

#### ***Focus Group Data Analysis Plan***

The analysis of the focus group data adhered to Colaizzi's (1978) method for analyzing qualitative data, as described previously in the individual interview analysis plan. A data analysis flow chart shown in Figure 4 was used during the data analysis process. First, the focus group interviews were recorded using Microsoft Teams. Then, the researcher verified transcription accuracy by listening to the recording and following along with the written transcript to capture all details and participant experiences (Patton, 2015). The researcher made margin notes for any additional comments or corrections, ensuring integrity throughout the interviews' documentation. Transcripts were returned to participants for member-checking purposes to validate content accuracy and establish trustworthiness (Lincoln & Guba, 1985).

The researcher utilized the QDAS program Delve to formulate meanings, codes, categories, and themes to assist the research process. These themes were then used to describe the phenomenon, following the procedures outlined by Colaizzi (1978) and Patton (2015). Using

focus group interviews as an auxiliary data source in the triangulation process played a pivotal role in augmenting the credibility and dependability of qualitative research (Miles & Huberman, 1994). Through Colaizzi's data analysis process and participant validation, the participants reviewed the core structure of the phenomenon to confirm its accuracy in depicting their experience.

### **Letter-Writing**

The final method of data collection for this study involved using letter writing. This method allowed the researcher to organize and analyze the data to develop detailed descriptions of the participants' experiences and perspectives (Van Manen, 2014). Letter writing was the third data source in the triangulation of various sources, ensuring data validation and reliability (Creswell & Poth, 2018). Furthermore, writing prompts were an essential element of this research project as they played a significant role in achieving data saturation. Data saturation refers to the stage at which gathering additional data does not yield new information or insights (Lincoln & Guba, 1985). Incorporating letter-writing prompts, individual interviews, and focus group interviews enabled a thorough and extensive approach to data collection, thus strengthening the credibility of the research outcomes (Adler et al., 2019).

The researcher emailed participants a letter-writing prompt to facilitate introspection on their experiences with dual-credit high school students. This method enabled written feedback guided by prompts, separate from the primary data collected through interviews and focus groups (Baillie, 2019). Participants were given two weeks to complete these writing prompts and submit them via email (see Appendix D). Moreover, writing prompts allowed for more autonomy than structured interview questioning, encouraging participants to express various aspects of their experience (Bandini et al., 2021).

The letter writing prompts were thoughtfully crafted to prompt participants to reflect on their experiences with dual-credit high school students in a more introspective and deliberate manner. By encouraging contemplation, the prompts allow participants to delve deeper into the nuanced and contextual nature of human experiences (Van Manen, 2014). To enhance the accuracy and reliability of data, participants were specifically instructed to reflect on their past experiences rather than future intentions to minimize speculation or imagination and ensure responses are based on actual experiences (Baumeister & Leary, 1995; Rendell et al., 2012). The following prompts were provided to guide participants' thoughts and aid in writing (see Table 3).

### **Table 3**

#### *Letter-Writing Prompt*

We appreciate your valuable insights and experiences as a seasoned educator working with dual-credit high school students at our community college. In this letter, we kindly request you to reflect on your past experiences and compose a letter to a community college professor who is just beginning to teach dual-credit high school students.

1. What advice, recommendations, or guidance would you give a new community college professor starting to teach dual-credit courses?
2. As an experienced educator who has taught dual-credit high school students, please base your letter on concrete experiences and interactions you have had in the past.
3. Please refrain from providing hypothetical or future-oriented advice.

#### *Letter-Writing Data Analysis Plan*

The data analysis plan for the participant letters followed the method outlined by Colaizzi (1978), as illustrated in the data analysis flow chart (refer to Figure 4) and detailed in the individual interview analysis plan. Each letter was read to obtain a general understanding of its content. Significant statements were then extracted from each participant's letter, formulating

new codes and meanings while bracketing preconceptions (Saldaña, 2021). The researcher must maintain an unbiased perspective, approach with an open and neutral perspective, and remain aware of any preconceptions or biases through bracketing (Creswell & Poth, 2018; Erlandson et al., 1993). The reflective process of interpretation and analysis enabled the development of a comprehensive description that accurately reflects participants' lived experiences (James, 2012; Van Manen, 2014). Thematic clusters were created by grouping new codes and meanings into a coherent narrative, resulting in a comprehensive description, as proposed by Colaizzi (1978). The letter-writing prompts completed the triangulation process as the third and final data collection method (Patton, 2015).

### **Data Analysis**

This hermeneutic phenomenological study adhered to the approach suggested by Van Manen (2014), where the researcher assumes a central role in understanding and translating participants' perceptions of the phenomenon into written form. The data analysis followed Colaizzi's (1978) data analysis method, as illustrated in Figure 4. Furthermore, the researcher adopted an interpretive approach to analyze participants' lived experiences through individual interviews, focus groups, and letter-writing prompts (Van Manen, 2014). Moreover, the data analysis followed established guidelines, ensuring prompts and transcripts were systematically organized for easy access (Erlandson et al., 1993; Saldaña, 2021).

In this study, the researcher employed three distinct methods of data collection: individual interviews, focus groups, and letter-writing prompts. The three data collection techniques gathered insights from community college professors working with dual-credit high school students. Throughout collecting data, the researcher actively engaged with the material by extensively reading and annotating it while remaining open-minded and adhering to the principle

of bracketing to allow for the development of initial codes accurately capturing participants' personal experiences (Van Manen, 2014; Miles & Huberman, 1994). As part of an iterative process, the initial codes were subsequently refined and categorized into themes to comprehensively analyze how community college faculty perceive their interactions with dual-credit high school students (Colaizzi, 1978)

During this assessment phase, Delve, a software for analyzing qualitative data, provided additional support for analysis. The researcher used Van Manen's (2014) textural description approach to interpret the essence of community college professors' experiences working with dual-credit high school students. The hermeneutic phenomenological approach involved an in-depth analysis of the participants' experiences and a comprehensive interpretation of the phenomenon (Miles & Huberman, 1994; Van Manen, 2014). The researcher used this approach to provide a detailed account of the experiences of community college professors working with dual-credit high school students.

### **Trustworthiness**

The impact of the present study is predicated on its trustworthiness, as the critical goal of reliability in qualitative data analysis and interpretation is the attainment of truth value (Lincoln & Guba, 1985). To ensure the study's trustworthiness, the researcher implemented various measures to guarantee the reliability and validity of the information collected, analyzed, and presented. Hence, the researcher followed the steps set forth by Lincoln & Guba's (1985) framework to establish credibility, transferability, dependability, and confirmability.

### **Credibility**

Multiple strategies were implemented to ensure this study's credibility, including Meyer et al. (2013) recommendation to establish credibility by acquiring extensive information during

the interview process. Individual interviews with community college faculty generated comprehensive, rich data, significantly contributing to the study's credibility (Miles & Huberman, 1994). Data triangulation allowed the researcher to corroborate evidence from multiple sources and gain a more comprehensive understanding of the research topic (Patton, 2015). This study utilized data triangulation through individual interviews, focus groups, and letter-writing prompts, helping validate the information collected by cross-referencing it from various sources and perspectives and enhancing the credibility and reliability of the findings (Patton, 2015). Furthermore, the researcher established and maintained trusting relationships with participants through extended fieldwork, as highlighted by Creswell & Poth (2018).

Another approach to ensure credibility involved member checking, facilitated by the researcher's connections with the study's participants as a community college faculty member (Lincoln & Guba, 1985). To provide accurate information, the researcher verified the interpretation of participants' responses by asking follow-up questions and ensuring the essence of their experiences was accurately captured. Member checking allowed the researcher to make necessary adjustments and corrections, enhancing the study's credibility (Birt et al., 2016).

### **Transferability**

It is crucial for a research study to demonstrate the applicability of its findings in diverse contexts (Lincoln & Guba, 1985). Transferability pertains to the extent to which the results can be applied to different settings or populations; unlike generalizability, primarily considering statistical representativeness, transferability holds particular importance in qualitative research, given its emphasis on thorough exploration and limited sample sizes (Malterud et al., 2016).

Thick descriptions are part of this study because they provide detailed context, participant, and process information to help readers evaluate the relevance of the findings to their



contexts, enhancing transferability (Morse et al., 2002). A purposive criterion-based, snowball sampling strategy allowed the selection of participants that met the criteria and helped answer the research question over statistical representativeness (Palinkas et al., 2013). Hence, individual interviews, focus groups, and letter-writing prompts generated thick data useful in the analysis and yielded robust findings. Finally, this study's data collection and analysis method contributed to its potential transferability. Transferability refers to how the results can be applied or adapted to other contexts or settings; hence, the researcher needs to provide sufficient information about the research, context, and participants for readers to evaluate the relevance of the findings within their own situations (Lincoln & Guba, 1985).

### **Dependability**

Lincoln and Guba (1985) introduced dependability as a critical criterion for evaluating the credibility of qualitative research. Dependability is the consistency and stability of the findings over time and across researchers. It refers to the extent to which the research findings can be replicated and is consistent across different researchers and time periods (Golafshani, 2015). To ensure the dependability of the findings, this study implemented a coding and categorization system that is consistent and transparent, guided by Colaizzi's (1978) data analysis method. The researcher carefully coded and categorized the data to illustrate how themes are developed and adhered to transparency standards. This approach allows for replication of the study's findings by other researchers in the field, fostering trustworthiness (Erlandson et al., 1993).

The analyzed data, codes, and categories were meticulously reviewed by the dissertation chair, a certified methodologist, to ensure a comprehensive and rigorous validation process. This review aimed to refine and enhance the study's findings by leveraging the chair's expertise,

guaranteeing that the outcomes were anchored in the data. The process also included member checking during data analysis, allowing participants to validate the findings, thereby enhancing the credibility and dependability of the research (Colaizzi, 1978; Lincoln & Guba, 1985).

Furthermore, under the guidance of the qualified chair or supervisor, the research process was thoroughly assessed, focusing on the consistency and rigor of the research procedures and the robust support for the drawn conclusions, bolstering the study's credibility and reinforcing its overall dependability (Jordan et al., 2014).

### **Confirmability**

Confirmability is a vital component of the credibility of qualitative research. It is defined as the degree to which the findings of a study are grounded in the data and the extent to which they can be replicated (Lincoln & Guba, 1985). One strategy to improve the confirmability of this study was data triangulation. Data triangulation involved using multiple data sources to confirm findings (Patton, 2015). This study used individual interviews, focus groups, and letter-writing prompts to understand the experiences of community college faculty when teaching dual-credit high school students. Another strategy for ensuring confirmability was to provide a detailed audit trail of the research procedures, transcripts, and analyzed data (Lewis & Stone., 2013). A detailed audit trail allows for transparency by enabling an auditor to confirm the findings and researchers to replicate them (Patton, 2015). Additionally, there was prolonged engagement with the participants throughout the data collection process to ensure confirmability further.

Reflexivity is an essential strategy for achieving confirmability in qualitative research and involves the researcher's self-awareness and reflection on their own values, biases, and assumptions (Lincoln & Guba, 1985). In this study, reflective practice involved regularly

reflecting on their assumptions, biases, and experiences influencing the study's findings (Charmaz & Thornberg 2020; Patton, 2015). The current study involved the creation of multiple memos and reflective journaling as a bracketing tool to promote transparency and reflexivity of the researcher's potential biases during the research process, as suggested by Lincoln & Guba (1985) and Miles and Huberman (1994). These strategies are expected to enhance the confirmability of the study's findings and ensure the research can be replicated and trusted by others in the field.

### **Ethical Considerations**

The study was founded on robust ethical principles placing the utmost importance on the rights, dignity, and well-being of all participants. These ethical considerations constitute the groundwork of each research stage, with strict adherence to established ethical guidelines and standards.

### ***Permissions***

The first step was to secure IRB approval from Liberty University, demonstrating a commitment to ethical research conduct. Informed consent was obtained from all participants before data collection, explaining the study's objectives, data collection methods, and voluntary involvement, emphasizing the option to withdraw at any time (see Appendix F). Moreover, participant anonymity and confidentiality were protected using pseudonyms and avoiding disclosing identifiable information (Harper et al., 2021).

### ***Other Participant Protections***

The collected data will be securely stored on an encrypted, password-protected external hard drive, further safeguarded within a locked container. The data will be securely stored for three years following the study's conclusion in accordance with established data retention and

disposal standards. Furthermore, data from participants who choose to withdraw from the study will be promptly and securely destroyed to protect their privacy and confidentiality. Patton (2015) emphasized the importance of triangulation to enhance the validity and reliability of qualitative findings. Hence, triangulation was achieved using various qualitative data collection methods, including individual interviews, focus groups, and letter-writing prompts. Reciprocity was practiced by providing participants with comprehensive information about the study's outcomes and implications, maintaining transparency and ethical integrity throughout the research process (Creswell & Poth, 2018).

### **Summary**

In summary, Chapter Three presented the methodology for a qualitative study using a hermeneutic phenomenological design to explore community college professors' experiences working with dual-credit high school students in northern Texas. The setting included multiple community college campuses collaborating with area high schools. A purposeful, criterion-based snowball sampling strategy was used to recruit 11 diverse participants who were full-time community college faculty with at least one year of dual-credit teaching experience. Data collection methods included semi-structured individual interviews, focus groups, and letter-writing prompts aligned with Van Manen's (2014) phenomenological principles.

The iterative hermeneutic circle analysis process guided by Van Manen and Heidegger was used to interpret the data. Moreover, Colaizzi's (1978) seven-step method complemented Van Manen's approach during data analysis. The seven steps include extracting significant statements, formulating meanings, clustering themes, writing exhaustive descriptions, condensing to a fundamental structure, and seeking participant validation. Establishing

trustworthiness followed Lincoln and Guba's framework using credibility, transferability, dependability, and confirmability strategies.

In conclusion, this chapter provided a detailed overview of the methodology chosen to explore community college professors' experiences working with dual-credit high school students. The qualitative design uses hermeneutic phenomenology principles and multiple data collection methods aimed to garner deep insights into this phenomenon. Strategies for participant selection, data collection, analysis, and establishing trustworthiness were outlined, providing a framework for conducting an ethical and rigorous qualitative study to address the research problem. The methodology presented aligns with the study's purpose of elucidating the essence of community college professors' shared experiences teaching dual-credit courses to high school students (Van Manen, 2014).

## **CHAPTER FOUR: FINDINGS**

### **Overview**

The purpose of this hermeneutic phenomenological study is to describe community college professors' experiences working with dual-credit high school students in Northern Texas. Chapter Four begins with the narratives of 11 participants, experienced full-time community college professors, examined through individual semi-structured interviews, a focus group, and a reflective letter-writing prompt. The first section includes participant profiles and themes extracted using Colaizzi's (1978) data analysis method. Subsequently, Chapter Four presents the data outliers from the participants. Lastly, the chapter discusses the central research question and each sub-question, followed by a chapter summary.

### **Participants**

The study began by emailing fourteen community college professors with whom I had established connections. These professors were known for their experience with dual-credit high school students. In the initial phase, an email was sent to inquire about their interest in participating. Among the fourteen, nine expressed their willingness to participate. A snowball sampling approach followed the initial purposive sampling. The initial nine participants were asked if they knew other individuals in the area who were qualified and interested in participating. This strategy yielded positive results, as three additional participants agreed to participate in the study.

All 12 participants returned the consent forms via email within the stipulated two-week deadline. Unfortunately, one participant discontinued their participation after submitting the consent form, resulting in 11 participants. All participants met the eligibility criteria, including being over 18 years old and having a minimum of one year of experience teaching dual-credit

high school students as full-time community college professors. After returning the consent forms, individual interviews were scheduled via Microsoft Teams through email. This study included 36% male and 64% female participants. Pseudonyms are used in Table 4 to ensure anonymity.

**Table 4**

*Research Participants*

Research Participant	Gender	Highest Degree Earned	Career Experience	Dual Credit Experience
Phoebe	F	Master's	Learning Technologies	Business, Software
Maya	F	Master's	International Teaching	German, Spanish
Daniela	F	Master's	Corporate Training	English, Business
Nora	F	Doctoral	Corporate Training	Business, Software
Layla	F	Master's	High School Teaching	High School, Business
Theo	M	Doctoral	Entrepreneurship	High School, Business
Grant	M	Master's	Retail	Political Science
Hunter	M	Master's	Marketing	Marketing
Wendy	F	Master's	Military	Business, Software
Dakota	M	Master's	K-12 Education	High School, Business
Leo	M	Master's	Engineering	Entrepreneurship Management

**Phoebe**

Phoebe is an experienced dual credit instructor who has been teaching dual credit high school students for over five years, primarily in online or hybrid settings. She expresses concerns about the challenges of online teaching and believes that 14-year-olds are too young for college-level courses. Phoebe emphasizes the importance of clear rules, consistent rigor, and early intervention for dual credit students, sharing positive experiences of student success and growth. She advocates for improved communication between colleges and high schools and emphasizes the value of in-person teaching for dual credit students. Overall, Phoebe sees dual credit as a

positive opportunity but underscores the need to consider student readiness and program structure carefully.

### **Maya**

Maya is an accomplished instructor with eight years of experience teaching dual credit. Her educational journey includes specializing in German during her master's program. Facing a scarcity of job opportunities in her field, she spent nearly 13 years teaching English in Korea before returning to the United States to teach German with Spanish as a secondary language. Maya's teaching philosophy prioritizes individualized approaches, emphasizing maturity, responsibility, and readiness over age, advocating for an entrance exam for dual credit students. In her diverse online teaching experience, she navigates the challenges of counseling students, stressing the importance of community building and proper student placement. Beyond the classroom, Maya underscores the significance of face-to-face interactions on college campuses for an authentic experience, encouraging student participation in activities and relationship-building with professors. She shares insights into successful and struggling students, highlighting the importance of personal responsibility and gratitude for educational opportunities.

### **Daniela**

Daniela expressed a passionate and pragmatic approach to her role. Struggling to reconcile parental expectations, she embarked on an educational journey that involved adapting to unforeseen challenges. Her extensive experience teaching dual credit, particularly to homeschooled students, provides valuable insights into the unique dynamics and challenges in the field. Daniela delved into the intricacies of teaching dual credit in various settings, from physical high school campuses to online platforms, shedding light on issues like student maturity, logistical complexities, and the crucial need for improved communication between



high schools and colleges. Daniela's perspective underscored the importance of addressing dual-credit high school student's specific needs and expectations.

### **Nora**

Nora values the energy and creativity of in-person interactions with high school students. Nora embarked on her academic journey, earning a bachelor's in business, and thoroughly enjoying her time with great students and teachers. Despite her initial inclination toward a career in Marketing, her path took an unexpected turn during her master's program when she discovered a passion for teaching while working as a teaching assistant for a business calculus class. Though she initially aspired to be a Marketing professional, Nora's academic pursuits led her to pursue a master's and eventually a doctoral degree. Her career further extended to corporate training and social media marketing. Nora engaged in various roles throughout her academic journey, including teaching educational technology classes, working on corporate training, and contributing to social media marketing. Her experiences culminated in a full-time professor position. She underscored the significance of collaboration among educators to ensure students receive foundational knowledge for subsequent courses.

### **Layla**

Layla holds a bachelor's degree in information and operations management, specializing in information systems, displaying her strong background in computer technology. Following a two-year tenure in the technology industry post-graduation, she transitioned into education. Layla's extensive experience spans two decades as a high school teacher, followed by an additional eight to nine years as an adjunct faculty member. Notably, she assumed a full-time faculty position approximately a year ago. This trajectory reflects her dual roles as an educator and technology professional, underlining a rich and varied career in both sectors. Layla navigates

differences in teaching 100% dual-credit courses and mixed classes and implementing strategies like weekly reports to help students know their progress in class. Layla highlights the impact of teaching styles on engagement and expresses a positive attitude toward the challenges of dual-credit teaching, stressing the need for policy consistency.

### **Theo**

Theo is a dynamic and versatile individual with a diverse educational background and extensive professional experience. Theo started with a bachelor's degree, then a master's in education, an MBA, and a doctorate from diverse institutions. Theo's career journey began as an editor for a gospel publishing house, then transitioned into finance, hotel management, and eventually full-time teaching in a career college focusing on hospitality classes. This path evolved into roles such as operations director for the Department of Education, entrepreneurship during the 2010 recession, and a Teach for America experience leading to positions as a math teacher at a local ISD and, currently, involvement as a full-time professor. Theo's simultaneous business management alongside a teaching career highlights adaptability and a strong work ethic, embodying a "people person" engaged in diverse facets of education and entrepreneurship. Theo highlighted the challenges and dynamics of teaching dual-credit high school students.

### **Grant**

Grant holds a bachelor's degree in political science and further pursued graduate studies specializing in government, focusing on political theory, philosophy, public law, and American political institutions and behaviors. Grant obtained his master's degree in 2007. After a hiatus from education, he worked in the private sector in retail before entering academia. Grant began his career in education as an adjunct instructor at a Community College in 2009, eventually securing a temporary full-time instructor position at his current institution. Grant expressed a

nuanced perspective on the challenges and benefits of teaching dual credit students, highlighting the importance of tailored support, institutional collaboration, and the need for research to enhance the effectiveness of dual credit programs. Grant acknowledges the diversity in aptitude among dual credit students and emphasizes flexibility in teaching approaches.

### **Hunter**

Hunter, a current professor at his institution since 2001, initially joined as an adjunct before transitioning to a full-time role. Despite not planning a career in academia and aspiring to be a marketer, Hunter's journey into teaching began when he agreed to try it on a part-time basis at the request of a friend. His professional background is rooted in marketing, and like many colleagues, he entered academia after building a successful career in the industry. Hunter holds a master's degree in marketing and another in Action Radio Television Film. He is pursuing a doctorate in business administration and expects to graduate in two years. In his teaching role, Hunter focuses on core marketing courses, including marketing, retailing, sales, and customer service, and is open to instructing special classes as needed, such as project management. Hunter brings a unique combination of practical marketing expertise and academic pursuits to his professorial role.

### **Wendy**

Wendy holds a bachelor's degree in public affairs and organizational communication and later pursued a master's in management and leadership. She had a lengthy career with the Army, primarily as a Public Affairs Specialist, and worked in various administrative positions, including working in administration for a congressperson. Wendy transitioned to teaching after approximately 20 years with the Army, particularly in recruiting. Her teaching journey began with a dual credit position, and despite an initial unsuccessful application, she eventually secured

the teaching role, marking the start of her career in education. Wendy expressed a passion for engaging students, particularly in face-to-face settings. Wendy emphasized the importance of connecting with students and positively impacting their lives, advocating for a focus on student maturity in dual credit programs.

