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Exploring Collaboration: A Content Analysis Of Special And General Educator Collaboration Within The Standards Driving Initial Teacher Preparation Programs

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EXPLORING COLLABORATION: A CONTENT ANALYSIS OF SPECIAL AND GENERAL EDUCATOR COLLABORATION WITHIN THE STANDARDS DRIVING INITIAL TEACHER PREPARATION PROGRAMS

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Dedication

This dissertation is dedicated to all the remarkable teachers who have collaborated with me over the years to serve our shared students. You have all left an undeniable mark on my growth as a teacher and educational researcher. Together, we have shared in countless planning meetings, lessons, hallway conversations, tears, and laughs, and you have ignited passion, dedication, and resilience in me to help create more inclusive and supportive educational environments for all students and educators. This work stands as a tribute to our collaborative efforts and a testament to the transformative power of working together. I hope this dissertation serves as one small reflection of the profound impact of our shared commitment to breaking down barriers and building bridges in education.

With gratitude,

Amelie

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With heartfelt appreciation,

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Abstract

Most U.S. students with disabilities are served in general education classrooms, and this practice has resulted in the need for collaboration between general and special educators. Yet, educators feel unprepared to engage in teacher collaboration to support their students' needs. The goal of this study was to improve P-12 teacher collaboration and student outcomes by improving teacher preparation at the pre-service level. This study examined how the standards driving the curricula of initial teacher preparation programs describe the need for and process of teacher collaboration, specifically through the Council for the Accreditation of Educator Preparation (CAEP), Interstate Teacher Assessment and Support Consortium (InTASC), and Council for Exceptional Children (CEC) standards. Through basic and interpretive content analysis, this study explored (a) the degree to which teacher collaboration is addressed, (b) representation of teacher collaboration, and (c) embedded learning experiences related to teacher collaboration within the standards. Findings suggest that teacher education programs can support teacher collaboration within their candidates by designing and facilitating learning experiences that involve dialogue, decision-making, action, and evaluation. These learning experiences should be diverse and complex in nature and engage candidates in reflective practices. Further implications are discussed for program faculty, program leaders, and accrediting bodies so that each group can help future educators collaborate effectively with one another.

EXPLORING COLLABORATION: A CONTENT ANALYSIS OF SPECIAL AND GENERAL EDUCATOR COLLABORATION WITHIN THE STANDARDS DRIVING INITIAL TEACHER PREPARATION PROGRAMS

CHAPTER 1: INTRODUCTION

Over the past 30 years, a global trend in the education of students with disabilities has been to develop inclusive educational systems, but this group of students continues to be a commonly marginalized, excluded population (Ainscow, 2020; World Bank, 2019). An inclusive model involves students having access to the same environment, curriculum, and peers as other students (Bateman et al., 2015; Ryndak et al., 2013), and the focus on access within this definition emphasizes the expectation that all students have the opportunity to successfully engage with, rather than simply experience, the curriculum along with peers (Fuchs et al., 2015). When applied to students with disabilities in the United States (U.S.), implementing an inclusive model is supported through the *Individuals with Disabilities Education Act* (IDEA, 2017) which federally mandates that:

> To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled; and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (sec. 1412)

This mandate supports an inclusive model through its emphasis on regular classes (i.e., the learning environment); supplemental aids and services (i.e., the curriculum); and nondisabled peers. Despite this combined emphasis on environment, curriculum, and peers, in practice, the inclusion of P-12 students with disabilities primarily emphasizes the learning environment and is

frequently referred to and measured by the amount of time students spend in the general education classroom, rather than the special education classroom (McLeskey et al., 2012). This focus on a student's least restrictive environment inadequately describes or measures inclusive education for students with disabilities, but its use as a catalyst for more inclusive services is evident within the U.S. education system.

Status of Inclusion in the U.S.

In the U.S., an inclusive model is supported by IDEA (2017) and the *Every Student Succeeds Act* (2015). The U.S. Department of Education defers authority over the implementation of these policies to states, including the implementation of inclusive practices for students with disabilities. Many states have provided explicit policies and resources toward the inclusion of students with disabilities. For example, Virginia has a Statewide Inclusion Action Plan (Lane, 2015; Staples, 2017) and the K-12 Inclusive Practices Guide (Virginia Department of Education, 2019); California funds their Supporting Inclusive Practices (SIPInclusion, 2023) program; and Wisconsin's Department of Public Instruction (n.d.-a, n.d.-b) supports their Research to Practice Inclusive Communities (RPIC) project and Students with disabilities Outcomes and Achievement Resources IDEA Network Grants (SOARING) project. Although progress is still needed toward transforming the U.S.'s public school system into an inclusive school system, during the 2021-2022 school year, 67% of students with disabilities being supported by special education services were included in general education classrooms at least 80% of the school day (National Center for Education Statistics, 2023). This suggests that a substantial number of U.S. students with disabilities are being served in the general education classroom. IDEA (2017) mandates that special education services and supports be provided within that setting as needed, and both special and general education teachers are responsible for

planning for, implementing, and evaluating these services and supports. Therefore, many U.S. general and special education teachers are collaboratively supporting students with disabilities in general education classrooms.

Teacher Collaboration in Inclusive Settings

Teacher collaboration is supported by the Council for Exceptional Children (CEC) and Collaboration for Effective Educator Development, Accountability, and Reform (CEEDAR) Center, which list collaboration as one of their four categories of highly effective practices when serving students with disabilities, along with assessment, instruction, and social/emotional/behavioral practices (McLeskey et al., 2017). The CEC and CEEDAR Center go on to recommend that educators collaborate with other professionals to positively affect student success across a variety of school and instructional contexts, and their findings suggest that:

> Collaboration allows for varied expertise and perceptions about a student to be shared among those responsible for the student's learning and well-being. This collective expertise provides collaborators with a more comprehensive understanding of each student's needs, which can be used to more effectively plan and implement instruction and services. (p. 15)

More specifically, the CEC's framework for collaboration in inclusive classrooms involves educators co-planning, co-teaching, and co-assessing student learning (McLeskey et al., 2019). Collaborative planning, teaching, and assessing have been empirically found to be (a) key practices at schools noted for successfully serving students with disabilities in inclusive settings (Caron & McLaughlin, 2002); (b) indicative of higher achievement in both math and reading (Ronfeldt et al., 2015); and (c) commonly identified by school districts as essential for the successful inclusion of students with disabilities (Huberman et al., 2012). Together, the CEC's

framework and these studies help define collaboration as a process of shared decision-making and responsibility for student learning and indicate that teacher collaboration between special and general educators is an effective strategy for including students with disabilities in general education settings.

Although the aforementioned policy mandates and empirical research suggest that collaboration is needed to help students with disabilities be successful, professional standards further indicate that collaboration is commonly expected of educators. For example, the Interstate Teacher Assessment and Support Consortium (InTASC) teaching standards encourage educators to work as collaborative teams to improve teaching practices and include references to collaboration in seven (70%) of their standards, including standards regarding learner development, learner differences, learning environments, assessment, planning for instruction, professional learning and ethical practice, and leadership and collaboration (Council of Chief State School Officers [CCSSO], 2013). As collaboration plays a significant role in what is expected of teachers and what is needed for student success, educators need to be proficient in the skills and understandings needed to successfully engage in collaborative practices.

Teacher Collaboration Readiness

Unfortunately, consistent proficiency in and quality of teacher collaboration is not supported by relevant research. In their synthesis of studies between the 1950s and 1990s, Scruggs and Mastropieri (1996) found that across 2,900 participants, only 29.2% responded that general education teachers had the training or expertise to support students with disabilities in the general education classroom. More recently, Zagona et al. (2017) found that general education teachers did not feel they were as prepared to collaborate as their special education colleagues. This feeling of not being adequately prepared was mirrored in the CEC's survey of 1,467 special

educators which found that only 8% of special educators considered their general education colleagues to be well-prepared for working with students with disabilities (Fowler et al., 2019). In addition to teachers' continuing sense of under-preparedness, there are differences in the quality of collaboration within P-12 classrooms between different types of educators. Ronfeldt et al. (2015) surveyed 1,109 educators and found that significantly higher quality collaboration was reported by elementary teachers versus secondary teachers, female versus male teachers, Black and Hispanic versus White teachers, teachers with bachelor's degrees versus higher degrees, and teachers with less than 15 years of experiences versus more experienced teachers. Altogether, these findings suggest that students with disabilities are being taught by general and special educators who are inconsistently engaging in quality teacher collaboration and do not feel adequately prepared to engage in professional collaboration together.

Statement of the Problem

Most students with disabilities in the U.S. are served in the general education environment, and professional standards and expectations emphasize teacher collaboration. Yet, research indicates that the preparedness for and quality of teacher collaboration is inconsistent within and among teacher teams (Ronfeldt et al., 2015; Zagona et al., 2017). Therefore, there is a need to better understand how U.S. educators are trained to work collaboratively when serving students with diverse learning and behavioral needs.

In studying the preparedness of general and special educators to teach inclusively and collaboratively, Zagona et al. (2017) found a significant relationship between educators who completed prior coursework in inclusive practices and their readiness to plan instruction and interventions collaboratively based on surveys and interviews with 33 general and 10 special educators. Further, DeLuca (2012) analyzed interviews with and journals of 39 program

administrators, faculty, and student teachers and found that teacher education programs can include rich, multifaceted interpretations of, as well as learning and teaching experiences about, inclusive practices. However, there are significant inconsistencies between pre-service teacher preparation programs in terms of (a) how many require collaboration-specific courses (Allday et al., 2013); (b) shared coursework between special and general education departments (M. W. Harvey et al., 2010); and (c) the variety of approaches to collaboration and foci evident across programs (Brownell et al., 2005). These inconsistencies suggest a need to further explore initial teacher preparation programs and the curricula that support, or neglect, special and general education teacher collaboration.

The goal of this study was to help answer questions elicited from these prior studies and the lack of studies focused on curricula specific to teacher collaboration, and ultimately to improve inclusivity and student outcomes through improved teacher collaboration. Therefore, the problem I investigated was how the standards that undergird initial teacher preparation programs across the U.S. describe the need for and process of teacher collaboration.

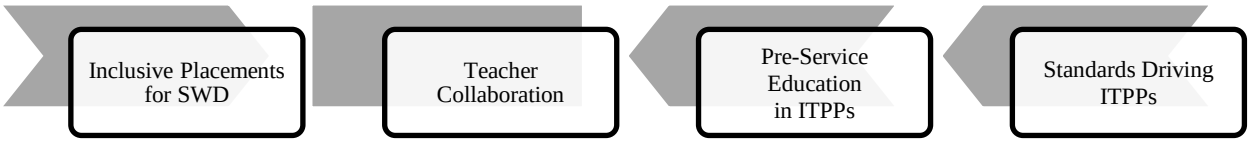
Conceptual Framework

The need to better understand how general and special education teacher collaboration is currently represented within the standards driving initial teacher preparation programs is outlined in Figure 1. As seen on the left side of the figure, if students with disabilities are to be taught within inclusive general education settings, then there is a need for general and special education teachers to collaboratively plan for, provide, and evaluate services in those environments. The right half of the figure suggests that to successfully engage in a collaborative relationship, both general and special educators must be trained to do so, and this education currently begins during pre-service learning within initial teacher preparation programs. Therefore, I sought to better

understand the standards that drive the curricula within U.S.-based initial teacher preparation programs and how those standards support teacher collaboration.

Figure 1

Conceptual Framework of This Study



Note. SWD = Students with disabilities; ITPP = Initial teacher preparation program

Essentially, collaboration within educational contexts is a complex phenomenon. Collaboration between general and special educators is essential, and this process requires quality preparation and support to be enacted well. Therefore, it is crucial to establish clear understandings of collaboration as a construct and teacher collaboration as process, especially within the initial teacher preparation programs that provide the initial education and support to U.S. educators. Furthermore, faculty and staff in such programs must have a strong foundational understanding of the standards that drive their curricula, especially as these standards are used to evaluate program effectiveness through the accreditation process. In my experience, when standards are developed and used for accountability purposes, like the accreditation process, they are given substantial weight in programs' decision-making processes. Therefore, I focused on exploring initial teacher preparation programs' standards as a means of examining one of the more influential aspects of programs' formal curricula, specifically how the professional standards used by initial teacher preparation programs embody teacher collaboration for both general and special educators.

Research Questions

The purpose of this study was to explore how the standards undergirding initial teacher preparation programs describe and represent teacher collaboration between general and special educators. Therefore, I addressed the following three questions, including sub-questions:

1. How do the Council for the Accreditation of Educator Preparation (CAEP), Interstate Teacher Assessment and Support Consortium (InTASC), and Council for Exceptional Children (CEC) standards describe and represent teacher collaboration between general and special educators?
    a. To what degree do the standards address teacher collaboration?
    b. How is teacher collaboration explicitly and implicitly represented within the standards?
2. How do the key guidance documents for the CAEP, InTASC, and CEC standards describe and represent teacher collaboration between general and special educators?
    a. To what degree do the guidance documents address teacher collaboration?
    b. How is teacher collaboration explicitly and implicitly represented within the guidance documents?
3. What learning experiences are embedded within the standards and guidance documents that are intended to foster and facilitate candidates' knowledge, skills, and/or dispositions regarding teacher collaboration within initial teacher preparation programs?

Significance of the Study

In exploring how initial teacher preparation programs currently prepare general and special education teachers to collaborate with one another through their shared standards, the

goal of this study was to contribute to and improve equity and inclusivity in P-12 schools by supporting the collaborative efforts of educators serving students with disabilities. Ultimately, if this study helps initial teacher preparation program leaders and faculty understand expectations for how teachers should be prepared to collaborate in the U.S., future research can further examine the effectiveness of different programs; determine which strategies, designs, and structures work best; and capitalize on program strengths to better prepare teachers to collaboratively improve P-12 student outcomes while implementing and supporting inclusive models in P-12 schools. By investigating and analyzing the standards that drive the curricula of U.S.-based initial teacher preparation programs, this study is an important foundation for serving the needs of teachers and students.

CHAPTER 2: REVIEW OF RELATED LITERATURE

In the current study, I explored how teacher collaboration was represented within the standards that undergird initial teacher preparation programs. Based on the premise that initial teacher preparation programs are designed to support the P-12 education system, this literature review explores how teacher collaboration is positioned within both the P-12 and higher education systems. In this chapter, I will start by defining collaboration conceptually and analyzing how collaboration between teachers manifests and functions within P-12 education. Then, I review how teacher collaboration is positioned within initial teacher preparation programs, including the current professional and accreditation standards that function as part of the curricula of such programs.

Conceptualizing Collaboration

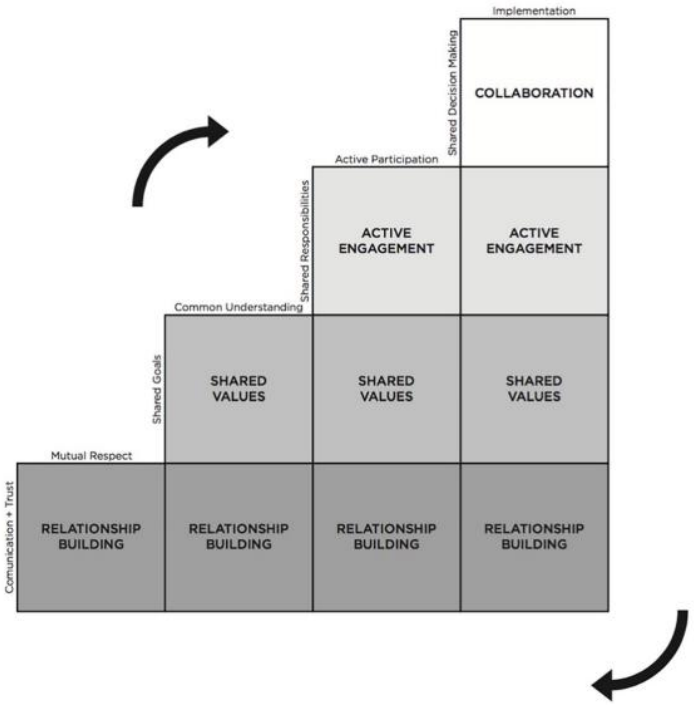
Teacher collaboration is a complex process, and at its core, collaboration consists of eight interdependent constructs: open communication, trust, mutual respect, shared goals, common understanding, shared responsibility, active participation, and shared decision-making (Griffiths et al., 2021; see Figure 2). From their systematic review of 34 sources, Griffiths et al. (2021) represented these constructs as the building blocks of collaboration and conceptualized collaboration as

> a complex process built on trust, open communication, and mutual respect (relationship building), with all members focused on shared goals and responsibility with a common understanding (shared values), who are actively participating with a sense of shared responsibility (active engagement) and decision making. (p. 64)

As seen in Figure 2, a particularly salient aspect of this model is the focus on implementation as the pinnacle of collaboration. In other words, teams can have strong relationships with shared values and responsibilities, but if teams are not actively participating with one another and sharing in decision-making, then collaboration is not actually being implemented. While this conceptual model of collaboration highlights the constructs related to collaboration in general, the systematic review used to develop the model focused more broadly on collaboration as it applied to a variety of teams, including teams in healthcare, community, and education settings (Griffiths et al., 2021). Fully understanding how teachers collaborate with one another requires a more process-focused model.

Figure 2

Conceptual Framework of Collaboration



Note. From "Together We Can Do So Much: A Systematic Review and Conceptual Framework of Collaboration in School," A-J. Griffiths, J. Alsip, S. R. Hart., R. L. Round, and J. Brady, 2021,

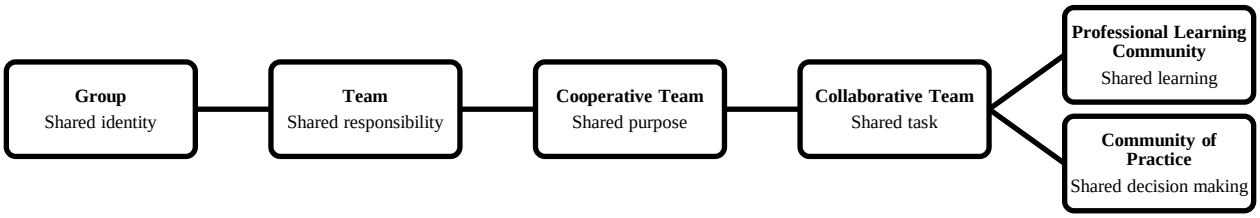
Canadian Journal of School Psychology, *36*(1), p. 64 (https://us.sagepub.com/en-us/journals-permissions). Reprinted with permission.

Teacher Collaboration

Within the field of education, the term *collaboration* is used in many contexts, but many uses of this term, and its possible synonyms, have distinct meanings (Alsalman, 2013; Dettmer et al., 2013). With a focus specifically on teacher's professional collaboration, Vangrieken et al. (2015) conducted a systematic review of 82 sources and found five terms related to and requiring consideration when discussing teacher collaboration, including *collaboration*, *professional learning community (PLC)*, *community of practice (CoP)*, *team*, and *group*. Although scholars and practitioners sometimes use these terms interchangeably, they can be viewed as a nested relationship, as seen in Figure 3. Specifically, groups can be considered a collection of independent or interdependent teachers who share a common identity (Katzenbach & Smith, 2005), so groups serve as the category in which all others are nested. When groups consist of interdependent teachers, they share responsibilities and are considered to be a team (S. G. Cohen & Bailey, 1997). Further, if teachers within a team share a purpose but split up tasks before combining individual work into a shared final product, they are considered a cooperative team (Sawyer, 2006). However, if teacher teams share a purpose and work together, sharing tasks throughout the process, they are a collaborative team (James et al., 2007; Kelchtermans, 2006; Vangrieken et al., 2015). Following the nested relationships thus far suggests that collaborators can be considered a team, but not all teams collaborate.

Figure 3

Nested Relationship of Collaboration-Related Terminology



Note. Adapted from "Teacher Collaboration: A Systematic Review," by K. Vangrieken, F. Dolchy, E. Raes, and E. Kyndt, 2015, *Educational Research Review, 15*(2015), p. 17-40 (http://doi.org/10.1016/j.edurev.2015.04.002). Copyright 2015 by Elsevier Ltd.

Vangrieken et al. (2015) further identified two specific manifestations of collaborative teams that are commonly referenced within extant research and theory: PLCs and CoPs. PLCs are collaborative teams that focus on a shared question or shared learning (Rone, 2009; Vangrieken et al., 2015; Van Maanen & Barley, 1984). Meanwhile, CoPs are teams that share decision-making tasks through shared expertise (Brouwer et al., 2012). As a reminder from Chapter 1, teacher collaboration within this study is defined as the process of sharing learning *and* decision-making within teacher teams that share an identity, responsibilities, and purpose. In this sense, collaborative teacher teams are expected to share the tasks of learning about students, growing professionally, and making decisions about student data, learning, and instruction with the ultimate goal of improving instructional practice and student learning (Brunton, 2016; DuFour et al., 2005; East, 2015). Essentially, when some teachers collaborate with one another, they serve as both PLCs through shared learning tasks and CoPs through shared decision-making tasks.

Transforming Teaching Through Shared Learning. When considering how teachers learn and build competence, McComish and Parsons (2013) connected the idea of collaborative learning with Mezirow's (1991, 1997, 2000) Transformational Learning Theory, which

suggested that critical reflection and dialogue are necessary for changing adults' assumptions and expectations. In other words, if learning is viewed as the social process of meaning-making (Mezirow, 1997), then learning is ultimately about transformation and change (Apte, 2009). Following Transformational Learning Theory, McComish and Parsons (2013) contended that "teacher collaboration offers opportunities for teachers to critically examine evidence, arguments, and alternative points of view. These conversations encourage self-reflection and lead to personal transformations in teachers' beliefs, values, and practices related to teaching and learning" (pp. 239-240). This relationship between teacher collaboration and transformations in teaching and student learning can have varying results among individual teachers, but teacher collaboration has the potential to transform teacher learning, and therefore student learning, both individually and collectively (McComish & Parsons, 2013). The theory that collaborative learning is transformational learning aligns with Griffiths et al.'s (2021) model of collaboration in that building relationships is foundational to transforming individual values into shared values and facilitating active engagement among a teacher team. This collaborative engagement emphasizes the foundational role teacher collaboration plays in impacting educator learning and teaching practices.

Learning Through Discourse and Shared Decision-Making. If learning lies at the heart of effective teacher collaboration, then discourse and shared decision-making can be viewed as the foundation of that learning. In their systematic review of research on teacher teams that learn collaboratively, Lefstein et al. (2020) found that most of the 64 articles they reviewed supported the perspective that learning is socially constructed (see Lave & Wenger, 1991; Wenger, 1998), particularly using language as a learning tool through discourse (see Dudley, 2013; O'Donnell-Allen, 2001; Vygotsky, 1978; Wertsch, 1985). This finding further aligns with

Griffiths et al.'s (2021) model of collaboration, supporting the relevance of active participation and communication as building blocks for implementing collaborative decision-making. Collaborative decision-making involves analyzing and influencing educational practices (DuFour et al., 2005; Ervin, 2011) through problem-solving, action research, and co-planning (Bingham, 2011; DuFour et al., 2005; Meyer et al., 1971). In doing so, collaborative teams share in decision-making based on common goals (CCSSO, 2013; Friend & Cook, 2013) and work toward continually improving teaching, learning, and evaluative practices (Garcia-Martinez et al., 2021; Yin & Buck, 2019).

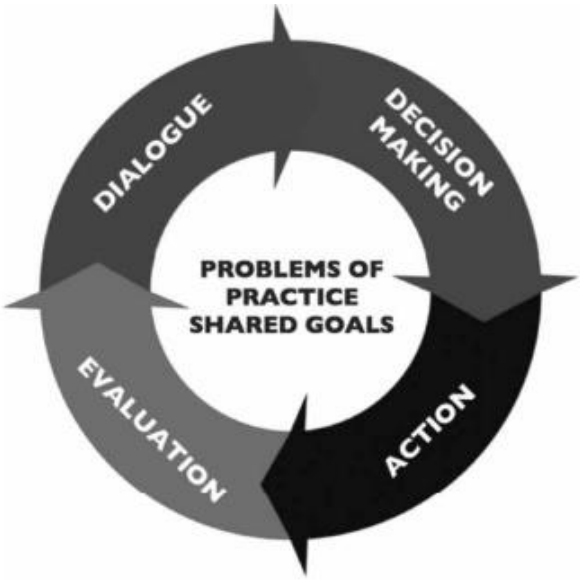
The boundaries between professional learning and professional decision-making are blurred, and cross-fertilization occurs between these two tasks (Lefstein et al., 2020). Following this assumption, although teacher teams may engage in shared learning tasks (e.g., as PLCs) or shared decision-making tasks (e.g., as CoPs), teacher teams likely collaborate in ways that engage in and integrate both learning and decision-making tasks.

Teacher Collaboration as a Process

The acts of sharing learning and decision-making suggest that teacher collaboration is a process, not a product (Arthaud et al., 2007; Friend & Bursuck, 2002; Kennedy et al., 2002). As seen in Figure 4, Woodland et al. (2013) operationalized high-quality teacher collaboration as four practices that teacher teams engage in together: *dialogue*, *decision-making*, *action*, and *evaluation* (DDAE).

Figure 4

The Teacher Collaboration Cycle



Note. Reprinted from "A Validation Student of the Teacher Collaboration Assessment Survey," by R. Woodland, M. K. Lee, & J. Randall, 2013, *Educational Research and Evaluation, 19*(5), p. 442–460 (https://doi.org/10.1080/13803611.2013.795118). Reprinted with permission.

DDAE was originally proposed by Bentzen et al. (1974) when discussing the change process within schools, and DDAE continued to be associated with school change throughout the 1970s (e.g., Frand, 1977; Goodlad, 1975). Later, Goodlad et al. (2004) described DDAE as a team's cycle of inquiry centered around a shared purpose. Gajda and Koliba (2007, 2008) then applied the DDAE cycle to teacher collaboration and developed the Teacher Collaboration Improvement Framework, Communities of Practice Collaboration Assessment Rubric, and Teacher Collaboration Assessment Rubric. These rubrics later evolved into the Teacher Collaboration Assessment Scale (Woodland et al., 2013). Each of these tools align with the DDAE framework and suggest that high-functioning collaborative teacher teams regularly

engage in four processes: collective dialogue, shared decision-making, action-taking, and evaluation:

- *Dialogue* represents reflective team conversations that enhance student engagement, learning, and achievement, as well as resolve differences, by critically discussing teaching practices and team disagreements (Hord, 2004; Woodland et al., 2013).
- *Decision-Making* involves making evaluative decisions about the quality and merit of instructional practices based on their effects on student learning to determine what and how to teach (Little, 1990; Valli & Buese, 2007; Woodland et al., 2013).
- *Action* is the essential process of enacting team decisions to improve teaching practices (Woodland et al., 2013). It is important to note that without action, the cycle of inquiry stops, and improvement wanes (McLaughlin & Talbert, 2006; Woodland et al., 2013).
- *Evaluation* encompasses the systematic collection, analysis, and use of quantitative and qualitative data to determine the effectiveness and future merit and worth of team actions (Gay et al., 2005; Patton, 2008; Woodland et al., 2013).