### **Dakota**

Dakota boasts a diverse and extensive educational background with a primary focus on education. Starting as an elementary education major, she taught third grade for several years and covered various grades. She earned a graduate degree in education technology, focusing on instructional design. Dakota's teaching experience spans K-12, including high school and elementary school, emphasizing core content areas and education technology during middle school, where she focused on programming, graphic design, and Microsoft Office. Her versatility is evident in teaching pre-K in the local ISD and technology classes at an Art Institute from 2005-2006. Joining her current institution in 2010, Dakota highlights a comprehensive and adaptable approach to education across various subjects and grade levels. In her views on teaching dual-credit high school students, she highlights the importance of engagement, effective administration, and intrinsic student motivation for program success.

### **Leo**

Leo is an accomplished individual with a bachelor's degree in chemical engineering from MIT (Massachusetts Institute of Technology), followed by a diverse career spanning various industries such as print circuit board manufacturing, telecommunications, and food and beverage. After earning an MBA, he transitioned into higher education and has dedicated 12 years to teaching. Leo expresses enthusiasm for the impact he can have on students' lives, relishing the opportunity to influence them positively. He values the diversity in his teaching schedule,

covering business management, human resources, and personal finance. While his experience with dual credits is limited to teaching high school juniors on the college campus, he acknowledges the challenges associated with this, including cohort dynamics. Leo finds fulfillment in students returning to share their success stories, especially when they apply lessons learned in real-world scenarios like closing business deals.

### **Results**

This study employed a comprehensive data collection approach, employing individual semi-structured interviews, a focus group, and a letter-writing prompt. All participants responded to a uniform set of 12 open-ended questions. Following individual interviews, participants received a letter-writing prompt via email instructions and an invitation for additional questions. Six participants from the individual interviews received invitations to the focus group, of which three participated and contributed. While there is no set rule for the number of participants in a focus group, Kim et al. (2020) recommended a range of two to 12 participants to achieve saturation and ensure that a single participant does not overly influence the conversation. Therefore, having three participants in the focus group was deemed adequate. Transcribed interviews were returned for examination to ensure participant engagement and data accuracy and allow for corrections and additions through member-checking.

Using Colaizzi's (1978) method and facilitated by Delve software, data analysis focused on identifying significant statements and phrases reflecting participants' experiences with the phenomenon. Interview transcripts, focus group transcripts, and letters were analyzed to extract significant statements that described the participants' experiences with the phenomenon. These statements were meticulously organized in a dedicated Microsoft Excel sheet, featuring columns for *transcript numbers*, *significant statements*, *formulated meaning*, and *emerging themes* to

enhance data visualization and management. The formulated meanings (commonly called categories) were used with Vygotsky's (1978) sociocultural theory and the zone of proximal development to develop four main themes.

### **Themes Explored**

Four central themes were identified in the final examination of the comprehensive data collection, crafted from various sources, including individual interviews, focus groups, and letters. Initially, 36 emerging themes or categories were constructed from the individual interviews of the first four participants, establishing my baseline. Two additional themes surfaced from the fourth and fifth participants, contributing to the first run of my analysis. Upon delving into the subsequent interviews and letters from participants six through 11, my analysis confirmed the themes established by the initial four participants.

However, there was an absence of new information introduced during this phase. I employed Guest et al.'s (2020) prospective saturation calculation methodology to determine the saturation point in my data collection process. The thematic saturation method utilizes a predefined threshold of  $\leq 5\%$  for new information. Thematic saturation involves an iterative calculation assessing emerging themes in each run and their ratio to the base set's themes. The process concluded when the proportion of new information dropped below the  $\leq 5\%$  threshold, marking the saturation point.

In this case, my assessment indicated that saturation was achieved after the sixth interview. This finding underscores that the subsequent six interviews did not significantly contribute new insights, reinforcing the conclusion of saturation. For a detailed account of the participant number at which the saturation threshold was reached, please refer to Table 5.

**Table 5***Thematic Saturation*

Interview Number	1	2	3	4	5	6	7	8	9	10	11
New Themes per interview	23	10	3	1	1	0	0	0	0	0	0
New Themes in Run					1						
New Themes per Run					1/38 = 2.6 %						

*Note:* A Simple Method to Assess and Report Thematic Saturation in Qualitative Research (Guest et al., 2020)

Utilizing the hermeneutic circle, I continuously examined, refined, and integrated the emerging themes to construct a more intricate and nuanced interpretation of participants' experiences when working with dual-credit high school students. The initial 38 emerging themes or categories underwent a comprehensive synthesis, identifying four overarching themes that resonate with Vygotsky's sociocultural theory (1978). For example, I combined the *Academic Readiness* and *Student Motivation* categories to form the overarching theme of *Assessing Student Preparedness*. This synthesis was driven by considering how a student's current knowledge and skills represent the building blocks for learning in their Zone of Proximal Development (ZPD). Another integration involved merging *challenges with online instruction* and the *advantages of in-person instruction* into the cohesive theme of *challenges of teaching dual credit students*. This merger underscores the importance of face-to-face interaction, in line with Vygotsky's idea that learners can achieve more with the guidance of a knowledgeable peer or teacher within their Zone of Proximal Development.

Specific categories were deemed minor, as they resonated with 40% or fewer participants. Examples include *life and work balance* and *classroom organization*. These minor categories were acknowledged but did not form the core thematic structure.

Table 6 encapsulates the final inductive themes derived from applying the hermeneutic circle, and the table further illustrates the number of participants whose comments aligned with the identified themes, denoted by an 'X' in the corresponding box.

**Table 6**

*Main Themes from Data Collection*

Theme	Phoebe	Maya	Daniela	Nora	Layla	Theo	Grant	Hunter	Wendy	Dakota	Leo
Challenges in Teaching Dual Credit	X	X	X	X	X	X	X	X	X	X	X
Assessing Student Preparedness	X	X	X	X	X	X	X	X	X	X	X
Adjusting Teaching Approaches	X	X	X	X	X	X	X	X	X	X	X
Support Systems and Evaluation	X	X	X	X	X	X	X	X	X	X	X

Within each primary theme, various sub-themes surfaced. For example, under the theme of challenges in teaching dual credit, specific sub-themes included (a) questionable enrollment practices and (b) additional responsibilities. Two key sub-themes emerged in exploring the theme of assessing student preparedness: (a) age and maturity and (b) enhanced vetting procedures. Additionally, within the overarching theme of adjusting teaching approaches, sub-themes (a) collaboration and relationships and (b) active learning were identified. Finally, under the broader theme of support systems and evaluation, sub-themes (a) transitional support and (b) the balance between leniency and rigor unfolded.

The data underwent rigorous analysis involving ongoing examination, revision, and the amalgamation of initial themes to craft a more nuanced and refined interpretation of participants' experiences. Table 7 encapsulates the primary themes and sub-themes that surfaced through the



iterative process of the hermeneutic circle, providing a comprehensive overview and corresponding definitions.

**Table 7**

*Themes and Sub-Themes*

<b>Challenges in Teaching Dual Credit</b>	The range of difficulties educators face when delivering dual credit courses, which involve high school students earning college credit
Questionable Enrollment Practices	Issues around how dual credit students are selected, advised, and placed into college courses while still in high school.
Additional Responsibilities	The extra duties, tasks, and obligations that college professors take on beyond regular teaching when working with dual credit high school students in their classes
<b>Assessing Student Preparedness</b>	Evaluating dual-credit students' academic readiness, maturity levels, and life experiences to determine if they are equipped to succeed in college-level coursework
Age and Maturity	Recognizing and contemplating students' age, developmental readiness, and maturity levels in the context of their participation in college-level courses.
Enhanced Vetting Procedures	The need for a more robust and selective vetting process for admitting students into dual credit programs.
<b>Adjusting Teaching Approaches</b>	Educators need to customize their teaching approaches to meet the diverse needs of dual-credit learners.
Active Learning	Instructional activities and techniques that engage high school students in the learning process and enable them to apply classroom concepts.
Leniency and Rigor	The dilemma faced by dual-credit professors being flexible with deadlines and grading while upholding the rigor and standards expected in a college course.
<b>Lack of Support Systems</b>	The lack of communication, coordination, programs, and infrastructure between high schools and colleges to adequately set up dual credit students for success.

Immersion and Transitional Support	The need for intentional orientation, advising, mentorship, and transitional support for high school students to help immerse them into the college experience and set clear expectations for college-level coursework.
Stakeholder collaboration	Involves community college professors developing relationships with students and developing collaborative activities in and outside the classroom.

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### **Challenges in Teaching Dual Credit**

All identified shared challenges encountered in teaching dual credit across various settings, including online and in-person. Participants expressed their experiences highlighting shared challenges, including building meaningful relationships in virtual and physical classrooms, coordinating with varied educational systems, and fostering a college-level learning environment within the constraints of high school settings. The theme refers to educators' difficulties when delivering dual credit courses involving high school students earning college credit. The unanimous consensus among participants surfaced prominently when addressing the challenges of teaching dual credit online. Theo's candid admission captures the essence of this shared sentiment, emphasizing the stark contrast between success rates in online versus face-to-face instruction: "I find it extremely challenging... my success rate of students passing online versus face-to-face is between night and day." Grant further underscores these challenges, shedding light on the struggles students face balancing dual credit online courses with their high school curriculum demands.

Furthermore, participants diverged in their preferences for in-person locations for dual credit instruction. Maya advocated for the authenticity of college campuses, asserting that students "need to go to the college class...to start when college classes start...in that system." Conversely, Layla articulated the complications of integrating dual credit students on college campuses, citing issues such as attendance conflicts with traditional students. Amidst these

varied preferences, a common thread involved the indispensable value of face-to-face interaction. Echoing Vygotsky's theory on the vital role of social interaction in learning, Nora succinctly articulates the value of personal interaction: "Everything that I have done with dual credit students is by far better when I'm in person." Therefore, the emphasis on personal interaction stood out regardless of location, as participants aim to "bridge the gap between high school enthusiasm and collegiate rigor."

Participants shed light on challenges encountered on high school campuses, where the traditional college professor-student dynamic may face skepticism. Theo points out the potential disparity in perceived respect: "I might not feel that respect of, oh, this is a college professor. This is a college class." The complex integration of dual credit across multiple environments thus became a resounding theme, presenting inherent difficulties for instructors seeking to bridge the secondary and postsecondary educational contexts.

### ***Questionable Enrollment Practices***

The sub-theme *questionable enrollment practices* refers to issues around how dual credit students are selected, advised, and placed into college courses while still in high school. There are concerns that some students are being enrolled in dual credit classes without proper vetting or consideration of their academic readiness, interests, or future goals. Nine professors noted issues with students being "forced" or pressured to enroll by counselors and administrators focused on meeting enrollment targets rather than ensuring fit and preparation. As a result, classes often contain an admixture of genuinely interested and prepared students alongside disengaged, immature, or struggling students who do not belong. Hence, such enrollment practices lead to "classroom management challenges, student failures, and long-term transcript consequences."

As participant Leo stated: “Right now, you're getting busloads and busloads and busloads of students every single day, and not enough of them truly want to be there.” Layla also shared: “Some of the kids are just put in it and don't really want to be there...They don't care about college.” All participants called for more selectivity, vetting procedures, careful placement based on skills/interests, and intentional advising around enrollment choices. All participants emphasized the need to “shift from a one-size-fits-all approach to a tailored journey” where each student’s unique path is “acknowledged and addressed,” ensuring their enrollment in dual credit is not just a “box checked.” The overarching concern was that questionable enrollment practices set some students up for frustration and failure rather than success.

### *Additional Responsibilities*

Another sub-theme that arose from the challenges of teaching dual credit is additional responsibilities, which refers to the extra duties, tasks, and obligations that college professors take on beyond regular teaching when working with dual credit high school students in their classes. All Participants in the study unanimously stressed the significance of fostering student accountability among dual-credit high school students. Layla emphasized, “They need accountability, and we must implement it from day one.” Moreover, according to participants, accountability extends beyond academic endeavors, encompassing crucial skills and taking ownership of the dual-credit experience. Maya shared, “They need to be taught how to network with professors and others on campus.” The participants shared the need for intensive student support through “regular grade updates, reports, and monitoring” to help students understand their progress. Maya added a layer to the educators' role, mentioning that “they not only discipline and train but also coach and counsel students in aspects like time management, soft skills, and study skills beyond the confines of their specific discipline.”

Additional responsibilities that emerged include providing additional academic and non-academic guidance to students and taking on mentoring and motivating responsibilities to encourage engagement. For example, Daniela said, “I mentor and offer advice on the differences between high school and college and the consequences of missed deadlines.” The need to develop ongoing relationships with high schools was emphasized by Layla, “who found it extremely helpful.” Phoebe viewed her role as an instructor and someone who helps students make life decisions. Hunter adjusted his teaching style explicitly to “cater to dual credit students’ needs,” while Wendy highlighted the expectation for “teachers to keep motivating and encouraging students.” The findings underscore that dealing with high school dual enrollment students requires college professors to extend their roles beyond traditional pedagogy.

### **Assessing Student Preparedness**

Assessing student preparedness calls for evaluating dual-credit students’ academic readiness, maturity levels, and life experiences to determine if they are equipped to succeed in college-level coursework. All participants highlighted several critical dimensions of this theme, each contributing to the overarching concern about whether students are adequately prepared for the challenges of college-level coursework. Hence, when students are not prepared for the challenges of college-level coursework, participants find themselves “modifying their teaching styles and content to accommodate the varying readiness levels of dual credit students.” Phoebe raised the issue of academic skills, noting that “many students lack the foundational knowledge and study habits necessary to comprehend lectures, complete assignments, and pass exams.”

Moreover, when dual credit students are not prepared, participants share consequences affecting other students. Maya shared, “The challenge arises when dual-credit students, who may still be navigating high school responsibilities, find themselves in classes alongside individuals

with diverse backgrounds and varying levels of technical knowledge.” Additionally, professors noted variations in students' maturity levels and life experiences, as observed by Daniela and Hunter, respectively. Daniela pointed out a “definite difference in maturity levels among students,” raising questions about their developmental readiness to take college courses seriously and manage their performance. Hunter highlighted the “lack of real-world experience, particularly in business and marketing courses,” indicating that younger students may struggle with conceptual aspects due to limited exposure to relevant situations. In essence, the concerns about student preparedness encompass a multifaceted evaluation, requiring the consideration of academic skills, time management, maturity, and life experiences to make informed decisions about appropriate placement and potential success in dual-credit courses.

### ***Age and Maturity***

The sub-theme, *age and maturity*, emerged from assessing student readiness. The sub-theme refers to recognizing and contemplating students' age, developmental readiness, and maturity levels in the context of their participation in college-level courses. The unanimous concern among all participants revolved around the appropriateness of enrolling students as young as 14 in dual-credit programs. Phoebe, for instance, highlighted, “Fourteen-year-old students are not mentally and academically prepared or mature enough for college classes. They are not used to deadlines and cannot return the make-up work. Many do not realize that these grades/transcripts follow them for the rest of their lives.”

The data analysis captured various perspectives on maturity levels, with Theo pointing out “disparities between 9th graders and 18-year-olds, especially when proper facilitation is lacking.” Hunter echoed these concerns, emphasizing the “emotional maturity required for success in a college course,” particularly for younger students. Wendy underscored the

“potentially overwhelming nature of bringing in 9th and 10th graders, urging consideration of their maturity levels.” Grant expressed a nuanced tension between encouraging early career decisions and allowing freedom for exploration in a more flexible environment.

Daniela added a nuanced perspective, acknowledging the “strengths of youth and their unique way of seeing things.” Despite the challenges highlighted, the professors recognized the invigorating aspects of youth and cautioned against viewing their age as a weakness. The ethical considerations of introducing younger students to college-level coursework became apparent, emphasizing the “necessity for a supportive and understanding environment” that recognizes the distinctive developmental stages of dual-credit students. Vygotsky's sociocultural theory stresses the impact of social interactions and cultural context on cognitive development. The participants' experiences underscore the importance of comprehending the sociocultural factors influencing student readiness for dual-credit courses, including navigating the complexities of age and maturity considerations in academic settings.

### ***Enhanced Vetting Procedures***

All participants overwhelmingly express the need for a more robust and selective vetting process for admitting students into dual credit programs. Maya explains, “Students are people; they are not numbers, and each student needs to be properly vetted, placed, and taken care of individually.” There is a strong sentiment that students often enroll in dual credit classes without carefully considering their academic preparedness, interest level, or developmental readiness.

Hunter criticized the current haphazard approach, stating, “They were just enrolling anybody as opposed to looking for people who are interested.” Dakota suggests that “the enthusiasm for enrollment needs to be coupled with what’s best for the student.” Leo bluntly stated, “The vetting program, first and foremost, needs to be improved significantly.” He argued

that students should affirmatively "want to be in the program" and calls for better evaluation of their English abilities, grades, and work ethic. Daniela and Phoebe proposed limiting enrollment to 11th and 12th graders with the maturity to handle college-level coursework. Participants advocated a more selective, individualized vetting process considering academic preparedness, student interest and motivation, developmental factors, and maturity level. They want enrollment decisions "tailored to each student's needs and abilities rather than a one-size-fits-all approach to bolster participation rates." The sentiment aligns with Vygotsky's theory that social and cultural factors influence learning, so educational practices should be adapted to students' unique sociocultural environments.

### **Adjusting Teaching Approaches**

Adapting teaching methods refers to educators customizing their teaching approaches to meet the diverse needs of dual-credit learners. Some adjustments include the incorporation of additional scaffolding and structured guidance to bridge gaps in skills and experiences. The consensus among participants was to allow for assignment flexibility, recognizing that dual-credit students may face challenges such as limited access to technology or varying levels of academic preparedness. Maya's insight highlighted the importance of "assessing students' existing knowledge and delivering information at a manageable pace." Nora emphasized the distinction between dual-credit and traditional college students: "I spend more time talking about communication, etiquette, writing tips, what is appropriate and not appropriate, and more behavioral guidance," acknowledging that dual-credit students often require more supportive measures, including "increased handholding, encouragement, and a persuasive approach to convey the value of the course."

Furthermore, participants emphasized the significance of effectively tailoring



communication methods to engage dual-credit students. Establishing clear expectations around time management and delving into the students' contexts were crucial teaching adjustments. The collective sentiment emphasized the need for a proactive approach to “build relationships, enhance motivation, and ensure a positive learning experience.” The overarching message conveyed by the participants was the importance of remaining flexible and adaptive in teaching practices. Professors’ adaptability is seen as an essential approach to creating an inclusive and motivating learning environment that caters to the specific needs of dual-credit students.

### ***Active Learning***

A unanimous pedagogical strategy involved active learning. *Active learning* refers to instructional activities and techniques that engage high school students in the learning process and enable them to apply classroom concepts. These activities include group work, class discussions, hands-on projects, movement activities, and other strategies encouraging participation and critical thinking. Most participants mentioned using physical movement or interactive activities to keep dual credit students engaged, counteracting the fatigue of sitting for extended periods. Daniela explained, “I do a little more physical activities where everyone has to stand up once you answer a question.” Likewise, Maya suggested that dual credit classes “incorporate more community-building activities to enhance students' sense of belonging.”

By contrast, some participants observed that their dual credit learners were not always active or willing participants in class discussions. Wendy mentioned, “I don't find my business communication students to be as active participants as the computer courses are.” suggesting that certain topics or contexts may require professors to put forth more effort to foster active learning. Incorporating hands-on and participatory learning opportunities appeared central to stimulating dual credit learners and investing in their education. One participant in the focus group observed,

“While it takes some time in the first weeks of class to get them actively participating, once I do, we have a lot of fun!” Maintaining active engagement necessitates adaptable teaching methods tailored to high schoolers’ developmental levels and shorter attention spans than traditional college students.

### ***Leniency and Rigor***

Another salient sub-theme from the need to adjust teaching approaches for dual-credit high school students entails *leniency and rigor*. *Leniency and rigor* refer to the dilemma faced by dual-credit professors being flexible with deadlines and grading while upholding the rigor and standards expected in a college course. The focus group sessions provided a platform for participants to engage in a more thorough and detailed exploration of their experiences with teaching dual credit students, where the theme of balancing leniency and rigor emerged prominently. In analyzing the focus group transcripts, it became evident that all participants recounted instances in which high school administrators made requests for “extra leniency, extended deadlines, and opportunities to make up missing work for dual credit students, often very late in the semester.”

However, participants expressed a firm stance that dual credit students should adhere to the “same expectations as traditional college students regarding rigor, standards, and deadlines.” Consistency and fairness were unswervingly considered essential, with a shared belief in avoiding special exceptions for the dual credit population. Maya asserted, “These students are college students. They are to be treated as such. There are no exceptions to be made.” This sentiment was echoed by others who opposed any form of “dumbing things down” or compromising standards, even if it required adjusting teaching methods or providing additional scaffolding. Most professors in the study strived to strike a balance between reasonable

flexibility, considering the age and schedules of dual credit students, and a commitment to refusing any compromise on academic rigor.

### **Lack of Support Systems**

A unanimous theme, lack of support systems refers to the lack of communication, coordination, programs, and infrastructure between high schools and colleges to adequately set up dual credit students for success. It sheds light on the challenges faced by professors who contend that dual credit students encounter disadvantages due to inadequate planning and communication. Hunter highlighted an immediate disconnect experienced by students, stating, “There is just a disconnect from day one.” Specific areas identified as lacking coordination encompass concerns about facilitators, technology access, and the overall support structure of high schools. For instance, Daniela said, “Oh, please let there be some really good facilitator. Please let this be one of the high schools that gives them laptops to take home so they can do their college work.”

Moreover, professors stress the imperative for improved collaboration among high school administrators, teachers, and college faculty. Nora emphasizes the need for enhanced communication, stating, “I feel like the communication in all parts of it has got to be better.” Frustration surfaced among professors due to insufficient technology, resources, and advising provided to dual credit students on the high school side. Leo noted, “It's not just with the conduct of the students but the lack of preparation by the high school administrators.” Additionally, Theo advocates for more funding and “proper support,” asserting that the program “went too fast, too many.” Professors emphasized the urgent need for both high schools and colleges to enhance coordination and better address gaps in systems and services to support dual credit students' unique needs. As for solutions, professors call for more structured opportunities to collaborate

across institutions and evaluate existing support gaps and inconsistencies. Wendy suggested “a lunch meeting or once during the semester or something, but there's nothing, and nobody is asking the questions.” Improving coordination and support systems is deemed vital to assist dual credit students better.