There are distinct parallels between Griffiths et al.'s (2021) constructs of collaboration and Woodland et al.'s (2013) DDAE cycle of inquiry. For example, Griffiths et al. (2021) identified relationship building, shared values, and active engagement as the building blocks of collective collaborative effort while Woodland et al. (2013) operationalized the behaviors of collective dialogue (i.e., relationship building); shared decision-making (i.e., collective collaborative effort); and action taking (again, collective collaborative effort) that are facilitated by shared purpose (i.e., shared values and active engagement). However, Woodland et al.'s (2013) model extends Griffiths et al.'s (2021) building blocks into a cyclical process by

suggesting that evaluation is the key to continual collaborative decision-making. Despite the parallels between these two models, it is the DDAE cycle that most accurately represents the iterative nature of teacher collaboration where educators engage in a continuous, evolving process of reflection, adjustment, and improvement.

Teacher Collaboration Between Special and General Educators

Griffiths et al.'s (2021) and Woodland et al.'s (2013) frameworks both speak to the complexity of effective collaboration. This complexity is deepened by federal legislation that has considerably changed how we collaborate as educators. For example, special educators, general educators, and local education agencies are now mandated to collaboratively identify and serve students with disabilities; services are now collaboratively provided in the least restrictive environment, including access to the general education curriculum; Individualized Education Programs (IEPs) are now collaboratively planned and implemented; and curriculum, instruction, and assessments are now collaboratively designed to support learning in all students (Arthaud et al., 2007; Ludlow, 2011; Warger & Pugach, 1996). These shifts in policy and practice address an escalated focus on student achievement (Alsalman, 2013; Dettmer et al., 2013). As school accountability measures have increased, so has the complexity of teacher responsibilities and the need for collaborative efforts (Alsalman, 2013; Dettmer et al., 2013). Yet, the responsibility to collaboratively serve students with disabilities primarily falls on a single general education teacher and a single special education teacher. The partnership and shared efforts of this dyad can affect and be affected by various aspects of our education system, and their collaborative process can be influenced by multiple factors.

Effects of Teacher Collaboration. Collaboration between general and special educators has been shown to have a positive impact on student achievement (see Abbye-Taylor, 2013;

Bailey-Franklin, 2019; Barber, 2017). Specifically, teacher collaboration was found to be a significant predictor of reading and math achievement across 47 elementary schools (Goddard et al., 2007) and student behavior across nine junior high schools (Shachar & Shmuelevitz, 1997). Further, collaboration has positive effects on the teachers themselves, including their self-efficacy and instruction (see Bronstein, 2013). It has been noted that teacher collaboration leads to innovation and support when facing challenges (Hargreaves, 2003); experimentation of pedagogy and practices (Ainscow, 2016); and ultimately, meeting the needs of all students (Grubert, 2011). Further, these shifts in practices can positively influence school culture through collective inquiry, action, and improvement (Abbye-Taylor, 2013; Ainscow, 2020; Fullan, 2010). Ultimately, the influence of teacher collaboration extends beyond academic achievement: it empowers teachers, drives innovation, and cultivates a culture of continuous improvement, benefiting both educators and students alike.

Although the focus on student achievement has helped shift teaching from a solitary to a collaborative endeavor (Allday et al., 2013; Bessette, 2008), there are negative effects to consider. Collaboration can lead some teachers to feel like they are being watched or judged by their collaborative partner(s), and some teachers feel that the shared decision-making process results in a loss of their autonomy or authority (Acherman, 2011; Pomson, 2005). These concerns relate to building relationships and shared values from Griffiths et al.'s (2021) model of collaboration and might affect Woodland et al.'s (2013) bases of a shared purpose that supports the dialogue process in teacher collaboration. Therefore, it is essential to recognize that while teacher collaboration may enhance student achievement, it also presents challenges, such as feelings of surveillance and a perceived loss of autonomy among teachers.

Factors That Influence Teacher Collaboration. There are several factors that could help mitigate these negative impacts while fostering the positive effects of teacher collaboration. At the base of both Griffiths et al.'s (2021) and Woodland et al.'s (2013) models are communication: effective communication is essential to teacher collaboration (Conderman, 2011; Friend & Cook, 2010). As a long-term extension of this, stability in partnerships affects the success of teacher collaboration (Lieber et al., 1997). Further, collaborative teams must be committed to extending their partnerships to additional teammates, such as student families and other colleagues (Friend & Cook, 2010). Finally, teacher collaboration should be modeled and supported through a collaborative culture that includes teachers, staff, building and central office administrators, students, their families, and partners within the larger community (Abbye-Taylor, 2013). Together, effective communication, partnership stability, expanding collaborative networks, and a commitment to a collaborative culture serve as foundational elements for productive teacher collaboration.

In addition to factors that support teacher collaboration, there are also factors that impede it. Teachers should not be coerced into forming collaborative partnerships (Atkins, 2008) as effective teacher collaboration is based on voluntary participation by both partners (Friend, 2021). Similarly, imbalances in power should be avoided as each partner needs to feel equally valued throughout the teacher collaboration process (Friend, 2021; Friend & Cook, 2013). Once a collaborative partnership is formed, a lack of time to collaborate with one another can completely stall the process, so schools should work toward scheduling and protecting regular collaborative team time (Grubert, 2011). Another barrier is at the heart of this study: inadequate preparation for engaging in teacher collaboration (Muller et al., 2009; Villa & Thousand, 1996).

While this preparation can also occur in the form of in-service professional development, the first step in this professional development process occurs in initial teacher preparation programs.

Collaboration Within Initial Teacher Preparation Programs

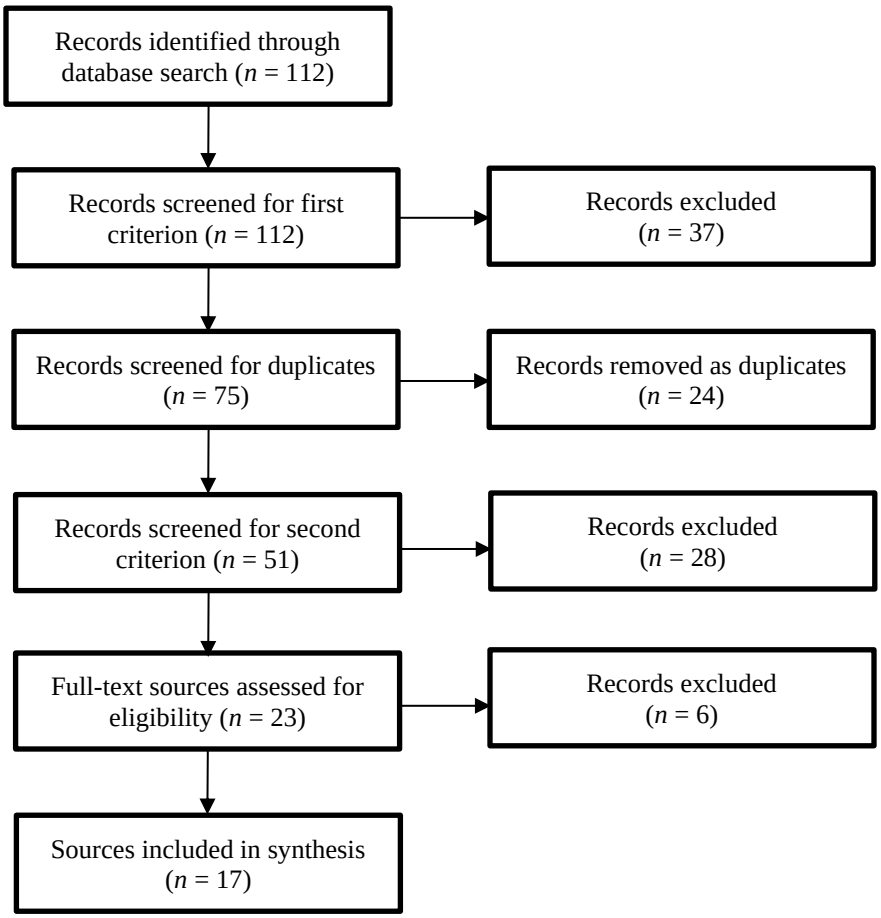
As a reminder from Chapter 1, a continuing movement within the current education system is that we serve students with disabilities more inclusively. Quite frequently, this results in students with disabilities being served in general education classrooms alongside their non-disabled peers (Bateman et al., 2015; McLeskey et al., 2012; Ryndak et al., 2013), and this practice results in the need for collaboration between general and special educators. However, teachers sometimes have negative feelings towards inclusive practices based on their ability to serve students with diverse needs collaboratively and their past education and training in teacher collaboration (Abbye-Taylor, 2013; Harpell & Andrews, 2010). Further, general education and special education teachers feel unprepared to collaborate with one another (Alsalman, 2013; Choi, 2010; Zagona et al., 2017). For both general and special educators to collaborate together more effectively, teacher collaboration must be taught and supported.

Considering the critical importance of effective teacher collaboration between general and special educators, fostering collaboration should begin in initial teacher preparation programs (Conderman & Johnston-Rodriquez, 2009; Da Fonte & Barton-Arwood, 2017; Winn & Blanton, 2005). Pre-service teacher development has been found to affect student achievement positively (Darling-Hammond, 2000), and initial teacher preparation programs can also positively influence educators' attitudes and skills related to collaboration and inclusive practices for students with disabilities (Conderman & Johnston-Rodriquez, 2009). Therefore, there is a need to examine how teacher collaboration is taught to pre-service teachers as they prepare to enter the workforce.

To this end, I engaged in a systematic review using Zawacki-Richter et al.'s (2020) methods to explore current curricular, instructional, and assessment practices related to teacher collaboration within teacher education programs. Sources were found using two databases: Education Research Complete and Education Resources Information Center (ERIC). Search terms included *teacher collaboration* and variations of the term *teacher preparation*, including *teacher education* and *pre-service*. As illustrated in Figure 5, a search of these terms within abstracts resulted in 112 retrieved sources. These publications were not limited by publication date as the goal was to include perspectives that were not limited by historical contexts. However, language was limited to English to account for my native language. Retrieved publications were determined to be relevant sources to the review's research purpose if they met the following criteria. First, sources were only included if they were peer-reviewed. Of the 112 retrieved publications, 75 met this criterion. In screening the publication's titles and abstracts for this criterion, 24 duplicate sources were identified. Second, the sources had to describe or investigate teacher collaboration in teacher preparation settings, regardless of whether they were initial teacher preparation programs. Of the remaining 51 unique retrieved publications, 23 were found to meet this criterion. The systematic review then included coding the selected studies; assessing their quality, including the removal of six sources that did not meet the criteria upon review of the full text; and synthesizing the findings of those studies. With this in mind, the rest of this chapter focuses on teacher collaboration within the curricula of initial teacher preparation programs, including synthesis of the sources (n = 17) analyzed as part of this systematic review process.

Figure 5

PRISMA Diagram of Sources Included in Systematic Review



Note. PRISMA = Preferred Reporting Items for Systematic Reviews and Meta-Analyses

The Intersection of Curricular Theory and Accreditation Standards

In the U.S., initial teacher preparation programs are most directly regulated through state departments of education and program accrediting bodies. These accrediting bodies, like the Council for the Accreditation of Educator Preparation (CAEP), Association for Advancing Quality in Educator Preparation, National Association for the Education of Young Children, and Montessori Accreditation Council for Teacher Education (Council for Higher Education Accreditation, n.d.), develop standards that programs, and their students, need to meet.

Therefore, these standards shape the design and implementation of curricula within initial teacher preparation programs by serving as one of the three sources of program goals, or what Tyler (1949/2013) referred to as educational objectives. In classical curriculum theory, Tyler (1949/2013) asserted that curricular objectives are based on three sources: students, society, and disciplinary specialists. Accrediting bodies and professional organizations serve as disciplinary specialists that influence initial teacher preparation programs through their developed sets of standards.

One of the goals of accreditation-based standards is to create shared learning outcomes across accredited programs. Within initial teacher preparation programs, these standards essentially serve as benchmarks for pre-service teachers' knowledge, understandings, and skills at their completion of the program, as well as benchmarks for overall program quality through shared goals and curricular alignment with the standards (see Wiggins & McTighe, 2005). While individual programs have the curricular control to develop more specific objectives that guide daily instruction and assessment (Waugh & Gronlund, 2012), standards serve as broader educational goals that encompass essential, overarching outcomes to be attained by program completion (M. Johnson, 1965). In this way, accreditation standards serve as a national influence and guide teacher educators in crafting coherent curricula for initial teacher preparation programs as a whole.

However, it should be noted that the standards are interpreted and applied within programs based on program faculty and staff members' individual and collective judgements of those standards, as well as state regulations. This means that programs' values and judgments about their students, their societal contexts, and other disciplinary influences manifest as a local curriculum that encompasses, but cannot solely be defined by, the standards themselves. This is

supported by Tyler (1949/2013), who cautioned that while standards represent one of three sources of the curriculum, no single source should be relied upon too heavily when making educational decisions. Further, standards can be contentious as some educators have posited that they limit flexibility and creativity within the curriculum (Popham, 1992). Therefore, standards should be viewed as a single, limited aspect of program curricula, rather than a holistic representation of the curriculum. Essentially, standards provide a framework for the educational content, learning experiences, and goals that form the curriculum. As such, standards, like the teacher collaboration standards for initial teacher preparation programs, can be seen through multiple manifestations of program curricula, including the assessed, enacted, and formal curricula.

How Standards Influence Programs' Assessed Curricula

Accrediting body standards are integral to program assessment as they serve as benchmarks for evaluating the competency of future educators, as well as program effectiveness. In this way, standards serve as part of the assessed, or tested, curriculum (Glatthorn et al., 2019). Program assessment methods are often aligned with standards to determine whether program candidates have achieved the intended learning outcomes (Stiggins, 2017; Wiggins & McTighe, 2005). As initial teacher preparation standards are part of the accreditation process, these accrediting body standards serve as the base for program-developed assessments, as well as accountability evaluations of the program itself. This standards-based evaluation process allows program stakeholders to measure program outcomes against established educational goals, facilitating program accountability and improvement (Delandshere & Arens, 2001). Curricular theory suggests that there should be alignment between curricular goals, learning experiences, and assessment practices (Wiggins & McTighe, 2005). Therefore, if teacher collaboration is

represented within the standards used to evaluate initial teacher preparation programs, then teacher collaboration should also be seen within programs' enacted and formal curricula.

Teacher Collaboration Within Programs' Enacted Curricula

If accrediting bodies and programs deem teacher collaboration as essential enough to assess, then it logically follows that teacher collaboration should also be deliberately taught and integrated into the enacted, or taught, curriculum (Glatthorn et al., 2019). Yet, despite collaboration being prominent within the P-12 system and present within accrediting body standards, there is a lack of evidence that teacher collaboration is addressed within, let alone foundational to, initial teacher preparation programs (Conderman, 2011; Teich Scimeca, 2008). Goddard et al. (2007) posited that collaboration was not taught within coursework, nor was teacher collaboration practiced within many teacher education programs. This finding was confirmed by Geer and Hamill (2007) who investigated the reflections on clinical field experiences of special and general education pre-service teachers and found that pre-service teachers had limited exposure to teacher collaboration and did not have the chance to actually engage in the teacher collaboration process with fellow education students. These findings draw attention to the need to examine how teacher collaboration is represented with the curricula of initial teacher preparation programs.

Examining initial teacher preparation program curricula can help teacher educators understand the pedagogies and content within those programs and how they are ultimately affecting future teachers and their P-12 students. From a wider lens, effective preparation programs positively affect teacher growth, as well as retention (Alsalman, 2013; Conderman & Johnson-Rodriguez, 2009; Prince, 2010). The enacted curricula of programs also significantly predict teachers' attitudes, beliefs, and concerns about inclusive practices for students with

disabilities (Drescher, 2015; Sharma et al., 2008; Varcoe & Boyle, 2014). Specific to teacher collaboration, programs where pre-service teachers can engage in shared decision-making result in those teachers engaging in further teacher collaboration (Hoaglund et al., 2014). Together these studies suggest that initial teacher preparation programs can positively affect teacher retention, teacher self-efficacy, teacher beliefs, and teacher collaboration.

Unfortunately, it seems that initial teacher preparation programs do not always support teacher collaboration through quality learning experiences. Allday et al. (2013) posit that teacher education programs have not historically been responsive to the inclusion movement. This has been seen across the past 30 years in the need for better coursework related to inclusive practices (Brownell et al., 2010; Kearney & Durand, 1992), as well as coursework that focuses on inclusive methodologies for both general and special educators (Fender & Fiedler, 1990; M. W. Harvey et al., 2010). One such method is teacher collaboration. Therefore, initial teacher preparation programs must equip pre-service teachers to collaborate with one another to support the needs of P-12 students (Allday et al., 2013; McTighe & Brown, 2005).

Teacher Collaboration Across Teacher Education Departments. Despite the need for both general and special education teachers to have the desire and skills to support students with disabilities collaboratively in P-12 environments, they are frequently taught through different departments within teacher education programs, resulting in their pre-service education being independent of one another (Fleisher, 2005; Matthews, 2012). Through redesign work at their own institution, Hardman (2009) suggested that education programs shift their focus to what all educators, and therefore different licensure tracks within the program, have in common rather than focus on differences. Doing so could be a catalyst for integrating disciplines and specialties, such as integrating literacy across content areas or collaborating between general and special

education (Hudson & Glomb, 1997; Pellegrino et al., 2015; Wickens & Parker, 2023). Cross-program collaboration allows teacher education programs to develop shared goals and instructional strategies (McKenzie, 2009). Core strategies include the three-tier model of instruction, universal design for learning, differentiated instruction, modeled co-teaching, collaborative planning experiences, and other evidence-based practices (Hardman, 2009; Wang 2013). However, the strategic planning and design work needed to develop shared goals and core strategies requires collaborative engagement across teacher education programs, including extensive planning and joint engagement in the decision-making process about coursework and clinical field experiences (Pellegrino et al., 2015; Pugach & Blanton, 2009; Wang, 2013).

Teacher Collaboration Within Coursework. In order to integrate teacher collaboration across teacher education programs, collaborative experiences must also be infused into coursework and related program experiences. However, some educators claim that teacher collaboration is rarely taught or modeled within current coursework (Goddard et al., 2007). Yet, some programs have tried to address this need by developing teacher collaboration courses, despite a more systemic approach being needed to prepare general and special educators to collaborate with one another (Blanton & Pugach, 2007; Daniels, 2017). When collaboration is the focus of a course or unit within a course, it should be designed so that candidates develop foundational collaborative skills by interacting with diverse perspectives, developing nonverbal and verbal communication skills, and practicing problem solving strategies (Hudson & Glomb, 1997; Rieg, 2009). In any course, collaboration should be explicitly taught so that candidates can develop the knowledge and skills to navigate and negotiate relationships with colleagues (DelliCarpini, 2009), and a key consideration in this process is whether candidates observe

faculty modeling collaborative and coteaching relationships in their own teaching (DelliCarpini, 2009; DelliCarpini & Alonso, 2014; Pellegrino et al., 2015).

In addition to developing and observing collaborative relationships through coursework, candidates should have opportunities to engage in shared instructional planning and learning design tasks. Based on their study of pre-service teachers engaging in this work, Aalto and Mustonen (2022) recommended structured supervision and discussions that connect theory to practice during collaborative planning tasks. Other strategies include cycles of feedback (Hoppey et al., 2004); adapting the Japanese lesson study model (Rieg, 2009); opportunities to modify or accommodate curriculum resources (Turner, 2015); and using and analyzing data from formative assessments (C. Thomas & Brown, 2019). Although pre-service teachers could engage in any number of collaborative planning tasks, Wang (2013) emphasized the need for tasks to be complex and open-ended while engaging candidates in inquiry and reflection. Although Wang only required a conceptual understanding of co-teaching from their participants, candidates should engage in a continuum of collaborative roles so that they can adapt to various situations (Aalto & Mustonen, 2022), including those required in co-teaching and clinical field experiences.

Teacher Collaboration Within Clinical Field Experiences. In addition to coursework, teacher preparation programs can provide opportunities for teacher collaboration within clinical field experiences (Da Fonte & Barton-Arwood, 2017). Pre-service teachers need early and ongoing field experiences in inclusive and collaborative settings (Hardman, 2009), but in a study involving over 300 field placement schools, Ronfeldt (2015) found that schools engaging in less collaboration were more likely to be used for field experiences. The strategic selection of collaborative schools is essential as candidates need to develop collegial networks of multiple

educators, not just their assigned mentor teacher, if they are expected to engage in teacher collaboration within their field experience (de Lima, 2003).

Once in their field placement, candidates must also engage in quality practicum-embedded learning experiences. Some researchers and programs have approached this by developing joint field experiences that include both general and special education candidate participants who collaborate (McKenzie, 2009) while others have focused on the teacher collaboration between teacher candidate and candidate mentor. In these candidate-mentor partnerships, teams engaged in a variety of collaborative tasks, including action research (Burbank & Kauchak, 2003) and lesson studies (Burroughs & Luebeck, 2010). However, it is important to note that a power dynamic exists between a mentor serving in an evaluative role and the teacher candidate and that teacher candidates may feel unequal to their mentor teacher due to their experience level (Turner, 2015). After studying the experiences of five student teachers, Willegems et al. (2018) concluded that it takes four collaborative planning sessions before candidates see themselves as equals to their mentor teachers or school colleagues. D. Harvey et al. (2022) supported this finding in their study involving 119 student teachers; they concluded that collaboration in student teaching requires reciprocal working relationships with P-12 educators, rather than the traditional coaching, mentoring, or evaluative roles of clinical educators. Altogether, while clinical field experiences can be beneficial experiences for teacher candidates, embedding teacher collaboration within these experiences requires strategic efforts in terms of placement, learning experiences, and mentorship.

In conclusion, research underscores the importance of collaborative learning experiences across departments, within coursework, and in clinical field experiences to foster the development of teacher collaboration among pre-service teachers. However, teacher preparation

programs often lack systemic approaches to collaboration across disciplines and specialties. Addressing this requires a concerted effort to redesign curricula, integrate shared instructional strategies, and foster cross-program collaboration. Therefore, there is a need to re-examine our current curricular practices within initial teacher preparation programs and identify ways in which we can better support teacher collaboration.

Standards That Inform Programs' Formal Curricula

A critical aspect of evaluating the curricula of initial teacher preparation programs lies in the examination of their formal, or recommended, curricula (Glatthorn et al., 2019), particularly the standards established by professional organizations that serve as a key source of such curricula. Across the U.S., it is common for initial teacher preparation programs that prepare general and special educators to be accountable for three sets of national standards, all of which address collaboration. First, CAEP accredits programs based on their CAEP Initial and Advanced Level Standards (CAEP, 2023a). CAEP (2020e) serves as the predominant accrediting body for teacher education programs in the U.S., with official state partnership agreements with 32 states and the District of Columbia. In addition to CAEP standards, the Interstate Teacher Assessment and Support Consortium (InTASC) standards are embedded within the CAEP standard addressing teachers' needed content and pedagogical knowledge (CAEP, n.d.). InTASC standards are expected to be tied to evidence during the accreditation process that indicates candidates can apply related understandings and skills (CAEP, 2021). Additionally, many special education courses and programs supplement the CAEP and InTASC standards with the Council for Exceptional Children (CEC) standards. The CEC is the largest international organization focused on serving students with exceptionalities, and their standards are considered to be Specialized Professional Association standards by CAEP (CAEP, 2020d). Although some states

do not require initial teacher preparation programs to have Specialized Professional Association accreditation through CAEP, effectively limiting their official use, teacher preparation programs may elect to include CEC standards in their program's curriculum. Each of these sets of standards serves as sources for program curricula, but they also each serve unique purposes and represent the values of their respective professional organizations.

CAEP Initial Level Standards. The CAEP (2020c) standards were first implemented in 2017, following the merger of the National Council for Accreditation of Teacher Education and the Teacher Education Accreditation Council into CAEP. Then, the current revised standards were created in 2020 and went into effect in the spring of 2022 (CAEP, 2021). As the official standards for CAEP accreditation, these standards are designed as benchmarks for indicating whether initial teacher preparation programs meet the professional expectations of such programs (CAEP, 2020f). Essentially, accreditation is a quality assurance indicator and formative feedback system where programs are externally reviewed to determine if they meet the standards and how they can continually improve (CAEP, 2020b, 2020d). Many states use CAEP accreditation as part of their process for reviewing and approving teacher education programs. At the time of this study, 26 states in the U.S. use CAEP (2020e) as part of their state program review process and another six review evidence of program quality using CAEP's first standard. CAEP (n.d.) has created seven standards for initial teacher preparation programs, including related sub-standards. These are outlined in Table 1, and their full text can be found in Appendix A. In addition to the standards themselves, CAEP (2021) has published the *CAEP Revised 2022 Standards Workbook* to support programs in successfully navigating the accreditation process using the newly revised standards. In essence, the workbook provides programs with clarity about standard components, describes actions programs need to take to meet the standards during

the accreditation process, and lists proficiency criteria for each standard. Together, the standards and the workbook serve as curricular tools which initial teacher preparation programs can use to inform their program-specific curriculum.

Table 1

CAEP Initial Level Standards

Standard	Sub-standards
1. Content and Pedagogical Knowledge	1. The Learner and Learning 2. Content 3. Instructional Practice 4. Professional Responsibility
2. Clinical Partnerships and Practice	1. Partnerships for Clinical Preparation 2. Clinical Educators 3. Clinical Experiences
3. Candidate Recruitment, Progression, and Support	1. Recruitment 2. Monitoring and Supporting Candidate Progression 3. Competency at Completion
4. Program Impact	1. Completer Effectiveness 2. Satisfaction of Employers 3. Satisfaction of Completers
5. Quality Assurance System and Continuous Improvement	1. Quality Assurance System 2. Data Quality 3. Stakeholder Involvement 4. Continuous Improvement
6. Fiscal and Administrative Capacity	1. Fiscal Resources 2. Administrative Capacity 3. Faculty Resources 4. Infrastructure
7. Record of Compliance with Title IV of the Higher Education Act	

Note. CAEP = Council for the Accreditation of Educator Preparation. Standard 7 only applies to teacher preparation programs seeking Title IV funds. Adapted from "2022 Initial Level Standards," by CAEP, n.d. (https://caepnet.org/~/media/Files/caep/standards/2022-initial-standards-1-pager-final.pdf?la=en).

InTASC Model Core Teaching Standards. The InTASC standards were created in 1992 and most recently updated in 2011 (CCSSO, 2013). These standards are designed to support teacher effectiveness and to ensure that P-12 students have educational opportunities that support college and career readiness. Although the standards are not specific to early career educators, they include a learning progression for teachers that reflects the ongoing development of educators' knowledge, understandings, and skills. They can be used by initial teacher preparation programs to (a) illustrate the professional expectations of teachers across their careers, (b) create benchmarks for appropriate pre-service teacher performance, and (c) develop learning opportunities that support pre-service teacher development. The 10 InTASC standards are organized into four categories. These are outlined in Table 2, and their full text can be found in Appendix B. These standards are embedded within the *InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0: A Resource for Ongoing Teacher Development* (CCSSO, 2013). This document describes the values and vision of teaching that informed the standards, the standards themselves, and a progression of related teaching practices that develop over an educator's career. This curricular resource, including the standards, provides initial teacher preparation programs with detailed descriptions of what effective curricular and pedagogical practices look like for developing teachers.