### ***Immersion and Transitional Support***

The sub-theme of *immersion and transitional programs* emerged when analyzing and merging similar themes amongst all participants and refers to the need for intentional orientation, advising, mentorship, and transitional support for high school students to help immerse them into the college experience and set clear expectations for college-level coursework. According to participants' experiences, immersion and transitional support include exposing students to campus culture and college expectations, accessing campus resources, establishing relationships, and building skills to be successful in college courses and beyond.

Layla underscored this concern, noting that many students are simply “dropped off” into college courses without guidance. Other participants echoed this sentiment, highlighting the absence of advising and intentional pathways for students. Hunter questions, “Who advises students like this? ... you get just a bunch of extra classes, and you are not being efficient.” To enhance the transition, participants proposed various strategies, including “orientation programs, mentorships, exposure to campus resources, opportunities for relationship-building, and more immersive transitional experiences.” For instance, Dakota advocated for a summer bridge program, stating, “A summer bridge program, I think, is really, really, really, really needed for dual credit students.”

The consensus among participants is the crucial need for dual credit students to comprehend the implications of their role as college students. Leo emphasized, “If the dual credit

students could be given instructions about the program and what is being expected of them, and the fact that they are being enrolled in college courses would make a significant improvement.”

Layla reinforces the need for comprehensive discussions about college expectations, stating,

“They are not explaining that grades will be in their transcripts...I don’t think they are having the discussion about college or expectations, I don’t know that anyone is having that conversation.”

The emphasis on immersion and transitional programs aligns with Vygotsky's (1978) concept that individuals learn and develop within a social context, with these experiences and programs aiming to provide essential social and cultural support for dual credit students during their transition into the college environment.

### ***Stakeholder Collaboration***

A significant sub-theme that has emerged in response to the need to adjust teaching approaches in dual credit instruction entails *stakeholder collaboration*. *Stakeholder collaboration* involves community college professors developing relationships with students and developing collaborative activities in and outside the classroom. Dakota mentioned, “I get to know who they are, their likes and dislikes, and try to connect with them as much as possible.” Wendy shared, “If I can get to know them, I can motivate them.” This sub-theme extends beyond students to establishing connections and collaborating with high school stakeholders, particularly facilitators, counselors, and administrators, to enhance the success of dual credit students. Participants consistently underscored the necessity of “cultivating ongoing relationships and fostering communication with high school facilitators, counselors, principals, and other staff to garner additional support for motivating and guiding struggling dual credit students.” Nora encapsulates this sentiment by emphasizing the critical role of flexibility and establishing

relationships with school facilitators, which she finds extremely beneficial in supporting student success.

In addition to seeking assistance with student-related issues, some professors highlighted their collaborative efforts with high schools in addressing logistical challenges, such as “synchronizing start times, managing transportation, and resolving technology access issues.” Maya, for instance, illustrated a situation where dual credit students faced a two-week lack of Blackboard access, compelling professors to “remake the course” and collaborate with the high school to rectify systemic issues. Consequently, participants stressed that building connections and maintaining open communication with high school personnel is essential for college professors to receive the necessary support in effectively guiding dual credit students who may require additional accountability, motivation, or assistance in troubleshooting issues. Rather than viewing dual credit instruction as an isolated college experience, professors recognized the value of bridging the gap between the high school and college environments through collaborative relationships.

### **Outlier Data and Findings**

Among the diverse narratives collected from community college professors regarding their experiences with dual-credit students, certain outliers emerged as less pervasive themes, not prominently shaping the shared experiences of multiple participants. Rather than constituting significant overarching themes, these outliers can be regarded as minor sub-topics that, while not prevalent in the broader data collection, possess potential significance for future research endeavors. These outliers provide unique perspectives and nuances that, while not shaping the predominant narrative, hold promise as intriguing subjects for further investigation in subsequent research studies. Exploring these minor sub-topics could unveil additional layers of complexity

when exploring community college professors' experiences working with dual-credit high school students.

### ***Homeschooling***

Homeschooling emerged from the narratives of participants Maya and Daniela, who highlighted the unique characteristics of homeschooled students in their dual-credit courses. Daniela pointed out a distinctive difference, emphasizing the “students’ strong time-management skills and the significant support they receive emotionally, physically, and organizationally.” Maya echoed these sentiments, noting that homeschooled students tend to excel academically, displaying effective study habits and a lack of excuses. Although the theme was not unanimous across all participants, homeschooling stands out as an outlier theme due to the consistent positive experiences both participants shared regarding homeschooled students.

This theme diverges from the general discourse on dual-credit students, highlighting the notable advantages and maturity levels observed among homeschooled participants. According to the participants, “the presence of effective time-management skills, emotional support, and a high level of maturity among homeschooled students in dual-credit courses distinguishes them from the broader student population.” This outlier sheds light on the potential benefits of homeschooling in preparing students for the demands of college-level coursework. As Daniela mentioned, “My institution has a history of accepting homeschooled students as early as 16,” further supporting the significance of this outlier. Maya's observation that homeschooled students are among her best students across the board reinforces the outlier's salience.

### ***Parental Involvement***

The role of parental involvement surfaced in the narratives of several participants. For instance, Hunter emphasizes that some students enroll solely because their parents desire them to

attend college, raising questions about the students' genuine interest. Dakota supported the importance of parental engagement, suggesting that having parents involved can positively impact a student's academic success. Theo advocates for informing parents about their children's unique opportunities in dual-credit programs. The outlier theme challenges the common assumption that personal academic interests solely drive students enrolled in dual-credit programs. Instead, it sheds light on parents' considerable influence in shaping students' decisions, often pushing them toward dual enrollment for several reasons. This outlier challenges the conventional narrative of students independently seeking dual-credit opportunities, bringing attention to the external motivations imposed by parents.

### **Research Question Responses**

This study was guided by a central research question and three sub-questions designed to explore community college professors' experiences working with dual-credit high school students. The goal was to capture and understand the essence of the participants' experiences. The previous section identified Four themes from the individual interviews, focus group prompts, and letter writing prompts. This section associates the emerging themes with the appropriate research question.

#### **Central Research Question**

What are community college professors' experiences working with dual-credit high school students? All participants conveyed varying encounters working with dual credit high school students, highlighting rewarding moments and notable frustrations. Theo shared a positive experience with a student gaining practical skills, stating, "One of my students shared that as an 18-year-old, he was being asked to run the family business because of the skills he learned in my class." However, Theo acknowledged the need for refinement, noting, "I am a strong believer in



dual credit, but I think it needs to be fine-tuned...I think we went too fast, too many.”

Similarly, Wendy expressed the rewarding aspects of “reaching the students and recognizing the impact you’ve had on their success.” At the same time, Grant echoed support for dual-credit programs yet called for improvements through “working together with folks in the school districts to support students.” He also highlighted professors' reluctance and the “tricky” balance in determining “the highest value structures and processes” to optimize effectiveness. Overall, the professors appreciated the opportunities dual credit provides, from developing practical skills to facilitating transitions to college. However, they grappled with systemic and communication issues across institutions while adapting their instruction to accommodate students' varying needs and levels of preparedness. Despite rewards, refinements regarding program scope, student vetting, and stakeholder collaboration remained necessary to bridge secondary and postsecondary dynamics.

### **Sub-Question One**

How do community college professors describe the outcomes and adverse outcomes of teaching dual-credit high school students? Participants described positive and undesired outcomes in their experiences working with dual-credit high school students. Their accounts varied based on their experience with dual-credit students and navigating the complexities of the involved institutions. Challenges, such as enrollment complexities, the unpreparedness of younger students, the need to adapt teaching approaches, and a lack of support systems, emerged from these accounts. Various challenges surfaced while exploring community college professors' experiences with dual-credit high school students, including enrollment complexities, the unpreparedness of younger students, the necessity to adapt teaching approaches, and a noticeable absence of support systems. These challenges underscore the intricate nature of dual-credit

education, revealing its multifaceted dynamics. A recurring theme emphasizes the imperative for improved communication and coordination among stakeholders, acting as a central pillar to augment the overall experiences and effectiveness of dual-credit programs.

Amidst the challenges, positive moments and compelling student success stories were shared. Although all participants acknowledged the significant relationships formed while working with dual-credit high school students, there was a collective recognition of the need for refinement in the current system. Theo advocates a more measured and strategic approach to expanding dual-credit programs, suggesting a “thoughtful reassessment of their trajectory.” Wendy and Grant echo broader sentiments, acknowledging the challenges and rewards inherent in this educational landscape. Participants find “satisfaction in impacting student success” while concurrently emphasizing the necessity for a “thoughtful evaluation of structures and processes” to enhance the efficacy of dual credit.

### **Sub-Question Two**

What pedagogical strategies do community college professors employ with dual-credit high school students? All participants shared their insights on adapting teaching methods to effectively navigate the educational dynamics between high school and college for dual-credit high school students. Several key pedagogical strategies are used when working with dual-credit students. A predominant technique mentioned was employing “active learning” methods to engage students and counteract shorter attention spans. Daniela explained, “I do a little more physical activities where everyone has to stand up once you answer a question.” Likewise, incorporating “hands-on projects” and “movement activities” were considered essential strategies for stimulating dual credit learners.

However, balancing active participation with reasonable expectations was an adjustment

for professors. Wendy observed, “I don’t find my business communication students to be as active participants as the computer courses are,” suggesting certain subjects or environments may require more effort to inspire engagement. Ultimately, maintaining adaptability in teaching practices to align with developmental levels was considered vital. One professor noted, “While it takes some time in the first weeks of class to get them actively participating, once I do, we have a lot of fun!” This flexibility encompassed areas like assignment structure and classroom activities while upholding academic rigor. As Maya asserted, “These students are college students. They are to be treated as such. There are no exceptions to be made.”

### **Sub-Question Three**

How do community college professors perceive their role in effectively implementing dual-credit programs? Community college professors recognize their role as pivotal in ensuring the successful implementation of dual-credit programs. They stress the importance of upholding rigorous academic standards and clear expectations while offering additional support to dual-credit students. In Phoebe's words, “All dual credit classes should be taught with the same expectations/rigor of a regular college class.” Simultaneously, the professors acknowledge dual-credit students' challenges adjusting to college-level courses. Daniela emphasizes, “I want my students to have a positive learning experience because some students take a college-level course as a dual credit student and realize that it may not be for them, so that gives me a chance to support and encourage.”

Communication and collaboration emerge as critical elements in the professors' approach, particularly in working with high school facilitators and college administrators to bridge expectations and ensure adequate resources for dual-credit students. Nora proposes, “More staffing and prioritizing the use of seasoned faculty would help at the college level rather than

throwing adjuncts in blindly.” Overall, the professors perceive their role as multifaceted, encompassing the maintenance of rigor, provision of support, collaboration across systems, and facilitating a smooth transition for dual-credit students into the college environment.

### **Summary**

Chapter Four provided a comprehensive account of a phenomenological study exploring community college professors’ experiences working with dual-credit high school students. The study incorporated individual interviews, a focus group, and reflective letter writing to elucidate the experiences of 11 community college professors working with dual-credit high school students. Utilizing Colaizzi’s (1978) method for analysis, four predominant themes emerged from the data: challenges in teaching dual credit, assessing student preparedness, adjusting teaching approaches, and support systems and evaluation.

The most unanimously cited challenge was the difficulty of teaching dual credit, including issues like questionable enrollment practices, struggles with online delivery formats, taking on additional responsibilities beyond regular teaching duties, and navigating logistical complexities across secondary and postsecondary contexts. Concerns also arose regarding student preparedness for college-level work, including academic skills gaps, varying maturity levels, inadequate time management abilities, and a general lack of real-world experience due to their youth. To address these issues, participants emphasized the need for adaptability in their teaching approaches, incorporating additional scaffolding, flexibility with assignments, active relationship building with students and high school personnel, and utilizing active learning techniques tailored to the needs of high school learners.

Finally, participants stressed a lack of adequate support systems, communication channels, coordination, infrastructure, and intentional transitional programs to set up dual credit

students for success. Enhanced collaboration and purposeful immersion experiences are needed. While applauding the opportunities dual credit provides, such as developing practical skills and easing the transition to college, the professors called for thoughtful reassessment of program scope, vetting processes, stakeholder partnerships across institutions, and realigning support systems to fit students' needs better. Though recognizing the rewards of their experiences, significant refinements remained necessary to optimally address the multifaceted challenges of bridging the secondary and postsecondary environments for learners.

## **CHAPTER FIVE: CONCLUSION**

### **Overview**

The purpose of this hermeneutic phenomenological study was to explore community college professors' lived experiences working with dual-credit high school students in northern Texas. The study incorporated interviews, a focus group, and letter writing to examine the essence of eleven professors' encounters with this phenomenon. Chapter Five begins by summarizing the key thematic findings that emerged through data analysis. The summary is followed by the researcher's interpretations that connect the phenomenon to participants' accounts, relevant literature, and theoretical frameworks on sociocultural learning. Subsequently, implications for policy and practice are discussed, highlighting actionable measures for enhancing support structures. Empirical and theoretical contributions are articulated regarding student readiness assessments and pedagogical adaptability. Finally, limitations concerning geographic range and participant demographics are acknowledged alongside recommendations for expanded research on homeschooling, faculty development, student perspectives, and impacts over time.

### **Discussion**

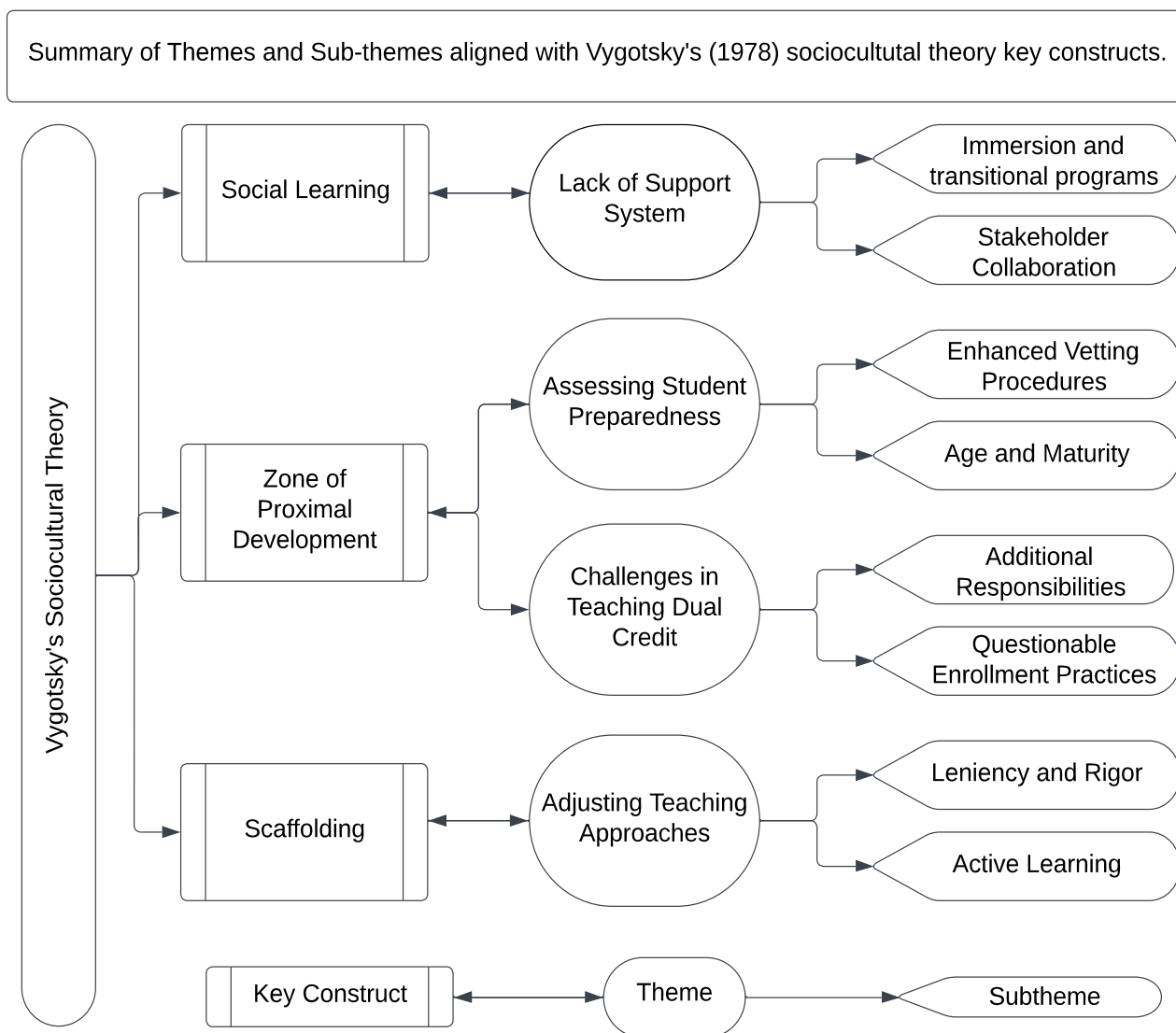
Numerous studies have scrutinized dual credit programs from various angles. Yet, insufficient attention has been directed toward the unique perspective of community college professors working with dual-credit high school students. While existing research and data emphasize the promising growth of dual credit programs nationwide and their positive impact on student access to college and affordability, scant literature delves into the factors influencing teaching, learning, and the overall experience from the viewpoint of community college

professors within the escalating demand for dual credit courses. This research helps fill this gap in the literature, becoming a pioneering study in this area.

Four overarching themes emerged through a comprehensive thematic analysis encompassing individual interviews, focus groups, and letter writing, aligning with Vygotsky's sociocultural theory. Subsequent sections will expound upon the interpretations of these themes, followed by an exploration of practical implications and theoretical and empirical considerations. The study then conscientiously addresses delimitations and limitations before providing recommendations for future research and concluding thoughts.

### **Summary of Thematic Findings**

This study leveraged the hermeneutic circle methodology to delve into the nuanced experiences of community college educators working with dual-credit high school students. Adopting the hermeneutic circle approach helped establish an iterative cycle where initial understandings of the phenomena were continually refined through direct observations and the researcher's interpretive lens (Martin, 1972). Four predominant themes surfaced in this study on professors' lived experiences with dual-credit students: (a) challenges in teaching dual credit, (b) assessing college readiness, (c) adapting teaching approaches, and (d) lack of support systems. The four predominant themes were further dissected into related sub-themes: questionable enrollment practices, additional responsibilities, age and maturity, enhanced vetting procedures, active learning, leniency and rigor, immersion and transitional support, and stakeholder collaboration. Figure 5 visually synthesizes these themes and sub-themes, aligning them cohesively with the fundamental principles of Vygotsky's sociocultural theory.

**Figure 5***Summary of Themes and Subthemes*

*Note.* Figure illustrating the summary of themes and subthemes aligned with the key constructs of Vygotsky's (1978) sociocultural theory. Own Work.

The four central themes identified in this study are integral, encapsulating the collective experiences of community college professors. These themes emerged from a meticulous application of Colaizzi's (1978) data analysis technique, grounded in the hermeneutic



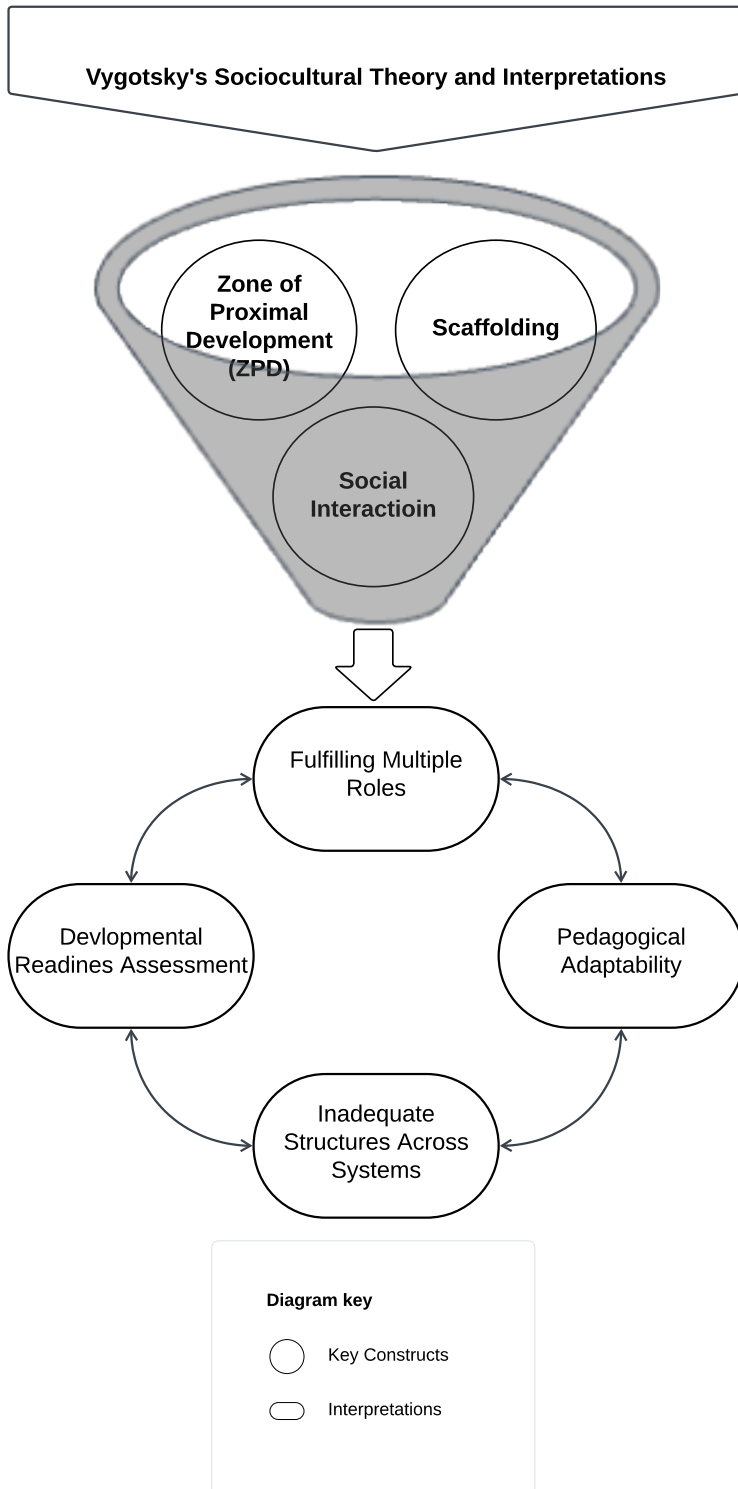
phenomenological approach. This method was pivotal in distilling the essence of the phenomena from the rich, lived experiences of the educators. These identified themes illuminated the core aspects of the professors' experiences and significantly enhanced the clarity and understanding of the phenomena derived from the data. These themes were instrumental in unraveling the deeper meanings and insights of the studied phenomena.

### **Interpretation of Findings**

The interpretation of the findings commences by employing Vygotsky's 1978 sociocultural theory as a foundational guide, which not only shapes the thematic framework of this research but also defines its subthemes, ensuring a structured and theory-driven data analysis. Next, the study explores four critical interpretations: Fulfilling Multiple Roles, Developmental Readiness Assessment, Inadequate Structures Across Systems, and Pedagogical Adaptability. Each of these interpretations is carefully examined, highlighting their unique contributions to our understanding of the subject matter. Complementing the analysis is Figure 6, which illustrates the intricate connections between the core constructs of Vygotsky's sociocultural theory and the specific interpretations identified in this study. This diagram serves as a valuable tool for visualizing the alignment of the study's findings with established theoretical concepts, thereby enhancing the overall clarity and impact of the research.

### **Figure 6**

*Vygotsky's Sociocultural Theory Constructs and Interpretations*



*Note.* Figure illustrating the process of arriving at the four key interpretations using the key constructs of Vygotsky's (1978) sociocultural theory. Own Work.

Vygotsky's 1978 sociocultural theory provided an insightful framework for understanding the experiences of community college professors, as visually encapsulated in Figure 6. This figure illustrates and synthesizes the interplay among the theory's fundamental constructs, pivotal in deriving four principal interpretations of this study. Specifically, it accentuates the multifaceted roles undertaken by professors and their bespoke pedagogical adaptations for dual-credit high school students. Furthermore, the figure brings to the fore two critical dimensions: the existing inadequacies in systemic structures and the imperative need for assessing developmental readiness. Central to this research was the application of the hermeneutic circle, a methodological approach that enables a profound, reflective, and interpretative analysis of participants' experiences. The integration of the hermeneutic circle with Vygotsky's foundational principles was key in extracting nuanced insights from the data. Consequently, Figure 6 effectively illustrates the dynamic interplay among the study's four interpretations, each directly rooted in the three core constructs of Vygotsky's sociocultural theory. The next section of the dissertation delves into these themes, deepening our understanding of community college professors working with dual-credit high school students.

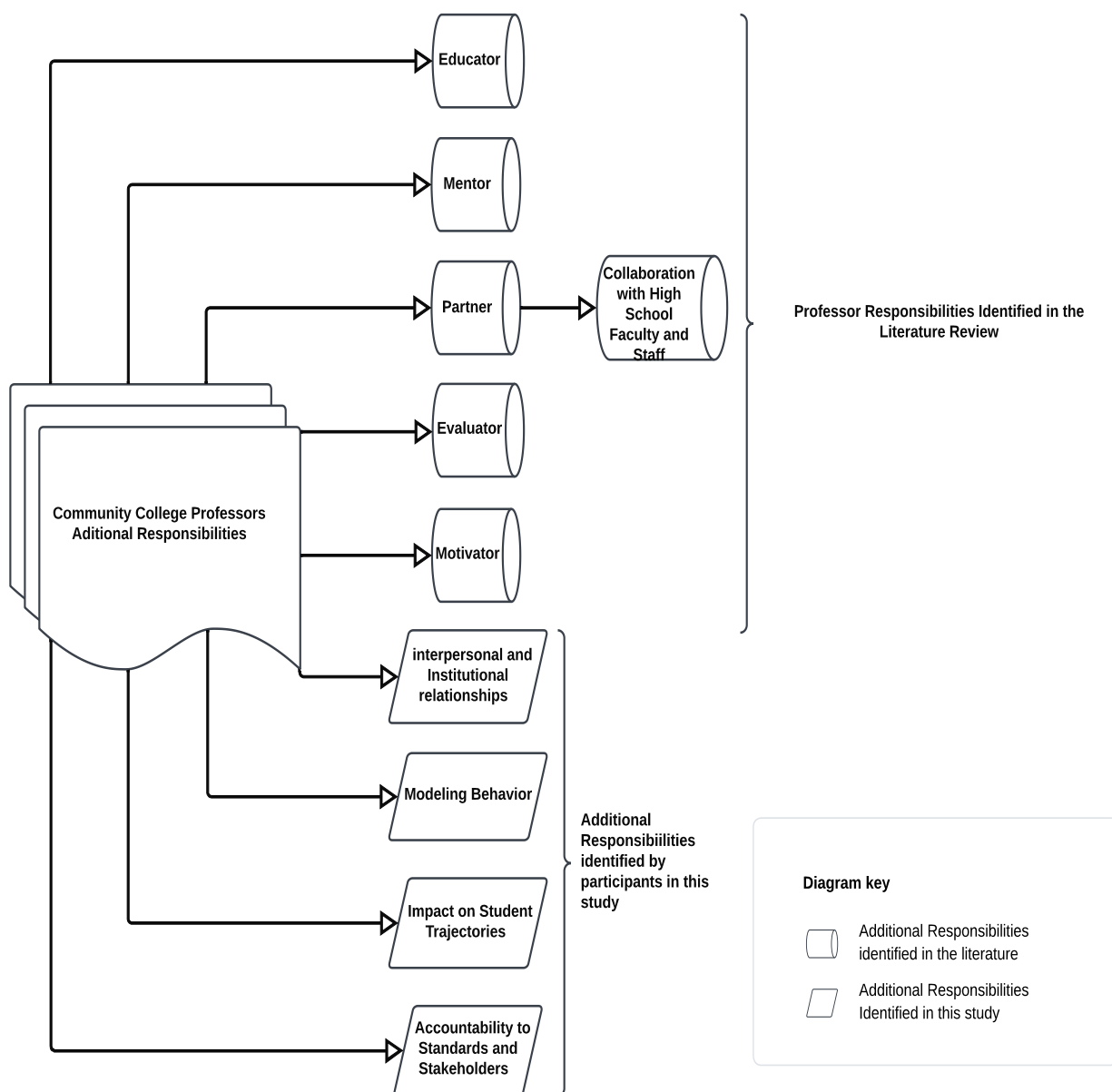
### ***Fulfilling Multiple Roles***

The participants emphasized the need to fulfill multiple roles effectively to ensure student success. They viewed themselves as educators, mentors, motivators, evaluators, and partners collaborating with high school faculty and staff. The need to wear “many hats” or fulfill multiple roles when teaching dual credit aligns with research on the responsibilities of dual credit instructors encompassing administrative, instructional, assessment, and partnership duties (Corin et al., 2020; Lichtenberger et al., 2014). This study makes the unique contribution of capturing professors' internal experiences and balancing these key functions when working with dual

credit. Figure 7 illustrates the various roles and responsibilities of community college professors involved in dual credit.

**Figure 7**

*Community College Professors' Additional Responsibilities Research Alignment*



*Note.* Figure illustrating community college professors' additional responsibilities in the literature review and by participants in this study. Own Work.

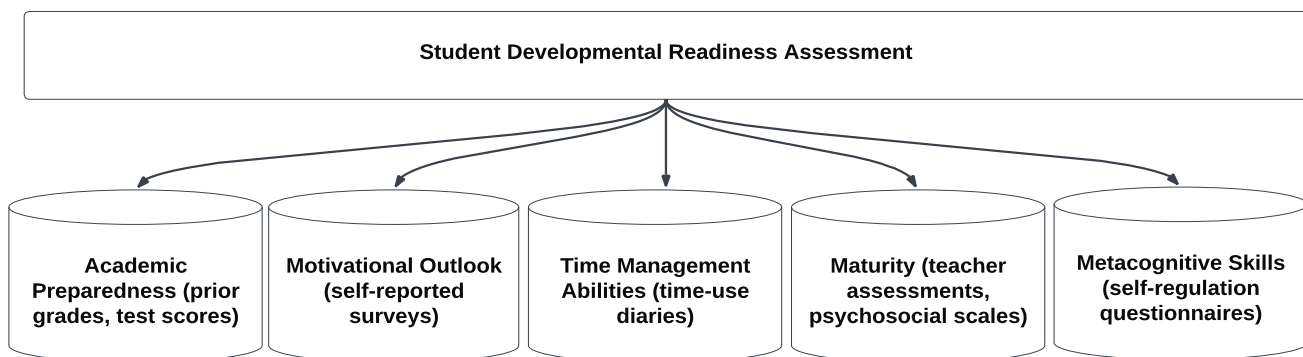
The diagram illustrates community college professors' additional responsibilities in alignment with research and includes additional responsibilities identified by participants in the study. While the literature addressed administrative, assessment, and partnership additional duties when teaching dual credit (Chang et al., 2018; Corin et al., 2020; Lichtenberger et al., 2014), this study's unique contribution lies in capturing the internal experiences of professors and how they balance these essential functions, not previously explicitly detailed in prior research. For instance, participants expressed various experiences working with dual-credit high school students. Still, they unanimously referred to the quality of the relationships within and outside the classroom.

Given that many high school students may experience a college class for the first time, professors' experiences highlighted the significance of modeling and reinforcing desired behaviors. Moreover, professors shared an awareness of their responsibility in teaching high school students, especially those who are young. Hence, the impact on students' trajectory considers the broader and more lasting influence on students' educational and career paths. Lastly, although accountability has been addressed in previous research as an additional responsibility when teaching dual credit (Hornbeck et al., 2023; Taylor et al., 2015), this study uniquely emphasized the multi-institutional context and the various stakeholders involved. For participants, responsibly occupying their multifaceted roles required attentiveness to interpersonal and institutional relationships, modeling exemplary behavior, considering long-term impacts on students' trajectories, and upholding accountability to standards and stakeholders across institutional contexts.

### *Developmental Readiness Assessments*

This study presents a notable interpretation regarding the absence of comprehensive, multi-dimensional assessments to evaluate students' developmental readiness before their enrollment in college-level courses. Its distinctiveness lies in the proactive evaluation of students before their engagement in dual-credit classes. This approach contrasts with other studies that explore the phenomena after the student has been enrolled in dual credit. For instance, An (2015) investigated whether participation in dual credit enhanced college readiness, and Clayton (2021) delved into the reasons why some dual-credit completers were placed in developmental courses. Hence, this research advocates a more proactive and informed approach to assess developmental readiness for dual-credit courses, drawing on the participants' experiences by focusing on pre-enrollment evaluation.

Developmental readiness assessments encompass academic preparedness but also intangible dimensions like motivational outlook, time management abilities, maturity, and metacognitive skills essential for self-regulated learning in college contexts. As Nora stated, “Make sure that the student is ready; just because you qualify on paper does not mean that you are ready.” However, according to the participants, current enrollment mechanisms rely on grade-based criteria rather than a holistic evaluation. The study revealed a need for greater attention to developmental appropriateness over age thresholds in placement decisions to uphold ethical standards and foster success. For instance, Fleur et al. (2021) suggested two paradigms that help evaluate metacognitive sensitivity, bias, and efficiency, essential in understanding how students perceive and manage their learning process. Figure 8 illustrates a developmental readiness assessment addressing the common concerns and recommendations by the participants in the study desperately needed before enrolling students in dual credit.

**Figure 8***Student Developmental Readiness Assessment*

*Note.* Figure illustrating recommended student developmental readiness assessment. Own Work.

During the study, participants raised concerns about students enrolling in dual credit courses who may not be academically, motivationally, or emotionally ready for such advanced coursework. To address these concerns, the researcher categorized the issues into five areas: academic preparedness, motivational outlook, time management, maturity, and metacognitive skills. These categories form a student developmental readiness assessment that can be used to create a system to help students prepare for college-level coursework. Sociocultural learning theory is helpful to help understand the complex interplay between academic and social-emotional development, especially for students transitioning between the two institutions or, as Vygotsky (1978) would refer to it, “cultural worlds.”

***Pedagogical Adaptability***

Pedagogical adaptability emphasizes the readiness and necessity for professors to tailor their teaching methods to meet the unique needs of high schoolers. This adaptability is crucial for effectively scaffolding learning and addressing motivational challenges voiced by the

participants. Pedagogical adaptability involves a shift from a one-size-fits-all approach to a more responsive and flexible teaching style, aligning closely with the Zone of Proximal Development (ZPD) concept. This research contributes a unique perspective to the existing body of literature on dual-credit teaching, primarily focusing on administration, assessment, and instructing diverse students (Castillo-Montoya, 2019; Wang & Li, 2021). Also, professors highlighted the importance of adjusting their instructional strategies within reasonable limits to enhance student engagement, balancing this with the need to maintain academic rigor.

The literature review highlighted concerns about academic rigor in dual-credit programs, as noted by Allen et al. (2022), Garcia et al. (2020), and Strayhorn (2018). This study aligns with those findings, revealing a tension experienced by educators in balancing the level of adaptation they provide with the need for students to demonstrate developmentally appropriate independence and responsibility in a college setting. A crucial issue that emerges is the extent of necessary adaptation and its interaction with promoting student ownership in their learning journey within a collegiate environment.

Participants consistently stressed the importance of upholding the same level of academic rigor in dual-credit courses as in traditional college courses. The fact that rigor was a key consideration echoes the challenges highlighted in the literature. Concerns about maintaining rigor are rooted in the observation that dual-credit students often exhibit lower levels of maturity and different behavioral patterns compared to traditional college students, implying a need for enhanced support, as discussed in studies by Allen et al. (2022), Ferguson et al. (2015), and Morgan et al. (2018). Therefore, this study enriches the understanding of this field by exploring how professors navigate the challenges of fostering effective relationships, managing diverse



maturity levels, and addressing the emotional and sociocultural hurdles when teaching high school students, especially the younger cohort in dual-credit courses.

### *Inadequate Structures Across Systems*

A resounding interpretation of the results involves the lack of cohesive structures and coordination across the secondary and postsecondary systems, intensifying challenges for students and faculty. As Grant noted, “Instead of complementary systems, you've got these orthogonal systems that are running in their own direction.” This discordance manifests in problematic enrollment protocols, technology access issues, unclear expectations, and overall deficient transitional support, as echoed unanimously by participants.

The results from this study regarding inadequate structures across systems supported the literature findings in chapter two regarding high school and college collaboration and dual credit program implementation, assessment, and evaluations, meaning that the effectiveness of dual credit programs relies heavily on the structures across secondary and postsecondary systems (Bettinger et al., 2022; Torres & Liu, 2020; Young et al., 2013). More specifically, this study highlights the challenges in aligning high school and college academic standards, which align with literature identifying this misalignment as a significant issue (Chumbley, 2016; Lee & Villarreal, 2022; Wiseman et al., 2023). Hence, this study and the literature suggest that students transitioning from high school to college through dual enrollment programs might be underprepared for college-level coursework due to these discrepancies.

Although several participants shared positive experiences in their collaboration efforts, they all shared suggestions on evaluating and improving the program to develop more effective support structures for several stakeholders across the institutions. Hence, the study's findings regarding the difficulties in establishing effective collaborations between high schools and

colleges resonate with the literature that underscores similar challenges (Ge et al., 2020; Yang et al., 2018). These challenges can impact the quality and effectiveness of dual credit programs. Wendy summarized the sentiment amongst participants: “There's nothing, nobody asking the questions” regarding collaborative planning, support structures, and program evaluation, revealing significant systemic gaps. The findings expose fragmentation rather than purposeful alignment between the involved institutions, severely impacting role clarity and resource provisions for dual credit constituents.

### **Implications for Practice**

The insights from this study hold considerable practical relevance for a diverse range of stakeholders, encompassing policymakers, educational administrators from both high school and college sectors, enrollment advisors, high school counselors, dual credit educators, and the students enrolled in these programs. The rich, lived experiences shared by the participants in this research offer valuable recommendations for each of these groups. These insights could guide potential changes, adaptations, and modifications to ensure the competent implementation and effectiveness of dual credit programs. Figure 9 illustrates the potential stakeholders.

### **Figure 9**

*Implications for Practice*



*Note.* Figure illustrating implications for practice by stakeholders. Own Work.

### ***Policymakers***

The findings in this study revealed the need for policy and administrative reform to improve dual credit programs. Hence, effective implementation of dual-credit programs in community colleges necessitates a multifaceted approach by policymakers. Standardizing

curriculum and streamlining enrollment processes are pivotal to ensuring equitable access as they simplify administrative procedures and ensure consistency in educational quality across different institutions (Nordquist & Lueck, 2020). Additionally, equitable access is a cornerstone of educational fairness, allowing students from diverse backgrounds to benefit from these programs (Johnson & Mercado-Garcia, 2022).

Moreover, for policymakers, the findings of this study may inform them how resource allocation plays a critical role in the sustainability of dual-credit programs. Adequate funding must be earmarked for infrastructure, advanced technology, and qualified staffing. This investment is essential for creating an environment conducive to high-quality education and supporting the diverse needs of high school students in these programs (Fleming et al., 2020). Additionally, establishing robust evaluation and accountability systems is indispensable. Regular assessment of the effectiveness of dual-credit programs through monitoring student outcomes and program quality ensures continuous improvement and adherence to lofty standards. Policymakers must base their decisions on data-driven insights to refine and evolve these programs over time (Zinth & Taylor, 2019).

### ***Educational Administrators (High School and College)***

For high school and college dual-credit administrators, the insights from this study shed light on the necessity of a strategic approach in effectively implementing dual-credit programs. Such an approach should prioritize collaborative engagement, encompass comprehensive orientation and transitional support, and establish well-defined support systems and communication channels. The criticality of collaboration between high schools and colleges cannot be overstated. This partnership is essential for creating a unified dual-credit educational experience, ensuring students experience a smooth transition between the two academic levels.

Torres et al. (2011) underscore this point by demonstrating the success of a dual-credit general chemistry program, which was seamlessly implemented through the joint efforts of a university and a high school. This collaboration maintained academic rigor and provided continuity for the students involved in the program (Torres et al., 2011).

Additionally, the role of orientation and transitional support programs in aiding dual-credit students to acclimate to college-level course demands and expectations is paramount. Bruch and Frank (2011) stress the importance of these programs, pointing out that effective transitions are bolstered by clear communication and targeted information literacy instruction. Such support enhances the articulation from secondary to postsecondary education (Bruch & Frank, 2011). Furthermore, establishing clear guidelines and accessible support resources is crucial for students in dual-credit programs. Roberts and Johnson (2018) illustrated the importance of clear guidelines by exploring service-learning initiatives within dual credit courses and found that such practices significantly affected student interests and engagement.

### ***Enrollment Advisors and High School Counselors***

Enrollment advisors and high school counselors may find the findings in this study valuable and applicable to their dual-credit enrollment practices. Enrollment advisors and high school counselors are pivotal in navigating students through the intricacies of dual-credit programs, with individualized student advising being a cornerstone of their role. This study stressed the crucial need for advisors to offer personalized guidance that reflects each student's academic readiness and career goals. Hackmann et al. (2019) emphasized the need to monitor community college students' degree progression and customize advice to cater to individual student needs (Hackmann et al., 2019).

Additionally, the findings in this study highlight building effective collaborations with colleges is fundamental. Such partnerships, especially maintaining clear communication with college administrators and faculty, are essential for aligning expectations and comprehending the unique demands of dual-credit courses. Verdonck et al. (2022) pointed out the significance of understanding the impact of dual credit course locations and instructional methods on academic success. Equally important is the ongoing support and monitoring of students' progress in dual-credit courses. This study suggests a proactive approach is essential for addressing academic or adjustment difficulties. Nickerson (2015) observed a positive correlation between parental awareness of their child's academic progress and the student's success in dual enrollment courses, reinforcing the value of continuous monitoring and support. Lastly, this study's findings suggest disseminating resources is critical to an advisor's role. Staying abreast of and actively sharing information about available resources, scholarships, and support services tailored for dual-credit students is essential. Clayton (2021) and Duncheon and Relles (2020) highlighted the significance of ensuring dual-credit students access to resources and services, stressing the importance of effectively communicating such resource information.

### ***Dual Credit Educators***

The findings of this study suggest that educators in dual-credit programs focus on critical areas such as professional development, adaptive instructional strategies, and the incorporation of active learning. Professional development is crucial, as it equips educators with a deeper understanding of the unique needs of dual-credit students (Lee, 2018; Revell & Ayotte, 2020). Also, Hemelt et al. (2020) highlighted the importance of initiatives like CLASS (Climate Literacy for Agriculture and Sustainable Societies), which foster stakeholder collaboration and

enhance educational curricula, including dual-credit courses. Such projects are instrumental in bridging knowledge gaps and improving teaching practices (Hemelt et al., 2020).

The findings of this study align closely with the existing literature, emphasizing the necessity of adopting adaptive instructional methodologies that cater specifically to the diverse learning requirements of students, whilst upholding stringent academic standards. In dual-credit education, the relevance of this approach is highlighted. Fletcher and Chumbley (2016) underscore the importance of tailoring instructional strategies to suit individual student needs, a concept that is especially pertinent in career and technical education. They suggest educators should be adept at modifying their teaching methods to support a diverse range of students, thereby fostering effective and inclusive learning environments (Chumbley, 2016; Corin et al., 2020). Furthermore, the integration of active learning strategies is seen as a crucial element in boosting student engagement and achievement in dual-credit programs. This perspective is supported by the work of Wong et al. (2023) and Jensen (2019), who explore the roles of critical thinking and active learning in fostering equity, inclusion, and social justice within educational settings. These approaches are essential in effectively engaging dual-credit students, creating classroom environments that are dynamic, inclusive, and conducive to deeper learning and understanding.

### ***Dual Credit Students***

For Dual-credit students who straddle high school and college education, the findings in this study encourage the critical task of making well-informed decisions and engaging proactively to reap the benefits of dual-credit programs fully. The results also encourage these students to comprehend the commitments required and the advantages of dual-credit programs. Lee et al. (2022) revealed how dual enrollment can significantly enhance first-year college

student engagement and academic performance, emphasizing the necessity of informed decision-making for participants in dual-credit programs.

Moreover, the findings in this study suggest the availability of academic support services such as advising, tutoring, and counseling provided by both schools and colleges is vital for dual-credit students. These resources are essential in guiding students through the intricacies of dual-credit courses and bolstering their academic success. Witkowsky et al. (2020) delved into the approaches for advising college students with dual enrollment credits, underscoring the critical function of academic advising in facilitating these students' transition to higher education. Additionally, the study advocates the importance of proactive engagement of dual-credit students in their learning journey. Such active involvement might include participating in service-learning projects, which, as García (2020) points out, can significantly enrich the educational experience for these students, enhance learning, and foster a more profound understanding of the academic content.