Table 2

InTASC Standards

Category	Standards
1. The Learner and Learning	1. Learner Development 2. Learning Differences 3. Learning Environments
2. Content Knowledge	4. Content Knowledge 5. Application of Content
3. Instructional Practice	6. Assessment 7. Planning for Instruction 8. Instructional Strategies
4. Professional Responsibility	9. Professional Learning and Ethical Practice 10. Leadership and Collaboration

Note. InTASC = Interstate Teacher Assessment and Support Consortium. Adapted from "InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0," by CCSSO, 2013 (https://ccsso.org/sites/default/files/2017-12/2013_INTASC_Learning_Progressions_for_Teachers.pdf).

CEC Initial Practice-Based Professional Preparation Standards for Special Educators (K-12).

The CEC standards were created in 1922 and most recently updated in 2020 (CEC, 2023a). These new standards went into effect in the spring of 2023 and are designed to reflect the specialized expertise needed by special educators to safely and effectively serve students with exceptionalities (CEC, 2023a). They are used by initial teacher preparation programs and program accrediting bodies to determine what knowledge and skills pre-service teachers must demonstrate as they begin their teaching careers (CEC, 2023b). CEC (2023b) has created seven standards for initial teacher preparation programs, including multiple components for each standard, as well as a dedicated standard for related clinical field experiences. The standards are outlined in Table 3, and their full text can be found in Appendix C. These standards are supported by the *Practice-Based Standards for the Preparation of Special Educators*

(Berlinghoff & McLaughlin, 2022), which describes the practices future educators need to demonstrate to meet the standards and is a guide for teacher preparation programs as they engage in curricular development, assessment practices, and program evaluation.

Table 3

CEC 2020 Initial Practice-Based Professional Preparation Standards

Standards	Components
1. Engaging in Professional Learning and Practice within Ethical Guidelines	1. Ethical guidelines and legal policies and procedures 2. Advocacy 3. Professional learning activities
2. Understanding and Addressing Each Individual's Developmental and Learning Needs	1. Human growth and development 2. Diverse factors that influence development and learning
3. Demonstrating Subject Matter Content and Specialized Curricular Knowledge	1. Academic subject matter content 2. Augmenting the general education curriculum
4. Using Assessment to Understand the Learner and the Learning Environment for Data-Based Decision Making	1. Measures of student learning, behavior, and the classroom environment 2. Eligibility determination 3. Progress toward measurable outcomes
5. Supporting Learning Using Effective Instruction	1. Assessment data 2. Active student engagement 3. Explicit, systematic instruction 4. Flexible grouping 5. Small group instruction 6. Specialized, individualized instruction
6. Supporting Social, Emotional, and Behavioral Growth	1. Routines and procedures 2. Preventive and responsive practices 3. Function of behavior
7. Collaborating with Team Members	1. Assess, plan, and implement effective programs and services 2. Identify and access services, resources, and supports 3. Work with and mentor paraprofessionals
8. Field and Clinical Experience	

Note. CEC = Council for Exceptional Children. Adapted from "Initial Practice-Based Professional Preparation Standards for Special Educators," by CEC, 2021

(https://exceptionalchildren.org/sites/default/files/2021-03/K12%20Initial%20Standards%20and%20Components.pdf).

Exploring the Relationship Between Standards and Programs' Curricular Design

A critical gap in the current body of literature centers around the questions of how the standards driving the curricula of initial teacher preparation programs represent teacher collaboration and how those standards might inform the curriculum development process and overall design of program curricula. In other words, if programs are assessed through the accreditation process based on their candidates' competencies related to teacher collaboration, then programs must have a deep understanding of what the standards say and how the standards should influence their formal, enacted, and assessed curricula. Despite standards being used as consistent benchmarks for assessing candidate competency and program effectiveness across initial teacher preparation programs (Delandshere & Arens, 2001), there are inconsistencies in the learning experiences related to teacher collaboration that candidates engage in, both within and across programs (M. W. Harvey et al., 2010). These inconsistencies, coupled with the release of new CAEP and CEC standards, suggest that there is a need to reexamine what the standards say and how they might guide the design of programs' curricula.

A detailed examination of the standards could shed light on two key elements of curricular design: the scope and the sequence of program curricula. As scope refers to the depth and breadth of content within a curriculum, scope is directly influenced by standards as standards define what specific content should be included in the curriculum (Anderson et al., 2001; Glatthorn et al., 2019). Therefore, curricular standards help define the scope of what program candidates need to learn about teacher collaboration by identifying overarching learning goals and expectations for what should be taught and achieved within program curricula. While

standards do not typically specify how or when specific content should be taught, standards' direct influence on the scope indicates that standards do have an indirect influence over the progression of learning, and therefore the sequence within curriculum design (Glatthorn et al., 2019). In essence, initial teacher preparation program faculty and staff would determine the logical progression of content and skills based on the curriculum's scope, and therefore the standards. While programs have the flexibility to adjust the sequence and expand the scope of their program-specific curricula, the accrediting body standards serve as a consistent foundation and guide for how teacher collaboration should be represented within program curricula. Therefore, if programs want to effectively prepare future general and special educators to collaborate with one another, then programs need to understand how teacher collaboration is represented within their guiding standards and how those standards might influence their curricular and instructional design choices.

Summary of Related Literature

The current P-12 education system has adapted to changes in federal legislation and policies, the accountability movement, and an increasingly diverse population of P-12 students, and one of these adaptations has been the move from a binary system where special and general education teachers serve their distinct student populations in isolation to a more inclusive system where teachers collaboratively serve and meet the needs of all students. Extant literature suggests that while effective teacher collaboration supports student achievement and teacher practices, many educators still feel underprepared and insufficient at engaging collaboratively with their colleagues. Inconsistencies in the enacted curricula of initial teacher preparation programs suggest that we need a deeper understanding of how to prepare teachers to collaborate with one another. This study addresses this gap by examining the current standards that undergird initial

teacher preparation programs' curricula with the goal of supporting P-12 teacher collaboration in effectively serving students with diverse needs.

CHAPTER 3: METHODS

An underlying assumption of this study was that the accreditation standards of initial teacher preparation programs form the foundation of those programs' curricula. While initial teacher preparation programs may supplement the standards, those standards generally serve as a consistent set of intended learning outcomes across programs. As the Council for the Accreditation of Educator Preparation (CAEP) and Council for Exceptional Children (CEC) standards had recently been updated, there was a need to better understand the new sets of standards being utilized within initial teacher preparation programs so that programs can determine how best to apply the standards within their local curricula. To assist with this, the purpose of this study was to explore how the standards undergirding initial teacher preparation programs describe and represent teacher collaboration between general and special educators.

In order to better understand the multiple perspectives and approaches to teacher collaboration within and across these sets of standards, I explored the CAEP, InTASC, and CEC standards using content analysis, "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2018, p. 24). Essentially, the goal of content analysis within this study was to better understand the meaning of the standards themselves by interpreting what the standards said, who wrote them, and for whom (Huckin, 2003; Lasswell, 1946; Titscher et al., 2012). As such, manifestations of these standards were collected and analyzed. Following Weber's (1984) framework, analysis centered on the learning objectives themselves. In doing so, I employed both quantitative and qualitative content analysis procedures, as well as deductive and inductive

approaches to interpreting the teacher collaboration-related learning objectives and supporting text. Therefore, I combined both basic and interpretive content analysis approaches for this study. This combined set of methods is supported by Drisko and Maschi (2015), who described the blurred lines between these approaches. The distinct methods used for this study are outlined in Table 4 and described below in greater detail; these combined approaches provided for a richer, deeper analysis of how initial teacher preparation program standards reflect teacher collaboration.

Table 4

Alignment Between Research Questions and Methods

Research Questions	Data Collection	Data Analysis
1. How do the CAEP, InTASC, and CEC standards describe and represent teacher collaboration between general and special educators? a. To what degree do the standards address teacher collaboration? b. How is teacher collaboration explicitly and implicitly represented within the standards?	Artifacts – Standard Sets: • CAEP Initial Level Standards • InTASC Model Core Teaching Standards • CEC Initial Practice-Based Professional Preparation Standards for Special Educators	Identification of standards addressing teacher collaboration Creation and analysis of a concordance from the identified standards Deductive coding of identified standards using dictionary based on Woodland et al.'s teacher collaboration process Inductive (descriptive and pattern) coding of identified standards
2. How do the key guidance documents for the CAEP, InTASC, and CEC standards describe and represent teacher collaboration between general and special educators? a. To what degree do the guidance documents address teacher collaboration? b. How is teacher collaboration explicitly and implicitly represented within the guidance documents?	Artifacts – Guidance Documents: • *CAEP Revised 2022 Standards Workbook* • *InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0* • *Practice-Based Standards for the Preparation of Special Educators*	Identification of guidance document text addressing teacher collaboration Creation and analysis of a concordance from the identified paragraphs Deductive coding of identified paragraphs using dictionary based on Woodland et al.'s teacher collaboration process Inductive (descriptive and pattern) coding of identified paragraphs
3. What learning experiences are embedded within the standards and guidance documents that are intended to foster and facilitate candidates' knowledge, skills, and/or dispositions regarding teacher collaboration within initial teacher preparation programs?	Artifacts: • Selected standard sets • Selected guidance documents	Inductive (descriptive and pattern) coding of identified paragraphs Integration of results and findings from the analysis of standards and guidance documents from the first two research questions

Note. CAEP = Council for the Accreditation of Educator Preparation; InTASC = Interstate Teacher Assessment and Support Consortium; CEC = Council for Exceptional Children

Research Paradigm

As I explored the standards driving initial teacher preparation programs, my study was grounded in an interpretivist paradigm. My goal was to "understand, explain, and demystify social reality through the eyes of different participants" (L. Cohen et al., 2007, p. 19), particularly through the eyes of the different professional organizations that develop curricular standards for initial teacher preparation programs. An interpretive framework supported this goal as I believe that multiple realities exist (Mack, 2010) across the different sets of standards in the sense that the standards of each professional organization are contextually bound (Greene, 1990) by their organization's values and goals, as well as their target population. In other words, while many initial teacher preparation programs are accredited using the same sets of professional standards, I anticipated discovering different interpretations and applications of teacher collaboration within the different sets of standards. I was also cognizant that the understandings I gleaned from this study are contextually- and time-bound (Patterson & Williams, 1998) as they are tied to the specific demands of the current teacher preparation system, professional standards, and accreditation expectations.

Further, I acknowledge that the story I told within this study is a limited approximation of reality or the truth (Greene, 1990) about the standards driving initial teacher preparation programs. This approximation is the result of two levels of interpretation being applied to the standards. First, the professional organizations who created the standards are sharing their interpretations of the needs of and expectations for P-12 teachers. Second, as a researcher, I reinterpreted their standards based on my professional experiences and perspectives. In acknowledgment of the impact of my interpretation on the findings of this study, Appendix D is a researcher positionality statement where I reflected on my relationship with the focus of this

study, as well as the perspectives and biases I brought to the study. Although many interpretive content analyses do not feature this formal reflexivity (Drisko & Maschi, 2015), I fundamentally believe that my interpretations, and those of the professional organizations writing and disseminating the standards, are value-bound. In other words, we both give meaning to the standards undergirding initial teacher preparation programs based, not on neutral knowledge, but on knowledge we have constructed based on our values and interests (Greene, 1990). Therefore, the findings of this study represent the interpretations of a select researcher and group of professional organizations.

This study's content analysis design was further supported by an interpretivist paradigm as quantitative and qualitative approaches were designed to come together to form a more balanced understanding of the standards being studied (Huckin, 2003; McChesney & Aldridge, 2019; Roberts, 1989). This single paradigmatic stance differs from a traditional dialectic stance from mixed methods research (e.g., Greene, 2007; Greene & Hall, 2010) in that an interpretivist paradigm undergirds both the quantitative and qualitative data techniques within this content analysis study. I agree with Roberts' (1989) stance that, "the coder must be familiar with both the context in which a statement is made and the cultural universe within which it was intended to have meaning" (p. 164). In the case of my study, the individuals who wrote and approved the standards were interpreting their experiences and perspectives about the need for and interpretation of the standards. Meanwhile, as a researcher, I added a second layer of interpretation to the standards through my own experiences and perspectives across both quantitative and qualitative data. Therefore, this study took a single paradigmatic stance based on an interpretivist paradigm.

Research Strategy

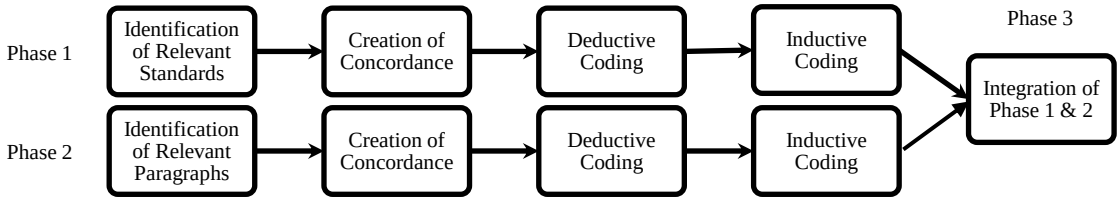
A combination of basic and interpretive content analysis procedures was used to answer this study's research questions, as supported by Drisko and Maschi (2015). This combined approach allowed me to deeply explore how teacher collaboration was represented within the professional standards driving initial teacher preparation programs. My goal was to explore different perspectives of the standards through the analysis of isolated standards during Phase 1 of the study and key guidance documents for each standard set in Phase 2 and then integrating these results and findings in Phase 3 (Drisko & Maschi, 2015). By applying quantitative and qualitative research techniques across multiple data sources, I hoped to develop a deeper understanding of the trends across, differences within and between, and overall complexity of how teacher collaboration was represented within the standards themselves, as well as the guiding documents that support the standards (Creswell, 2011; Disko & Maschi, 2015). Ultimately, by integrating analysis across both the standards and the guidance documents, my goal was to help initial teacher preparation programs interpret how teacher collaboration could and should be integrated into their programs.

To examine the teacher collaboration standards undergirding initial teacher preparation programs' curricula, my study was conducted in three phases (Figure 6). In the first phase, four steps were completed. I (a) identified the CAEP, InTASC, and CEC standards related to teacher collaboration; (b) created and analyzed a concordance to index words and phrases used within and across standard sets; (c) engaged in deductive coding within and across standards using a dictionary; and (d) engaged in inductive coding within and across standards. Then, in the second phase, I repeated this process within the key guidance documents supporting each set of standards to corroborate, illustrate, clarify, and extend the breadth and depth of findings from

Phase 1 (Creswell & Plano Clark, 2018; Morse, 1991). Integration, or the point where Phase 1 and Phase 2 data interact (Creswell & Plano Clark, 2018; Morse, 1991), occurred during Phase 3 of the study. In this final phase, findings from the two complementary phases were integrated to draw conclusions about how the key guidance documents validate and extend the meaning made from analyzing the standards themselves (Bazeley, 2012; Creswell & Plano Clark, 2018). By investigating and analyzing the standards deeply through data generation and analysis of the standards themselves, as well as their guiding documents, I hoped to better understand how initial teacher preparation programs can prepare pre-service teachers to collaborate with colleagues.

Figure 6

Study Design Methods and Phases



Embedded Triangulation

In addition to using integration to help contextualize Phase 1 findings through the analysis of Phase 2 findings, the current research strategy included embedded triangulation techniques within the first two phases. In each case, quantitative and qualitative content analysis procedures were used to analyze the standards and guiding documents through complementary approaches (Creswell & Plano Clark, 2018; Morse, 1991). The triangulation, or interpretation, of data through both basic and interpretive content analysis allowed me to validate and expand upon

the quantitative results through the interpretive findings, resulting in robust, deep meaning making throughout the study (Creswell & Plano Clark, 2018; Drisko & Maschi, 2015).

Data Collection

My goal was to determine how the standards driving initial teacher preparation program curricula depict the role of teacher collaboration. Selecting the text that needed to be analyzed to meet this goal consisted of three steps: selecting the (a) professional organizations who wrote the standards, (b) documents addressing the standards, and (c) subset of document text ultimately analyzed as part of this study (Holsti, 1968; Titscher et al., 2012).

Professional Organizations

As described in Chapter 2, one of the primary organizations regulating initial teacher preparation programs is CAEP. CAEP accredits programs using its own standards, as well as the Council of Chief State School Officers' (CCSSO) InTASC standards. CAEP also uses, but does not require, Specialized Professional Association standards, including the CEC standards that support the development of special education teachers. Together, CAEP, CCSSO, and CEC form three of the primary professional organizations that drive curricula within initial teacher preparation programs, including the curricular standards related to collaboration between general and special education teachers.

Standards Documents

Each of these organizations produces a variety of documents addressing their standards. For example, CAEP (2023b) provides a website, conference and webinar materials, a one-page overview of the standards, a crosswalk between their 2013 and 2022 standards, and the standards workbook. The InTASC standards also have a dedicated webpage, as well as a literature review related to the standards and a digital booklet that introduces and describes the standards while

also presenting a progression of how practices related to the standards evolve over a teacher's career (CCSSO, n.d.). As with the other two professional organizations, CEC (2023a) provides a webpage about the standards, and they supplement this with research explanations of the standards, a paper from the standards workgroup describing the need for and process of developing new standards, a crosswalk between the standards and the organization's identified high-leverage practices, and a book describing the standards and how they can be used within teacher preparation programs. Of these documents, I selected the following three for this study:

- *CAEP Revised 2022 Standards Workbook* (CAEP, 2021),
- *InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0: A Resource for Ongoing Teacher Development* (CCSSO, 2013), and
- *Practice-Based Standards for the Preparation of Special Educators* (Berlinghoff & McLaughlin, 2022).

I selected these three documents as each list the professional organization's standards, as well as describe and contextualize the standards. This contextualization provided me with insights into how the professional organizations interpret the needs of the profession and their standards as I engaged in the analysis process.

The CAEP and InTASC documents are publicly available through the CAEP and CCSSO websites. However, the CEC document is only available in print or as an ebook for purchase. As each of the three documents are a publicly available source, they supported the internal validity of my content analysis by reducing reactivity threats as neither the artifact creators nor intended audiences were necessarily aware that the artifacts were being analyzed nor able to change the artifacts accordingly (Drisko & Maschi, 2015; Weber, 1990).

Unit of Analysis

For my content analysis, the data sample varied between Phases 1 and 2 of the study. In Phase 1, the sample consisted of individual standards and sub-standards addressing collaboration amongst educators from the three documents just described. The selection of these standards represented purposeful sampling as these standards served as a cross-sectional representation of the standards undergirding initial teacher preparation programs at the time of this study (Drisko & Maschi, 2015; Mann, 2003). This approach allowed me to produce information-rich data from select standards that addressed teacher collaboration within the CAEP, InTASC, and CEC standards (Patton, 2015; Tashakkori et al., 2021). Within the three selected standards documents, the unit of analysis was the individual standards and sub-standards that addressed teacher collaboration (see Bengtsson, 2016). For example, the following standards from the CAEP, InTASC, and CEC standard sets were analyzed:

- CAEP (2021) R1.4: "The provider ensures candidates are able to apply their knowledge of professional responsibility at the appropriate progression levels. Evidence provided should demonstrate candidates engage in professional learning, act ethically, take responsibility for student learning and collaborate with others to work effectively with diverse P-12 students and their families" (p. 16).
- InTASC 9I: "Independently and in collaboration with colleagues, the teacher uses a variety of data (e.g., systematic observation, information about learners, research) to evaluate the outcomes of teaching and learning and to adapt planning and practice" (CCSSO, 2013, p. 41).
- CEC 7.3: "Candidates communicate, coordinate, and collaborate with professionals and agencies within the community to identify and access services, resources, and

supports to meet the identified needs of individuals with exceptionalities and their families" (Berlinghoff & McLaughlin, 2022, p. 9).

Essentially, the standard sets served as my sample during Phase 1 of the study, and the individual standards and sub-standards served as data points.

In Phase 2 of the study, the sample consisted of paragraphs that addressed teacher collaboration from the three key guidance documents. As with the selection of individual standards, Phase 2's sample represented purposeful sampling as selected text represented the professional organization's chosen contextualization of their standards at the time of this study (Drisko & Maschi, 2015; Mann, 2003). Examining the standard sets through this larger point of view allowed me to deepen my analysis of how teacher collaboration was represented within the CAEP, InTASC, and CEC standards (Patton, 2015; Tashakkori et al., 2021). Within each of the three key guidance documents, the unit of analysis was individual sentences that addressed teacher collaboration (see Bengtsson, 2016). For example, the following text from the CAEP, InTASC, and CEC guidance documents was analyzed:

- CAEP (2021): "The provider presents evidence that candidates are able to apply their knowledge of…collaboration with learners, families, and colleagues and other school professionals to ensure learner growth" (p. 16).
- InTASC: "When teachers collectively engage in participatory decision-making, designing lessons, using data, and examining student work, they are able to deliver rigorous and relevant instruction for all students and personalize learning for individual students" (CCSSO, 2013, p. 5).
- CEC: "With this in mind, the understanding of a 'disabling condition' is changing over time and, with that change, comes a responsibility for special education

> professionals to collaborate with others on the education of students" (Berlinghoff & McLaughlin, 2022, p. 22).

In essence, the guidance documents served as my sample for Phase 2 of the study, and the individual sentences within relevant paragraphs served as data points.

Through these data collection methods, I hoped to better understand how teacher collaboration was represented within the standards developed and disseminated by three interrelated professional organizations (see Denzin, 2017; Fusch et al., 2018). Each set of standards provided a unique lens through which to view each professional organization's values and perspectives on teacher collaboration, and together, they created an opportunity to compare each standard set (Denzin, 2017). This allowed me to explore how the sets of standards (a) converged to create unified expectations, (b) created inconsistent, or a range, of expectations, or (c) contradicted one another and created differing expectations about collaboration for initial teacher preparation programs (Mathison, 1988).

Data Analysis

I analyzed how teacher collaboration was reflected within the standard sets systematically using basic and interpretive content analysis (Drisko & Maschi, 2015; Huckin, 2003). My data analysis process included three phases, and the first two phases involved the same analysis procedures. These content analysis procedures occurred at the semantics level, so words, phrases, and sentences within the standards and guidance documents were analyzed (Titscher et al., 2012). This analysis level supported my guiding questions as the meaning of the words, phrases, and sentences within the standards and the guidance documents helped me identify who wrote the standards, for whom they were written, what aspects of teacher collaboration were addressed, and to some extent, why teacher collaboration was included in the standards and in what

situations it was included (Titscher et al., 2012). To determine how the CAEP, InTASC, and CEC standards represent teacher collaboration for initial teacher preparation programs, each of the first two phases of this study engaged in four stages of data analysis: the identification of relevant standards and guidance document paragraphs, creation and analysis of a concordance, deductive coding of the identified text, and inductive coding of the identified text. To support this process, I first gained familiarity with the standard sets and guidance documents by reading through them and taking note of initial observations about the language and messaging employed by each set of text before beginning Phase 1 of my data analysis procedures.

Phase 1: Analysis of Standards Related to Teacher Collaboration

Phase 1 began by identifying the CAEP, InTASC, and CEC standards that address teacher collaboration. To assist with this process, I used MaxQDA Plus 2022's MAXDictio, text analysis software designed to support content analysis (VERBI Software, 2023). I created what MAXDictio calls a dictionary, or a category of related words. For this study, I included search items related to collaboration, such as "collaborate" and "teamwork," as well teacher team-specific terms, such as "colleague" and "partner" that emerged from my initial review of the texts (Figure 7). I then ran the MAXDictio Frequency feature to identify the frequency with which words from this dictionary appeared within the standards. This process essentially filtered out standards that do not address teacher collaboration, as well as helped determine the degree to which the standard sets address teacher collaboration. To confirm the validity of this list of relevant standards, I used MAXDictio's Keyword-in-Context feature to create an index of where these teacher collaboration search items occurred within the standards. The resulting table allowed me to view the search item in the context of the words appearing before and after the term to confirm whether the phrase or sentence was referencing teacher collaboration, rather than

collaboration with students, families, or other stakeholders. I then had a list of CAEP, InTASC, and CEC standards related to teacher collaboration that could be analyzed by standard set and across sets.

Figure 7

Search Items Related to Teacher Collaboration

Collaboration-Related Terms
• collaborate, collaborates, collaboratively, collaboration, collaborative • colleagues • professionals • group • share, shared, sharing, shares • jointly • team, teamwork • common • mutual • others • communities • alignment • spheres of influence • work with, working with • partner, partnership

With this list of relevant standards, I then used MAXDictio to run word and word combination frequencies within and across standard sets to create a concordance that identified the keywords and phrases that occurred most often within the standards addressing teacher collaboration. During this process, I used MAXDictio's Stop Lists feature to exclude words from the frequency list that are included on their standard stop list, including "to," "and," and "very." I also used the Lemmatization feature to group words with the same stem, such as "go," "going," and "gone." Together, these two settings helped me create a more targeted concordance of frequently used words and phrases within and across the standards related to teacher

collaboration. I then used the search results feature to create an index of where these frequently used words and word combinations occurred within the standards (Drisko & Maschi, 2015). In this way, the frequency lists demonstrated the proportion or percentage of teacher collaboration content manifested within the standard sets, and the concordance helped me describe the context in which each word or phrase occurred within the standards (Drisko & Maschi, 2015).

Then, deductive coding techniques were used to analyze the identified standards based on Woodland et al.'s (2013) Dialogue, Decision-making, Action, and Evaluation (DDAE) framework. This framework of the teacher collaboration process served as a deductive coding list (Table 5) and supported the content validity of my study by conducting the analysis using codes that were consistent with and representative of established models of teacher collaboration (Drisko & Maschi, 2015). Keywords from the framework were used to create a MAXDictio Dictionary. I then used MAXDictio's Autocode feature to search for items from this dictionary within the identified standards related to teacher collaboration. Standards were coded as to whether they represented dialogue, decision-making, action, and/or evaluation. Drisko and Maschi (2015) shared that "sometimes keywords are expected to be found only in certain contexts, so finding them outside of the expected context may stimulate one's thinking about why such an exception occurs" (p. 51). As such, MAXDictio's Autocode feature allowed me to mitigate analyst bias within the coding process.

Table 5

Deductive Coding Dictionary

A Priori Codes	Description	Search Items
Dialogue	Reflective team conversations that enhance student engagement, learning, and achievement, as well as resolve differences, by critically discussing teaching practices and team disagreements	Reflect, conversation, resolve, difference, critical, discuss, disagree
Decision-making	Making evaluative decisions about the quality and merit of instructional practices based on their effects on student learning to determine what and how to teach	Evaluate, decision, decide, quality, merit, determine
Action	Enacting team decisions to improve teaching practices	Enact, teach, instruct
Evaluation	The systematic collection, analysis, and use of quantitative and qualitative data to determine the effectiveness and future merit and worth of team actions	Collect, analyze, data, effect, worth

Finally, the deductive coding procedures were extended through inductive procedures which used emergent coding to analyze the standards related to teacher collaboration (Drisko & Maschi, 2015). My goal in this step was to interpret these data and their contexts in a way that supported face validity and credibility within this study through thick description, crystallization and triangulation, and multivocality (Drisko & Maschi, 2015; Tracy, 2010). In other words, I (a) described my findings with detail based on concrete evidence, (b) compared and contrasted findings from multiple data sources, and (c) honored the voices of each professional organization and their standards set in addition to making meaning of their collective standards (Tracy, 2010). To develop an emergent code list for this stage of analysis, I employed Saldaña's (2021) descriptive coding and pattern coding methods. As such, I coded the collaboration-related standards by summarizing the words and phrases using nouns or short phrases that described the

key topics within the text (Saldaña, 2021). Tesch (1990) clarified that "it is important that these [nouns or phrases] are identifications of the topic, not abbreviations of the content. The topic is what is talked or written about. The content is the substance of the message" (p. 119). After coding these key topics, I used pattern coding to classify these topics into overarching themes based on patterns among those topics (Saldaña, 2021). Together, descriptive and pattern coding procedures allowed me to better understand how teacher collaboration was embodied within the CAEP, InTASC, and CEC standards as this helped capture aspects of the standards that may not have been denoted by Woodland et al.'s (2013) DDAE model used during the deductive coding process.

These final three steps of creating a concordance, deductive coding, and inductive coding occurred twice as part of my study. First, I engaged in this process for each individual standard set. This allowed me to analyze and describe themes specific to each standard set and its associated professional organization, accounting for the meaning and context of each perspective (Titscher et al., 2012). Then, I repeated this process for the combined sets of standards to help identify how teacher collaboration aligns or differs across the standard sets.

Phase 2: Analysis of Guidance Document Text Related to Teacher Collaboration

After completing the first phase of data analysis, I repeated Phase 1's procedures with a focus on the narratives contextualizing the standards from the key guidance documents that were published by CAEP, CCSSO, and CEC. I started by identifying relevant paragraphs from the guidance documents using the MAXDictio Dictionary created during Phase 1. Then, I used the Frequency and Keyword-in-Context features to confirm the selection of relevant text, resulting in a list of CAEP, InTASC, and CEC paragraphs related to teacher collaboration that could be analyzed by standard set and across sets.

Next, I used MAXDictio to run word and phrase frequencies of the selected text following the same procedures outlined in Phase 1. This was repeated for text specific to each professional organization, as well as text representing all three organizations. The Keyword-in-Context feature was then utilized again to create an index of where these frequently used words and phrases occurred within the guidance document text. Once again, the frequency counts demonstrated the proportion or percentage of teacher collaboration content manifested within the guidance documents, and the concordance helped me describe the context in which each word or phrase occurred within the text (Drisko & Maschi, 2015).

Then, Woodland et al.'s (2013) DDAE framework was used to engage in deductive coding of the identified guidance document text related to teacher collaboration. As with Phase 1, this process included the use of MAXDictio's Dictionary and Autocode features. Relevant text was coded as to whether they represented dialogue, decision-making, action, and/or evaluation.

Lastly, emergent coding was used to inductively analyze the guidance document text related to teacher collaboration (Drisko & Maschi, 2015). As with Phase 1, I employed Saldaña's (2021) descriptive coding and pattern coding procedures to better understand how teacher collaboration was depicted within the CAEP, CCSSO, and CEC guidance documents that support their respective standard sets as this helped capture aspects of the standards that may not have been denoted by Woodland et al.'s (2013) DDAE model during the deductive coding process.

Phase 3: Integration of Phase 1 and Phase 2 Findings

As a final level of data analysis within my study, I engaged in data integration, the process of interpreting and explaining findings from both phases of my study in a way that results in conclusions that are greater than the sum of findings from my individual study phases

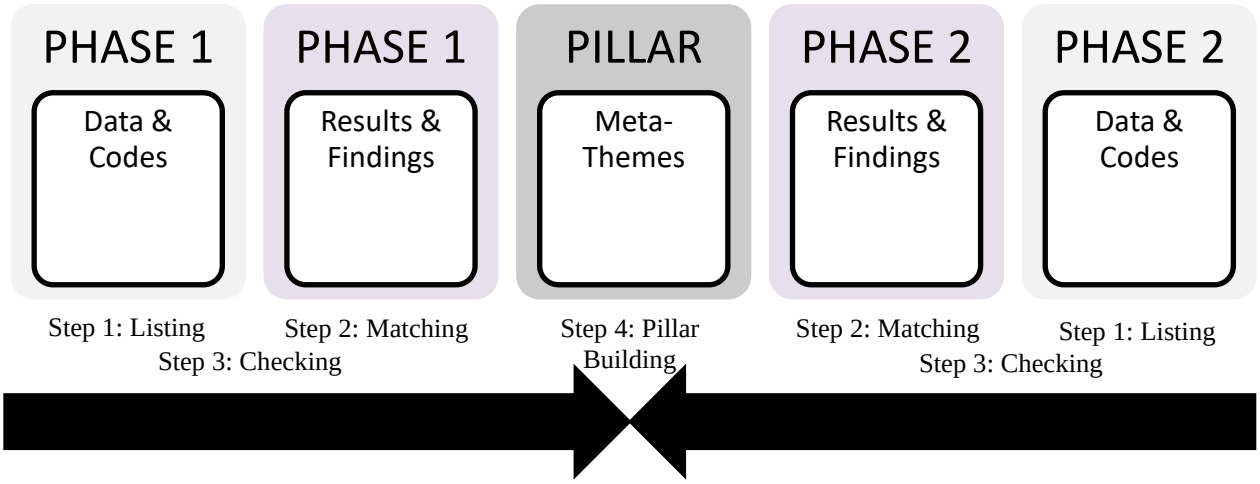
(Bazeley, 2010; R. E. Johnson et al., 2019; Tashakkori et al., 2021). Based on the combination of basic and interpretive content analysis techniques within my study, my goal for the integration process was to interpret how my findings from key guidance documents in Phase 2 helped validate and expand my findings from the CAEP, InTASC, and CEC standards in Phase 1 by analyzing, combining, visually representing, and interpreting my findings (Creswell & Plano Clark, 2018). To do this, I implemented R. E. Johnson et al.'s (2019) Pillar Integration Process.

The Pillar Integration Process is a systematic, four-step process for integrating findings from multiple methods that results in a joint display format, a visual representation of the integration process and findings (R. E. Johnson et al., 2019). I selected this peer-reviewed technique based on its ease of use and its potential for supporting the synthesis of results and findings across multiple data analysis procedures. The four steps in this process are visually represented in Figure 8. First, I comprehensively listed the analyzed quantitative data and coded qualitative data from Phase 1 of my study in the far-left column and listed the respective data from Phase 2 of my study in the far-right column. Second, I cluster analyzed data from the outer columns by aligning and organizing them based on similarities into findings within the inner columns. For data or codes with no match, I categorized them as *not categorized*, and these data and codes became findings in and of themselves and indicated possible areas in need for further exploration. Third, I checked the quality of my findings by cross-checking all the data and codes within the outer columns to confirm appropriate horizontal alignment between data and findings. Finally, I built a center column by making meaning of the identified categories, including findings within the not categorized category, through inferences, or meta-themes, about the connections and lack of connections across the Phase 1 and Phase 2 findings. In effect, this four-step process resulted in emergent explanations of patterns and inconsistencies about how the

standards driving initial teacher preparation programs represent and support teacher collaboration. These patterns helped me understand trends across standard sets while inconsistencies helped me understand the unique perspectives and stances of the professional organizations developing and disseminating the standards.

Figure 8

Visual Representation of the Pillar Integration Process



Note. Adapted from "Pillar Integration Process: A Joint Display Technique to Integrate Data in Mixed Methods Research," by R. E. Johnson, A. L. Grove, and A. Clarke, 2019, *Journal of Mixed Methods Research, 13*(3), p. 305 (https://doi.org/10.1177%2F1558689817743108). Copyright 2017 by the authors.

Quality Criteria

For this study, I employed Krippendorff's (2018) quality criteria for content analysis. They posited that reliability in content analysis is interpretivist in nature and demonstrates the trustworthiness of the data through three types of reliability: stability, reproducibility, and accuracy. Further, they went on to suggest that validity is the degree to which the inferences

made from content analysis are considered to be true and is achieved through three types of validity: face validity, social validity, and empirical validity.

Reliability

Krippendorff (2004) defined reliability in content analysis as "the degree to which members of a designated community agree on the readings, interpretations, responses to, or uses of given texts or data" (p. 212). To this end, my goal was to ensure that my data and findings can be trusted and replicated. The first step in achieving this was to support the *stability* of my methods and findings. To support this process, I engaged in a pilot of my data analysis procedures (Appendix E). From that process, I made minor adjustments to my methods to strengthen their reliability, such as changing the text analysis software being used and re-identifying relevant standards for analysis. I also evaluated similarities and differences in the findings of my pilot study and this full study to evaluate intra-coder agreement.

Unlike stability, I was restricted on how well I could measure this study's *reproducibility*, or how well my methods can be replicated. As the current study was conducted by a single researcher, I was unable to engage in inter-coder agreement assessments (see Titscher et al., 2012). However, I strove to record my methods with appropriate detail so that this study can be consistently replicated by other researchers. Further, I supported reproducibility by presenting my codes for feedback to two curricular experts (Table 6), one with a focus on general education curriculum and one with a focus on special education curriculum. This process supported triangulation across the analyst's and experts' interpretations of the standards. To this end, feedback from these experts was used to qualitatively evaluate the relationship between coder analysis and expert agreement. While no quantitative reliability data are available using this

method, these post-coding reconciliation procedures support the study's overall reliability (Krippendorff, 2004).

Table 6

Demographics of Curricular Experts

Expert	Curricular Focus	Degree
1	General education	Ed.D., Curriculum & Instruction
2	Special education	Ph.D., Special Education and Teaching

In addition to stability and reproducibility, this study addressed *accuracy*: "the degree to which a process conforms to its specifications and yields what it is designed to yield" (Krippendorff, 2004, p. 215). In this study, two standards were applied that allowed me to observe whether the study accurately engaged in the content analysis process and yielded results that answer the research questions. First, Drisko and Maschi's (2015) procedures for basic and interpretive content analysis served as the primary basis of this study's data collection and analysis processes and are supported by other researchers (see Gaur & Kumar, 2017; Selvi, 2019). Second, the data analysis process included priori codes from an established framework for teacher collaboration: Woodland et al.'s (2013) DDAE model. Together, these procedures, as well as those supporting stability and reproducibility, support the trustworthiness and reliability of this study.

Validity

While Krippendorff's (2004) definition of reliability within content analysis is straightforward, their model of validity is more complex and ambiguous. They defined content analysis validity as the degree to which inferences "withstand the test of independently available

evidence, of new observations, of competing theories or interpretations, or of being able to inform successful actions" (p. 313). Furthermore, they emphasized that content analysis validity is directly tied to the context of the text being analyzed and the sensitivity of that context within the study. Their first element of content validity was *face validity*, the acceptance of the findings as plausible and believable. To support face validity, I presented the findings of this study's pilot at a national teacher education conference (see Smucker, 2022). In that setting, I received positive feedback from fellow educators about my preliminary findings and their accuracy in relation to the conference participants' experiences in teacher education programs. Additionally, I presented my interpretations of the current study's findings to the curricular experts reviewing and providing feedback on my codes. These experts' acceptance of the study's findings supported the study's overall validity.

In addition to face validity, I also addressed *social validity*: the contribution of the content analysis findings in addressing social concerns, engaging in practical meaning-making, and providing relevance beyond academia. This study was designed to do this in two ways. First, it addressed the evolving expectations for general and special education teachers to collaborate together to support P-12 students' diverse needs by investigating the new CAEP and CEC standards. Second, this study provided initial teacher preparation programs and their faculty and staff with insights into the updated standards that are now expected to be embedded in the curricula of their programs as part of the accreditation process.

As a third element of content analysis validity, Krippendorff's (2004) *empirical validity* ensures that the research process and findings are supported by established evidence and theories. The current study was designed to do this in multiple ways. First, purposeful sampling procedures were used to ensure that the three sets of standards examined as part of this study

accurately represented the standards ungirding the curricula of initial teacher preparation programs. Second, the dictionary used in the first two phases of data analysis clearly described the meaning of the four categories used to code the standards within this study, and MAXDictio software was used to support valid application of that dictionary within the coding process. Third, and relatedly, the dictionary was based on an established and respected model of teacher collaboration: Woodland et al.'s (2013) DDAE model. Together, these practices, along with those supporting face and social validity, were meant to result in this study's findings withstanding current and new research while accurately informing practices within initial teacher preparation programs.

Delimitations and Limitations

Conclusions drawn from my study were restricted in three key ways. First, this study investigated a limited approximation of full curricula within initial teacher preparation programs. Second, the context of this study was specific to initial teacher preparation programs that use the three sets of standards being examined. Finally, the interpretation of the standards was limited to a single researcher.

The focus of this study was on analyzing the current standards driving curricula within initial teacher preparation programs. It did not address the full curriculum as programs are free to supplement these standards. Therefore, conclusions could be drawn about what the curriculum looks like within individual initial teacher preparation programs. Further, the current study did not address the impact of program curricula on future teachers or P-12 students. Essentially, this study was unable to make any conclusions about the effect of the curricula within or beyond initial teacher preparation programs (Lasswell, 1946; Titscher et al., 2012). Ultimately, this study should be viewed as an empirical foundation for future studies in that it might identify themes or

problems within the curriculum that need further exploration but cannot be answered within the scope of the current study (Huckin, 2003).

The scope of this study was also bound by two further delimitations. First, Jewitt (2009) and Serafini and Reid (2023) recommended conducting multimodal content analyses that account for how text is disseminated and experienced. Yet, I specifically examined the text of the standards and a single related guidance document, rather than the full set of resources supporting the standards that initial teacher preparation programs might use to interpret and use the standards. This decision was made because the standards are used in a variety of ways by diverse individuals and programs, with and without the context of the supplemental resources. Therefore, I examined the standards in relative isolation as a means of capturing their potential as a standalone text. Further, the standards selected for the current content analysis only represent the standards used within initial teacher preparation programs seeking accreditation through CAEP and/or CEC. Although many programs use the CAEP, InTASC, and CEC standards, transferability cannot be assumed. Ultimately, readers should consider their own contexts regarding this study, and further research is needed to examine these standards within the context of their supporting resources and within other program structures.

As a third consideration, this study represented limited perspectives of researchers, as well as professional organization and teacher preparation program stakeholders. Analysis and interpretation within this study was conducted by a single researcher. This limited reliability as multiple perspectives and inter-coder agreement could not be established. Further, this study did not include the perspectives of the individuals or organizations who wrote and published the standards nor the faculty, students, or former students who experience these standards are part of their program learning experiences or accreditation processes. Huckin's (2003) supported the

idea that coding is subjective, so the delimitations of this study affect the reproducibility, reliability, and face validity of the findings as this study did not account for multiple perspectives. Therefore, additional research is needed to account for these perspectives.

Summary of Methods

The purpose of this study was to determine how the CAEP, InTASC, and CEC standards describe and represent the role of teacher collaboration for initial teacher preparation programs. To achieve this, I used basic and interpretive content analysis to explore how collaboration among educators was distributed within and across the standards, as well as analyzed how teacher collaboration expectations aligned or differed within and across the standards. By closely examining the text of the standards and their key guidance documents, my hope was to better understand the beliefs about and needed practices for teacher collaboration as expressed by the professional organizations that accredit and support initial teacher preparation programs (Huckin, 2003; S. Thomas, 1994).

To analyze the standards that are foundational to initial teacher preparation programs, I selected standards and supporting text that addressed collaboration between teachers from the *CAEP Revised 2022 Standards Workbook* (CAEP, 2021), *InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0* (CCSSO, 2013), and *Practice-Based Standards for the Preparation of Special Educators* (Berlinghoff & McLaughlin, 2022). Data analysis began by identifying relevant standards and text and then creating and analyzing a concordance for each standard set. Then, deductive coding was completed using those indexed texts, as well as Woodland et al.'s (2013) DDAE framework as priori codes. Next, inductive coding of the selected standards and text was conducted using descriptive and pattern coding procedures as a means of identifying emergent codes and themes that were not captured by the

DDAE framework. This process was replicated for each of the three standard sets in isolation and once again using the combined standards of all three sets. Finally, integration of themes across the standards themselves and text from their key guidance documents was conducted to identify how the standards create unified, inconsistent, or contradictory expectations for teacher collaboration within initial teacher preparation programs.

Ultimately, I hoped that the meaning-making of this process would result in a better understanding of the standards undergirding initial teacher preparation programs and that this study might help identify related implications for teacher collaboration within such programs. Overall, I sought to establish an empirical grounding for understandings and further research about teacher collaboration and the standards that support initial teacher preparation programs.

CHAPTER 4: FINDINGS

The purpose of this study was to determine how the Council for the Accreditation of Educator Preparation (CAEP), Interstate Teacher Assessment and Support Consortium (InTASC), and Council for Exceptional Children (CEC) standards embody the role of teacher collaboration within their standards for initial teacher preparation programs. To this end, the following research questions were addressed:

1. How do the CAEP, InTASC, and CEC standards describe and represent teacher collaboration between general and special educators?
    a. To what degree do the standards address teacher collaboration?
    b. How is teacher collaboration explicitly and implicitly represented within the standards?
2. How do the key guidance documents for the CAEP, InTASC, and CEC standards describe and represent teacher collaboration between general and special educators?
    a. To what degree do the guidance documents address teacher collaboration?
    b. How is teacher collaboration explicitly and implicitly represented within the guidance documents?
3. What learning experiences are embedded within the standards and guidance documents that are intended to foster and facilitate candidates' knowledge, skills, and/or dispositions regarding teacher collaboration within initial teacher preparation programs?

Based on these research questions, basic and interpretive content analysis methods were employed to examine how teacher collaboration was distributed within and across the standards, as well as evaluate how teacher collaboration expectations aligned or differed within and across the standards and their supporting guidance documents. The following chapter describes the findings from this analysis process, including the (a) degree to which teacher collaboration was addressed, (b) representation of teacher collaboration, and (c) embedded learning experiences supporting teacher collaboration within the standards and guidance documents.

The Degree to Which Standards Addressed Teacher Collaboration

I employed basic content analysis procedures to determine the degree to which the CAEP, InTASC, and CEC standards and related guidance documents address teacher collaboration. To do so, I used MaxQDA software to identify standards from each standard set and text segments from each key guidance document that address teacher collaboration. This process included the creation of frequency lists based on collaboration-related terms representing collaboration and teacher teams as outlined in Chapter 3, as well as confirmation that the identified text represented teacher collaboration through the creation and review of the context in which each frequently identified word or phrase occurred within the text. Overall, teacher collaboration was addressed within the standards and guidance documents of all three professional organizations. However, it was featured most prominently within the InTASC standards and guidance document.

Frequency of Teacher Collaboration Within the Standards

When isolating the standards of each professional organization, a total of 25 standards and 217 related sub-standards (N = 242) were analyzed. Table 7 illustrates the frequency in which teacher collaboration was present within the overarching standards of each standard set.

Overall, teacher collaboration was referenced within the language of one (14.29%) CAEP standard, seven (70.00%) InTASC standards, and three (37.50%) CEC standards.

Table 7

Frequency of Teacher Collaboration Within the CAEP, InTASC, and CEC Standards

Standards	Standard Count (*n*)	Teacher Collaboration Standard Count	Teacher Collaboration Standard %
CAEP	7	1	14.29%
InTASC	10	7	70.00%
CEC	8	3	37.50%

Note. CAEP = Council for the Accreditation of Educator Preparation; InTASC = Interstate Teacher Assessment and Support Consortium; CEC = Council for Exceptional Children

Further, the following list serves as examples of how teacher collaboration was portrayed within the identified standards of each standard set:

- CAEP (2021) R1.4: "Evidence provided should demonstrate candidates…collaborate with others to work effectively with diverse P-12 students and their families" (p. 16).
- InTASC 1(c): "The teacher collaborates with families, communities, colleagues, and other professionals to promote learner growth and development" (CCSSO, 2013, p. 16).
- CEC 6: "[Candidates] work collaboratively with families and other professionals to conduct behavioral assessments for intervention and program development" (Berlinghoff & McLaughlin, 2022, p. 9).

Across the 242 standards and sub-standards analyzed for this study, teacher collaboration was addressed within the text of each professional organization's text, and teacher collaboration was addressed most consistently throughout the text in the InTASC standards.

Frequency of Teacher Collaboration Within the Key Guidance Documents

In addition to the standards themselves, the key guidance document supporting each standard set was analyzed. Across all three professional organizations, I analyzed a total of 2,623 text segments (i.e., sentences and paragraphs). Table 8 illustrates the frequency in which teacher collaboration was present within the text segments supporting each standard set. Mirroring the standards themselves, teacher collaboration was referenced four times (3.81%) throughout the CAEP guidance document, 124 times (15.64%) within the InTASC document, and 78 times (4.52%) within the CEC document.

Table 8

Frequency of Teacher Collaboration Within the CAEP, InTASC, and CEC Guidance Documents

Guidance Document	Text Segment Count (*n*)	Teacher Collaboration Text Segment Count	Teacher Collaboration Text Segment %
CAEP	105	4	3.81%
InTASC	793	124	15.64%
CEC	1725	78	4.52%

Note. CAEP = Council for the Accreditation of Educator Preparation; InTASC = Interstate Teacher Assessment and Support Consortium; CEC = Council for Exceptional Children

To supplement these frequency counts, the following list serves as examples of how teacher collaboration was portrayed within the identified text segments of each key guidance document:

- CAEP (2021): "The provider presents evidence that candidates are able to apply their knowledge of…collaboration with learners, families, and colleagues and other school professionals to ensure learner growth" (p. 16).

- InTASC: “The teacher engages in structured individual and group professional learning opportunities to reflect on, identify, and address improvement needs and to enable him/her to provide all learners with engaging curriculum and learning experiences” (CCSSO, 2013, p. 42).
- CEC: “While special education professionals are tasked with meeting the needs of diverse learners, they are not the only ones who are inherently responsible for their learning, and through the use of universally designed curriculum and specially designed instruction, teachers and other professionals should work together toward meeting the needs of all learners in a school building” (Berlinghoff & McLaughlin, 2022, p. 22).

Altogether, references to teacher collaboration were found across 11 CAEP, InTASC, and CEC standards in total and 206 collective text segments from the corresponding guidance documents. In essence, this indicated that teacher collaboration was addressed by all three professional organizations. However, it was featured most prominently within both the InTASC standards and guidance document, indicating inconsistent prioritization of this teacher responsibility across the professional organizations’ documents.

Representation of Teacher Collaboration Within the Standards and Guidance Documents

I also explored how teacher collaboration was explicitly and implicitly represented within the standards and guidance documents. Focusing on the 11 standards and 206 text segments addressing teacher collaboration, I used MaxQDA software to run word and word combination frequencies within and across the standard sets and key guidance documents. This resulted in frequency lists representing the prominent content within the identified text, as well as a concordance describing the context in which each frequently identified word or phrase occurred

within the text. From this analysis, four key findings emerged. First, teachers, their collaborative partners, and students were identified as key stakeholders within the teacher collaboration process. Second, continual growth for students, educators, and the profession was a shared purpose across the standards' professional organizations. Third, there were notable inconsistencies within and between the standards documents of each professional organization. Finally, I found that the Dialogue, Decision-making, Action, and Evaluation (DDAE) framework of teacher collaboration aligned with the InTASC and CEC standards and guidance documents.

Collaborative Partners and Their Shared Students as Key Stakeholders

Selected standards and guidance document text were initially analyzed using basic content analysis, including analysis of the frequency counts and word combinations just described, to identify key stakeholders related to teacher collaboration. Table 9 presents the stakeholder terms most frequently used by each professional organization, as well as the frequency in which each term was present within the text. Based on the 10 most repeated words and phrases within each standard set and guidance document, the primary teacher of focus within each standard was typically referred to as the *teacher* or *candidate*, their collaborative partner was most often referred to as *colleague* or other *professional*, and their shared students were referred to as *learners* or *students*.

Table 9

Frequency of Stakeholder Terms Within the Standards and Guidance Documents

Stakeholder	Standards			Guidance Documents		
Category	Term	*f*	%	Term	*f*	%
Primary Teacher						
CAEP	-	-	-	Candidate	4	7.84%
InTASC	Teacher	30	8.20%	Teacher	75	3.40%
CEC	Candidate	6	5.26%	Candidate	49	2.45%
Collaborative Partner						
CAEP	-	-	-	Professional	3	5.88%
InTASC	Colleague	12	3.29%	Colleague	121	5.48%
CEC	Professional	3	2.63%	Professional	77	3.84%
Shared Students						
CAEP	-	-	-	-	-	-
InTASC	Learner	14	3.83%	Learner	87	3.94%
CEC	Student	4	3.51%	Student	54	2.70%

Note. CAEP = Council for the Accreditation of Educator Preparation; InTASC = Interstate Teacher Assessment and Support Consortium; CEC = Council for Exceptional Children

Inconsistent Terms for the Primary Teacher. There was consistency of commonly used terms between the standards and guidance documents of each professional organization. However, the Council of Chief State School Officers (CCSSO) used different terms within the InTASC standards than CAEP and CEC used for their standards sets. Specifically, the CAEP and CEC text frequency referred to the primary educator as "candidate." Yet, the InTASC text mostly referred to the primary educator as "teacher." These differences could be attributed to the CAEP and CEC's stated purposes within their guidance documents of specifically serving educator preparation programs. For example, the *CAEP Revised 2022 Standards Workbook* states that its standards and workbook support educator preparation programs as they navigate the accreditation process across diverse program contexts (CAEP, 2021). Meanwhile, the CEC's *Practice-Based Standards for the Preparation of Special Educators* guidance document states,

> the standards are intended for use by multiple audiences, and they are particularly relevant to the work of the following groups: (a) policymakers and agencies that accredit, approve, or recognize special educator preparation programs; (b) faculty and administrators who design, deliver, and evaluate educator preparation programs (EPPs); (c) agencies and organizations that promulgate and implement regulations governing licensing/credentialing of special educators; (d) EPP applicants and students who are reviewing program and candidate requirements; and (e) school administrators who hire and support special educators. (Berlinghoff & McLaughlin, 2022, p. 2)

Although the CAEP and CEC documents may use the term "candidate" due to their focus on education preparation programs, the *InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0* document uses the term *teacher* and clarifies that their text was written to be inclusive of "the increasing complexity and sophistication of teaching practice across a continuum of development" (CCSSO, 2013, p. 3). The InTASC text was certainly written to support pre-service teachers like the CAEP and CEC texts, but the difference in language may be attributed to a larger scope in intended audiences and contexts for application.

Inconsistent Terms for Shared Students. Like the educators targeted by the CAEP, InTASC, and CEC standards and guidance documents, their shared students were referred to by different names by each professional organization. As Table 9 indicated, the InTASC text regularly used the term *learner* to refer to shared students while the CEC text most commonly used the term *student*. Ultimately, both the CEC standards and guidance document alternated between using the term *student* and *learner*, but the InTASC standards and guidance documents more consistently used the term "learner." The *InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0* document specified that one of the key themes within

the current standards was “Personalized Learning for Diverse Learners” and went on to say that “the core teaching standards give learners a more active role in determining what they learn, how they learn it, and how they can demonstrate their learning” (CCSSO, 2013, p. 4). If the term *learner* is interpreted as more active than *student,* then this word choice could be a deliberate underpinning for their stated goal of addressing personalized learning.