### **Empirical and Theoretical Implications**

This section delves into the theoretical and empirical ramifications of the findings. The empirical implications are explored through a lens focused on the rich, lived experiences of these professors working with dual-credit high school students and how these experiences compare or contrast concerning the literature review. Theoretically, the analysis is anchored in Vygotsky's sociocultural theory (1978), offering a nuanced perspective. It specifically scrutinizes how the findings resonate with four key constructs of Vygotsky's framework: the Zone of Proximal Development, Scaffolding, the role of More Knowledgeable Others, and the significance of Social Interaction. Anchoring the analysis in Vygotsky's theory not only contextualizes the findings within a well-established theoretical framework but also enriches the understanding of



how these concepts specifically play out in the context of community college professors working with dual-credit high school students.

### ***Empirical Implications***

In conducting this study, I aimed to contribute to the existing body of knowledge on dual credit education. By comparing my findings with the current literature, I hope to offer fresh perspectives on the challenges and intricacies of dual credit teaching. This study seeks to provide a deeper understanding of specific themes, such as the unique challenges of teaching dual credit courses, the evolving roles of educators in these settings, and the importance of developing tailored approaches to student assessment and support. The following section delves into diverse topics, reflecting on how the findings in this study resonate with, and at times differ from, previous research in the field. The following sections indicate where the study aligns with the established research and where it might offer new insights, extend the understanding of dual credit education, and potentially offer new avenues in contributing to the broader scholarly conversation on dual credit education.

**Challenges in Teaching Dual Credit and Enrollment.** The challenges of teaching dual credit, a theme highlighted in this study, resonate with the broader challenges identified in the literature. These challenges include the struggle to adapt teaching strategies to online environments and integrating high school students into college courses (Nordquist & Lueck, 2020). For instance, the study's finding that educators face significant differences in student success rates between online and face-to-face instruction extends our understanding of the

challenges in online dual credit courses (Nordquist & Lueck, 2020; Taylor et al., 2015). This insight is particularly relevant considering the increasing reliance on online education formats.

Similarly, questionable enrollment practices, such as inadequate vetting of students for dual credit programs, are a significant concern identified in this study. Questionable enrollment practices extend the discussion in the literature about the importance of ensuring student readiness for college-level work (Brown & Green, 2018). For example, the study's findings on the pressures of meeting enrollment targets and the resulting classroom dynamics offer a nuanced perspective on the implications of such enrollment practices (Brown & Green, 2018; Williams, 2021). The study's identification of additional responsibilities for educators in dual credit programs aligns with the literature emphasizing the expanded roles of teachers in such settings (Garcia et al., 2020; Hornbeck, 2023). This study contributes novel insights into these roles, highlighting educators' need to provide academic and non-academic guidance (Anderson, 2018; Garcia et al., 2020). Such insights underscore the demand for comprehensive professional development programs tailored to dual credit educators.

**Adjusting Teaching Approaches, Leniency, and Rigor.** The study's exploration of adaptable teaching approaches, especially its emphasis on active learning strategies in dual-credit contexts, resonates with and extends the findings of An (2015) and Fleming et al. (2020). While An and Fleming et al. touch upon teaching adjustment strategies, this study delves deeper, specifically addressing active learning within dual-credit programs, thereby contributing to a sparse area of research. Moreover, the study's focus on the flexibility of assignment structuring and classroom activities aligns with the broader literature on differentiated instruction strategies, as noted by Thompson & Jones (2022). However, it uniquely enriches this dialogue by highlighting real-world examples from professors who have successfully implemented these

methods. Moving beyond theoretical discussions, the study offers educators practical, actionable strategies, illustrating how they can be effectively woven into the fabric of dual-credit teaching. This practical application provides a valuable resource for educators seeking to diversify their instructional approaches to meet the varying needs of dual-credit students.

Moreover, this study also engages in a nuanced discussion about balancing leniency with academic rigor when teaching dual-credit students. This aspect of the study introduces a fresh perspective to the debate around academic standards in dual-credit courses, a topic thoroughly examined by researchers like Roberts & Johnson (2018) and Carter & Smith (2019). While aligning with these previous studies, the current research goes a step further by offering insights into the practical implementation of maintaining rigorous standards while considering dual-credit students' developmental stages and unique requirements. The exploration into the interplay between leniency and rigor underscores the need to uphold high academic standards while adopting the flexibility necessary to address each student's needs effectively.

**Support Systems, Collaboration, and Transition.** The study's identification of inadequate support systems and the necessity for improved collaboration between high schools and colleges echoes the themes found in existing literature, particularly the works of Duncheon and Relles (2020). These authors have previously highlighted the gaps in support structures for dual-credit programs, and the current study builds upon this by offering a more granular analysis of specific challenges, such as technology access and the need for better institutional coordination. This deeper examination, aligning with the findings of Taylor et al. (2015), provides a more comprehensive understanding of the obstacles faced in implementing effective dual-credit programs and underscores the importance of robust support systems.

Moreover, the study's focus on immersion and transitional support for dual-credit students significantly expands the existing body of research. Garcia & Hernandez (2021) have touched upon the importance of such support in the context of dual-credit programs, but the current study goes further by suggesting specific, actionable strategies. These strategies include the implementation of orientation programs and mentorship initiatives, which are instrumental in helping students acclimate to the college environment and ensuring their academic and social success. The emphasis on immersive experiences and transitional support aligns well with Vygotsky's (1978) sociocultural theory, which posits that the social context profoundly influences learning and development. Hence, the study applies this theoretical framework to the dual-credit context, illustrating how structured support systems can facilitate students' social and academic integration into the college environment, thereby enhancing the overall effectiveness of dual-credit programs.

**Assessing Student Preparedness.** An evident finding in this study with significant implications for the effectiveness of dual credit entails assessing student preparedness. This study's focus on assessing student preparedness in dual-credit programs, particularly concerning academic readiness and maturity, contributes to the existing body of research. The emphasis on comprehensive student preparedness aligns with and extends the findings of previous studies, such as those by Clayton and Guzman (2022) and Lee et al. (2022) but delves deeper by incorporating multifaceted evaluation methods. While Clayton and Guzman and Lee et al. highlighted the significance of academic preparation, this study further suggests a broader approach to assessing academic readiness, going beyond traditional metrics like GPA (Grade Point Average) and standardized test scores.

Furthermore, this study advocates for evaluating students' overall collegiate preparedness, including foundational knowledge, study habits, and capacity to handle college-level coursework. The study's detailed examination of maturity levels provides a nuanced understanding of its impact on student success, complementing and building upon studies like Jagesic et al. (2022), which touched upon developmental readiness but did not extensively explore how emotional and social maturity influences students' abilities to cope with dual-credit course demands. Hence, this study adds a vital dimension to the discourse on dual-credit education by highlighting that student success in dual-credit programs hinges not only on intellectual capabilities but also on emotional and social maturity.

### ***Theoretical Implications***

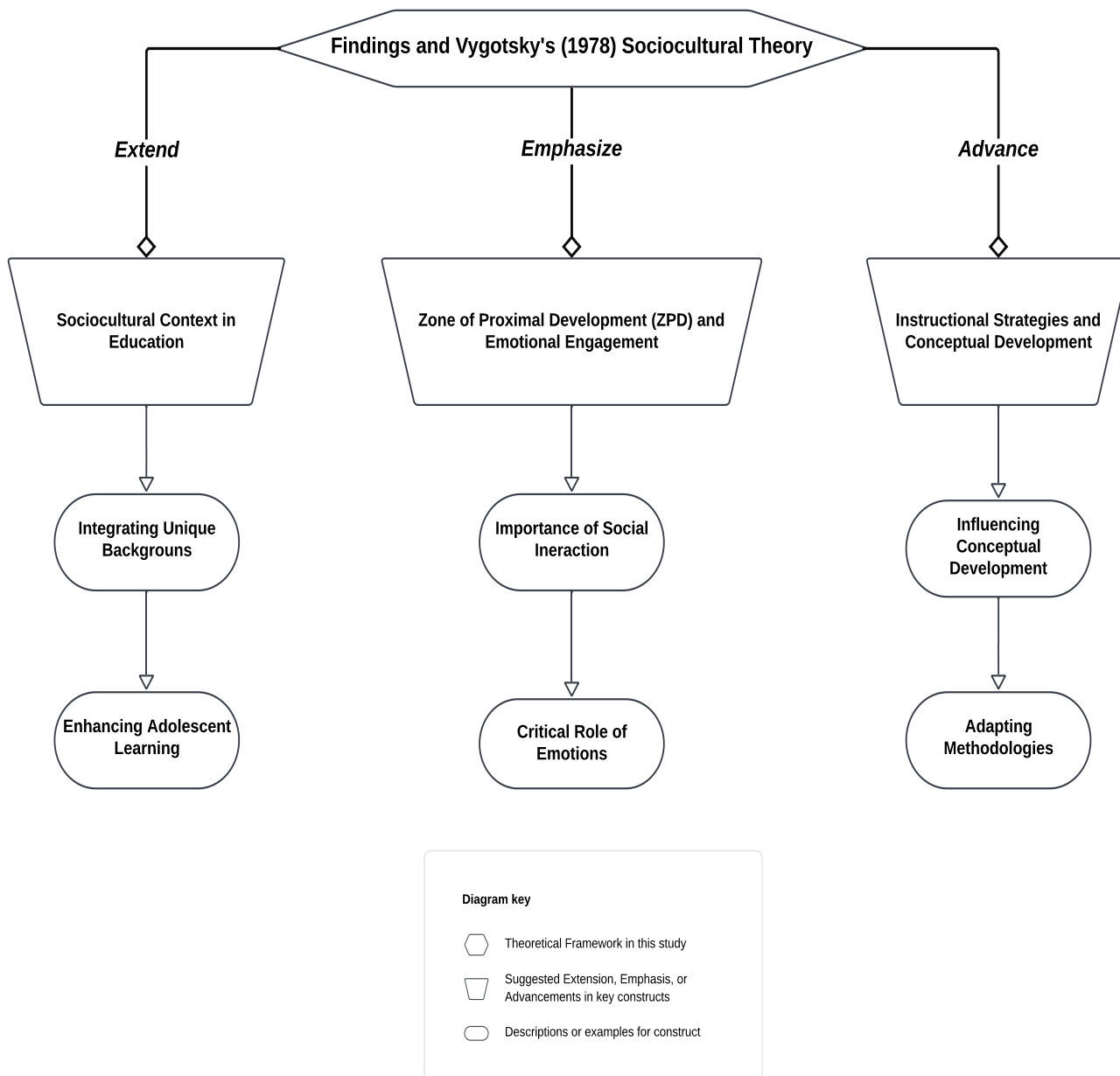
This study was guided by the principles of Vygotsky's (1978) sociocultural theory, focusing on a nuanced exploration of the lived experiences of community college professors working with dual-credit high school students. Central to this investigation was the application of Vygotsky's concepts of the zone of proximal development (ZPD), the concept of scaffolding, and the concept or dynamics of social interactions as previously illustrated and detailed in Figure 6. The analysis delved into how these theoretical constructs manifest in the unique educational setting of dual-credit programs.

The next section of the study discusses how the findings contribute to a deeper understanding of Vygotsky's sociocultural theory. Additionally, the following section highlights how the study's empirical evidence offers new insights into the influence of sociocultural factors on the educational experiences of both professors and students, aiming to expand the conventional interpretations of Vygotsky's framework in the context of educational theory. Figure 10 illustrates the suggested ways in which the findings in this study extend, emphasize,

and advance Vygotsky's (1978) sociocultural theory.

**Figure 10**

*Findings Extending, Emphasizing, and Advancing Vygotsky's Sociocultural Theory*



*Note.* Figure illustrating how the findings in this study may extend, emphasize, and advance Vygotsky's (1978) sociocultural theory. Own Work.

### **Sociocultural Context in Education**

This study's findings underscore the importance of integrating sociocultural contexts in educating adolescents, particularly those around fourteen. In line with Vygotsky's sociocultural theory, it is crucial to acknowledge and incorporate the unique sociocultural backgrounds of these young learners (Graham et al., 2023). Adolescents at this age are at a critical stage of identity formation and social development. Therefore, educational practices attuned to their cultural, social, and emotional needs can significantly enhance their learning experience. Integrating sociocultural context in educating adolescents not only aligns with Vygotsky's theory but extends it by emphasizing the application of sociocultural sensitivity in the education of adolescents, fostering a more inclusive and effective learning environment. Figure 10 illustrates Vygotsky's sociocultural theory and how the findings in this study could extend, emphasize, and advance the theory.

### **Zone of Proximal Development and Emotional Engagement**

Vygotsky's concept of the ZPD emphasizes the importance of social interaction and scaffolding in learning processes (Vygotsky, 1978). The findings in this study extend Vygotsky's theory by highlighting the role of emotional engagement in the ZPD. Emotions are critical in effective teaching within the ZPD, impacting teacher and student experiences (Tošić-Radev & Pešikan, 2023). Therefore, emotional engagement, especially with younger high school students, underscores the need for educational strategies focusing on cognitive aspects and catering to the emotional dimensions of learning within the ZPD.

### **Instructional Strategies and Conceptual Development**

Vygotsky's theory, revisited in the context of this study, suggests that instructional strategies directly influence conceptual development (Clarà, 2017). This study furthers this

notion by demonstrating how specific instructional methodologies can be employed to enhance conceptual understanding in learners, thus extending the practical application of Vygotsky's theoretical constructs. Also, the findings in this study contribute to Vygotsky's theory by emphasizing the need for sharpening teaching tools that cater to the ZPD (Wass & Golding, 2014). Hence, the findings suggest that continuously evolving and adapting teaching methodologies are crucial for maximizing the effectiveness of the ZPD in modern educational settings.

### **Limitations and Delimitations**

The investigation into community college professors' experiences with dual-credit high school students provides rich insights but also encounters specific Limitations and Delimitations. Limitations are inherent constraints that were not under the control of the researcher, impacting the study's outcomes and generalizability. Delimitations, on the other hand, are boundaries set by the researcher to define the scope of the study, shaping its direction and focus.

#### ***Limitations***

The study faced several limitations that are characteristic of qualitative research. Firstly, the sample size and demographic composition might not adequately represent the broader population of community college educators, limiting the generalizability of the findings (Creswell & Poth, 2018). Secondly, as the research relied on self-reported data, there is a potential for response bias, where participants may provide socially desirable responses rather than their authentic experiences (Brenya, 2023). Additionally, the study was limited by its geographical focus on northern Texas, which might not reflect the experiences of community college professors in different states or educational systems (Martinez et al., 2018).



### ***Delimitations***

Deliberate choices were made to define the study's scope. The research focused exclusively on full-time community college professors in Northern Texas who have taught dual-credit high school students for at least one year, thus excluding part-time educators and those without experience in dual-credit programs. The decision to use a qualitative methodology, specifically interviews and focus groups, was made to deeply explore personal experiences and perceptions, limiting the study to subjective data rather than quantitative measurements (Creswell & Poth, 2018). The study also delimited its inquiry to the context of teaching dual-credit courses, not exploring other aspects of professors' professional roles (Martinez et al., 2018).

### **Recommendations for Future Research**

Considering the study's findings, future research should explore the effectiveness and accessibility of dual enrollment programs in community colleges, primarily focusing on diverse socio-economic and racial backgrounds. Although some researchers have begun studying and exploring homeschooling and dual credit (Worsley et al., 2021). Future studies could utilize a mixed-methods approach to assess how these programs can be more inclusive and equitable. Another vital area of research is the interface between homeschooling and dual credit programs. Investigating how homeschoolers access and benefit from dual credit programs can provide insights into policy adjustments needed to accommodate this unique group of learners. A comparative study exploring the experiences of homeschooled students versus traditional students in dual credit programs could be revealing.

The role of parental involvement in dual credit programs was an outlier theme in this study and warrants further exploration. Research can examine how various levels of parental

engagement influence student success in dual credit courses. A research approach could involve qualitative studies to understand parental motivations and challenges in supporting their children's dual credit endeavors. Future studies should also focus on dual enrollment's impact on college preparedness and transition, comparing the long-term outcomes of dual enrollment participants with traditional students. Longitudinal study designs would be particularly beneficial. Finally, researching the policy and administrative aspects of dual enrollment programs, including their implementation and accessibility influenced by state and institutional policies, is recommended. Comparative studies of various institutional models can offer policy and educational leadership insights.

### **Conclusion**

This hermeneutic, phenomenological study exploring community college professors' experiences with dual-credit high school students has uncovered several vital themes for advancing dual-credit education. Predominantly, it highlighted the multifaceted challenges in teaching dual credit, the critical need for assessing college readiness, the necessity of adapting teaching approaches, and the pressing requirement for robust support systems. These themes, underpinning the dual-credit educational paradigm, present a holistic view of the experiences of educators at the heart of this evolving academic field. The study's findings resonate with the broader scholarly discourse, highlighting the role of educators as multifunctional entities – mentors, motivators, and evaluators – pivotal in shaping the trajectory of student success (Corin et al., 2020; Dare et al., 2017; Harrison & Laco, 2022). Another significant finding revolves around the need for developmental readiness assessments, ensuring students are academically, emotionally, and socially prepared for the rigors of college-level coursework (Morgan et al., 2018).

Additionally, the study points toward pedagogical adaptability as a cornerstone for success in dual-credit education. This adaptability is not just a pedagogical strategy but a necessity in the face of diverse learner needs and the ever-evolving landscape of higher education (O'Connor, 2022; O'Meara et al., 2013). Moreover, the study highlights the inadequacies in current support systems and the disjointed structures across secondary and postsecondary institutions, which often act as barriers rather than facilitators in the dual-credit journey (Roach et al., 2015). The study advocates for comprehensive policy reforms and practice alterations considering these findings. Practical steps, like pre-enrollment advising and peer mentorship programs, are suggested to smooth the transition for students, ensuring they are well-prepared for the demands of dual-credit courses and the different academic and social environments they will encounter (Lee, 2018; Qureshi et al., 2023).

The study reiterates that while dual credit offers significant opportunities for skill development and smoother transitions to higher education, it necessitates a thoughtful reassessment and realignment of pedagogical strategies, support mechanisms, and collaborative efforts across educational institutions. The success of dual credit education hinges not just on academic preparedness but also on the comprehensive support and adaptability of the educational ecosystem to meet the diverse needs of students navigating their path from high school to college.

## References

- Adler, I., Zion, M., & Rimerman-Shmueli, E. (2019). Fostering teachers' reflections on the dynamic characteristics of open inquiry through metacognitive prompts. *Journal of Science Teacher Education*, 30(7), 763-787.  
<https://doi.org/10.1080/1046560X.2019.1627060>
- Aifan, H. (2022). Implementing a project-based collaborative learning approach using PowerPoint to improve students' 21st-century skills. *E-Learning and Digital Media*, 19(3), 258-273. <https://doi.org/10.1177/20427530211030642>
- Akay, C. (2022). Demotivating factors experienced by teacher educators in synchronous distance education: A hermeneutic phenomenology research. *I-Manager's Journal on Educational Psychology*, 16(1), 25. <https://doi.org/10.26634/jpsy.16.1.18893>
- Albusaidi, S. (2019). Using activity theory to explain how a student learns in an internationalised classroom from a sociocultural perspective. *Journal of Language Teaching and Research*, 10(6), 1142-1149. <https://doi.org/10.17507/jltr.1006.02>
- Alebrahim, F., & Ku, H. (2020). Perceptions of student engagement in the flipped classroom: A case study. *Educational Media International*, 57(2), 128-147.  
<https://doi.org/10.1080/09523987.2020.1786776>
- Alismaiel, O. A., Cifuentes-Faura, J., & Al-Rahmi, W. M. (2022). Online learning, mobile learning, and social media technologies: An empirical study on constructivism theory during the COVID-19 pandemic. *Sustainability (Basel, Switzerland)*, 14(18), 11134.  
<https://doi.org/10.3390/su141811134>

- Alkhudiry, R. (2022). The Contribution of Vygotsky's Sociocultural Theory in Mediating L2 Knowledge Co-Construction. *Theory and Practice in Language Studies*, 12(10), 2117-2123. <https://doi.org/10.17507/tpls.1210.19>
- Allen, T. O., Thompson, M. L., & Collins, S. (2022). How do latinx dual credit earners describe their sense of belonging in engineering programs? *Journal of College Student Retention: Research, Theory & Practice*, 24(1), 3-19. <https://doi.org/10.1177/1521025119898153>
- Alsup, P., & Depenhart, J. (2023). College persistence of dual-enrolled high school students when considering modality of dual-enrollment course delivery. *Journal of College Student Retention: Research, Theory & Practice*, 25(1), 170-186. <https://doi.org/10.1177/1521025120973955>
- An, B. P. (2013). The impact of dual enrollment on college degree attainment: Do low-SES students benefit? *Educational Evaluation and Policy Analysis*, 35(1), 57-75. <https://doi.org/10.3102/0162373712461933>
- An, B. P. (2015). The role of academic motivation and engagement on the relationship between dual enrollment and academic performance. *The Journal of Higher Education (Columbus)*, 86(1), 98-126. <https://doi.org/10.1080/00221546.2015.11777358>
- An, B. P., & Taylor, J. L. (2019). A review of empirical studies on dual enrollment: Assessing educational outcomes. *Higher education: Handbook of theory and research* (pp. 99-151). Springer International Publishing. [https://doi.org/10.1007/978-3-030-03457-3\\_3](https://doi.org/10.1007/978-3-030-03457-3_3)
- Anderson, L. (2018). Professional development needs of dual credit educators. *Journal of Teacher Education*, 69(4), 401-415.
- Antonsen, Y., Jakhelln, R., Aspfors, J., & Bjørndal, K. E. W. (2023). Solo, collaborative or collective? Newly qualified teachers' experiences of being stirred into induction practices.

*European Journal of Teacher Education*, 1-19.

<https://doi.org/10.1080/02619768.2023.2227339>

Apriadi, P. F., Sudjimat, D. A., & Yoto. (2020). Project-based learning to improve learning outcomes and 21st century skills of vocational high school students' competency of light vehicle engineering skills. *Journal of Physics: Conference Series*, 1700(1), 012046.

<https://doi.org/10.1088/1742-6596/1700/1/012046>

Artama, K. K. J., Budasi, I. G., & Ratminingsih, N. M. (2023). Promoting the 21st century skills using project-based learning. *Language Circle (Semarang)*, 17(2), 325-332.

<https://doi.org/10.15294/lc.v17i2.39096>

Baillie, L. (2019). Exchanging focus groups for individual interviews when collecting qualitative data. *Nurse Researcher*, 27(2), 15-20. <https://doi.org/10.7748/nr.2019.e1633>

Bandini, J., Rollison, J., & Etchegaray, J. M. (2021). Journaling among home care workers during the covid-19 pandemic: a promising method for qualitative data collection.

*Qualitative Social Work*, 22(2), 340-356. <https://doi.org/10.1177/14733250211064812>

Baranyi, M., & Molontay, R. (2021). Comparing the effectiveness of two remedial mathematics courses using modern regression discontinuity techniques. *Interactive Learning*

*Environments*, 29(2), 247-269. <https://doi.org/10.1080/10494820.2020.1839506>

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-

529. <https://doi.org/10.1037/0033-2909.117.3.497>

Baumeister, R. F., Vohs, K. D., & Oettingen, G. (2016). Pragmatic prospection: how and why people think about the future. *Review of General Psychology*, 20(1), 3-16.

<https://doi.org/10.1037/gpr0000060>

- Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House*, 83(2), 39-43. <https://doi.org/10.1080/00098650903505415>
- Belwal, R., Belwal, S., Sufian, A. B., & Al Badi, A. (2021). Project-based learning (PBL): Outcomes of students' engagement in an external consultancy project in oman. *Education & Training (London)*, 63(3), 336-359. <https://doi.org/10.1108/ET-01-2020-0006>
- Berry, R., Partridge, M. A., Schaller, T. K., & Routon, P. W. (2022). Registration patterns, student characteristics and dual enrollment success in georgia. *Journal of Applied Research in Higher Education*, 14(4), 1260-1271. <https://doi.org/10.1108/JARHE-02-2021-0063>
- Bettencourt, G. M. (2021). "I belong because it wasn't made for me": Understanding working-class students' sense of belonging on campus. *The Journal of Higher Education (Columbus)*, 92(5), 760-783. <https://doi.org/10.1080/00221546.2021.1872288>
- Bettinger, E. P., Lu, A., Matheny, K. T., & Kienzl, G. S. (2022). Unmet need: Evaluating pell as a lever for equitable dual enrollment participation and outcomes. *Educational Evaluation and Policy Analysis*, 44(4), 783-807. <https://doi.org/10.3102/01623737221091574>
- Birt, L., Scott, S. E., Cavers, D., Campbell, C., & Walter, F. M. (2016). Member checking. *Qualitative Health Research*, 26(13), 1802-1811. <https://doi.org/10.1177/1049732316654870>
- Blankenberger, B., Lichtenberger, E., & Witt, M. A. (2017). Dual credit, college type, and enhanced degree attainment. *Educational Researcher*, 46(5), 259-263. <https://doi.org/10.3102/0013189X17718796>
- Borremans, L. F. N., & Spilt, J. L. (2022). Development of the competence measure of individual teacher-student relationships (COMMIT): Insight into the attitudes,

- knowledge, and self-efficacy of pre-service teachers. *Frontiers in Education (Lausanne)*, [7https://doi.org/10.3389/feduc.2022.831468](https://doi.org/10.3389/feduc.2022.831468)
- Brenya, B. (2023). Higher education in emergency situation: Blended learning prospects and challenges for educators in the developing countries. *Journal of Applied Research in Higher Education*, <https://doi.org/10.1108/JARHE-01-2023-0044>
- Brown, L., & Green, T. (2018). Enrollment practices and student readiness in dual credit programs. *Community College Review*, *46*(2), 123-141. <https://doi.org/10.1177/0091552117749393>
- Brown, S., & Cope, V. (2022). Global citizenship for the non-traditional student. *Journal of Community Engagement and Scholarship*, *6*(1), 28. <https://doi.org/10.54656/FCCY2446>  
<https://doi.org/10.1353/rhe.2019.0050>
- Bruch, C., & Frank, K. (2011). Sustainable collaborations: Libraries link dual-credit programs to P-20 initiatives. *Education Libraries*, *34*(1), 12-23. <https://doi.org/10.26443/el.v34i1.1200>
- Brücknerová, K., Rozvadská, K., Knotová, D., Juhaňák, L., Rabušicová, M., & Novotný, P. (2020). Educational trajectories of non-traditional students: Stories behind numbers. *Studia Paedagogica (Brno)*, *25*(4), 93-114. <https://doi.org/10.5817/SP2020-4-5>
- Bruggeman, B., Tondeur, J., Struyven, K., Pynoo, B., Garone, A., & Vanslambrouck, S. (2021). Experts speaking: Crucial teacher attributes for implementing blended learning in higher education. *The Internet and Higher Education*, *48*, 100772. <https://doi.org/10.1016/j.iheduc.2020.100772>
- Buckley, P. B., Pendergast, P., Klopfenstein, K., Poast, K., & Ramsay, L. (2022). Does dual enrollment improve progression through college and earnings and do outcomes differ by



sociodemographic characteristics or achievement levels? A quasi-experimental analysis of colorado students. *The High School Journal*, 105(3), 217-242.

<https://doi.org/10.1353/hsj.2022.0006>

Burrus, J., Elliott, D., Brenneman, M., Markle, R., Carney, L., Moore, G., Betancourt, A., Jackson, T., Robbins, S., Kyllonen, P., & Roberts, R. D. (2013). Putting and keeping students on track: toward a comprehensive model of college persistence and goal attainment. ETS Research Report Series, 2013(1). <https://doi.org/10.1002/j.2333-8504.2013.tb02321.x>

Carter, A., & Smith, B. (2019). Balancing rigor and support: Evaluating dual credit students. *High School Journal*, 102(1), 22-35. <https://doi.org/10.1353/hsj.2019.0001>

Carver-Thomas, D., & Darling-Hammond, L. (2019). The trouble with teacher turnover: How teacher attrition affects students and schools. *Education Policy Analysis Archives*, 27, 36. <https://doi.org/10.14507/epaa.27.3699>

Castillo-Montoya, M. (2019). Professors' pedagogical strategies for teaching through diversity. *Review of Higher Education*, 42(5), 199-226.

Castro, R. (2019). Blended learning in higher education: Trends and capabilities. *Education and Information Technologies*, 24(4), 2523-2546. [https://doi.org/10.1007/s10639-019-09886-](https://doi.org/10.1007/s10639-019-09886-3)

[3](https://doi.org/10.1007/s10639-019-09886-3)

Cazorla-Montero, A., Ríos-Carmenado, I. D., & Pasten, J. I. (2019). Sustainable development planning: Master's based on a project-based learning approach. *Sustainability (Basel, Switzerland)*, 11(22), 6384. <https://doi.org/10.3390/su11226384>

- Chang, C., Kuo, C., & Chang, Y. (2018). An assessment tool predicts learning effectiveness for project-based learning in enhancing education of sustainability. *Sustainability (Basel, Switzerland)*, 10(10), 3595. <https://doi.org/10.3390/su10103595>
- Charmaz, K., & Thornberg, R. (2020). The pursuit of quality in grounded theory. *Qualitative Research in Psychology*, 18(3), 305-327. <https://doi.org/10.1080/14780887.2020.1780357>
- Chen, T., Luo, H., Wang, P., Yin, X., & Yang, J. (2023). The role of pre-class and in-class behaviors in predicting learning performance and experience in flipped classrooms. *Heliyon*, 9(4), e15234-e15234. <https://doi.org/10.1016/j.heliyon.2023.e15234>
- Chi, M., Wang, N., Wu, Q., Cheng, M., Zhu, C., Wang, X., & Hou, Y. (2022). Implementation of the flipped classroom combined with problem-based learning in a medical nursing course: A quasi-experimental design. *Healthcare (Basel)*, 10(12), 2572. <https://doi.org/10.3390/healthcare10122572>
- Chumbley, S. B. (2016). The impact of a career and technology education program. *SAGE Open*, 6(4), 215824401667803. <https://doi.org/10.1177/2158244016678036>
- Clarà, M. (2017). How instruction influences conceptual development: Vygotsky's theory revisited. *Educational Psychologist*, 52(1), 50–62. <https://doi.org/10.1080/00461520.2016.1221765>
- Clayton, G. (2021). Advanced placement and concurrent enrollment substitution effects. *Journal of Advanced Academics*, 32(3), 380-396. <https://doi.org/10.1177/1932202X211004901>
- Clayton, G., & Guzman, M. C. (2022). Access to academic intensity through advanced placement and concurrent enrollment: Statewide evidence from colorado. *Educational Research (Orem, Utah)*, 33(2), 116.

- Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In R. S. Valle & M. King (Eds.), *Existential-phenomenological alternatives for psychology* (pp. 48-71). Oxford University Press.
- Cooper, J., & Lavie, I. (2021). Bridging incommensurable discourses – A commognitive look at instructional design in the zone of proximal development. *The Journal of Mathematical Behavior*, 61, 100822. <https://doi.org/10.1016/j.jmathb.2020.100822>
- Corin, E. N., Sonnert, G., & Sadler, P. M. (2020). The role of dual enrollment STEM coursework in increasing STEM career interest among american high school students. *Teachers College Record (1970)*, 122(2), 1-26. <https://doi.org/10.1177/016146812012200210>
- Creswell, J., & Poth, C. (2018). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Curci, J. D., Johnson, J. M., Gabbadon, A. T., & Wetzel-Ulrich, E. (2023). Expanding the pipeline to teach: Recruiting future urban teachers of color through a dual enrollment program. *The Urban Review*, 55(2), 224-243. <https://doi.org/10.1007/s11256-022-00646-1>
- Dahlberg, H., & Dahlberg, K. (2019). Open and reflective lifeworld research: a third way. *Qualitative Inquiry*, 26(5), 458-464. <https://doi.org/10.1177/1077800419836696>
- Dall’Alba, G., & Bengtson, S. S. E. (2019). Re-imagining active learning: Delving into darkness. *Educational Philosophy and Theory*, 51, 1477-1489.
- Dare, A., Dare, L., & Nowicki, E. (2017). Concurrent enrollment: Comparing how educators and students categorize students’ motivations. *Social Psychology of Education*, 20(1), 195-213. <https://doi.org/10.1007/s11218-016-9364-8>

- Destin, M., & Kosko, M. J. (2016). Motivating disadvantaged students toward the possibility of college: Psychological science has revealed a body of evidence that can help educators motivate disadvantaged students and work to keep them on track through high school and potentially into college. (COLLEGE ACCESS AND OPPORTUNITY). *Phi Delta Kappan*, 97(5), 8-8.
- Dörfler, V., & Stierand, M. (2020). Bracketing: a phenomenological theory applied through transpersonal reflexivity. *Journal of Organizational Change Management*, 34(4), 778-793. <https://doi.org/10.1108/jocm-12-2019-0393>
- Dowling, M. (2007). From Husserl to Van Manen. a review of different phenomenological approaches. *International Journal of Nursing Studies*, 44(1), 131-142. <https://doi.org/10.1016/j.ijnurstu.2005.11.026>
- Downes, J. M., Bishop, P. A., Swallow, M., Olofson, M., & Hennessey, S. (2016). Collaborative action research for middle grades improvement. *Educational Action Research*, 24(2), 194-215. <https://doi.org/10.1080/09650792.2015.1058169>
- Downing, V. R., Cooper, K. M., Cala, J. M., Gin, L. E., & Brownell, S. E. (2020). Fear of negative evaluation and student anxiety in community college active-learning science courses. *CBE Life Sciences Education*, 19(2), ar20-ar20. <https://doi.org/10.1187/cbe.19-09-0186>
- Drugova, E. A., Zhuravleva, I. I., & Aiusheeva, M. G. (2023). Challenges in designing blended learning: The experience of the “Schools of instructional design”. *Vysšee Obrazovanie v Rossii (Print)*, 32(6), 93-115. <https://doi.org/10.31992/0869-3617-2023-32-6-93-115>

- Duncheon, J. C., & Relles, S. R. (2020). "we're caught in between two systems": Exploring the complexity of dual credit implementation. *Review of Higher Education*, 43(4), 989-1016. <https://doi.org/10.1353/rhe.2020.0028>
- Durham, S., Harrison, J., & Barry, N. H. (2019). "My greatest challenge happens to be my greatest success": Overcoming barriers during an early preservice teacher practicum with a high percentage of dual language learners. *Journal of Early Childhood Research : ECR*, 17(3), 247-259. <https://doi.org/10.1177/1476718X19860556>
- Dyer, K., Childers, G., & Odell, M. R. L. (2022). Predictors of academic achievement in dual credit students. *Journal of Advanced Academics*, 33(2), 217-236. <https://doi.org/10.1177/1932202X211061134>
- Edenfield, C., & McBrayer, J. S. (2021). Institutional conditions that matter to community college students' success. *Community College Journal of Research and Practice*, 45(10), 718-734. <https://doi.org/10.1080/10668926.2020.1785353>
- Elisa Navarro Morales, M., & Londoño, R. (2019). Inverted classroom teaching in the first-year design studio, a case study. *British Journal of Educational Technology*, 50(5), 2651-2666. <https://doi.org/10.1111/bjet.12711>
- Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993). *Doing Naturalistic Inquiry: A Guide to Methods*. Sage Publications, Inc.
- Eun, B. (2019). Adopting a stance: Bandura and Vygotsky on professional development. *Research in Education (Manchester)*, 105(1), 74-88. <https://doi.org/10.1177/0034523718793431>

- Ferguson, C., Baker, P., & Burnett, D. (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>
- Field, K. (2021). The rise of dual credit. *Education Next*, 21(1), 56.
- Fleming, J., Gibson, R., Anderson, M., & Martin, A. J. (2020). Quality teaching frameworks and arts education: Seeking a compatible approach. *Journal of Curriculum Studies*, 52(6), 840-856. <https://doi.org/10.1080/00220272.2020.1720299>
- Fletcher, E., & Djajalaksana, Y. (2014). Instructional Strategy Preferences in the Career and Technical Education Classroom. *Career and Technical Education Research*, 39(2), 145-165. <https://doi.org/10.5328/cter39.2.145>
- Fletcher, E. C., D. Dumford, A., Hernandez-Gantes, V. M., & Minar, N. (2020). Examining the engagement of career academy and comprehensive high school students in the United States. *The Journal of Educational Research (Washington, D.C.)*, 113(4), 247-261. <https://doi.org/10.1080/00220671.2020.1787314>
- Fleur, D. S., Bredeweg, B., & van den Bos, W. (2021). Metacognition: Ideas and insights from neuro- and educational sciences. *npj Science of Learning*, 6(1), Article 13. <https://doi.org/10.1038/s41539-021-00089-5>
- Galindo-Dominguez, H. (2021). Flipped classroom in the educational system: Trend or effective pedagogical model compared to other methodologies? *Educational Technology & Society*, 24(3), 44-60. [https://doi.org/10.30191/ETS.202107\\_24\(3\).0004](https://doi.org/10.30191/ETS.202107_24(3).0004)
- Ganzert, B. (2014). Dual enrollment credit and college readiness. *Community College Journal of Research and Practice*, 38(9), 783-793. <https://doi.org/10.1080/10668926.2012.719483>

- García, H. A. (2020). Illuminating a path to college: How dual credit benefits rural students. *Journal of Applied Research in the Community College*, 27(2), 117-130.
- Garcia, H. A., Eicke, D., McNaughtan, J., & Harwood, Y. (2020). Understanding dual credit programs: Perspectives from faculty, staff, and administrators. *Community College Journal of Research and Practice*, 44(8), 584–594.  
<https://doi.org/10.1080/10668926.2019.1626301>
- Garcia, M., & Hernandez, P. (2021). Transitional support in dual credit programs: A sociocultural approach. *Educational Researcher*, 50(1), 31-44.  
<https://doi.org/10.3102/0013189X20967825>
- Ge, L., Chen, Y., Yan, C., Chen, Z., & Liu, J. (2020). Effectiveness of flipped classroom vs traditional lectures in radiology education: A meta-analysis. *Medicine (Baltimore)*, 99(40), e22430-e22430. <https://doi.org/10.1097/MD.00000000000022430>
- Giani, M., Alexander, C., & Reyes, P. (2014). Exploring Variation in the Impact of Dual-Credit Coursework on Postsecondary Outcomes: A Quasi-Experimental Analysis of Texas Students. *The High School Journal*, 97(4), 200-218.  
<https://doi.org/10.1353/hsj.2014.0007>
- Giani, M. S., Krawietz, C. E., & Whittaker, T. A. (2023). The role of student beliefs in dual-enrollment courses. *Research in Higher Education*, , 1-30.  
<https://doi.org/10.1007/s11162-023-09740-z>
- Golafshani, N. (2015). Understanding reliability and validity in qualitative research. *The Qualitative Report*. <https://doi.org/10.46743/2160-3715/2003.1870>

- Golder, S., Ahmed, S., Norman, G., & Booth, A. (2017). Attitudes toward the ethics of research using social media: a systematic review. *Journal of Medical Internet Research*, 19(6), e195. <https://doi.org/10.2196/jmir.7082>
- González, J. A., Giuliano, M., & Pérez, S. N. (2022). Measuring the effectiveness of online problem solving for improving academic performance in a probability course. *Education and Information Technologies*, 27(5), 6437-6457. <https://doi.org/10.1007/s10639-021-10876-7>
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, 30(1), 79–90.
- Graham, P., Kurz, C., & Batamula, C. (2023). Finding vygotsky in early childhood deaf education: Sociocultural bodies and conversations. *American Annals of the Deaf (Washington, D.C. 1886)*, 168(1), 80-101. <https://doi.org/10.1353/aad.2023.a904168>
- Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PloS ONE*, 15(5), Article e0232076. <https://doi.org/10.1371/journal.pone.0232076>
- Hackmann, D. G., Malin, J. R., Fuller Hamilton, A. N., & O'Donnell, L. (2019). Supporting personalized learning through individualized learning plans. *The Clearing House*, 92(1-2), 63-70. <https://doi.org/10.1080/00098655.2019.1571990>
- Harmon, H., & Johnson, J. (2023). Dual enrollment equity in rural america's two-year public postsecondary institutions. *Community College Journal of Research and Practice*, ahead-of-print(ahead-of-print), 1-16. <https://doi.org/10.1080/10668926.2023.2222702>
- Harper, M. T., Ghali, F., Hussain, A., & Al-Jumeily, D. (2021). Challenges in data capturing and collection for physiological detection of dementia-related difficulties and proposed



solutions. *Intelligent Computing Theories and Application*, 162-173.

[https://doi.org/10.1007/978-3-030-84532-2\\_15](https://doi.org/10.1007/978-3-030-84532-2_15)

Harrison, T., & Laco, D. (2022). Where's the character education in online higher education? constructivism, virtue ethics and roles of online educators. *E-Learning and Digital Media*, 19(6), 555-573. <https://doi.org/10.1177/20427530221104885>

Haskell, R. E. (2016). Effects of dual-credit enrollment and early college high school on utah public education. *Applied Economics and Finance*, 3(2).

<https://doi.org/10.11114/aef.v3i2.1323>

Haxton, C., Song, M., Zeiser, K., Berger, A., Turk-Bicakci, L., Garet, M. S., Knudson, J., & Hoshen, G. (2016). Longitudinal findings from the early college high school initiative impact study. *Educational Evaluation and Policy Analysis*, 38(2), 410-430.

<https://doi.org/10.3102/0162373716642861>

Heavin, K. S., & Ma, X. (2022). The effects of dual credit college algebra on postsecondary education outcomes. *Asian Journal for Mathematics Education*, 1(1), 19-35.

<https://doi.org/10.1177/27527263221087750>

Heidegger, M. (2008). *Being and Time* (J. Stambaugh, Trans.). HarperCollins. (Original work published 1927)

Hemelt, S. W., Schwartz, N. L., & Dynarski, S. M. (2020). Dual-Credit courses and the road to college: Experimental evidence from tennessee. *Journal of Policy Analysis and Management*, 39(3), 686-719. <https://doi.org/10.1002/pam.22180>

Hertzog, N. B., Lamb, K. N., & Mammadov, S. (2021). Parent perspectives on sending their children to college early. *Journal of Advanced Academics*, 32(4), 399-434.