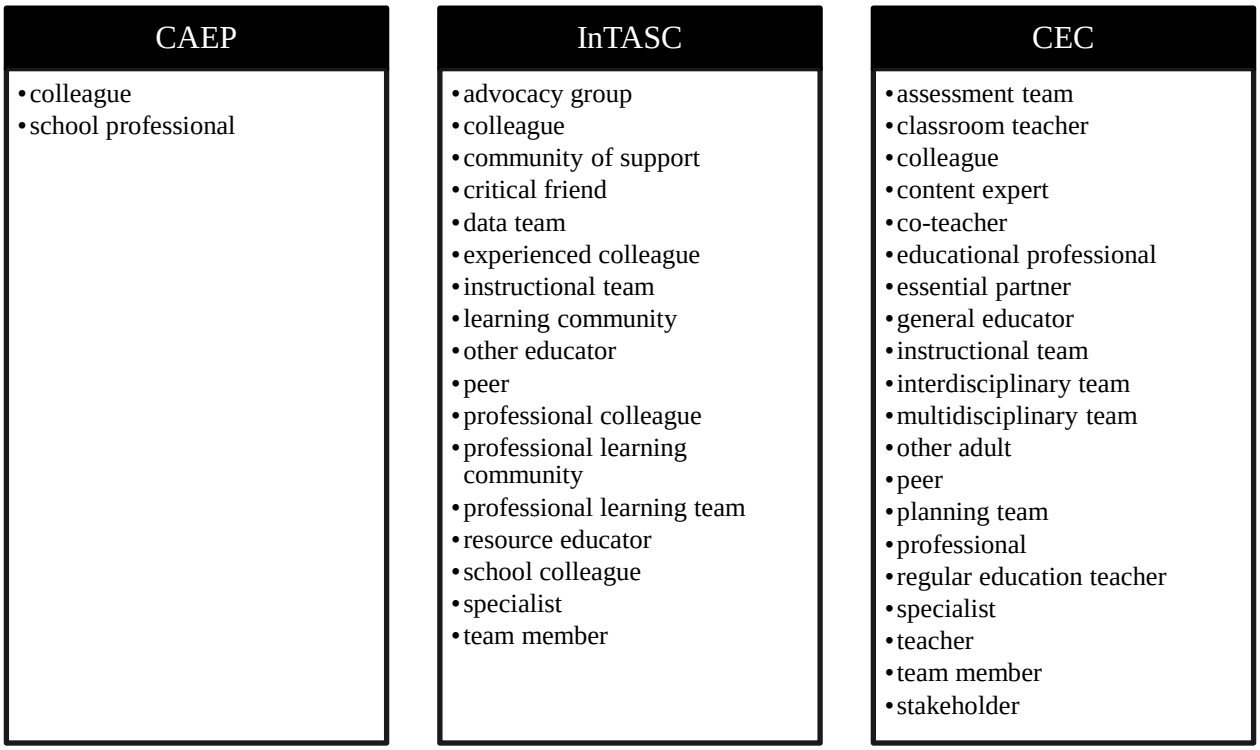
Meanwhile, the CEC’s prominent use of the term “students” may reflect a common way to refer to their target student population: students with disabilities. In fact, the CEC standards and guidance document used phrases like “students with disabilities” (*n* = 38), “students with [and without] exceptionalities” (*n* = 29), and “students with exceptional [learning] needs” (*n* = 6) throughout. Contrary to CEC’s focus on a specific manifestation of diverse needs, the CAEP standards and guidance document made more general references to diverse students, such as asking “how does the EPP know candidates are prepared to teach diverse learners under the different situations they may encounter on the job” (CAEP, 2021, p. 10). The CAEP texts made no specific references to disability or exceptionality, but their references to teacher collaboration could be interpreted as inclusive of these student populations and respective teaching specialties by their broad expectations for teachers to meet the diverse needs of all students. Meanwhile, the InTASC standards and guidance documents shared a broad focus on diverse learners as described above while explicitly calling for all educators to develop essential knowledge related to students with disabilities: “the teacher understands students with exceptional needs, including those associated with disabilities and giftedness, and knows how to use strategies and resources to address these needs” (CCSSO, 2013, p. 17). Regardless of whether their published text used *learner* versus *student* or focused more broadly on student diversity versus specifically students

with disabilities, each of the three professional organizations represented within this study supported the idea that all educators need to be prepared to serve all students.

An Array of Collaborative Partnerships Represented Across the Text. After teachers, collaborative partners, and students were identified as key stakeholders related to teacher collaboration, interpretive content analysis was conducted for each set of standards and guidance document. This process used Saldaña's (2021) descriptive and pattern coding methods, including listing the words and phrases that described collaborative partnerships within the text and then classifying these terms into overarching themes. Ultimately, I found that 31 unique terms were used across the standards and guidance documents to identify the partners engaging in collaborative teacher relationships (Table 8). Among these terms, five were repeated across two or more professional organizations, including the terms *colleague*, *instructional team*, *peer*, *specialist*, and *team member*. Further, two categorizations of partnerships emerged through the pattern coding process: collaborations formed through dyadic vs group partnerships and collaborations between undefined vs specific partners.

Figure 9

Terms Describing Collaborative Partners Within the Standards and Guidance Documents



Note. CAEP = Council for the Accreditation of Educator Preparation; InTASC = Interstate Teacher Assessment and Support Consortium; CEC = Council for Exceptional Children

Collaborations Formed Through Dyadic Versus Group Partnerships. The coding process revealed that some collaborative partnerships were formed through teams of two educators, called dyadic partnerships for the purposes of this study, while other partnerships were formed through teams of three or more educators, called group partnerships in this study. While most CAEP, InTASC, and CEC text used terms that indicated dyadic relationships, like *critical friend* and *co-teacher*, the InTASC and CEC documents also included notable exceptions that represented group partnerships. For example, the InTASC text referenced advocacy groups, communities of support, data teams, instructional teams, learning communities, professional

learning communities, and professional learning teams (CCSSO, 2013). Additionally, the CEC text emphasized the use of assessment, instructional, interdisciplinary, multidisciplinary, and planning teams (Berlinghoff & McLaughlin, 2022). Strikingly, the word *team* was used 244 times within the CEC's guidance document, compared to 17 times in the InTASC document (CCSSO, 2013), and not at all in the CAEP (2021) document. This indicates that while this study focused on teacher collaboration between general and special education, this collaboration does not occur within a vacuum: dyadic collaboration takes many forms, and one of those variations is being nested within and collaborating with various larger teams.

Collaborations Between Undefined Versus Specific Partners. Another notable pattern among the terms identified in Figure 9 that described collaborative partnerships across the CAEP, InTASC, and CEC text was the degree to which the term specified the partner within the relationship. For example, a *colleague* could be any number of individuals, and *data teams* could consist of many educators from across a school system. This study found these partnerships terms to be relatively undefined and broad enough to be applied to multiple collaborative relationships. However, the CEC texts specifically referenced general education teachers through terms like *classroom teacher*, *general education*, and *regular education teacher* (Berlinghoff & McLaughlin, 2022), and the InTASC text referenced special education teachers through terms like *resource teacher* and *specialist* (CCSSO, 2013). Additional terms were used by each professional organization to reference specific partners that support quality teacher collaboration. For example, the InTASC guidance document suggested collaborating with more experienced colleagues "to adapt materials and resources for specific learner needs and make further adaptations" (CCSSO, 2013, p. 26). Further, the CEC guidance document suggested that collaborating with content experts allows teachers to "analyze professional and curriculum

standards and design appropriate, culturally responsive learning and performance accommodations and modifications for students" (Berlinghoff & McLaughlin, 2022, p. 56). Regardless of whether the general or special educator is seen as the experienced teacher or content expert in any given interaction, these specific roles support teacher collaboration between these parties.

In conclusion, this study confirmed that these three professional organizations have a shared understanding of the key stakeholders related to teacher collaboration, specifically the primary teacher, their collaborative partner, and their shared students. It was evident that terminology varied across organizations, reflecting their distinct purposes and intended audiences. For example, the inconsistency in terms used to refer to primary educators and shared students underscored the diverse contexts within which these standards are applied. Further, the delineation between dyadic and group partnerships, as well as the specification of partners within collaborative relationships, highlighted the complexity of teacher collaboration. Ultimately, these findings underscore the need for flexibility and adaptability in addressing students' diverse needs through collaborative practices.

A Shared Purpose of Continual Growth

In addition to identifying the key stakeholders related to teacher collaboration, the basic and interpretive content analysis process identified a shared purpose for teacher collaboration across all three professional organizations. As a reminder, this process included word and word combination frequencies and corresponding concordance development, as well as Saldaña's (2021) descriptive and pattern coding methods by listing the words and phrases that described collaboration within the text and then classifying these terms into overarching themes. The standards and guidance documents consistently exemplified the overarching purpose of teacher

collaboration as continual growth. This growth was defined both in terms of educators and learners and included subthemes of student learning, teacher development, and advancing the profession.

Student Learning. Frequency counts indicated that *student learning* was featured 20 times (4.10%) across the three sets of standards and 93 times (2.18%) across the three guidance documents. Within the standards themselves, most of these datapoints (95%) came from InTASC standards. Within the guidance documents, 74% of the documented instances of student learning were from the InTASC text, but there was also substantial representation (25%) within the CEC text.

Additionally, themes related to learner development, improved student learning, and learner growth emerged from the interpretive content analysis process. For example, the following InTASC sub-standard works toward building critical dispositions related to teacher collaboration and student learning: "the teacher values the input and contributions of families, colleagues, and other professionals in understanding and supporting each learner's development" (CCSSO, 2013, p. 16). Additionally, the CAEP guidance document expects teacher education programs to assess candidates' skills related to this disposition in the following way: "the provider presents evidence that candidates are able to apply their knowledge of…collaboration with learners, families, and colleagues and other school professionals to ensure learner growth" (p. 16). Together, the CAEP, InTASC, and CEC standards and guidance documents suggest that teacher collaboration supports continual growth in student learning through a collective responsibility for student success.

Teacher Development. Frequency counts found that *collegial support* was featured 62 times (1.46%) across the three guidance documents, while the development of teacher "skills"

was featured 22 times (1.03%), and *professional learning* was featured 21 times (0.88%). As with student learning, teacher development was present most prominently within the InTASC guidance documents, including 66% of the documented instances of collegial support. However, professional learning was prominent within both the InTASC and CEC guidance documents, with 67% of the datapoints from the InTASC text and 29% of the datapoints from the CEC text.

Further, interpretive content analysis revealed themes related to professional learning, effective teaching, and building educator capacity within the standards and guidance documents. As an illustration of this, the InTASC guidance document is based on a key theme of collaborative cultures, including requiring teachers to "participate in ongoing, embedded professional learning where [they] engage in collective inquiry to improve practice" (CCSSO, 2013, p. 5). Similarly, the CEC guidance document suggests that "candidates participate in professional learning communities and document how this participation enhances student learning" (Berlinghoff & McLaughlin, 2022, p. 54). These two examples illustrate how teacher collaboration supports continual teacher development and how that growth in educators is connected with the growth and success of students.

Advancing the Profession. Interpretive content analysis unveiled a third element related to continual growth within the InTASC and CEC text that was not found within the CAEP text. Frequency counts did not affirm these findings, except in the case of the InTASC standards where *leadership roles* were referenced three times (1.40%) throughout the text. Analysis suggested that teacher collaboration supports teacher leadership, supportive school cultures, and improved teacher working conditions. Sub-standards within the InTASC text connected collaborative practices to leadership roles: "the teacher seeks appropriate opportunities to model effective practice for colleagues, to lead professional learning activities, and to serve in other

leadership roles" (CCSSO, 2013, p. 45). The CEC guidance document drew a further connection between shared instructional responsibilities for meeting students' needs to collaboration across the school: "the teacher participates in school-wide efforts to implement a shared vision and contributes to a supportive culture" (Berlinghoff & McLaughlin, 2022, p. 47). In isolation from the CAEP standards and guidance documents, the InTASC and CEC text suggested that teacher collaboration also supports continual growth by enhancing the capacity of colleagues to support student growth, thereby advancing the profession.

In conclusion, the CAEP, InTASC, and CEC standards and guidance documents revealed a shared purpose underlying teacher collaboration of continual growth. This overarching theme was found to involve student learning, teacher development, and advancing the profession. The focus on student learning underscored the importance of collaboration in supporting diverse learners and promoting their growth. Similarly, the attention to teacher development highlighted the role of collaborative practices in enhancing educators' skills and fostering effective teaching. Moreover, the recognition of collaboration's role in advancing the profession reflected a broader understanding of its impact on school culture, leadership, and building capacity within the profession. Ultimately, these findings underscore the collective commitment to continual improvement and innovation in teaching and learning practices through collaborative partnerships.

Inconsistencies Within and Between Documents

Despite representing common stakeholders and having a shared purpose for teacher collaboration, data analysis revealed several notable inconsistencies within the standards documents of each professional organization. In addition to the previously described variations in terminology used by the three professional organizations, interpretive content analysis of the

standards' guidance documents shed light on the cohesiveness and inconsistency of teacher collaboration within each professional organization's pair of documents (i.e., standards and guidance document).

CAEP's Dearth of Text Related to Teacher Collaboration. In addition to their published standards, CAEP (2021) published the *CAEP Revised 2022 Standards Workbook* to provide programs with clarity about standard components, describe actions programs need to take to meet the standards during the accreditation process, and list proficiency criteria for each standard. In its introduction, the workbook is described as:

> [reflecting] the style of a workbook in that it provides step by step actions taking a provider from self-study through site evaluation. Our intention is [the workbook] is easier to use than a handbook and offers more examples for possible evidence…Therefore, this workbook provides a process that anticipates many forms of evidence, different assessments, differing approaches to candidate recruitment, and multiple ways to monitor candidate progress and efforts to support them. (CAEP, 2021, p. 5)

The workbook went on to provide lists of (a) key concepts embedded within each standard that must be addressed, (b) guiding questions to be answered, and (c) descriptors and examples of quality evidence to be submitted by teacher education programs in the accreditation process. However, this study's analysis process found the workbook to be lacking in depth and detail. This was largely due to the dearth of content related to teacher collaboration. As a reminder from Tables 7 and 8, only one CAEP standard and four segments of text from the CAEP guidance document were found to address teacher collaboration. Meanwhile, seven InTASC standards and three CEC standards, as well as 124 and 78 segments of text from their respective guidance documents met the criteria for inclusion in this study. The shortage of text related to teacher

collaboration led to disproportionate representation of the CAEP versus InTASC and CEC standards and guidance documents within the findings and discussion of this study. It is important to note, though, that CAEP expects teacher education programs to address the InTASC standards as part of their accreditation process, and the CEC standards are part of their Specialized Professional Association accreditation process. Therefore, it is not necessarily surprising that the CAEP standards and workbook choose to dedicate minimal attention to teacher collaboration if the professional organization values the breadth and depth to which teacher collaboration is addressed by the other two sets of standards.

InTASC's Identification of Collaboration-Related Standards. The InTASC guidance document described creating a collaborative culture as a theme that cuts across their set of teaching standards (CCSSO, 2013). They went on to define teachers' collaborative practices as

> participating actively as a team member in decision-making processes that include building a shared vision and supportive culture, identifying common goals, and monitoring progress toward those goals. It further includes giving and receiving feedback on practice, examining student work, analyzing data from multiple sources, and taking responsibility for each student's learning. (p. 7)

This definition did not explicitly nor implicitly define with whom a teacher collaborates, but the standards and remaining guidance document included other educators, students, student families, and community partners. Meanwhile, the current study specifically examined collaboration between teachers.

The process of analyzing and identifying InTASC standards relevant to teacher collaboration for this study revealed inconsistencies between the standards selected for this study and those identified as integrating collaboration by the "Reference Chart of Key Cross-Cutting

Themes in Updated InTASC Standards" (p. 53) provided in the back of the standards' guidance document. As illustrated in Table 10, when excluding standards related to student, family, and community collaboration, 27 inconsistencies were found between the InTASC standards identified as integrating teacher collaboration through the current study compared to those identified by the InTASC reference chart. Specifically, the InTASC reference chart identified 10 standards related to collaboration that were not identified by this study as neither collaboration nor fellow educators as the collaborative partners were explicit within those standards. Moreover, this study identified nine additional standards that explicitly referenced collaboration in addition to explicitly referencing other educators as the collaborative partners in those interactions, as well as six standards explicitly referencing collaboration but implicitly referencing educators as the collaborative partners. Further, two standards were listed in the InTASC reference chart as integrating collaboration that did not exist within the full list of published standards.

Table 10

Inconsistencies in InTASC Standards Identified as Integrating Collaboration

InTASC Standard	Identified by InTASC Reference Chart	Identified Through Current Study	Collaboration		Teacher Collaboration	
			Explicit	Implicit	Explicit	Implicit
2(f) The teacher accesses resources, supports, and specialized assistance and services to meet particular learning differences or needs		X	X		X	
3(d) The teacher manages the learning environment to actively and equitably engage learners by organizing, allocating, and coordinating the resources of time, space, and learners' attention.	X			X		X
3(c) The teacher collaborates with learners and colleagues to develop shared values and expectations for respectful interactions, rigorous academic discussions, and individual and group responsibility for quality work.		X	X			X
3(q) The teacher seeks to foster respectful communication among all members of the learning community.		X	X			X
5(p) The teacher knows where and how to access resources to build global awareness and understanding, and how to integrate them into the curriculum.	X			X		X
5(u) [no such sub-standard was published in the set of standards]	X		-	-	-	-
5(v) [no such sub-standard was published in the set of standards]	X		-	-	-	-
6(b) The teacher designs assessments that match learning objectives with assessment methods and minimizes sources of bias that can distort assessment results.	X			X		X
6(c) The teacher works independently and collaboratively to examine test and other performance data to understand each learner's progress and to guide planning.		X	X			X
7(l) The teacher knows when and how to adjust plans based on assessment information and learner responses.	X			X		X
7(e) The teacher plans collaboratively with professionals who have specialized expertise (e.g., special educators, related service providers, language learning specialists, librarians, media specialists) to design and jointly deliver as appropriate effective learning experiences to meet unique learning needs.		X	X		X	
7(m) The teacher knows when and how to access resources and collaborate with others to support student learning (e.g., special educators, related service providers, language learner specialists, librarians, media specialists, community organizations).		X	X		X	
7(o) The teacher values planning as a collegial activity that takes into consideration the input of learners, colleagues, families, and the larger community.		X	X		X	
8(s) The teacher values flexibility and reciprocity in the teaching process as necessary for adapting instruction to learner responses, ideas, and needs.	X			X		X

InTASC Standard	Identified by InTASC Reference Chart	Identified Through Current Study	Collaboration		Teacher Collaboration	
			Explicit	Implicit	Explicit	Implicit
9(a) The teacher engages in ongoing learning opportunities to develop knowledge and skills in order to provide all learners with engaging curriculum and learning experiences based on local and state standards.	X			X		X
9(b) The teacher engages in meaningful and appropriate professional learning experiences aligned with his/her own needs and the needs of the learners, school, and system	X			X		X
9(d) The teacher actively seeks professional, community, and technological resources, within and outside the school, as supports for analysis, reflection, and problem-solving.		X	X		X	
9(e) The teacher reflects on his/her personal biases and accesses resources to deepen his/her own understanding of cultural, ethnic, gender, and learning differences to build stronger relationships and create more relevant learning experiences.	X			X		X
9(l) The teacher takes responsibility for student learning and uses ongoing analysis and reflection to improve planning and practice.	X			X		X
10(h) The teacher uses and generates meaningful research on education issues and policies.	X			X		X
10(e) Working with school colleagues, the teacher builds ongoing connections with community resources to enhance student learning and well being.		X	X		X	
10(g) The teacher uses technological tools and a variety of communication strategies to build local and global learning communities that engage learners, families, and colleagues.		X	X		X	
10(i) The teacher seeks appropriate opportunities to model effective practice for colleagues, to lead professional learning activities, and to serve in other leadership roles.		X	X		X	
10(n) The teacher knows how to work with other adults and has developed skills in collaborative interaction appropriate for both face-to-face and virtual contexts.		X	X			X
10(o) The teacher knows how to contribute to a common culture that supports high expectations for student learning.		X	X			X
10(p) The teacher actively shares responsibility for shaping and supporting the mission of his/her school as one of advocacy for learners and accountability for their success.		X		X		X
10(r) The teacher takes initiative to grow and develop with colleagues through interactions that enhance practice and support student learning.		X	X		X	

Note. InTASC = Interstate Teacher Assessment and Support Consortium. Adapted from "InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0," by CCSSO, 2013 (https://ccsso.org/sites/default/files/2017-12/2013_INTASC_Learning_Progressions_for_Teachers.pdf).

The InTASC guidance document emphasized the importance of creating a collaborative culture among educators. However, this study revealed inconsistencies between study-identified standards related to teacher collaboration and those highlighted in the InTASC reference chart. These inconsistencies could lead teacher preparation programs to design less rigorous or comprehensive learning experiences for educators preparing for collaboration within P-12 contexts.

CEC's Representation of Collaboration Across Standards and Standard Components. As yet another example of inconsistencies within a professional organization's pair of documents, the CEC standards and guidance document exemplify mismatched representation of teacher collaboration across these texts. In their guidance document, the CEC claims that

> effective teamwork requires ongoing information sharing, collaboration, and coordination with…other professionals…to effectively assess and communicate assessment information in clear and understandable terms and plan for and implement effective individualized educational and transition programs and services for individuals with exceptionalities. (Berlinghoff & McLaughlin, 2022, pp. 114–115)

This suggests that collaborative teacher teams evaluate their students' needs, plan those students' programming and services, and then implement, or co-facilitate, those programs and services.

However, this broad application of teacher collaboration is not consistently represented across the CEC standards. As seen in Table 11, while Standard 7 is dedicated to collaboration, only three of the other standards include components explicitly representing teacher collaboration. This includes a lack of teacher collaboration explicitly represented within the standards and components related to understanding and addressing students' needs; effective

instruction; and supporting social, emotional, and behavioral growth. In these cases, the wording of the standards suggests that special educators work in isolation to engage in these responsibilities. It should be noted that CEC Standard 6 states that candidates will "follow ethical and legal guidelines and work collaboratively with families and other professionals to conduct behavioral assessments for intervention and program development" (Berlinghoff & McLaughlin, 2022, p. 30). However, this explicit reference to teacher collaboration is not repeated within the components of that standards.

Table 11

Examples of Teacher Collaboration Within CEC Standards and Components

CEC Standard	Standard Component Exemplifying Teacher Collaboration
Standard 1: Engaging in Professional Learning and Practice within Ethical Guidelines	Component 1.3 Candidates design and implement professional learning activities based on ongoing analysis of student learning; self-reflection; professional standards, research, and contemporary practices.
Standard 2: Understanding and Addressing Each Individual's Developmental and Learning Needs	-
Standard 3: Demonstrating Subject Matter Content and Specialized Curricular Knowledge	-
Standard 4: Using Assessment to Understand the Learner and the Learning Environment for Data-Based Decision Making	Component 4.1 Candidates collaboratively develop, select, administer, analyze, and interpret multiple measures of student learning, behavior, and the classroom environment to evaluate and support classroom and school-based systems of intervention for students with and without exceptionalities. Component 4.3 Candidates assess, collaboratively analyze, interpret, and communicate students' progress toward measurable outcomes using technology as appropriate, to inform both short- and long-term planning, and make ongoing adjustments to instruction.
Standard 5: Using Effective Instruction to Support Learning	-
Standard 6: Supporting Social, Emotional, and Behavioral Growth	-
Standard 7: Collaborating with Team Members	Component 7.1 Candidates utilize communication, group facilitation, and problem-solving strategies in a culturally responsive manner to lead effective meetings and share expertise and knowledge to build team capacity and jointly address students' instructional and behavioral needs. Component 7.2 Candidates communicate, coordinate, and collaborate with families and other professionals within the educational setting to assess, plan, and implement effective programs and services that promote progress toward measurable outcomes for individuals with and without exceptionalities and their families.
Field Experience and Clinical Practice Standard for K-12	Special education candidates progress through a series of developmentally sequenced field and clinical experiences for the full range of ages, types and levels of abilities, and collaborative opportunities that are appropriate to the license or roles for which they are preparing. These field and clinical experiences are supervised by qualified professionals.

Note. CEC = Council for Exceptional Children. Adapted from "Initial Practice-Based Professional Preparation Standards for Special Educators," by CEC, 2021 (https://exceptionalchildren.org/sites/default/files/2021-03/K12%20Initial%20Standards%20and%20Components.pdf).

Despite irregular representation within the text of the standards and standard components, every single CEC standard included references to teacher collaboration within their guidance document's supporting explanation and knowledge base descriptions of the standards. This indicates a strong recognition for the relevance of teacher collaboration, even if it is not reflected in the standards themselves. Together, these findings represent inconsistencies between the presence of teacher collaboration within the CEC standards, standard components, and guidance document text contextualizing each standard.

In conclusion, the analysis of the CAEP, InTASC, and CEC standards and guidance documents from professional organizations has revealed significant inconsistencies regarding the representation of teacher collaboration. CAEP's text fell short in addressing teacher collaboration comprehensively, and this resulted in a disproportionate representation of collaboration-related content from other organizations in this study's findings. Further, in the InTASC guidance document, inconsistencies arose when comparing standards related to teacher collaboration identified by this study with those listed in the document's reference chart. Additionally, representation of teacher collaboration varied across the CEC's standards and standard components in the guidance document, potentially leading to confusion or ambiguity in interpretation. Overall, these inconsistencies underscore the need for greater clarity and coherence within professional organization's standards and supporting documents.

Alignment With the DDAE Framework

Further analysis engaged in deductive coding using Woodland et al.'s (2013) DDAE framework of teacher collaboration, which suggests that high-functioning collaborative teacher teams regularly engage in collective dialogue, shared decision-making, action-taking, and evaluation. The analysis process found that the DDAE framework aligns with the InTASC and

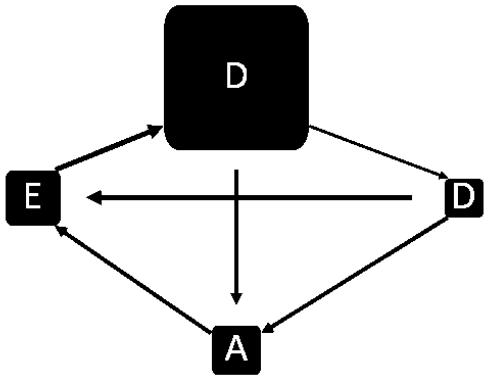
CEC standards undergirding the curricula of initial teacher preparation programs but not the CAEP standards. However, the framework was represented across all three professional organization's key guidance documents. This was determined through interpretive content analysis, specifically deductive coding techniques where standards and segments of text (i.e., sentences and paragraphs) from their corresponding guidance documents were coded based on whether they represented dialogue, decision-making, action, and/or evaluation from the DDAE framework. As an additional layer of analysis, frequency counts of the codes for each element of the framework were calculated to quantify patterns of representation within and across each professional organization's text.