<https://doi.org/10.1177/1932202X211007088>

- Hill, J., & Smith, K. (2023). Visions of blended learning: Identifying the challenges and opportunities in shaping institutional approaches to blended learning in higher education. *Technology, Pedagogy and Education, 32*(3), 289-303.  
<https://doi.org/10.1080/1475939X.2023.2176916>
- Hilmawan, H., Musthafa, B., & Agustin, M. (2022). Enhancing students' literacy skills through social constructivism-based literacy learning environment model. *Cypriot Journal of Educational Sciences, 17*(10), 3614-3624. <https://doi.org/10.18844/cjes.v17i10.7842>
- Hong, Y., Chen, L., Huang, J., Tsai, Y., & Chang, T. (2022). The impact of cooperative learning method on the oral proficiency of learners of the training program for english tourist guides. *Frontiers in Psychology, 13*, 866863-866863.  
<https://doi.org/10.3389/fpsyg.2022.866863>
- Hood, S., Barrickman, N., Djerdjian, N., Farr, M., Magner, S., Roychowdhury, H., Gerrits, R., Lawford, H., Ott, B., Ross, K., Paige, O., Stowe, S., Jensen, M., & Hull, K. (2021). "I like and prefer to work alone": Social anxiety, academic self-efficacy, and students' perceptions of active learning. *CBE Life Sciences Education, 20*(1), ar12-ar12.  
<https://doi.org/10.1187/cbe.19-12-0271>
- Hooper, K. M., & Harrington, C. (2022). Equity gaps in dual enrollment. *Impacting Education, 7*(3), 20-26. <https://doi.org/10.5195/ie.2022.251>
- Hornbeck, D., & Malin, J. R. (2019). Superintendents' perceptions of the influence of a statewide dual enrollment policy on local educational programming. *International Journal of Educational Reform, 28*(3), 253-277. <https://doi.org/10.1177/1056787919857255>

- Hornbeck, D., Malin, J. R., Duncheon, J. C., & Tan, J. (2023). High school principals' perceptions of dual enrollment policy in ohio and texas. *NASSP Bulletin*, 107(1), 41-59. <https://doi.org/10.1177/01926365231158595>
- Hornbeck, D. D. (2023). Teachers unions and dual enrollment policy in collective bargaining agreements. *Educational Policy (Los Altos, Calif.)*, 37(2), 339-358. <https://doi.org/10.1177/08959048211015610>
- Hosman, L., & Jacobs, G. (2018). From active learning to taking action: Incorporating political context into project-based, interdisciplinary, international service learning courses. *Journal of Political Science Education*, 14(4), 473-490. <https://doi.org/10.1080/15512169.2017.1419876>
- Howard, L. A. (2019). Performance, pedagogy, potential: Utopian performance as community-based education. *Michigan Journal of Community Service Learning*, 25(1), 5.
- Ison, M. P. (2022). Dual enrollment, performance-based funding, and the completion agenda: An analysis of postsecondary credential outcomes of dual enrollment students by credential type. *Community College Review*, 50(1), 51–70. <https://doi.org/10.1177/00915521211047673>
- Ison, M. P., Cicchetti, E., Tolle, M., & Hernandez, T. (2022). One college program, seventy different campuses: Dual enrollment, community colleges, and the unique challenges faced during the COVID-19 pandemic. *Community College Journal of Research and Practice*, 46(1-2), 85-92. <https://doi.org/10.1080/10668926.2021.1974604>
- Ison, M. P., & Nguyen, D. J. (2021). The opportunities and challenges for community college faculty teaching dual enrollment programs. *New Directions for Community Colleges*, 2021(195), 119-128. <https://doi.org/10.1002/cc.20471>

- Jagesic, S., Ewing, M., Wyatt, J. N., & Feng, J. (2022). Unintended consequences: Understanding the relationship between dual enrollment participation, college undermatch, and Bachelor's degree attainment. *Research in Higher Education*, 63(1), 119–139. <https://doi.org/10.1007/s11162-021-09643-x>
- James, A. (2012). Seeking the analytic imagination: reflections on the process of interpreting qualitative data. *Qualitative Research*, 13(5), 562-577. <https://doi.org/10.1177/1468794112446108>
- Jang, H. H., & Kim, H. S. (2020). A Meta-Analysis of the Cognitive, Affective, and Interpersonal Outcomes of Flipped Classrooms in Higher Education.
- Jensen, B. A. (2019). Using flipped learning to facilitate cross-cultural critical thinking in the L2 classroom. *Die Unterrichtspraxis*, 52(1), 50-68. <https://doi.org/10.1111/tger.12084>
- Johnson, A., & Mercado-Garcia, D. (2022). The effects of early college opportunities on english learners. *American Educational Research Journal*, 59(4), 719-751. <https://doi.org/10.3102/00028312221075068>
- Jordan, A. S., McSharry, D. G., & Malhotra, A. (2014). Adult obstructive sleep apnoea. *The Lancet*, 383(9918), 736-747. [https://doi.org/10.1016/s0140-6736\(13\)60734-5](https://doi.org/10.1016/s0140-6736(13)60734-5)
- Kahlke, R., Bates, J., & Nimmon, L. (2019). When I say ... sociocultural learning theory. *Medical Education*, 53(2), 117-118. <https://doi.org/10.1111/medu.13626>
- Kazu, İ. Y., & Yalçın, C. K. (2022). The Relationship Between Secondary School Teachers and Students' Readiness of Using Flipped Classroom.
- Kennedy-Shaffer, L., Qiu, X., & Hanage, W. P. (2021). Snowball sampling study design for serosurveys early in disease outbreaks. *American Journal of Epidemiology*, 190(9), 1918-1927. <https://doi.org/10.1093/aje/kwab098>

- Khamzina, B., Baimanova, L., Fakhrudanova, I., & Bekseitova, A. (2017). Experience of using of social networks in education. *European Proceedings of Social and Behavioural Sciences*. <https://doi.org/10.15405/epsbs.2017.10.97>
- Khan, A., Egbue, O., Palkie, B., & Madden, J. (2017). Active learning: Engaging students to maximize learning in an online course. *Electronic Journal of e-Learning*, 15(2), 107.
- Kim, H. W., Kim, D. H., Lee, H. Y., Lee, Y. J., & Ahn, H. Y. (2020). Adult perceptions of healthy pregnancy: A focus-group study. *International Journal of Environmental Research and Public Health*, 17(7), Article 2460. <https://doi.org/10.3390/ijerph17072460>
- Kolluri, S. (2018). Advanced Placement: The Dual Challenge of Equal Access and Effectiveness. *Review of Educational Research*, 88(4), 671-711. <https://doi.org/10.3102/0034654318787268>
- Lantolf, J. P., & Poehner, M. E. (2023). Sociocultural theory and classroom second language learning in the east asian context: Introduction to the special issue. *The Modern Language Journal (Boulder, Colo.)*, 107(S1), 3-23. <https://doi.org/10.1111/modl.12816>
- Lauterbach, A. (2018). Hermeneutic phenomenological interviewing: Going beyond semi-structured formats to help participants revisit experience. *Qualitative Report*, 23(11), 2883-2898. <https://doi.org/10.46743/2160-3715/2018.3464>
- Lawrence, T. B., & King, S. B. (2019). Dual enrollment participants' attainment of an associate's degree from the college in which they participated in dual enrollment as compared to nonparticipants' attainment. *Community College Journal of Research and Practice*, 43(4), 307-310. <https://doi.org/10.1080/10668926.2018.1463302>

- Lee, H. B., & Villarreal, M. U. (2022). Should students falling behind in school take dual enrollment courses? *Journal of Education for Students Placed at Risk, ahead-of-print*(ahead-of-print), 1-35. <https://doi.org/10.1080/10824669.2022.2100994>
- Lee, J., Fernandez, F., Ro, H. K., & Suh, H. (2022). Does dual enrollment influence high school graduation, college enrollment, choice, and persistence? *Research in Higher Education*, 63(5), 825-848. <https://doi.org/10.1007/s11162-021-09667-3>
- Lee, S. W. (2018). Pulling back the curtain: Revealing the cumulative importance of high-performing, highly qualified teachers on students' educational outcome. *Educational Evaluation and Policy Analysis*, 40(3), 359-381. <https://doi.org/10.3102/0162373718769379>
- Leggett, G., & Harrington, I. (2021). The impact of project based learning (PBL) on students from low socio economic statuses: A review. *International Journal of Inclusive Education*, 25(11), 1270-1286. <https://doi.org/10.1080/13603116.2019.1609101>
- Leibel, M., Jacobson, E., Mike, A., & Grady, S. (2021). Differentiated models of professional learning for educators. *Journal of Higher Education Theory and Practice*, 21(9), 27-39. <https://doi.org/10.33423/jhetp.v21i9.4587>
- Lewis, M., & Overman, L. (2008). Dual and concurrent enrollment and transition to postsecondary education. *Career and Technical Education Research*, 33(3), 189-202. <https://doi.org/10.5328/CTER33.3.189>
- Lewis, M. V., & Stone, J. R. (2013). Origins, chronology, and current status of the national research center for career and technical education: 1963–2012. *New Horizons in Adult Education & Human Resource Development*, 25(2), 107-120. <https://doi.org/10.1002/nha.20021>

- Lewis, S. (2015). Qualitative inquiry and research design: choosing among five approaches. *Health Promotion Practice*, 16(4), 473-475. <https://doi.org/10.1177/1524839915580941>
- Li, Z., & Li, Y. (2022). The Structural Dimensions of “Double-Qualified” Teachers’ Work Role Transition Competence and Its Generation Mechanism. *Sustainability*, 14(14), 8237. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su14148237>
- Lichtenberger, E. J., Witt, M., Blankenberger, B., & Franklin, D. (2014). Dual Credit/Dual Enrollment and Data Driven Policy Implementation. *Community College Journal of Research and Practice*, 38, 959-979. <https://doi.org/10.1080/10668926.2013.790305>
- Lile, J. R., Ottusch, T. M., Jones, T., & Richards, L. N. (2018). Understanding college-student roles: Perspectives of participants in a high School/Community college dual-enrollment program. *Community College Journal of Research and Practice*, 42(2), 95-111. <https://doi.org/10.1080/10668926.2016.1264899>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage Publications, Inc.
- Littlewood, Z., & Greenfield, S. (2018). Parents' knowledge, attitudes and beliefs regarding sun protection in children: A qualitative study. *BMC Public Health*, 18(1), 207-207. <https://doi.org/10.1186/s12889-018-5091-8>
- Liu, R. (2021). Disparities in disruptions to postsecondary education plans during the COVID-19 pandemic. *AERA Open*, 7, 233285842110454. <https://doi.org/10.1177/23328584211045400>
- Liu, V., & Xu, D. (2022). Happy together? the peer effects of dual enrollment students on community college student outcomes. *American Educational Research Journal*, 59(1), 3-37. <https://doi.org/10.3102/00028312211008490>

- Lungu, M. (2022). The coding manual for qualitative researchers. *American Journal of Qualitative Research*, 6(1), 232-237. <https://doi.org/10.29333/ajqr/12085>
- Malik, S. A. (2017). Revisiting and re-representing scaffolding: The two gradient model. *Cogent Education*, 4(1), 1331533. <https://doi.org/10.1080/2331186X.2017.1331533>
- Malin, J. R., Bragg, D. D., & Hackmann, D. G. (2017). College and career readiness and the every student succeeds act. *Educational Administration Quarterly*, 53(5), 809-838. <https://doi.org/10.1177/0013161X17714845>
- Malterud, K., Siersma, V., & Guassora, A. D. (2016). Sample size in qualitative interview studies. *Qualitative Health Research*, 26(13), 1753-1760. <https://doi.org/10.1177/1049732315617444>
- Mamo, B., Yigzaw, A., & Muche, M. (2016). EFL teachers' beliefs and practices in relation to peer-assisted learning in university English classes: The case of debre birhan university. *Science, Technology and Arts Research*, 4(4), 156-163. <https://doi.org/10.4314/star.v4i4.23>
- Marín, V. I., & Salinas, J. (2022). Balance between guidance and self-regulated learning: Teaching and learning strategies in online, hybrid and blended learning in higher education. *Journal of Interactive Media in Education : JiME*, 2022(1)<https://doi.org/10.5334/jime.770>
- Martin, W. (1972). The hermeneutic circle and the art of interpretation. *Comparative Literature*, 24(2), 97-117. <https://doi.org/10.2307/1769963>
- Martinez, M. A., Valle, F., Cortez, L. J., Ponjuan, L., & Sáenz, V. B. (2018). Context is key: School leaders' approaches in creating and maintaining dual enrollment opportunities in



south texas. *Leadership and Policy in Schools*, 17(4), 516-540.

<https://doi.org/10.1080/15700763.2017.1326149>

McIntosh, M. J., & Morse, J. M. (2015). Situating and constructing diversity in semi-structured interviews. *Global Qualitative Nursing Research*, 2, 2333393615597674-

2333393615597674. <https://doi.org/10.1177/2333393615597674>

McMahon, S. D., Parnes, A. L., Keys, C. B., & Viola, J. J. (2008). School belonging among low-income urban youth with disabilities: Testing a theoretical model. *Psychology in the Schools*, 45(5), 387–401. <https://doi.org/10.1002/pits.20304>

Meng, N., Dong, Y., Roehrs, D., & Luan, L. (2023). Tackle implementation challenges in project-based learning: A survey study of PBL e-learning platforms. *Educational Technology Research and Development*, 71(3), 1179-1207.

<https://doi.org/10.1007/s11423-023-10202-7>

Mertens, F., de Groot, E., Meijer, L., Wens, J., Gemma Cherry, M., Deveugele, M., Damoiseaux, R., Stes, A., & Pype, P. (2018). Workplace learning through collaboration in primary healthcare: A BEME realist review of what works, for whom and in what circumstances: BEME guide no. 46. *Medical Teacher*, 40(2), 117-134.

<https://doi.org/10.1080/0142159X.2017.1390216>

Metz, C. J., & Metz, M. J. (2022). The benefits of incorporating active learning into online, asynchronous coursework in dental physiology. *Advances in Physiology Education*,

46(1), 11-20. <https://doi.org/10.1152/ADVAN.00110.2021>

Meyer, M., Sedlmair, M., Quinan, P. S., & Munzner, T. (2013). The nested blocks and guidelines model. *Information Visualization*, 14(3), 234-249.

<https://doi.org/10.1177/1473871613510429>

- Miah, J., Dawes, P., Edwards, S., Leroi, I., Starling, B., & Parsons, S. (2019). Patient and public involvement in dementia research in the European Union: a scoping review.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Sage Publications.
- Mollet, A. L., Stier, M. J., Linley, J. L., & Locke, L. A. (2020). "I didn't become a professor to teach high school": Examining college educators' perceptions of culture in early college high schools. *Equity & Excellence in Education*, 53(1-2), 229-243.  
<https://doi.org/10.1080/10665684.2020.1755387>
- Moore, K. P., & Williams, M. R. (2022). Factors encouraging student enrollment following dual enrollment participation. *The Community College Enterprise*, 28(1), 9–27.
- Morales-Gracia, M., Dorman, J., Bañuelos, M., Park, E. S., Cabrera, J., Fagioli, L., & Baker, R. B. (2022). Policy in theory and policy in practice: Community college students' perceptions of cross-enrollment. *The Journal of Higher Education (Columbus)*, 93(4), 651-675. <https://doi.org/10.1080/00221546.2021.2010515>
- Moreno, M., McKinney, L., Burrige, A., Rangel, V. S., & Carales, V. D. (2021). Access for whom? the impact of dual enrollment on college matriculation among underserved student populations in texas. *Community College Journal of Research and Practice*, 45(4), 255-272. <https://doi.org/10.1080/10668926.2019.1688734>
- Morgan, T., Zakem, D., & Cooper, W. (2018). From high school access to postsecondary success: An exploratory study of the impact of high-rigor coursework. *Education Sciences*, 8(4), 191. <https://doi.org/10.3390/educsci8040191>

- Morley, G., Bradbury-Jones, C., & Ives, J. (2020). What is 'moral distress' in nursing? A feminist empirical bioethics study. *Nursing Ethics*, 27(5), 1297-1314.  
<https://doi.org/10.1177/0969733019874492>
- Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods*, 1(2), 13-22. <https://doi.org/10.1177/160940690200100202>
- Nachatar Singh, J. K., Nagpal, S., Inglis, S., & Jacob-John, J. (2019). International students' experiences in a flipped classroom environment: An Australian perspective. *International Journal of Educational Management*, 33(6), 1303-1315. <https://doi.org/10.1108/IJEM-11-2018-0362>
- Nelson, S. L., & Waltz, S. J. (2019). Dual enrollment programs: Litigation and equity. *Educational Policy (Los Altos, Calif.)*, 33(2), 386-417.  
<https://doi.org/10.1177/0895904817691845>
- Nickerson, T. (2015). Parents' Perceptions of Academic Progress Information Access and Dual Enrollment Student Success. *Journal of Education and Human Development*, 4(2), 29-39.  
<https://doi.org/10.15640/jehd.v4n2a4>
- Nimehchisalem, V. (2018). Exploring Research Methods in Language Learning-teaching Studies. *Advances in Language and Literary Studies*, 9(6), 27-33.  
<https://doi.org/10.7575/aiac.all.v.9n.6p.27>
- Nordquist, B., & Lueck, A. (2020). Educational Progress-Time and the proliferation of dual enrollment. *Journal of Adolescent & Adult Literacy*, 64(3), 251-257.  
<https://doi.org/10.1002/jaal.1097>

- Northall, T., Chang, E., Hatcher, D., & Nicholls, D. (2020). The application and tailoring of Colaizzi's phenomenological approach in a hospital setting. *Nurse Researcher*, 28(2), 20-25. <https://doi.org/10.7748/nr.2020.e1700>
- Nuñez, R. (2018). College in the media: The relationship between repeated exposure and college expectations. *Educational Media International*, 55(1), 1–14. <https://doi.org/10.1080/09523987.2018.1439706>
- O'Brennan, L. M., Suldo, S. M., Shaunessy-Dedrick, E., Dedrick, R. F., Parker, J. S., Lee, J. S., Ferron, J. M., & Hanks, C. (2020). Supports for youth in accelerated high school curricula: An initial study of applicability and acceptability of a motivational interviewing intervention. *The Gifted Child Quarterly*, 64(1), 19-40. <https://doi.org/10.1177/0016986219886933>
- O'Connor, K. (2022). Constructivism, curriculum and the knowledge question: Tensions and challenges for higher education. *Studies in Higher Education (Dorchester-on-Thames)*, 47(2), 412-422. <https://doi.org/10.1080/03075079.2020.1750585>
- Oliveira, M., Bitencourt, C. C., Santos, A. C. M. Z. D., & Teixeira, E. K. (2015). Thematic Content Analysis: Is There a Difference Between the Support Provided by the MAXQDA® and NVivo® Software Packages?.
- O'Meara, K., Knudsen, K., & Jones, M. (2013). Faculty agency and professional responsibility in an era of change. *The Journal of Higher Education*, 84(3), 242-271.
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70(3), 323–367.

- Overman, M., Vermunt, J. D., Meijer, P. C., & Brekelmans, M. (2019). Teacher-student negotiations during context-based chemistry reform: A case study. *Journal of Research in Science Teaching*, 56(6), 797-820. <https://doi.org/10.1002/tea.21528>
- Ozmun, C. D. (2013). College and academic self-efficacy as antecedents for high school dual-credit enrollment. *The Community College Enterprise*, 19(1), 61.
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2013). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533-544. <https://doi.org/10.1007/s10488-013-0528-y>
- Pan, Y., Jiang, D., Picheny, M., & Qin, Y. (2009). Effects of real-time transcription on non-native speaker's comprehension in computer-mediated communications. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. <https://doi.org/10.1145/1518701.1519061>
- Paré, E. R., Body, K., Gilstorf, S., & Lucarelli, J. (2019). Qualitative focus groups: Perceived influences on decision making about diet and physical activity among Hispanic/Latino participants. *Health Promotion Practice*, 20(6), 868-879. <https://doi.org/10.1177/1524839918779382>
- Park, E. S., & Xu, D. (2022). The effect of active learning professional development training on college students' academic outcomes. *Journal of Research on Educational Effectiveness*, ahead-of-print(ahead-of-print), 1-22. <https://doi.org/10.1080/19345747.2022.2151954>
- Partridge, M. A., Schaller, T. K., Berry, R. L., & Routon, P. W. (2021). The economic benefit from tuition savings for dual enrollment students in georgia. *Journal of School Choice*, 15(4), 655-667. <https://doi.org/10.1080/15582159.2020.1865091>

- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (Fourth ed.). SAGE Publications, Inc.
- Peoples, K. (2021). *How to Write a Phenomenological Dissertation: A Step-by-Step Guide (Qualitative Research Methods)*. Sage Publications.
- Phelps, L. A., & Chan, H. (2016). Optimizing technical education pathways: Does dual-credit course completion predict students' college and labor market success? *Journal of Career and Technical Education*, 31(1)<https://doi.org/10.21061/jcte.v31i1.1496>
- Poehner, M. E. (2023). Sociocultural theory and classroom second language learning in the east asian context: introduction to the special issue. *The Modern Language Journal*, 107(S1), 3-23.
- Qureshi, M. A., Khaskheli, A., Qureshi, J. A., Raza, S. A., & Yousufi, S. Q. (2023). Factors affecting students' learning performance through collaborative learning and engagement. *Interactive Learning Environments*, 31(4), 2371-2391.  
<https://doi.org/10.1080/10494820.2021.1884886>
- Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the Nutrition Society*, 63(4), 655-660. <https://doi.org/10.1079/pns2004399>
- Radunzel, J. (2021). Examining retention and transfer in relation to incoming student data for first-generation and continuing-generation students: What differences exist? *Journal of College Student Retention : Research, Theory & Practice*, 23(2), 214-242.  
<https://doi.org/10.1177/1521025118813516>
- Rahayu, D. S., Rahmawan, S., Hendayana, S., Muslim, M., & Sendi, S. (2020). Pattern of analysis students' knowledge construction using transcript-based lesson analysis.

Proceedings of the 4th Asian Education Symposium (AES 2019).

<https://doi.org/10.2991/assehr.k.200513.032>

Raufelder, D., & Kulakow, S. (2022). The role of social belonging and exclusion at school and the teacher–student relationship for the development of learned helplessness in adolescents. *British Journal of Educational Psychology*, 92(1), 59-81.

<https://doi.org/10.1111/bjep.12438>

Rendell, P. G., Bailey, P. E., Henry, J. D., Phillips, L. H., Gaskin, S., & Kliegel, M. (2012).

Older adults have greater difficulty imagining future rather than atemporal experiences.

*Psychology and Aging*, 27(4), 1089-1098. <https://doi.org/10.1037/a0029748>

Revell, A. J., & Ayotte, B. J. (2020). Novel approaches to teaching aging and disability: Active learning through design and exploration. *International Journal of Aging & Human Development*, 91(4), 373-380.

<https://doi.org/10.1177/0091415020912944>

Rhodes, C., Liu, C., Westoby, P., & Chen, W. (2022). Autonomous search of an airborne release in urban environments using informed tree planning. *Autonomous Robots*, 47(1), 1-18.

<https://doi.org/10.1007/s10514-022-10063-8>

Richard, B., Sivo, S. A., Orlowski, M., Ford, R. C., Murphy, J., Boote, D. N., & Witta, E. L.

(2021). Qualitative research via focus groups: Will going online affect the diversity of your findings? *Cornell Hospitality Quarterly*, 62(1), 32-45.

<https://doi.org/10.1177/1938965520967769>

Ridinger-Dotterman, A., Rochford, R. A., & Hock, S. (2020). Bringing the community to the classroom: Using campus-wide collaborations to foster belonging for dual enrollment students. *Teaching English in the Two-Year College*, 48(1), 44-65.

- Rios, J. A., Ling, G., Pugh, R., Becker, D., & Bacall, A. (2020). Identifying critical 21st-century skills for workplace success: A content analysis of job advertisements. *Educational Researcher*, 49(2), 80-89. <https://doi.org/10.3102/0013189X19890600>
- Roach, R., Gamez Vargas, J., & David, K. M. (2015). Eliminating barriers to dual enrollment in Oklahoma. *New Directions for Community Colleges*, 2015(169), 31-38. <https://doi.org/10.1002/cc.20130>
- Roberts, A., & Johnson, M. (2018). Dual credit, leniency, and rigor: Finding the balance. *Journal of College Student Retention*, 20(2), 188-205. <https://doi.org/10.1177/1521025116682033>
- Roberts, R. (2020). Qualitative interview questions: Guidance for novice researchers. *Qualitative Report*, 25(9), 3185-3203. <https://doi.org/10.46743/2160-3715/2020.4640>
- Rohm, A. J., Stefl, M., & Ward, N. (2021). Future proof and real-world ready: The role of live project-based learning in students' skill development. *Journal of Marketing Education*, 43(2), 204-215. <https://doi.org/10.1177/02734753211001409>
- Rossi, I. V., Lima, J. D., Sabatke, B., Nunes, M. A. F., Ramirez, G. E., & Ramirez, M. I. (2021). Active learning tools improve the learning outcomes, scientific attitude, and critical thinking in higher education: Experiences in an online course during the COVID-19 pandemic. *Biochemistry and Molecular Biology Education*, 49(6), 888-903. <https://doi.org/10.1002/bmb.21574>
- Russo, R. (2020). Dual/Dueling identities: Helping dual enrollment faculty navigate a complex and contested professional space. *Teaching English in the Two-Year College*, 48(1), 88-115.
- Saavedra, A. R., Lock Morgan, K., Liu, Y., Garland, M. W., Rapaport, A., Hu, A., Hoepfner, D., & Haderlein, S. K. (2022). The impact of project-based learning on AP exam



- performance. *Educational Evaluation and Policy Analysis*, 44(4), 638-666.  
<https://doi.org/10.3102/01623737221084355>
- Said, M. (2017). Effective behavior of EFL teachers as perceived by undergraduate students in indonesia. *English Language Teaching (Toronto)*, 10(10), 50.  
<https://doi.org/10.5539/elt.v10n10p50>
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th ed.). Sage Publications.
- Salerno, A. S., Kibler, A. K., & Hardigree, C. N. (2023). 'I'll be the hero': How adolescents negotiate intersectional identities within a high school dual-language program. *International Journal of Bilingual Education and Bilingualism*, 26(1), 20-33.  
<https://doi.org/10.1080/13670050.2020.1784086>
- Salmi, I. A. (2021). The lived experience of nurses working in cardiology services with online continuing professional programs in advancing their specialized clinical practice: phenomenology study methodology. *Clinical Cardiology and Cardiovascular Interventions*, 4(2), 01-10. <https://doi.org/10.31579/2641-0419/102>
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, 52(4), 1893-1907.  
<https://doi.org/10.1007/s11135-017-0574-8>
- Sazali, A. R. b., Khamarudin, F. b., & Alahdad, S. N. b. A. (2022). Maximising the zone of proximal development benefits in group online learning. *International Journal of Academic Research in Business and Social Sciences*, 12(6).  
<https://doi.org/10.6007/ijarbss/v12-i6/1386>

- Scarborough, B. (2022). For concurrent enrollment, collaboration, not alignment, is the better story. *English Teaching : Practice and Critique*, 21(4), 443-454.  
<https://doi.org/10.1108/ETPC-10-2021-0135>
- Shambour, M. K. Y., & Abu-Hashem, M. A. (2022). Analysing lecturers' perceptions on traditional vs. distance learning: A conceptual study of emergency transferring to distance learning during COVID-19 pandemic. *Education and Information Technologies*, 27(3), 3225-3245. <https://doi.org/10.1007/s10639-021-10719-5>
- Shi, Y., Yang, H., MacLeod, J., Zhang, J., & Yang, H. H. (2020). College students' cognitive learning outcomes in technology-enabled active learning environments: A meta-analysis of the empirical literature. *Journal of Educational Computing Research*, 58(4), 791-817.  
<https://doi.org/10.1177/0735633119881477>
- Sioukas, A. (2023). Constructivism and the student-centered entrepreneurship classroom: Learning avenues and challenges for US college students. *Industry & Higher Education*, 37(4), 473-484. <https://doi.org/10.1177/09504222221135311>
- Sloan, A., & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: The philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity*, 48(3), 1291-1303.  
<https://doi.org/10.1007/s11135-013-9835-3>
- Smith, L., & Johnson, G. (2023). Parental involvement in dual credit programs: A new perspective. *Journal of Family Studies*, 29(1), 56-73.  
<https://doi.org/10.1080/13229400.2021.1883655>

Smolucha, L., & Smolucha, F. (2021). Vygotsky's theory in-play: Early childhood education.

*Early Child Development and Care*, 191(7-8), 1041-1055.

<https://doi.org/10.1080/03004430.2020.1843451>

Spencer, G., & Maldonado, M. (2021). Determinants of dual enrollment access: A national

examination of institutional context and state policies. *AERA Open*, 7, 233285842110416.

<https://doi.org/10.1177/23328584211041628>

Stein, S., & Klosterman, P. (2020). Nature of learning environment in concurrent enrollment

mathematics classrooms: A cluster analysis. *Learning Environments Research*, 23(2),

217-234. <https://doi.org/10.1007/s10984-019-09295-w>

Stephens, M. L., Lowney, J., Ybarra, C. M., & Stephens, S. (2022). Adult learning facilitators in

any setting, instructional designers' roles as the adult learner and educator, and their

perceived knowledge construction when preparing graduate faculty for teaching online:

An interpretive study. *New Horizons in Adult Education & Human Resource*

*Development*, 34(1), 3-15. <https://doi.org/10.1002/nha3.20319>

Stockard, J. (2021). Building a more effective, equitable, and compassionate educational system:

The role of direct instruction. *Perspectives on Behavior Science*, 44(2-3), 147-167.

<https://doi.org/10.1007/s40614-021-00287-x>

Strayhorn, T. L. (2018). College Students' Sense of Belonging: A Key to Educational Success

for All Students (2nd ed.). Routledge. <https://doi.org/10.4324/9781315297293>

Strayhorn, T. L. (2023). Analyzing the short-term impact of a brief web-based intervention on

first-year students' sense of belonging at an HBCU: A quasi-experimental study.

*Innovative Higher Education*, 48(1), 1-13. <https://doi.org/10.1007/s10755-021-09559-5>

- Strelan, P., Osborn, A., & Palmer, E. (2020). The flipped classroom: A meta-analysis of effects on student performance across disciplines and education levels. *Educational Research Review*, 30(June 2020), 100314. <https://doi.org/10.1016/j.edurev.2020.100314>
- Suddick, K., Cross, V., Vuoskoski, P., Galvin, K., & Stew, G. (2020). The work of hermeneutic phenomenology. *International Journal of Qualitative Methods*, 19, 160940692094760. <https://doi.org/10.1177/1609406920947600>
- Sukackè, V., Guerra, Aida Olivia Pereira de Carvalho, Ellinger, D., Carlos, V., Petronienè, S., Gaižiūnienè, L., Blanch, S., Marbà-Tallada, A., & Brose, A. (2022). Towards active evidence-based learning in engineering education: A systematic literature review of PBL, PjBL, and CBL. *Sustainability (Basel, Switzerland)*, 14(21), 13955. <https://doi.org/10.3390/su142113955>
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, pp. 27, 35. <https://doi.org/10.14507/epaa.27.3696>
- Tam, R. K. (2017). Nurturing gifted and talented students to become future leaders: The innovative curriculum for the gifted and/or talented at GT college in hong kong. *Gifted Education International*, 33(3), 248-256. <https://doi.org/10.1177/0261429415599274>
- Taylor, J. L., Borden, V. H. M., & Park, E. (2015). State dual credit policy: A national perspective. *New Directions for Community Colleges*, 2015(169), 9-19. <https://doi.org/10.1002/cc.20128>
- Texas Higher Education Coordinating Board. (n.d.). Dual credit. Retrieved from <https://reportcenter.highered.texas.gov/agency-publication/miscellaneous/dual-credit/>

- Thompson, R., & Jones, D. (2022). Active learning in dual credit courses: Strategies for engagement. *Journal of Interactive Learning Research*, 33(1), 77-93.
- Torres, J. L. T., Ducey, M., & Caldwell, B. D. (2011). Dual credit general chemistry: A model university-high school collaborative effort. *Title of Journal or Book*.
- Torres, O., & Liu, L. (2020). Assessing the impact of dual credit and advanced placement programs on completion and success rates of community college graduates. *Journal of Applied Research in the Community College*, 27(2), 103-115.
- Torrijo, F. J., Garzón-Roca, J., Cobos, G., & Eguibar, M. A. (2021). Combining Project Based Learning and Cooperative Learning Strategies in a Geotechnical Engineering Course.
- Tošić-Radev, M., & Pešikan, A. (2023). Effective teaching in the zone of proximal development of students: The role of emotions. *Nastava i Vaspitanje : Časopis Pedagoškog Društva SR Srbije i Pedagoškog Društva SR Črne Gore*, 72(1), 43-57.  
<https://doi.org/10.5937/nasvas2301043R>
- Tucker, M., Poon, J., & Greenwell, S. (2023). Dual enrollment, first-year retention, and graduation: Analyzing the impact of dual enrollment on student success outcomes at a public research university. *Journal of Higher Education Theory and Practice*, 23(9), 105-130. <https://doi.org/10.33423/jhetp.v23i9.6132>
- Urquhart, N., McBrayer, J. S., Zinskie, C., & Cleveland, R. (2023). Socioeconomic disparities in the retention and graduation rates of dual-enrolled students. *Journal of Applied Research in Higher Education*, <https://doi.org/10.1108/JARHE-05-2023-0180>
- Vagle, M. D., Thiel, J. J., & Hofsess, B. A. (2020). A prelude—unsettling traditions: reimagining the craft of phenomenological and hermeneutic inquiry. *Qualitative Inquiry*, 26(5), 427-431. <https://doi.org/10.1177/1077800419829791>

- Van Dinther, M., Dochy, F., & Segers, M. (2011). Factors affecting students' self-efficacy in higher education. *Educational Research Review*, 6(2), 95-108.  
<https://doi.org/10.1016/j.edurev.2010.10.003>
- Van Manen, M. (2014). *Phenomenology of Practice: Meaning-Giving Methods in Phenomenological Research and Writing*. Walnut Creek, CA: Left Coast Press.
- Verdonck, M., Wright, H., Hamilton, A., & Taylor, J. (2022). The educator's experience of using flipped classrooms in a higher education setting. *Active Learning in Higher Education*, , 146978742210915. <https://doi.org/10.1177/14697874221091596>
- Vygotsky, L. S. (1978). *Mind in Society: The development of higher psychological processes*. Massachusetts: Harvard University Press
- Walk, M. (2020). Ahead of schedule: A history of early college high schools. *NASSP Bulletin*, 104(2), 125-140. <https://doi.org/10.1177/0192636520927090>
- Walsh, I., Holton, J. A., Bailyn, L., Fernández, W., Levina, N., & Glaser, B. G. (2015). What grounded theory is...a critically reflective conversation among scholars. *Organizational Research Methods*, 18(4), 581-599. <https://doi.org/10.1177/1094428114565028>
- Wang, C., & Li, S. (2021). The trade-off between individuals and groups: Role interactions under different technology affordance conditions. *International Journal of Computer-Supported Collaborative Learning*, 16(4), 525-557. <https://doi.org/10.1007/s11412-021-09355-5>
- Warren, J. M., & Goins, C. L. (2019). Exploring the relationships between high school course enrollment, achievement, and first-semester college GPA. *Journal of Educational Research and Practice*, 9(1)

- Wass, R., & Golding, C. (2014). Sharpening a tool for teaching: The zone of proximal development. *Teaching in Higher Education*, 19(6), 671–684.  
<https://doi.org/10.1080/13562517.2014.901958>
- Williams, E. (2021). The complexities of dual credit enrollment: A review. *Educational Policy Analysis Archives*, 29, 58.
- Wiseman, A. W., Crevar, A. R., & Becknell, B. (2023). A comparison of dual credit stratification by provider type in a US school district: Does higher education provider type influence dual credit program access and opportunity for students? *Journal of Higher Education Policy and Leadership Studies*, 4(2), 119-127. <https://doi.org/10.52547/johepal.4.2.119>
- Witkowsky, P., Starkey, K., Clayton, G., Garnar, M., & Andersen, A. (2020). Promises and realities: Academic advisors' perspectives of dual enrollment credit. *NACADA Journal*, 40(2), 63-73. <https://doi.org/10.12930/NACADA-19-24>
- Witteveen, D., & Attewell, P. (2019). Delayed time-to-degree and post-college earnings. *Research in Higher Education*, 62(2), 230-257. <https://doi.org/10.1007/s11162-019-09582-8>
- Wong, K. E., Din, R., & Othman, N. (2023). Flipped Classroom's impact on critical thinking, active learning and motivation: A critical review. *International Journal of Academic Research in Business and Social Sciences*, 13(12)<https://doi.org/10.6007/IJARBSS/v13-i12/20278>
- Woodgate, R. L., Tennent, P., & Legras, N. (2021). Understanding Youth's Lived Experience of Anxiety through Metaphors: A Qualitative, Arts-Based Study.

- Worsley, J. D., Harrison, P., & Corcoran, R. (2021). Bridging the gap: Exploring the unique transition from home, school or college into university. *Frontiers in Public Health, 9*, 634285-634285. <https://doi.org/10.3389/fpubh.2021.634285>
- Wozniak, C., & Bierlein Palmer, L. (2013). Stakeholder perceptions of barriers and solutions to significant post-secondary enrollment option expansion for high school students. *International Journal of Education Policy and Leadership, 8*(2)<https://doi.org/10.22230/ijep1.2013v8n2a418>
- Xi, J., & Lantolf, J. P. (2021). Scaffolding and the zone of proximal development: A problematic relationship. *Journal for the Theory of Social Behaviour, 51*(1), 25-48. <https://doi.org/10.1111/jtsb.12260>
- Xu, D., Solanki, S., & Fink, J. (2021). College Acceleration for All? Mapping Racial Gaps in Advanced Placement and Dual Enrollment Participation. *American Educational Research Journal, 58*(5), 954–992. <https://doi-org.ezproxy.liberty.edu/10.3102/0002831221991138>
- Xu, J., & Fan, Y. (2022). Finding success with the implementation of task-based language teaching: The role of teacher agency. *Language, Culture, and Curriculum, 35*(1), 18-35. <https://doi.org/10.1080/07908318.2021.1906268>
- Yang, Y., Briggs, K., Avalos, S., & Anderson, C. M. (2018). Examining incoming credit differences between first-year and transfer students. *NACADA Journal, 38*(2), 31-44. <https://doi.org/10.12930/NACADA-17-023>
- Yep, B. L. W., Tan, T. K., & Fung, F. M. (2023). How partial anonymity may reduce students' anxiety during remote active Learning; A case study using clubhouse. *Journal of Chemical Education, 100*(2), 459-468. <https://doi.org/10.1021/acs.jchemed.2c00051>



- Yoon, B., Heui Jang, M., Park, J. Y., & Jun, K. (2023). The effect of project-based learning (PBL) on nutrition students' learning competencies and career aspirations in south korea. *Journal of Nutrition Education and Behavior*, 55(7), 30-30.  
<https://doi.org/10.1016/j.jneb.2023.05.065>
- Young, R. D., Slate, J. R., Moore, G. W., & Barnes, W. (2013). Dual credit enrollment: A multiyear study of gender and ethnic differences. *Urban Studies Research*, 2013, 1-7.  
<https://doi.org/10.1155/2013/269685>
- Zaretsky, V. K., & Kholmogorova, A. B. (2020). Relationship between education, development & health from cultural-historical perspective. *Kul'turno-istoricheskaia psikhologiia*, 16(2), 89-106. <https://doi.org/10.17759/chp.2020160211>
- Zheng, L., Bhagat, K. K., Zhen, Y., & Zhang, X. (2020). The effectiveness of the flipped classroom on students' learning achievement and learning motivation: A meta-analysis. *Educational Technology & Society*, 23(1), 1-15.  
[https://doi.org/10.30191/ETS.202001\\_23\(1\).0001](https://doi.org/10.30191/ETS.202001_23(1).0001)
- Zinth, J., & Taylor, J. L. (2019). Leveraging state data systems to address Policy-Relevant research: The case of dual enrollment. *New Directions for Institutional Research*, 2019(181), 103-116. <https://doi.org/10.1002/ir.20301>

## Appendix A

### IRB Approval

Date: 11-29-2023

**IRB #:** IRB-FY23-24-696

**Title:** Exploring Community College Professor Experiences Working with Dual Credit High School Students

**Creation Date:** 10-25-2023

**End Date:**

**Status:** Approved

**Principal Investigator:** Aldo Guzman




**Review Board:** Research Ethics Office

**Sponsor:**

#### Study History

<b>Submission Type</b> Initial	<b>Review Type</b> Limited	<b>Decision</b> <span style="color: red;">Exempt - Limited IRB</span>
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#### Key Study Contacts

<b>Member</b> Aldo Guzman	<b>Role</b> Principal Investigator	<b>Contact</b> 
<b>Member</b> Aldo Guzman	<b>Role</b> Primary Contact	<b>Contact</b> 
<b>Member</b> James Sigler	<b>Role</b> Co-Principal Investigator	<b>Contact</b> 

## Appendix B

### Individual Interview Questions

1. Please describe your educational background and career progression CRQ
2. What are the perceived implications of teaching dual credit as a community college faculty member? CRQ
3. Please describe your experience working with dual-credit high school students at the college campus, online, and at the high school. SQ2
4. How do you feel when it is time to teach dual-credit high school students? CRQ
5. Please describe your experience teaching non-dual credit high school students. SQ1
6. What influences your teaching methods between dual-credit high school and traditional students? SQ2
7. How has your experience teaching dual-credit high school students influenced your view of dual-credit programs? CRQ
8. To what extent does working with dual-credit high school students influence your current teaching performance? SQ1
9. How do you perceive the influence of your teaching role in the dual credit program on its overall effectiveness? SQ3
10. Please describe your experience working with dual-credit high school students outside of teaching. SQ3
11. Thinking of the most significant experiences you had with dual credit high school students, what stood out? What made it significant? CRQ
12. What advice would you give other community college faculty members considering teaching dual credit high school courses? SQ3

13. What else would be essential for me to know about your experience teaching dual-credit high school students? CRQ

## Appendix C

### Focus Group Questions

1. How do you adapt your teaching methods to accommodate dual credit high school students' diverse learning backgrounds and abilities? CRQ and SQ3
2. Please share perceived additional responsibilities when teaching Dual Credit I should be aware of? CRQ and SQ1
3. Describe your perceived role in engaging dual credit high school students in the college experience beyond just the coursework. CRQ and SQ3
4. How do you navigate the differences between high school and college-level expectations when teaching dual credit courses? SQ2
5. From your perspective, what strategies or initiatives could be implemented to strengthen collaboration between community college professors and other key stakeholders involved in the dual-credit program? CRQ
6. What else would you like to add about the topic?

## **Appendix D**

### **Letter-writing prompts**

Your valuable insights and experiences as a seasoned educator working with dual-credit high school students at our community college is appreciated. In this letter, we kindly request you to reflect on your past experiences and compose a letter to a community college professor who is just beginning to teach dual-credit high school students. Your input is invaluable in helping us understand your experiences in this unique educational setting.

1. What advice, recommendations, or guidance would you give a new community college professor starting to teach dual-credit courses?
2. As an experienced educator who has taught dual-credit high school students, please base your letter on concrete experiences and interactions you have had in the past.
3. Please refrain from providing hypothetical or future-oriented advice.

## Appendix E

### Recruitment Email

Dear Recipient,

As a doctoral candidate in the School of Education at Liberty University, I am conducting research as part of the requirements for a Ph.D. degree. The purpose of my research is to explore community college professors' experiences working with dual-credit high school students, and I am writing to invite eligible participants to join my study.

Participants must be 18 years of age or older, full-time community college professors, and have taught dual-credit high school students for at least one year. Participants, if willing, will be asked to participate in a one-on-one video-recorded, join a video-recorded focus group, provide a written letter, and review their interview transcripts for accuracy, a process called member-checking. It should take approximately three hours to complete the procedures listed. Names and other identifying information will be requested as part of this study, but participant identities will not be disclosed.

To participate, please reply to this email with your signed consent document. After I receive your consent form, I will work with you to schedule a time for an interview.

A consent document is attached to this email. The consent document contains additional information about my research study. If you meet the criteria and choose to participate, you will first need to sign the consent document and return it to me using the email



Please let me know if you have any questions or if you would know of anyone else who could be interested in participating. Thank you for considering participation in my study.

Sincerely,

Aldo Guzman  
Ph.D. Candidate



## Appendix F

### Consent Form

**Title of the Project:** Exploring Community College Prosser Experiences Working with Dual Credit High School Students

**Principal Investigator:**

Aldo Guzman, Doctoral Candidate  
School of Education  
Liberty University

#### Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be a full-time community college professor in Texas with at least one year of experience teaching dual-credit high school students.

Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

#### What is the study about and why is it being done?

The purpose of the study is to describe community college professors' experiences working with dual-credit high school students.

#### What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. Participate in a one-on-one interview, recorded via the videoconferencing platform Microsoft Teams. The interview will take no more than 1 hour.
2. Write a letter of advice to a hypothetical community college professor just beginning to teach dual-credit high school students. This should take about 30-45 minutes.
3. Some participants will be contacted for a focus group interview. The focus group interview will take no more than 1 hour.
4. Verify your data (member checking). After each data collection method listed above, you will be asked to review your responses to verify your intended meaning. This should take about 20-30 minutes.

#### How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include providing current and former community college professors the opportunity to voice their experiences working with dual-credit high school students. The findings of this study may provide strategies for community college professors embarking on teaching dual-credit high school students for the first time. Moreover, the findings may provide administrators with valuable information about the participants' experiences, which may help create and implement policies and procedures to support community college professors working with dual-credit high school students more effectively. Also, these insights may be useful for



students to identify strategies that may benefit their participation in dual-credit programs. In turn, the listed benefits may lead to more effective implementation of dual credit programs.

#### **What risks might you experience from being in this study?**

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

#### **How will personal information be protected?**

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept confidential by replacing names with pseudonyms.
- Virtual interviews will be conducted in a room where others will not overhear the conversation.
- Confidentiality cannot be guaranteed in focus group settings. While discouraged, other members of the focus group may share what was discussed with persons outside of the group.
- Letter writing will occur via email, and the files will be stored on a password-locked computer. After three years, all electronic records will be deleted.
- Individual and focus group interviews will be recorded and transcribed. Recordings will be stored on a password-locked computer for three years and then erased. Only the researcher will have access to these recordings.

#### **Is study participation voluntary?**

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

#### **What should you do if you decide to withdraw from the study?**

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

#### **Whom do you contact if you have questions or concerns about the study?**

The researcher conducting this study is Aldo Guzman. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [REDACTED]. You may also contact the researcher's faculty sponsor, Dr. James Sigler, a [REDACTED].

#### **Whom do you contact if you have questions about your rights as a research participant?**

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is [irb@liberty.edu](mailto:irb@liberty.edu).

*Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.*

### **Your Consent**

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

*I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.*

The researcher has my permission to audio- and video-record me as part of my participation in this study.

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Printed Subject Name

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Signature & Date