Frequency counts of the codes indicated that individual elements of the framework were present within the guidance documents of all three professional organizations. A single DDAE process was represented within one (50%) CAEP text segment, 29 (48%) CEC text segments, and 52 (51%) InTASC text segments. Two or more DDAE processes were present within one (50%) CAEP text segment, 31 (52%) CEC text segments, and 49 (49%) InTASC text segments. Meanwhile, all four DDAE processes were present in four (7%) CEC text segments and eight (8%) InTASC text segments. As seen in Figure 10, despite representation of the entire framework across the InTASC and CEC guidance documents, each focused on different elements of the framework. For example, the InTASC guidance document featured dialogue more prominently, while the CEC guidance document focused more on shared decision-making.

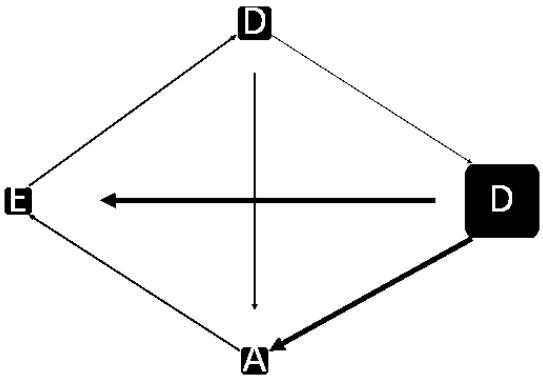
Figure 10

DDAE Representation Within Guidance Documents

DDAE Representation Within InTASC Guidance Document



DDAE Representation Within CEC Guidance Document



Note. DDAE = Dialogue, Decision-making, Action, and Evaluation; InTASC = Interstate Teacher Assessment and Support Consortium; CEC = Council for Exceptional Children. DDAE representation within the CAEP guidance document consisted of one text segment combining dialogue and evaluation and one text segment representing action. This small amount of representation across the guidance document was unable to be displayed visually.

Interpretive content analysis of the standards and guidance documents also provided insights into the nuances of the elements of the DDAE framework when applied to initial teacher preparation programs. As seen in Table 12, dialogue involves discussions where collaborative teams build consensus and problem-solve based on the respected expertise and contributions of each partner. This is represented within the following two sub-standards:

- InTASC 3(c): “The teacher collaborates with learners and colleagues to develop shared values and expectations for respectful interactions, rigorous academic discussions, and individual and group responsibility for quality work” (CCSSO, 2023, p. 21).
- CEC 7.1: “Candidates utilize communication, group facilitation, and problem–solving strategies in a culturally responsive manner to lead effective meetings and share

expertise and knowledge to build team capacity" (Berlinghoff & McLaughlin, 2022, p. 9).

Then, decision-making is the process where collaborative teams engage in learning design, program development, resource selection, and the adoption of professional standards. These activities are evident within the following two sub-standards:

- InTASC 10(b): "The teacher works with other school professionals to plan…how to meet diverse needs of learners" (CCSSO, 2023, p. 45).
- CEC 7.1: "Candidates utilize communication, group facilitation, and problem–solving strategies in a culturally responsive manner to…jointly address students' instructional and behavioral needs" (Berlinghoff & McLaughlin, 2022, p. 9).

Next, action is when collaborative teams enact their shared decisions by facilitating student and educator learning. This is illustrated within the following two standards and sub-standards:

- InTASC 3(n): "The teacher is committed to working with learners, colleagues, families, and communities to establish positive and supportive learning environments" (CCSSO, 2023, p. 21).
- CEC 7: "Candidates apply team processes and communication strategies to collaborate in a culturally responsive manner with families, paraprofessionals, and other professionals within the school, other educational settings, and the community to…access services for individuals with exceptionalities and their families" (Berlinghoff & McLaughlin, 2022, p. 9).

Subsequently, evaluation is where collaborative teams jointly analyze data, provide and receive feedback, and reflect on teaching and learning to assess the needs and progress of both students and educators, as can be observed within the following two sub-standards:

- InTASC 9(c): “Independently and in collaboration with colleagues, the teacher uses a variety of data (e.g., systematic observation, information about learners, research) to evaluate the outcomes of teaching and learning and to adapt planning and practice” (CCSSO, 2023, p. 41).
- CEC 4.3: “Candidates assess, collaboratively analyze, interpret, and communicate students’ progress toward measurable outcomes, using technology as appropriate, to inform both short- and long-term planning, and make ongoing adjustments to instruction” (Berlinghoff & McLaughlin, 2022, p. 8).

Table 12

Features of DDAE Framework Embedded Within the Standards and Guidance Documents

Framework element	This element				
	Involves	Results in	Is based on	Relies on	Is related to
Dialogue	group facilitation, meetings, academic discussions	problem-solving, problem-solving strategies, choices, consensus-building, managing perceptions and biases	teacher skills, colleague input, expertise, teacher knowledge, colleague contributions, colleague input	communication strategies and skills, respectful interactions, interaction/ interpersonal skills, trust, respect, expertise of colleagues	collaborative technology
Decision-making		decisions about: • Learning design: planning, adjusting instruction, curriculum development, implementation of instruction • Program development: program planning and development • Resources: selecting, grant development • Professional standards: maintaining standards, making ethical decisions	learner needs: students' instructional needs, unique learning needs, learning differences, students' behavioral needs (decisions are student-driven and data-informed); curriculum: curricular goals, content standards; learner relevance		educational resources; community resources; supports; access to services, resources, support, and specialized assistance
Action	implementing: interventions, planned actions, behavioral interventions, enhanced practices, learning experiences, practice, advocacy work, leadership roles and responsibilities			joint delivery (i.e., co-teaching) or joint facilitation (i.e., coordinated services)	learning climate: learning environment, student motivation, individual and collaborative learning experiences, social interaction, student engagement, learning climate, support, respect, inquiry, openness
Evaluation	analysis of data: a variety of data, data from multiple sources, teacher outcomes, student work, test data, measures of learning, evidence, measures of behavior, measures of classroom environment, behavioral assessment, performance data; feedback on practice; reflection	assessment and evaluation of student and educator needs, evaluating progress toward goals			

Note. DDAE = Dialogue, Decision-making, Action, and Evaluation

Overall, the DDAE framework was found to be deeply embedded within the InTASC and CEC standards and guidance documents, as well as represented within the CAEP guidance document. It should be noted that analysis also confirmed that teacher collaboration serves as a process, rather than a product, and that teacher collaboration is an iterative process involving continual cycles of dialogue, decision-making, action, and evaluation with no true starting or end point. As a process, this teacher collaboration framework was found to foster professional growth, enhance instructional practices and learning design, and support a sense of continual improvement within educators.

Embedded Learning Experiences Supporting Teacher Collaboration

Finally, this study explored what learning experiences related to teacher collaboration were embedded within the standards and guidance documents. To do so, Saldaña's (2021) descriptive and pattern coding was used to inductively analyze the text by listing learning experiences within the text and then classifying these terms into overarching themes. The CAEP (2021) guidance document specifically called for teacher collaboration within initial teacher preparation programs, including the need for pre-service teachers to enact collaboration and for programs to collect and evaluate evidence of collaboration. The CEC guidance document reinforced this call for learning experiences within programs, citing historically inadequate preparation in the area of teacher collaboration (Berlinghoff & McLaughlin, 2022). In addition to specific learning experiences that support teacher collaboration, three themes emerged during analysis:

- *Programmatic considerations for initial teacher preparation programs:* Across all three professional organizations, there was recognition that initial teacher preparation programs need to dedicate time, programming, and assessment efforts toward teacher

collaboration. For example, the CAEP (2021) guidance document challenged programs to question how they "know candidates can apply the InTASC standards relating to collaboration and leadership" (p. 16).

- *Emphasis on teacher performances*: Both the InTASC and CEC standards emphasized teacher performance, or the practices and skills teachers are expected to engage in, over knowledge or understanding of theory. While the InTASC standards used the term "performances" (CCSSO, 2013, p. 6), the CEC standards used the term "practice-based" (Berlinghoff & McLaughlin, 2022, p. 6). Regardless of terminology, this theme indicated a shared focus on observable applications of knowledge and skills as indicators of teacher effectiveness.
- *Need to develop collaborative skills:* Analysis further suggested that collaborative partnerships are dependent on the development of key collaborative skills, including those related to relationship building, shared values, active engagement, leadership skills, and technology literacy. For example, InTASC sub-standard 10(n) states: "the teacher knows how to work with other adults and has developed skills in collaborative interaction appropriate for both face-to-face and virtual contexts" (CCSSO, 2013, p. 45).

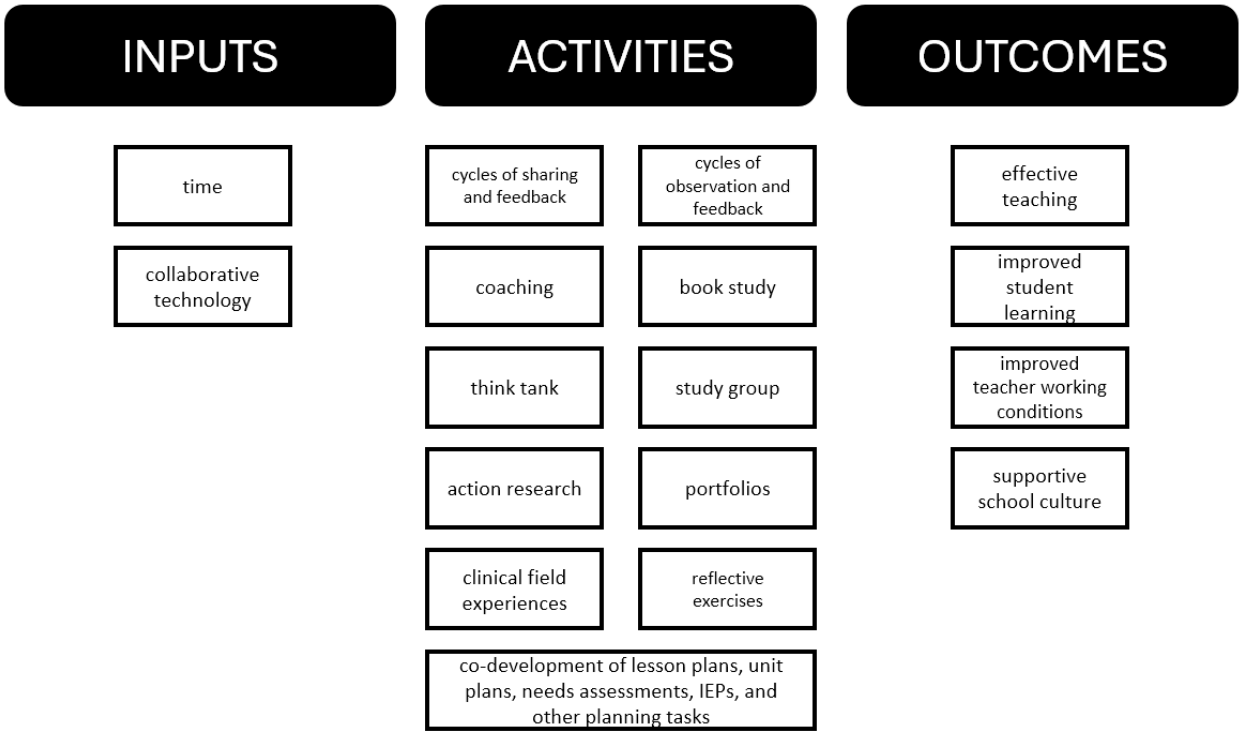
Explicit References to Learning Experiences Supporting Teacher Collaboration.

Further, there was also explicit reference to specific learning experiences that support the development of collaborative partnerships and the teacher collaboration process within the InTASC and CEC standards. The analysis of these learning experiences was supported not only by the inductive coding process described above but also by using a logic model as a tool for analysis. As seen in Figure 11, the guidance documents suggested that initial teacher preparation

programs need to invest time and procure collaborative technology to support the development of teacher collaboration within their teacher candidates. For example, the InTASC guidance document suggests that teachers use "technology and other forms of communication to develop collaborative relationships with learners, families, colleagues and the local community" (CCSSO, 2013, p. 46). Further, teacher candidates should engage in learning experiences such as cycles of sharing or observation and feedback, coaching, book studies, think tanks, study groups, action research, portfolio development, clinical field experiences, reflective exercises, and a variety of co-planning tasks. As one example of this, the CEC guidance document suggests that programs evaluate candidates using "assessments of collaborative planning such as annual individualized education programs (IEPs), lesson plans, unit plans, need assessments, and/or other planning tasks" (Berlinghoff & McLaughlin, 2022, p. 73). Both the InTASC and the CEC guidance document go on to suggest co-teaching as one way that general and special educators can collaborate with one another, and the CEC text suggests that reflecting on those co-teaching experiences is a potential performance indicator of mastering collaboration with team members (Berlinghoff & McLaughlin, 2022; CCSSO, 2013). However, it should be noted that co-teaching was not a learning experience explicitly listed within any of the guidance documents. Regardless of whether programs choose to include co-teaching as one of their collaborative learning experiences, the goals of the learning experiences described in the CAEP, InTASC, and CEC text included effective teaching, improved student learning, improved teacher working conditions, and creating supportive school cultures.

Figure 11

Logic Model of Learning Experiences Supporting Teacher Collaboration



Note. IEP = Individualized Education Program

In conclusion, this study explored the embedded learning experiences supporting teacher collaboration within the CAEP, InTASC, and CEC standards and guidance documents. Each guidance document clarified that the activities described within their text were mere examples of learning experiences and evidence of teacher performances, rather than definitive or comprehensive options for initial teacher preparation programs. Through emergent coding methods, key themes emerged, including the need for dedicated time, programming, and assessment efforts to foster collaboration among pre-service teachers. Moreover, a shared emphasis on teacher performances or practice-based skills across the InTASC and CEC standards indicated a focus on observable applications of knowledge and skills as indicators of

teacher effectiveness. Ultimately, these embedded learning experiences aimed to cultivate effective teaching practices, enhance student learning outcomes, and foster supportive school cultures within P-12 school systems.

Summary of Findings

Altogether, the findings from the standards and the guidance documents support this study's definition that teacher collaboration is the process of sharing learning and decision-making within teacher teams that share an identity, responsibilities, and purpose. Through basic and interpretive content analysis, this study concluded that all three professional organizations address teacher collaboration between general and special educators within their standards and guidance documents, and teacher collaboration is particularly present within the InTASC texts. Further, content analysis helped identify teachers, their collaborative partners, and their shared students as the key stakeholders within the teacher collaboration process, and continual growth for students, educators, and the teaching profession were identified as a shared purpose for teacher collaboration. Yet, analysis also uncovered inconsistencies within and between the text of each professional organization that might affect the interpretation and utility of these resources. However, the DDAE framework emerged as a consistent model across the InTASC and CEC standards and guidance documents that could support teacher collaboration within initial teacher preparation programs. Finally, there was also explicit reference to learning experiences that support the development of collaborative partnerships and the teacher collaboration process within initial teacher preparation programs, but these learning experiences from the InTASC and CEC texts were meant as suggestions, not as a prescriptive list.

CHAPTER 5: RECOMMENDATIONS

Collaboration between general and special education teachers has increased in response to a rise in the number of P-12 students with disabilities being taught within inclusive general education settings (Hernandez, 2013; National Center for Education Statistics, 2023). As such, professional standards and teacher education programs are responding to these changes in P-12 practices by updating their expectations and programming. To support this process, the purpose of this study was to explore how teacher collaboration is embodied within the standards undergirding the curricula of initial teacher preparation programs by investigating (a) the degree to which teacher collaboration is addressed within the Council for the Accreditation of Educator Preparation (CAEP), Interstate Teacher Assessment and Support Consortium (InTASC), and Council for Exceptional Children (CEC) standards and key guidance documents; (b) how teacher collaboration is represented within those standards and guidance documents; and (c) what learning experiences are embedded within these texts that develop teacher collaboration in pre-service teachers.

This study is particularly timely as CAEP (2021) and CEC (2023a) have recently updated their sets of professional standards and asked teacher preparation programs to implement them by the spring of 2022 and 2023, respectively. To help programs make meaning of the new standards, particularly as they represent teacher collaboration, this study examined the text of the standards themselves, as well as key guidance documents that contextualize the standards, using Drisko and Maschi's (2015) basic and interpretive content analysis methods. As a review from Chapter 2 and Table 4, this process involved three phases of data analysis. First, CAEP, InTASC,

and CEC standards related to teacher collaboration were identified and then frequency counts were run and concordances were created; deductive coding using Woodland et al.'s (2013) Dialogue, Decision-making, Action, and Evaluation (DDAE) framework was conducted; and inductive coding using Saldaña's (2021) descriptive and pattern coding procedures were performed for each standard set. These procedures were then repeated for the CAEP, InTASC, and CEC key guidance documents that support each standard set, namely the *CAEP Revised 2022 Standards Workbook* (CAEP, 2021), *InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0: A Resource for Ongoing Teacher Development* (CCSSO, 2013), and the *Practice-Based Standards for the Preparation of Special Educators* (Berlinghoff & McLaughlin, 2022). Then, findings from each phase of analysis were integrated using R. E. Johnson et al.'s (2019) Pillar Integration Process so that conclusions could be drawn from the standards and guidance documents collectively to validate and extend the meaning made from analyzing either set of documents in isolation (Bazeley, 2012; Creswell & Plano Clark, 2018). This process was integral to the meaning making that led to the findings in Chapter 4, as well as the discussion and conclusions drawn within this chapter.

With the hope of supporting initial teacher preparation programs in design work that facilitates teacher collaboration between their general and special education candidates, the goals of this chapter are to (a) make meaning of the findings presented in Chapter 4, (b) discuss recommendations for policy and practice based on these findings, and (c) reflect on this research study's methods and findings to make suggestions for future research.

Discussion of Findings

Findings from this study will be summarized and interpreted according to five themes that emerged throughout Chapter 4. First, the presence of teacher collaboration within the text of

all three professional organizations examined within this study indicates that those organizations are serving as a bridge between P-12 educational practices and those practices within teacher education programs. Second, and relatedly, the communication of those organization's professional standards indicates a need for utility and trustworthiness in their documents to maintain their relationships with teacher education programs. Third, the standards and guidance documents consistently support professional learning and decision-making across educators as a means of continual growth for students, educators, and the profession. Fourth, analysis of the text related to the DDAE framework revealed new information, so an expanded framework is proposed. Finally, the broader actions proposed within the newly expanded framework are supplemented with a discussion of the specific learning experiences that might help teacher candidates develop into quality teacher collaborators.

Building Bridges Between P-12 Education and Teacher Education Programs

This study found that teacher collaboration was present with the InTASC and CEC standards, as well as the key guidance documents that contextualize the standards from all three investigated professional organizations. In other words, CAEP, the Council of Chief State School Officers (CCSSO), and CEC are all supporting collaboration between educators. These organizations serve as industry leaders and take on the roles of supporting the continuing education of teachers by staying abreast of developments in the field, advocating for recognition and changes within the field, and creating professional standards that create ethical codes and competency benchmarks for educators (CEC, 2023a, 2023b; CAEP, 2020b, 2020d, 2020f; CCSSO, 2013). The findings from this study indicate that all three of these actions are being taken by CAEP, CCSSO, and CEC around the topic of teacher collaboration. This study explicitly examined the degree to which these organization's standards and guidance documents

address teacher collaboration and discovered substantial references to teacher collaboration within the InTASC and CEC text. There were also a handful of references within the CAEP text, but, notably, the CAEP guidance document directed teacher education programs to the InTASC standards for specifications of expectations (CAEP, n.d.). These findings indicate that each professional organization has set the expectation that teachers, and teacher candidates, must be prepared to collaborate with one another.

Setting this expectation illustrates these organizations' contributions to their other two roles: staying abreast of developments in the field and advocating for recognition and changes within the field. This is illustrated by the CCSSO's (2013) decision to make a "A Collaborative Professional Culture" (p. 5) one of their five themes spanning their latest set of standards. They clarify that the selection of this theme stems from changing needs and norms within P-12 education where teaching is shifting from an isolated to collaborative profession, a shift documented by Hernandez (2013) in a review of the evolution of models of collaboration. As CAEP, CCSSO, and CEC monitor developments in the field and advocate for needed changes, they serve as bridges between the P-12 system they reflect and the teacher education programs who use their standards for accreditation and curriculum development (Angelelli, 2006). It could be argued that serving as this bridge provides these organizations with a great deal of power due to their dissemination of information, so it is imperative that they share accurate and clear information with their stakeholders.

Utility and Trustworthiness of Information

Analysis from this study revealed inconsistencies within and between the text of each professional organization that might influence the interpretation and utility of these resources for stakeholders. For example, the specific terms used within each standard set and standard

guidance document to represent their primary teacher, that teacher's collaborative partner, and their shared students varied (see Table 9). These differences in language could indicate a lack of consensus building between professional organizations and professional disciplines within education (Egeberg et al., 2016). However, it could also indicate different target audiences for each professional organization: the InTASC standards serving pre- and in-service teachers (CCSSO, 2013), as well as the CEC standards primarily serving special educators (Berlinghoff & McLaughlin, 2022). Ultimately, these variations in language may indicate slight differences in expectations, the implementation of those expectations, and barriers to effective collaborative partnerships.

A further barrier to the implementation of standards and expectations from the professional organizations could be inconsistencies in how and where teacher collaboration is represented throughout their text. This study found substantial differences between the collaboration-related standards identified by CCSSO within the InTASC guidance document and those identified by the analysis procedures within this study (see Table 10). Similarly, the CEC guidance document consistency referenced teacher collaboration in their supporting text but not within the language of the standards or standard components themselves (see Table 11). Each of these cases illustrates the need for clear and trustworthy communication from professional organizations to teacher education programs about standards and professional expectations in general. This is especially important as the effective use of language has been recognized as pivotal in supporting organizational change (Mills et al., 2005; Weick, 1995). These internal inconsistencies open the door for program leadership and faculty to misinterpret the standards and the professional organization's intent for how the standards should be understood and implemented.

Professional Learning and Decision-Making

Despite a handful of inconsistencies within and across the text analyzed as part of this study, this content analysis was able to identify key commonalities across the documents. This included identifying teachers, their collaborative partners, and their shared students as the primary stakeholders within the teacher collaboration process, as well as continual growth for students, educators, and the profession as a whole as a shared purpose for teacher collaboration. The three identified stakeholders may seem banal, but they are congruent with the identified purpose of teacher collaboration, and therefore serve to affirm this finding. Further, the idea that teacher collaboration serves both students and educators resonates with previous discussions from Chapter 2 about transforming students' learning experiences through cycles of teacher's professional learning and decision-making. In essence, these findings indicate that cross-fertilization occurs between professional learning and decision-making (Lefstein et al., 2020), and teacher collaboration may be a catalyst for this interaction.

Expanding the DDAE Framework

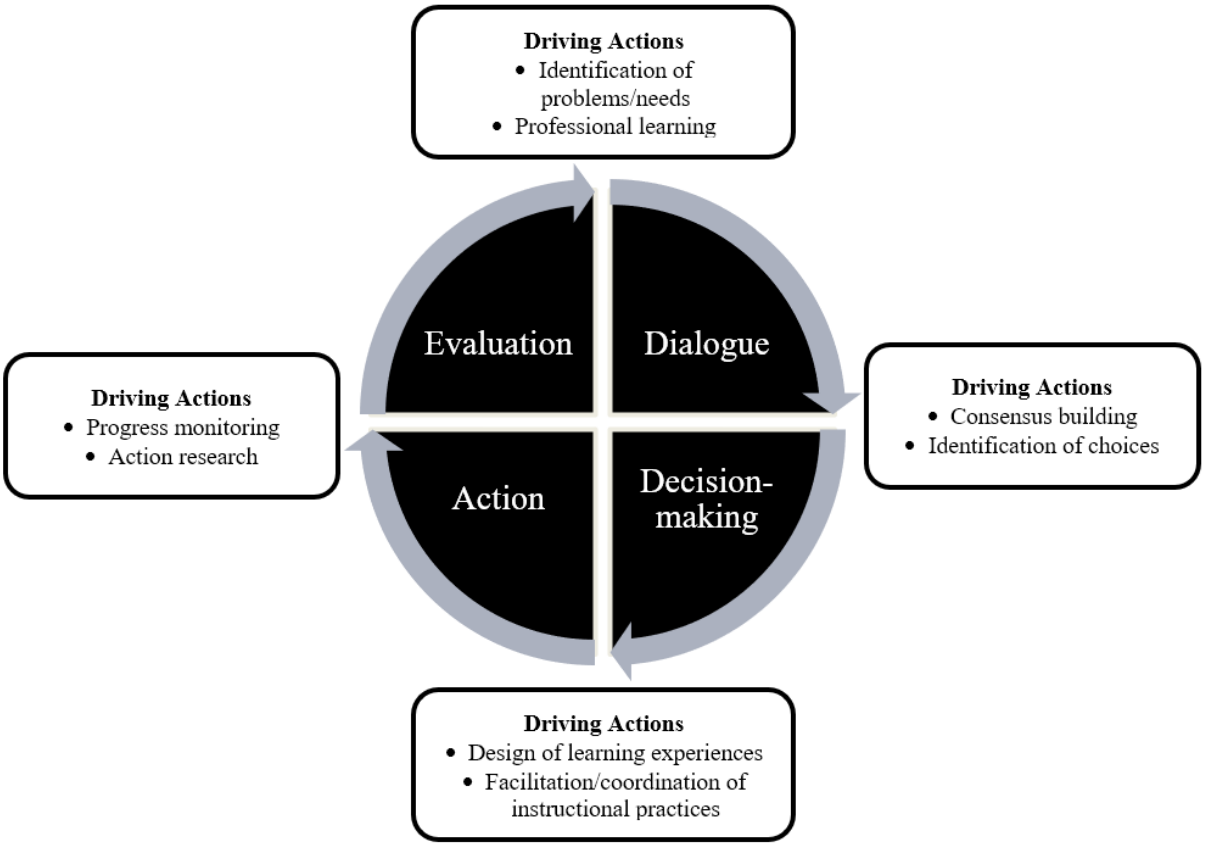
Analysis of both the standards and their key guidance documents suggested that Woodland et al.'s (2013) DDAE framework of teacher collaboration aligns with the curricular needs of initial teacher preparation programs. The standards and guidance document text indicated that candidates need to engage in authentic learning tasks that allow them to collaboratively (a) evaluate student data; (b) discuss student needs, learning opportunities, and resources; (c) make decisions based on those data; and (d) act on their decisions. These combined processes facilitate continual cross-fertilization between professional learning and decision-making among collaborative partners by engaging in data-based decision making.

These data-based decisions help teachers learn about their students' needs through data while informing how they tailor students' learning experiences (Mandinach & Schildkamp, 2021).

To add to this, the inductive coding process that followed this study's deductive coding process based on the DDAE framework revealed features of the framework not captured by the deductive process (see Table 12). Together, the integrated findings from the deductive and inductive coding process suggest an expansion to the existing DDAE framework that includes specific actions teacher candidates can engage in to support their professional learning and decision-making as they navigate the teacher collaboration cycle of inquiry. This expanded theoretical framework is illustrated in Figure 12 and described below.

Figure 12

Actions Driving Transition Between the DDAE Processes



Note. DDAE = Dialogue, Decision-making, Action, and Evaluation. Adapted from "A Validation Student of the Teacher Collaboration Assessment Survey," by R. Woodland, M. K. Lee, & J. Randall, 2013, *Educational Research and Evaluation, 19*(5), p. 442–460 (https://doi.org/10.1080/13803611.2013.795118).

Dialogue. Findings from this study aligned with Woodland et al.'s (2013) model that dialogue involves discussions where collaborative teams build consensus and problem-solve based on the respected expertise and contributions of each partner. This study added to the original model by concluding that while technology is not required for collaborative dialogue, technological tools can facilitate and support this process. The findings from this study further suggest that two driving actions serve as a transition from dialogue to the next step in the DDAE

process, decision-making. In order to move from collaborative discussions and problem solving to design and development, collaborative teams should engage in (a) consensus building and (b) the identification of choices. Consensus building serves an important role in the collaborative inquiry process by allowing educators to make informed decisions based on thorough understandings of their partner's perspectives (Gijlers et al., 2009; Weinberger & Fischer, 2006). Then, to illustrate the need for the identification of choices, it is helpful to consider a medical model: patient treatment plans are determined based on the patient's values, their priorities, and what the patient and clinician consider to be best treatment options (Adams & Levy, 2017). When applied to teacher collaboration, identifying choices through ongoing dialogue allows collaborative teachers to identify the values of each teacher, their priorities in respect to their various students and resources, and what each teacher understands to be best practices in the field of education.

Decision-Making. This study's findings aligned with Woodland et al.'s (2013) assertion that decision-making is where collaborative teams engage in learning design and resource selection, but the findings extended this definition to include program development and the adoption of professional standards in the decision-making process. Further, findings from this study suggest that two driving actions serve as a transition between decision-making and the next step in the DDAE process, action. To move from collaborative design and development to enacting shared decisions, collaborative teams must engage in the (a) design of learning experiences and (b) facilitation/coordination of instructional practices. After collaborative teams have made decisions about what instructional strategies, resources, and approaches to use, they must design specific learning experiences based on those decisions (Goodyear & Dimitriadis, 2013; Mor et al., 2015). This also requires coordination and facilitation to ensure that all teachers

involved understand their roles and responsibilities when implementing the planned learning experiences, including coordinating schedules, resources, and other logistical elements to support smooth implementation (Hall et al., 2006; Pellegrino et al., 2015).

Action. Findings from this study further aligned with Woodland et al.'s (2013) model that action is when collaborative teams enact their shared decisions by facilitating student and educator learning. A notable detail within this study's findings was that co-teaching is one of many ways in which student learning can be facilitated; collaborative action also encompasses joint facilitation and delivery of services and instruction (CCSSO, 2013). The findings from this study also suggest that two driving actions serve as a transition between action and the next step in the DDAE process, evaluation. In order to move from collaboratively enacting shared decisions to assessing student and educator needs and progress, collaborative teams must engage in (a) progress monitoring and (b) action research. Progress monitoring involves systematically collecting data on student learning and educator practices to assess how well the implemented strategies are working (Cummings et al., 2008). Meanwhile, action research involves systematically investigating specific teaching and learning practices within the context of the classroom and often involves educators collaboratively designing and conducting research to explore the effectiveness of instructional strategies, interventions, or approaches (Burbank & Kauchak, 2003). Both of these actions occur during the execution of instructional practices and inform the evaluation process.

Evaluation. This study's findings also aligned with Woodland et al.'s (2013) assertion that evaluation is where collaborative teams jointly analyze data, provide and receive feedback, and reflect on teaching and learning to assess the needs and progress of both students and educators. This indicates that candidates need the knowledge, understandings, and skills to

design, select, implement, score, and evaluate data from a wide range of high-quality assessments to support their students' development and growth. In other words, teacher candidates need assessment literacy, a conclusion supported by Oo et al. (2022) based on their literature review of assessment programs in initial teacher preparation programs across 12 sources. The findings from this study also suggest that two driving actions serve as a transition between evaluation and the next step in the DDAE process, dialogue. In order to move from collaborative assessment of student and educator needs and progress to discussions and problem solving, collaborative teams must engage in the (a) identification of problems/needs and (b) professional learning. The identification of problems and needs serves as a natural transition point from evaluation to dialogue, as it highlights areas, like findings and underlying causes, that require further discussion and problem-solving (Mandinach & Schildkamp, 2021). Further, evaluation may reveal areas where educators need to enhance their knowledge or practices to better support student learning and address identified needs. Through professional learning experiences, educators engage in discussions, reflections, and collaborative problem-solving activities that deepen their understanding of effective practices and inform dialogue about how to address identified needs and improve outcomes (Liao et al., 2023).

In conclusion, the analysis of both the standards and key guidance documents supports the use of the DDAE framework within initial teacher preparation programs. Moreover, the synthesis of findings from the deductive and inductive coding processes revealed additional dimensions of the DDAE framework, suggesting specific actions that support professional learning and decision-making throughout the teacher collaboration cycle. This expanded theoretical framework underscores the interconnected and cyclical nature of this framework, supporting the idea that teacher collaboration is an iterative process.

Becoming "We": Learning to Collaborate

From a practical perspective, this study also explored whether or not the CAEP, InTASC, and CEC standards and guidance documents embedded learning experiences within their text that initial teacher preparation programs could use to develop collaborative teacher candidates. All three professional organizations expressed a need for initial teacher preparation programs to dedicate time (Grubert, 2011), programming (McKenzie, 2009), and assessment (Oo et al., 2022) efforts toward fostering teacher collaboration in their candidates. The InTASC and CEC guidance documents added further emphasis on developing candidates' skills, indicating that experiential learning (Matamala, 2013; Van Laarhoven et al., 2007) and performance assessments (Matamala, 2013; Nagro & deBettencourt, 2017) are key elements in initial teacher preparation programs, including the preparation of teacher collaboration. At a foundational level, the InTASC and CEC documents also suggested developing collaborative skills, which aligns with Griffith et al.'s (2021) stance that collaborative partnerships are dependent on the development of key collaborative skills, including those related to relationship building, shared values, and active engagement. Additionally, teams may find it helpful to develop related leadership skills (C. Thomas & Brown, 2019) that were mentioned throughout the CAEP, InTASC, and CEC guidance documents but not described as explicit learning experiences, like meeting facilitation skills (D. W. Johnson & Johnson 2005) and technology literacy (Hmelo et al. 2013).

Developing the types of skills just described could certainly be beneficial for educators engaging in teacher collaboration. However, in my experience as an educator and researcher, developing collaborative skills in isolation is an inaccurate reflection of teacher collaboration as a construct. This study found that a more accurate interpretation of teacher collaboration involves

learning experiences that are complex, authentic, and therefore, meaningful. Such learning experiences could allow teacher candidates to apply collaborative skills, such as relationship building, facilitation, and communication skills, in thoughtful ways (Pellegrino et al., 2015; Rieg, 2009). The InTASC and CEC documents provided examples of such learning experiences, although they cautioned that the list was neither exhaustive nor prescriptive. However, these examples align with recommendations from researchers in the fields of P-12 and teacher education and warrant consideration by faculty and program leaders when designing learning experiences for pre-service teachers. For example, teacher candidates should have opportunities to co-develop lesson plans, unit plans, needs assessments, IEPs, and other planning tasks (Aalto & Mustonen, 2022; Josephson, 2014). Additionally, pre-service teachers could benefit from learning experiences that incorporate cycles of collaborative feedback, including those where their share their ideas and teaching experiences, are observed by colleagues, and engage in coaching cycles (Hoppey et al., 2004; Rieg, 2009). Candidates also need opportunities to engage as professional learning communities, which could take the forms of book studies (Dolan, 2017, 2019); think tanks (Lazor, 2019; Sullivan, 2018); and study groups (Torres-Guzmán et al., 2006; White et al., 2020). Further, teacher education programs should consider creating opportunities for pre-service teachers to engage in action research (Burbank & Kauchak, 2003; Willegems et al., 2018); portfolio development (Blanton & Pugach, 2007); and clinical field experiences (Da Fonte & Barton-Arwood, 2017; Geer & Hamill, 2007). Across all of these learning experience options, candidates' experiences could be enhanced by layering in reflective exercises that provide them opportunities to better understand their thinking and impact (Friend, 2007; Liao et al., 2023).

In conclusion, the findings from this study emphasized that teacher education programs must dedicate time, programming, and assessment efforts toward fostering collaboration between their teacher candidates. Moreover, findings suggested that experiential learning and performance assessments can help cultivate practical skills essential for effective collaboration. Based on this study's findings and established research, teacher collaboration can be fostered within pre-service teachers through diverse and authentic learning experiences, especially ones that include reflective experiences.

Implications for Policy and Practice

The findings from this study suggest a series of implications for practitioners, leaders, and policymakers. In the case of teacher collaboration within initial teacher preparation programs, these implications are specifically related to faculty within initial teacher preparation programs who develop courses and programming for teacher candidates; leadership within such programs who help create their mission, vision, and structures that support those goals; and the professional organizations and accrediting bodies who develop standards and expectations driving decisions within those programs. These stakeholders directly align with the findings of this study that teacher collaboration is related to school culture, learning environments, as well as access and inclusivity. As faculty, program leaders, and professional organizations supporting initial teacher preparation programs, these individuals help create the policy, practices, and environment in which teacher candidates develop as educators, and therefore influence whether and how teacher collaboration is taught and supported within such programs.

Implications for Teacher Preparation Program Faculty

Initial teacher preparation program faculty are responsible for implementing and facilitating the enacted, or taught, curriculum within teacher education programs. Findings from

this study support this process in three ways. First, Woodland et al.'s (2013) DDAE framework aligns with the standards and guidance documents of the professional organizations serving as bridges between P-12 practices and teacher education practices. Therefore, faculty could use this framework to design learning experiences and assessment measures for their students. Although this could take many forms, one example would be a learning task where teacher candidates collaboratively analyze P-12 pre-assessment data, build consensus about what those data tell them about their students' needs, and design a lesson tailored to meet those needs. If the course had a corresponding clinical field experience, the lesson could be taught to P-12 students, but in-class simulations could be used as an alternative form of enacting the lesson. Ideally, teacher candidates would then continue the collaborative cycle by reengaging in evaluation work by assessing the success of their lesson and the ongoing needs of their students.

In addition to supporting the implementation of the DDAE framework within teacher education coursework, this study also discovered an array of learning experiences suggested within the InTASC and CEC guidance documents that support teacher collaboration (see Figure 11). The second two implications for faculty are based on this finding. First, teacher candidates should experience a balanced diet of diverse learning experiences (Fredricks et al., 2004). In essence, teaching is a complex profession, with no two days or teaching experiences being the same. Likewise, the learning experiences used to educate and help pre-service teachers develop should prepare them for the complexities of the profession. Providing diverse learning experiences where teacher candidates can grow their skills according to diverse content areas, developmental levels, cultural and linguistic backgrounds, and academic readiness levels of students supports their ability to adapt and meet the needs of all students (Grubert, 2011). Second, candidates need to engage in varied and continual reflective practices that allow them to

become self-aware and adjust their practices accordingly to develop reflexive practices in the classroom (Friend, 2007). By layering reflective practices with learning experiences that develop collaborative practices, like those identified as part of this study, faculty can support teacher candidates in becoming reflective practitioners. This is especially important as educators engage in teacher collaboration as collaboration requires educators to consider how their actions are impacting themselves, their students, and their collaborative partners (CCSSO, 2013). Altogether, faculty within initial teacher preparation programs can support teacher collaboration within their candidates by designing and facilitating learning experiences that are based on the DDAE framework, are diverse and complex in nature, and engage in reflective practices.

Implications for Teacher Preparation Program Leaders

As with faculty, leaders of initial teacher preparation programs play a pivotal role in the development of their teacher candidates. As leaders make decisions about budgets, staffing, resources, strategic plans, and departmental structures, they impact the experiences of their students. Therefore, improvements to how teacher candidates are prepared to engage in teacher collaboration must include program leaders. Not unexpectedly, this study found that the CAEP, InTASC, and CEC standards and guidance documents support teacher collaboration. In some instances, that collaboration was specifically defined as collaboration between general and special educators, but collaboration was also defined more openly. Both cases exemplify the need for teacher education programs to reconsider traditional structures and boundaries that segregate educators by discipline or specialty and integrate programs (Stayton & McCollum, 2002; Van Laarhoven et al., 2006). By providing integrated, interdisciplinary coursework and clinical field experiences, teacher education programs can more authentically mirror the structures of P-12 systems (McKenzie, 2009; Ross et al., 2006). The process of integrating

departments or specialty programs requires leaders to consider commonalities across all educators, rather than focusing on the differences between each specialty (Hardman, 2009). As a further consideration, program leaders should explore the option of faculty co-teaching courses so that teacher collaboration is explicitly modeled for teacher candidates and so that specialty information and skills from each field continue to be honored and developed within an integrated program structure. Notably, large structural and programmatic changes, like integrated programs and implementing co-teaching models, requires thoughtful strategic planning along with the faculty who would help implement these changes.

Program leaders are also in a unique position to support communication between the program and their teacher candidates. To support accreditation and recruitment efforts, teacher candidates need to understand how their learning experiences relate to and interact with program-, institution-, state-, and national-level educational decisions. For example, if program leaders can help their teacher candidates be informed participants in their learning process, then candidates can facilitate access for other students, utilize resources, and support program development (Latham et al., 2020; Scott & Miller, 2017). In the case of teacher collaboration, if teacher candidates are aware of how their learning experiences and the program goals and structures support teacher collaboration, they could contribute positively to the program's overall accreditation status in several ways. For instance, teacher candidates who understand the rationale behind the program's support of teacher collaboration may engage more fully in the process, leading to higher performance in coursework and impact in P-12 settings (McNair, 2016). They may also be able to articulate the need for and results of teacher collaboration during accreditation site visits (Dove et al., 1998; Elassy, 2013). Similarly, activating current and former teacher candidates as advocates for preparation in teacher collaboration within a program

can support recruiting efforts. Using authentic teacher collaboration and structures that mirror those of P-12 systems as a recruiting tool could be particularly beneficial as teacher education programs adapt to the current teacher shortage and redesign and extend their program offerings to support the changing needs of the teacher workforce (Holcomb-McCoy, 2023). Altogether, program leaders have the opportunity to engage in systems thinking and the continual improvement process by supporting teacher collaboration and integrating formally isolated departments, supporting co-teaching amongst their faculty, communicating the value of teacher collaboration with their teacher candidates, and activating their teacher candidates as program advocates during accreditation and recruitment processes.

Implications for Accrediting Bodies

As discussed in Chapter 2, each of the professional organizations whose standards and guidance documents were analyzed as part of this study are related to the accreditation process for initial teacher preparation programs. As a reminder, CAEP (2020e) is a main accrediting body within the U.S., illustrated by their formal partnerships with 32 states and the District of Columbia. Although CCSSO is not an accrediting body, CAEP uses their InTASC standards as part of the evaluation process to assess teacher candidates' content and pedagogical knowledge (CAEP, 2021). Further, CEC serves as an accrediting body for programs preparing special educators, as well as a Specialized Professional Association for CAEP (2020d). In examining the standards and guidance documents of these three professional organizations, this study found inconsistencies between the organizations in the level of depth to which each organization addressed teacher collaboration, as well as how teacher collaboration was represented across their standards, sub-standards, and supporting text. Therefore, a recommendation for accrediting bodies and their supporting partners is to continue their work of regularly assessing and updating

their standards and documents. In doing so, it is imperative that the review process results in cohesive documents that are consistent and clear, without which their expectations and recommendations could be subject to misinterpretation or variability across teacher education programs (Anderson et al., 2001).

The consequence of this should be considered from two angles. First, if one of the goals of accreditation is to create a consistent benchmark for program quality (CAEP, 2020f), then clear, shared understandings of how teacher collaboration should be defined and minimal expectations for performing and assessing this teacher task are needed. Second, if another goal of these professional organizations is to support programs in their continual improvement process (CAEP, 2020b, 2020d), then their role as a bridge between P-12 systems and teacher education programs becomes more critical. In this case, guidance documents that provide coherent descriptions of how teacher collaboration is developed, enacted, and supported could support programs in making decisions that ultimately support P-12 systems and students. For example, accrediting bodies and professional organizations supporting teacher education programs could establish crosswalks as tools that compare disparate standards (Stevens & Wilkerson, 2010). These crosswalks could support program faculty and leaders as they unpack, or analyze and interpret (McTighe & Wiggins, 2012), professional standards and engage in curriculum mapping across their programs and within their coursework. Altogether, professional organizations and accrediting bodies can support teacher education programs by developing and disseminating standards and guidance documents that provide clear, concise, and coherent information about how to interpret and implement their standards and engage in the continual improvement process.

In conclusion, the implications drawn from this study impact policy, practice, and leadership within initial teacher preparation programs. For program faculty, the study underscores the importance of aligning coursework with established frameworks like the DDAE model and designing diverse and authentic learning experiences to foster adaptable and reflective candidates capable of navigating the complexities of teaching. In support of these efforts, program leaders are urged to move toward integrated, interdisciplinary programs and to foster communication that empowers teacher candidates by understanding the rationale behind programmatic decisions, thereby enhancing their engagement and performance. Moreover, accrediting bodies need to ensure consistency and clarity in their standards and guidance documents to provide a solid foundation for program evaluation and continual improvement. By collectively addressing these implications, stakeholders can foster a culture of collaboration within teacher preparation programs, ultimately equipping future educators with the skills and mindset needed to positively affect P-12 student learning outcomes.

Recommendations for Further Research

As I reflect on needs and implications for practice and policy and consider the limitations, delimitations, and findings of this study, four recommendations have emerged for future research. First, I investigated a limited approximation of full curricula within initial teacher preparation programs, so further studies should explore more of the curricula, particularly the enacted curricula, of initial teacher preparation programs. Second, I focused on the CAEP, InTASC, and CEC standards and selected guidance documents, so additional professional standards and additional sources of information could be explored. Third, the interpretation of the standards was limited to a single researcher, so a replication study including a team of researchers would support the reliability of the findings and conclusions drawn from

this study. Finally, findings from this study included support for the use of Woodland et al.'s (2013) DDAE framework within initial teacher preparation programs and recognition that collaborative partnerships extend beyond fellow educators. Therefore, further research could explore this framework in particular, including the proposed expanded framework, as well as collaboration with students, families, and community partners.

I analyzed the current standards driving curricula within initial teacher preparation programs. As a review from the delimitations described in Chapter 3, I could not draw conclusions about what the curriculum looks like within individual initial teacher preparation programs as the enacted curriculum was beyond the scope of the current study. Furthermore, I did not explore the influence of program curricula on pre-service teachers or P-12 students. Therefore, conclusions about the effect of the curricula within or beyond initial teacher preparation programs could not be made (Lasswell, 1946; Titscher et al., 2012). Moreover, standards serve as a singular source of curriculum within teacher education programs (Tyler, 1949/2013), and this study did not account for the variations nor influence of state licensure regulations which also influence programs and their curricula. The presence of state licensure regulations indicates that program curricula are influenced by state policymakers in addition to professional organizations and teacher education program faculty and leaders (Shuls & Trivitt, 2015). Therefore, further studies are needed to determine how these stakeholders influence program curricula and each other. Ultimately, this study serves as an empirical foundation for future studies as it identifies themes and concerns within the curricula of initial teacher preparation programs that need further exploration but could not be answered within the scope of the current study (Huckin, 2003). Future studies could examine the taught, or enacted, curricula within programs to determine how teacher collaboration is being introduced, practiced, and

assessed within coursework, clinical field experiences, and other aspects of teacher education programs. Additionally, further studies could explore the impact of standards-based curricular decisions on teacher candidates and their P-12 students. Moreover, such studies could be conducted as evaluations of individual programs or as cross-examinations of multiple programs.

Future research could also be inspired by two additional delimitations that impacted the scope of this study. First, this study specifically explored the text of the standards themselves and a single related guidance document, rather than the full set of resources initial teacher preparation programs might use when implementing the standards. However, multimodal content analyses account for how text is disseminated and experienced and could encompass a wider array of supporting guidance documents and resources (Jewitt, 2009; Serafini & Reid, 2023). Further, the standards examined within this study are only representative of initial teacher preparation programs seeking accreditation through CAEP and/or CEC. While the CAEP, InTASC, and CEC standards are used by many programs, transferability cannot be assumed, and further research is needed to examine these standards within the context of specific program structures. Additional further research could explore other accrediting bodies, such as the Association for Advancing Quality in Educator Preparation, National Association for the Education of Young Children, and Montessori Accreditation Council for Teacher Education (Council for Higher Education Accreditation, n.d.), and their respective standards. Further, more comprehensive sets of documents and resources supporting the CAEP, InTASC, and CEC standards, like the websites, crosswalks, or other supporting documents contextualizing the standards, could be explored.

As a third consideration, a single researcher conducted this study, resulting in limited perspectives of researchers. Further, this study did not include the perspectives of the individuals

or organizations who wrote and published the standards nor the faculty, students, or former students who experience these standards as part of their program learning experiences or accreditation processes. Therefore, additional research is needed to account for these perspectives (Huckin, 2003) and could include replication studies with teams of researchers and coders, that include voices from the professional organizations publishing the standards and guidance documents, and that include voices from the faculty and program leaders making decisions based on the standards and guidance documents.

Finally, the findings of this study indicated that the DDAE framework is aligned with the standards and expectations of CAEP, CCSSO, and CEC and has promise as an instructional model within initial teacher preparation programs. As the framework was originally designed for P-12 contexts, future research needs to be conducted to explore its use in higher education. Researchers could investigate this framework as a model for collaborative learning experiences and performance assessments, and further studies could develop and validate scales measuring teacher collaboration based on the framework to be used as assessment tools within teacher education contexts. Moreover, the Delphi method could be used to build consensus about or further refine the proposed expansion to the DDAE framework (Green, 2014). A second finding within this study that warrants further investigation is an exploration of collaboration as a larger practice. I focused on collaboration between educators but noted text within the investigated standards and guidance documents that were beyond the scope of this study because they addressed collaboration with students, student families, and community partners. Respecting that teacher collaboration is just one of many valuable ways that educators collaborate within their professional realms, further studies could replicate the current one by examining the CAEP,

InTASC, and CEC guidance documents with a broader focus on collaboration across various partnerships.

Additional research may be needed to complement the findings of this study in an effort to better serve our future teachers and their P-12 students. For example, I investigated the standards driving initial teacher preparation programs, but further research is needed that investigates the full curriculum within programs and the impact of those curricula on teacher candidates and their P-12 students. Additionally, further research that addresses other standard sets or uses additional resources to provide more context for the standards may be helpful. Further, a replication study that includes more than one researcher or further research that includes perspectives from standard writers or teacher preparation program faculty, staff, and students may be needed. Lastly, new studies could be conducted that further explore the potential of the DDAE framework within initial teacher preparation programs, as well as collaboration with students, families, and community partners.

Conclusion

I found that teacher collaboration was addressed and represented within the CAEP, InTASC, and CEC standards and guidance documents, leading me to believe that teacher collaboration is valued by their respective professional organizations. With the understanding that teacher collaboration, particularly collaboration between general and special education teachers, is a common expectation for and experience of P-12 educators, the findings of this study support the idea that teacher collaboration is a valuable practice within the field of education. Therefore, teacher collaboration should be valued and present within initial teacher preparation programs. To be clear, teacher education programs must do more than ask pre-service teachers to engage in group work. Teacher candidates must actively engage in cycles of

dialogue, decision-making, action, and evaluation that are authentic, meaningful, and continual. These learning experiences should not be isolated within general or special education programs or departments. To truly be authentic to P-12 settings, general and special education teacher candidates should have regular opportunities to engage in teacher collaboration together in both coursework and clinical field experiences where they can hone their skills, receive feedback, and learn to navigate relationships and problem-solve across a variety of partnerships. Ultimately, the findings from this study confirm that it is the responsibility of teacher educators to support the development of future teachers as they learn to collaborate with one another to meet the needs of all students.

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APPENDIX A

FULL TEXT OF CAEP STANDARDS

2022 Initial Level Standards
Standard 1: Content and Pedagogical Knowledge The provider ensures that candidates develop an understanding of the critical concepts and principles of their discipline and facilitates candidates' reflection of their personal biases to increase their understanding and practice of equity, diversity, and inclusion. The provider is intentional in the development of their curriculum and clinical experiences for candidates to demonstrate their ability to effectively work with diverse P-12 students and their families.
R1.1 The Learner and Learning The provider ensures candidates are able to apply their knowledge of the learner and learning at the appropriate progression levels. Evidence provided should demonstrate that candidates are able to apply critical concepts and principles of learner development (InTASC Standard 1), learning differences (InTASC Standard 2), and creating safe and supportive learning environments (InTASC Standard 3) in order to work effectively with diverse P-12 students and their families.
R1.2 Content The provider ensures candidates are able to apply their knowledge of content at the appropriate progression levels. Evidence provided demonstrates candidates know central concepts of their content area (InTASC Standard 4) and are able to apply the content in developing equitable and inclusive learning experiences (InTASC Standard 5) for diverse P-12 students. Outcome data can be provided from a Specialized Professional Associations (SPA) process, a state review process, or an evidence review of Standard 1.
R1.3 Instructional Practice The provider ensures that candidates are able to apply their knowledge of InTASC standards relating to instructional practice at the appropriate progression levels. Evidence demonstrates how candidates are able to assess (InTASC Standard 6), plan for instruction (InTASC Standard 7), and utilize a variety of instructional strategies (InTASC Standard 8) to provide equitable and inclusive learning experiences for diverse P-12 students. Providers ensure candidates model and apply national or state approved technology standards to engage and improve learning for all students.
R1.4 Professional Responsibility The provider ensures candidates are able to apply their knowledge of professional responsibility at the appropriate progression levels. Evidence provided should demonstrate candidates engage in professional learning, act ethically (InTASC Standard 9), take responsibility for student learning, and collaborate with others (InTASC Standard 10) to work effectively with diverse P-12 students and their families.
Standard 2: Clinical Partnerships and Practice The provider ensures effective partnerships and high-quality clinical practice are central to candidate preparation. These experiences should be designed to develop candidate's knowledge, skills, and professional dispositions to demonstrate positive impact on diverse students' learning and development. High quality clinical practice offers candidates experiences in different settings and modalities, as well as with diverse P-12 students, schools, families, and communities. Partners share responsibility to identify and address real problems of practice candidates experience in their engagement with P-12 students.
R2.1 Partnerships for Clinical Preparation Partners co-construct mutually beneficial P-12 school and community arrangements for clinical preparation and share responsibility for continuous improvement of candidate preparation.

R2.2 Clinical Educators Partners co-select, prepare, evaluate, and support high-quality clinical educators, both provider- and school-based, who demonstrate a positive impact on candidates' development and diverse P-12 student learning and development.

R2.3 Clinical Experiences The provider works with partners to design and implement clinical experiences, utilizing various modalities, of sufficient depth, breadth, diversity, coherence, and duration to ensure candidates demonstrate their developing effectiveness and positive impact on diverse P-12 students' learning and development as presented in Standard R1.

Standard 3: Candidate Recruitment, Progression, and Support The provider demonstrates the quality of candidates is a continuous and purposeful focus from recruitment through completion. The provider demonstrates that development of candidate quality is the goal of educator preparation and that the EPP provides supports services (such as advising, remediation, and mentoring) in all phases of the program so candidates will be successful.

R3.1 Recruitment The provider presents goals and progress evidence for recruitment of high-quality candidates from a broad range of backgrounds and diverse populations that align with their mission. The provider demonstrates efforts to know and address local, state, regional, or national needs for hard-to-staff schools and shortage fields. The goals and evidence should address progress towards a candidate pool which reflects the diversity of America's P-12 students.

R3.2 Monitoring and Supporting Candidate Progression The provider creates and monitors transition points from admission through completion that indicate candidates' developing content knowledge, pedagogical knowledge, pedagogical skills, critical dispositions, professional responsibilities, and the ability to integrate technology effectively in their practice. The provider identifies a transition point at any point in the program when a cohort grade point average of 3.0 is achieved and monitors this data. The provider ensures knowledge of and progression through transition points are transparent to candidates. The provider plans and documents the need for candidate support, as identified in disaggregated data by race and ethnicity and such other categories as may be relevant for the EPP's mission, so candidates meet milestones. The provider has a system for effectively maintaining records of candidate complaints, including complaints made to CAEP, and documents the resolution.

R3.3 Competency at Completion The provider ensures candidates possess academic competency to teach effectively with positive impacts on diverse P-12 student learning and development through application of content knowledge, foundational pedagogical skills, and technology integration in the field(s) where certification is sought. Multiple measures are provided and data are disaggregated and analyzed based on race, ethnicity, and such other categories as may be relevant for the EPP's mission.

Standard 4: Program Impact The provider demonstrates the effectiveness of its completers' instruction on P-12 student learning and development, and completer and employer satisfaction with the relevance and effectiveness of preparation.

R4.1 Completer Effectiveness The provider demonstrates that program completers: effectively contribute to P-12 student-learning growth AND apply in P-12 classrooms the professional knowledge, skills, and dispositions that the preparation experiences were designed to achieve. In addition, the provider includes a rationale for the data elements provided.

R4.2 Satisfaction of Employers The provider demonstrates employers are satisfied with the completers' preparation for their assigned responsibilities in working with diverse P-12 students and their families.

R4.3 Satisfaction of Completers The provider demonstrates program completers perceive their preparation as relevant to the responsibilities they encounter on the job, and their preparation was effective.

Standard 5: Quality Assurance System and Continuous Improvement The provider maintains a quality assurance system that consists of valid data from multiple measures and supports continuous improvement that is sustained and evidence-based. The system is developed and maintained with input from internal and external stakeholders. The provider uses the results of inquiry and data collection to establish priorities, enhance program elements, and highlight innovations.

R5.1 Quality Assurance System The provider has developed, implemented, and modified, as needed, a functioning quality assurance system that ensures a sustainable process to document operational effectiveness. The provider documents how data enter the system, how data are reported and used in decision making, and how the outcomes of those decisions inform programmatic improvement.

R5.2 Data Quality The provider's quality assurance system from R5.1 relies on relevant, verifiable, representative, cumulative, and actionable measures to ensure interpretations of data are valid and consistent.

R5.3 Stakeholder Involvement The provider includes relevant internal (e.g., EPP administrators, faculty, staff, candidates) and external (e.g., alumni, practitioners, school and community partners, employers) stakeholders in program design, evaluation, and continuous improvement processes.

R5.4 Continuous Improvement The provider regularly, systematically, and continuously assesses performance against its goals and relevant standards, tracks results over time, documents modifications and/or innovations and their effects on EPP outcomes.

Standard 6: Fiscal and Administrative Capacity The EPP has the fiscal and administrative capacity, faculty, infrastructure (facilities, equipment, and supplies) and other resources as appropriate to the scale of its operations and as necessary for the preparation of candidates to meet professional, state, and institutional standards. For EPPs whose institution is accredited by an accreditor recognized by the U.S. Secretary of Education (e.g., SACSCOC, HLC), such accreditation will be considered sufficient evidence of compliance with Standard 6. If an EPP's institution is not accredited by an accreditor recognized by the U.S. Secretary of Education, the EPP must address each component of ST 6 in narrative supported by evidence.

R6.1 Fiscal Resources The EPP has the fiscal capacity as appropriate to the scale of its operations. The budget for curriculum, instruction, faculty, clinical work, scholarship, etc., supports high-quality work within the EPP and its school partners for the preparation of professional educators.

R6.2 Administrative Capacity The EPP has administrative capacity as appropriate to the scale of its operations, including leadership and authority to plan, deliver, and operate coherent programs of study so that their candidates are prepared to meet all standards. Academic calendars, catalogs, publications, grading policies, and advertising are current, accurate, and transparent.

R6.3 Faculty Resources The EPP has professional education faculty that have earned doctorates or equivalent P-12 teaching experience that qualifies them for their assignments. The EPP provides adequate resources and opportunities for professional development of faculty, including training in the use of technology.

2022 Initial Level Standards
R6.4 Infrastructure The EPP has adequate campus and school facilities, equipment, and supplies to support candidates in meeting standards. The infrastructure supports faculty and candidate use of information technology in instruction.
Standard 7: Record of Compliance with Title IV of the Higher Education Act Freestanding EPPs relying on CAEP accreditation to access Title IV of the Higher Education Act must demonstrate 100% compliance with their responsibilities under Title IV of the Act, including but not limited to, on the basis of student loan default rate data provided by the Secretary, financial and compliance audits, and program reviews conducted by the U.S. Department of Education. Freestanding EPPs will need to provide narrative and evidence for all components of ST 7. **Only For EPPs seeking access to Title IV funds**

Note. CAEP = Council for the Accreditation of Educator Preparation. Adapted from "2022 Initial Level Standards," by CAEP, n.d. (https://caepnet.org/~/media/Files/caep/standards/2022-initial-standards-1-pager-final.pdf?la=en).

APPENDIX B

FULL TEXT OF INTASC STANDARDS

InTASC Core Teaching Standards
Standard #1: Learner Development. The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.
1(a) The teacher regularly assesses individual and group performance in order to design and modify instruction to meet learners' needs in each area of development (cognitive, linguistic, social, emotional, and physical) and scaffolds the next level of development.
1(b) The teacher creates developmentally appropriate instruction that takes into account individual learners' strengths, interests, and needs and that enables each learner to advance and accelerate his/ her learning.
1(c) The teacher collaborates with families, communities, colleagues, and other professionals to promote learner growth and development.
1(d) The teacher understands how learning occurs--how learners construct knowledge, acquire skills, and develop disciplined thinking processes--and knows how to use instructional strategies that promote student learning.
1(e) The teacher understands that each learner's cognitive, linguistic, social, emotional, and physical development influences learning and knows how to make instructional decisions that build on learners' strengths and needs.
1(f) The teacher identifies readiness for learning, and understands how development in any one area may affect performance in others.
1(g) The teacher understands the role of language and culture in learning and knows how to modify instruction to make language comprehensible and instruction relevant, accessible, and challenging.
1(h) The teacher respects learners' differing strengths and needs and is committed to using this information to further each learner's development.
1(i) The teacher is committed to using learners' strengths as a basis for growth, and their misconceptions as opportunities for learning.
1(j) The teacher takes responsibility for promoting learners' growth and development.
1(k) The teacher values the input and contributions of families, colleagues, and other professionals in understanding and supporting each learner's development.
Standard #2: Learning Differences. The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
2(a) The teacher designs, adapts, and delivers instruction to address each student's diverse learning strengths and needs and creates opportunities for students to demonstrate their learning in different ways.

2(b) The teacher makes appropriate and timely provisions (e.g., pacing for individual rates of growth, task demands, communication, assessment, and response modes) for individual students with particular learning differences or needs.

2(c) The teacher designs instruction to build on learners' prior knowledge and experiences, allowing learners to accelerate as they demonstrate their understandings.

2(d) The teacher brings multiple perspectives to the discussion of content, including attention to learners' personal, family, and community experiences and cultural norms.

2(e) The teacher incorporates tools of language development into planning and instruction, including strategies for making content accessible to English language learners and for evaluating and supporting their development of English proficiency.

2(f) The teacher accesses resources, supports, and specialized assistance and services to meet particular learning differences or needs.

2(g) The teacher understands and identifies differences in approaches to learning and performance and knows how to design instruction that uses each learner's strengths to promote growth.

2(h) The teacher understands students with exceptional needs, including those associated with disabilities and giftedness, and knows how to use strategies and resources to address these needs.

2(i) The teacher knows about second language acquisition processes and knows how to incorporate instructional strategies and resources to support language acquisition.

2(j) The teacher understands that learners bring assets for learning based on their individual experiences, abilities, talents, prior learning, and peer and social group interactions, as well as language, culture, family, and community values.

2(k) The teacher knows how to access information about the values of diverse cultures and communities and how to incorporate learners' experiences, cultures, and community resources into instruction.

2(l) The teacher believes that all learners can achieve at high levels and persists in helping each learner reach his/her full potential.

2(m) The teacher respects learners as individuals with differing personal and family backgrounds and various skills, abilities, perspectives, talents, and interests.

2(n) The teacher makes learners feel valued and helps them learn to value each other.

2(o) The teacher values diverse languages and dialects and seeks to integrate them into his/her instructional practice to engage students in learning.

Standard #3: Learning Environments. The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

3(a) The teacher collaborates with learners, families, and colleagues to build a safe, positive learning climate of openness, mutual respect, support, and inquiry.

3(b) The teacher develops learning experiences that engage learners in collaborative and self-directed learning and that extend learner interaction with ideas and people locally and globally.

3(c) The teacher collaborates with learners and colleagues to develop shared values and expectations for respectful interactions, rigorous academic discussions, and individual and group responsibility for quality work.

3(d) The teacher manages the learning environment to actively and equitably engage learners by organizing, allocating, and coordinating the resources of time, space, and learners' attention.

3(e) The teacher uses a variety of methods to engage learners in evaluating the learning environment and collaborates with learners to make appropriate adjustments.

3(f) The teacher communicates verbally and nonverbally in ways that demonstrate respect for and responsiveness to the cultural backgrounds and differing perspectives learners bring to the learning environment.

3(g) The teacher promotes responsible learner use of interactive technologies to extend the possibilities for learning locally and globally.

3(h) The teacher intentionally builds learner capacity to collaborate in face-to-face and virtual environments through applying effective interpersonal communication skills.

3(i) The teacher understands the relationship between motivation and engagement and knows how to design learning experiences using strategies that build learner self-direction and ownership of learning.

3(j) The teacher knows how to help learners work productively and cooperatively with each other to achieve learning goals.

3(k) The teacher knows how to collaborate with learners to establish and monitor elements of a safe and productive learning environment including norms, expectations, routines, and organizational structures.

3(l) The teacher understands how learner diversity can affect communication and knows how to communicate effectively in differing environments.

3(m) The teacher knows how to use technologies and how to guide learners to apply them in appropriate, safe, and effective ways.

3(n) The teacher is committed to working with learners, colleagues, families, and communities to establish positive and supportive learning environments.

3(o) The teacher values the role of learners in promoting each other's learning and recognizes the importance of peer relationships in establishing a climate of learning.

3(p) The teacher is committed to supporting learners as they participate in decision-making, engage in exploration and invention, work collaboratively and independently, and engage in purposeful learning.

3(q) The teacher seeks to foster respectful communication among all members of the learning community.

3(r) The teacher is a thoughtful and responsive listener and observer.

Standard #4: Content Knowledge. The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.

InTASC Core Teaching Standards
4(a) The teacher effectively uses multiple representations and explanations that capture key ideas in the discipline, guide learners through learning progressions, and promote each learner's achievement of content standards.
4(b) The teacher engages students in learning experiences in the discipline(s) that encourage learners to understand, question, and analyze ideas from diverse perspectives so that they master the content.
4(c) The teacher engages learners in applying methods of inquiry and standards of evidence used in the discipline.
4(d) The teacher stimulates learner reflection on prior content knowledge, links new concepts to familiar concepts, and makes connections to learners' experiences.
4(e) The teacher recognizes learner misconceptions in a discipline that interfere with learning, and creates experiences to build accurate conceptual understanding.
4(f) The teacher evaluates and modifies instructional resources and curriculum materials for their comprehensiveness, accuracy for representing particular concepts in the discipline, and appropriateness for his/her learners.
4(g) The teacher uses supplementary resources and technologies effectively to ensure accessibility and relevance for all learners.
4(h) The teacher creates opportunities for students to learn, practice, and master academic language in their content.
4(i) The teacher accesses school and/or district-based resources to evaluate the learner's content knowledge in their primary language.
4(j) The teacher understands major concepts, assumptions, debates, processes of inquiry, and ways of knowing that are central to the discipline(s) s/he teaches.
4(k) The teacher understands common misconceptions in learning the discipline and how to guide learners to accurate conceptual understanding.
4(l) The teacher knows and uses the academic language of the discipline and knows how to make it accessible to learners.
4(m) The teacher knows how to integrate culturally relevant content to build on learners' background knowledge.
4(n) The teacher has a deep knowledge of student content standards and learning progressions in the discipline(s) s/he teaches.
4(o) The teacher realizes that content knowledge is not a fixed body of facts but is complex, culturally situated, and ever evolving. S/he keeps abreast of new ideas and understandings in the field.
4(p) The teacher appreciates multiple perspectives within the discipline and facilitates learners' critical analysis of these perspectives.
4(q) The teacher recognizes the potential of bias in his/her representation of the discipline and seeks to appropriately address problems of bias.
4(r) The teacher is committed to work toward each learner's mastery of disciplinary content and skills.

InTASC Core Teaching Standards
Standard #5: Application of Content. The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.
5(a) The teacher develops and implements projects that guide learners in analyzing the complexities of an issue or question using perspectives from varied disciplines and cross-disciplinary skills (e.g., a water quality study that draws upon biology and chemistry to look at factual information and social studies to examine policy implications).
5(b) The teacher engages learners in applying content knowledge to real world problems through the lens of interdisciplinary themes (e.g., financial literacy, environmental literacy).
5(c) The teacher facilitates learners' use of current tools and resources to maximize content learning in varied contexts.
5(d) The teacher engages learners in questioning and challenging assumptions and approaches in order to foster innovation and problem solving in local and global contexts.
5(e) The teacher develops learners' communication skills in disciplinary and interdisciplinary contexts by creating meaningful opportunities to employ a variety of forms of communication that address varied audiences and purposes.
5(f) The teacher engages learners in generating and evaluating new ideas and novel approaches, seeking inventive solutions to problems, and developing original work.
5(g) The teacher facilitates learners' ability to develop diverse social and cultural perspectives that expand their understanding of local and global issues and create novel approaches to solving problems.
5(h) The teacher develops and implements supports for learner literacy development across content areas.
5(i) The teacher understands the ways of knowing in his/her discipline, how it relates to other disciplinary approaches to inquiry, and the strengths and limitations of each approach in addressing problems, issues, and concerns.
5(j) The teacher understands how current interdisciplinary themes (e.g., civic literacy, health literacy, global awareness) connect to the core subjects and knows how to weave those themes into meaningful learning experiences.
5(k) The teacher understands the demands of accessing and managing information as well as how to evaluate issues of ethics and quality related to information and its use.
5(l) The teacher understands how to use digital and interactive technologies for efficiently and effectively achieving specific learning goals.
5(m) The teacher understands critical thinking processes and knows how to help learners develop high level questioning skills to promote their independent learning.
5(n) The teacher understands communication modes and skills as vehicles for learning (e.g., information gathering and processing) across disciplines as well as vehicles for expressing learning.
5(o) The teacher understands creative thinking processes and how to engage learners in producing original work.

5(p) The teacher knows where and how to access resources to build global awareness and understanding, and how to integrate them into the curriculum.

5(q) The teacher is constantly exploring how to use disciplinary knowledge as a lens to address local and global issues.

5(r) The teacher values knowledge outside his/her own content area and how such knowledge enhances student learning.

5(s) The teacher values flexible learning environments that encourage learner exploration, discovery, and expression across content areas.

Standard #6: Assessment. The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

6(a) The teacher balances the use of formative and summative assessment as appropriate to support, verify, and document learning.

6(b) The teacher designs assessments that match learning objectives with assessment methods and minimizes sources of bias that can distort assessment results.

6(c) The teacher works independently and collaboratively to examine test and other performance data to understand each learner's progress and to guide planning.

6(d) The teacher engages learners in understanding and identifying quality work and provides them with effective descriptive feedback to guide their progress toward that work.

6(e) The teacher engages learners in multiple ways of demonstrating knowledge and skill as part of the assessment process.

6(f) The teacher models and structures processes that guide learners in examining their own thinking and learning as well as the performance of others.

6(g) The teacher effectively uses multiple and appropriate types of assessment data to identify each student's learning needs and to develop differentiated learning experiences.

6(h) The teacher prepares all learners for the demands of particular assessment formats and makes appropriate accommodations in assessments or testing conditions, especially for learners with disabilities and language learning needs.

6(i) The teacher continually seeks appropriate ways to employ technology to support assessment practice both to engage learners more fully and to assess and address learner needs.

6(j) The teacher understands the differences between formative and summative applications of assessment and knows how and when to use each.

6(k) The teacher understands the range of types and multiple purposes of assessment and how to design, adapt, or select appropriate assessments to address specific learning goals and individual differences, and to minimize sources of bias.

6(l) The teacher knows how to analyze assessment data to understand patterns and gaps in learning, to guide planning and instruction, and to provide meaningful feedback to all learners.

6(m) The teacher knows when and how to engage learners in analyzing their own assessment results and in helping to set goals for their own learning.

6(n) The teacher understands the positive impact of effective descriptive feedback for learners and knows a variety of strategies for communicating this feedback.

6(o) The teacher knows when and how to evaluate and report learner progress against standards.

6(p) The teacher understands how to prepare learners for assessments and how to make accommodations in assessments and testing conditions, especially for learners with disabilities and language learning needs.

6(q) The teacher is committed to engaging learners actively in assessment processes and to developing each learner's capacity to review and communicate about their own progress and learning.

6(r) The teacher takes responsibility for aligning instruction and assessment with learning goals.

6(s) The teacher is committed to providing timely and effective descriptive feedback to learners on their progress.

6(t) The teacher is committed to using multiple types of assessment processes to support, verify, and document learning.

6(u) The teacher is committed to making accommodations in assessments and testing conditions, especially for learners with disabilities and language learning needs.

6(v) The teacher is committed to the ethical use of various assessments and assessment data to identify learner strengths and needs to promote learner growth.

Standard #7: Planning for Instruction. The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

7(a) The teacher individually and collaboratively selects and creates learning experiences that are appropriate for curriculum goals and content standards, and are relevant to learners

7(b) The teacher plans how to achieve each student's learning goals, choosing appropriate strategies and accommodations, resources, and materials to differentiate instruction for individuals and groups of learners.

7(c) The teacher develops appropriate sequencing of learning experiences and provides multiple ways to demonstrate knowledge and skill.

7(d) The teacher plans for instruction based on formative and summative assessment data, prior learner knowledge, and learner interest.

7(e) The teacher plans collaboratively with professionals who have specialized expertise (e.g., special educators, related service providers, language learning specialists, librarians, media specialists) to design and jointly deliver as appropriate effective learning experiences to meet unique learning needs.

7(f) The teacher evaluates plans in relation to short- and long-range goals and systematically adjusts plans to meet each student's learning needs and enhance learning.

7(g) The teacher understands content and content standards and how these are organized in the curriculum.

7(h) The teacher understands how integrating cross-disciplinary skills in instruction engages learners purposefully in applying content knowledge.

7(i) The teacher understands learning theory, human development, cultural diversity, and individual differences and how these impact ongoing planning.

7(j) The teacher understands the strengths and needs of individual learners and how to plan instruction that is responsive to these strengths and needs.

7(k) The teacher knows a range of evidence-based instructional strategies, resources, and technological tools and how to use them effectively to plan instruction that meets diverse learning needs.

7(l) The teacher knows when and how to adjust plans based on assessment information and learner responses.

7(m) The teacher knows when and how to access resources and collaborate with others to support student learning (e.g., special educators, related service providers, language learner specialists, librarians, media specialists, community organizations).

7(n) The teacher respects learners' diverse strengths and needs and is committed to using this information to plan effective instruction.

7(o) The teacher values planning as a collegial activity that takes into consideration the input of learners, colleagues, families, and the larger community.

7(p) The teacher takes professional responsibility to use short- and long-term planning as a means of assuring student learning.

7(q) The teacher believes that plans must always be open to adjustment and revision based on learner needs and changing circumstances.

Standard #8: Instructional Strategies. The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

8(a) The teacher uses appropriate strategies and resources to adapt instruction to the needs of individuals and groups of learners.

8(b) The teacher continuously monitors student learning, engages learners in assessing their progress, and adjusts instruction in response to student learning needs.

8(c) The teacher collaborates with learners to design and implement relevant learning experiences, identify their strengths, and access family and community resources to develop their areas of interest.

8(d) The teacher varies his/her role in the instructional process (e.g., instructor, facilitator, coach, audience) in relation to the content and purposes of instruction and the needs of learners.

8(e) The teacher provides multiple models and representations of concepts and skills with opportunities for learners to demonstrate their knowledge through a variety of products and performances.

8(f) The teacher engages all learners in developing higher order questioning skills and metacognitive processes.

8(g) The teacher engages learners in using a range of learning skills and technology tools to access, interpret, evaluate, and apply information.

8(h) The teacher uses a variety of instructional strategies to support and expand learners' communication through speaking, listening, reading, writing, and other modes.

8(i) The teacher asks questions to stimulate discussion that serves different purposes (e.g., probing for learner understanding, helping learners articulate their ideas and thinking processes, stimulating curiosity, and helping learners to question).

8(j) The teacher understands the cognitive processes associated with various kinds of learning (e.g., critical and creative thinking, problem framing and problem solving, invention, memorization and recall) and how these processes can be stimulated.

8(k) The teacher knows how to apply a range of developmentally, culturally, and linguistically appropriate instructional strategies to achieve learning goals.

8(l) The teacher knows when and how to use appropriate strategies to differentiate instruction and engage all learners in complex thinking and meaningful tasks.

8(m) The teacher understands how multiple forms of communication (oral, written, nonverbal, digital, visual) convey ideas, foster self-expression, and build relationships.

8(n) The teacher knows how to use a wide variety of resources, including human and technological, to engage students in learning.

8(o) The teacher understands how content and skill development can be supported by media and technology and knows how to evaluate these resources for quality, accuracy, and effectiveness.

8(p) The teacher is committed to deepening awareness and understanding the strengths and needs of diverse learners when planning and adjusting instruction.

8(q) The teacher values the variety of ways people communicate and encourages learners to develop and use multiple forms of communication.

8(r) The teacher is committed to exploring how the use of new and emerging technologies can support and promote student learning.

8(s) The teacher values flexibility and reciprocity in the teaching process as necessary for adapting instruction to learner responses, ideas, and needs.

Standard #9: Professional Learning and Ethical Practice. The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

9(a) The teacher engages in ongoing learning opportunities to develop knowledge and skills in order to provide all learners with engaging curriculum and learning experiences based on local and state standards.

9(b) The teacher engages in meaningful and appropriate professional learning experiences aligned with his/her own needs and the needs of the learners, school, and system.

9(c) Independently and in collaboration with colleagues, the teacher uses a variety of data (e.g., systematic observation, information about learners, research) to evaluate the outcomes of teaching and learning and to adapt planning and practice.

9(d) The teacher actively seeks professional, community, and technological resources, within and outside the school, as supports for analysis, reflection, and problem-solving.

9(e) The teacher reflects on his/her personal biases and accesses resources to deepen his/her own understanding of cultural, ethnic, gender, and learning differences to build stronger relationships and create more relevant learning experiences.

9(f) The teacher advocates, models, and teaches safe, legal, and ethical use of information and technology including appropriate documentation of sources and respect for others in the use of social media.

9(g) The teacher understands and knows how to use a variety of self-assessment and problem-solving strategies to analyze and reflect on his/her practice and to plan for adaptations/adjustments.

9(h) The teacher knows how to use learner data to analyze practice and differentiate instruction accordingly.

9(i) The teacher understands how personal identity, worldview, and prior experience affect perceptions and expectations, and recognizes how they may bias behaviors and interactions with others.

9(j) The teacher understands laws related to learners' rights and teacher responsibilities (e.g., for educational equity, appropriate education for learners with disabilities, confidentiality, privacy, appropriate treatment of learners, reporting in situations related to possible child abuse).

9(k) The teacher knows how to build and implement a plan for professional growth directly aligned with his/her needs as a growing professional using feedback from teacher evaluations and observations, data on learner performance, and school- and systemwide priorities.

9(l) The teacher takes responsibility for student learning and uses ongoing analysis and reflection to improve planning and practice.

9(m) The teacher is committed to deepening understanding of his/her own frames of reference (e.g., culture, gender, language, abilities, ways of knowing), the potential biases in these frames, and their impact on expectations for and relationships with learners and their families.

9(n) The teacher sees him/herself as a learner, continuously seeking opportunities to draw upon current education policy and research as sources of analysis and reflection to improve practice.

9(o) The teacher understands the expectations of the profession including codes of ethics, professional standards of practice, and relevant law and policy

Standard #10: Leadership and Collaboration. The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

10(a) The teacher takes an active role on the instructional team, giving and receiving feedback on practice, examining learner work, analyzing data from multiple sources, and sharing responsibility for decision making and accountability for each student's learning.

10(b) The teacher works with other school professionals to plan and jointly facilitate learning on how to meet diverse needs of learners.

10(c) The teacher engages collaboratively in the school-wide effort to build a shared vision and supportive culture, identify common goals, and monitor and evaluate progress toward those goals.

10(d) The teacher works collaboratively with learners and their families to establish mutual expectations and ongoing communication to support learner development and achievement.

10(e) Working with school colleagues, the teacher builds ongoing connections with community resources to enhance student learning and well being.

InTASC Core Teaching Standards
10(f) The teacher engages in professional learning, contributes to the knowledge and skill of others, and works collaboratively to advance professional practice.
10(g) The teacher uses technological tools and a variety of communication strategies to build local and global learning communities that engage learners, families, and colleagues.
10(h) The teacher uses and generates meaningful research on education issues and policies.
10(i) The teacher seeks appropriate opportunities to model effective practice for colleagues, to lead professional learning activities, and to serve in other leadership roles.
10(j) The teacher advocates to meet the needs of learners, to strengthen the learning environment, and to enact system change.
10(k) The teacher takes on leadership roles at the school, district, state, and/or national level and advocates for learners, the school, the community, and the profession.
10(l) The teacher understands schools as organizations within a historical, cultural, political, and social context and knows how to work with others across the system to support learners.
10(m) The teacher understands that alignment of family, school, and community spheres of influence enhances student learning and that discontinuity in these spheres of influence interferes with learning.
10(n) The teacher knows how to work with other adults and has developed skills in collaborative interaction appropriate for both face-to-face and virtual contexts.
10(o) The teacher knows how to contribute to a common culture that supports high expectations for student learning.
10(p) The teacher actively shares responsibility for shaping and supporting the mission of his/her school as one of advocacy for learners and accountability for their success.
10(q) The teacher respects families' beliefs, norms, and expectations and seeks to work collaboratively with learners and families in setting and meeting challenging goals.
10(r) The teacher takes initiative to grow and develop with colleagues through interactions that enhance practice and support student learning.
10(s) The teacher takes responsibility for contributing to and advancing the profession.
10(t) The teacher embraces the challenge of continuous improvement and change.

Note. InTASC = Interstate Teacher Assessment and Support Consortium. Adapted from "InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0," by CCSSO, 2013 (https://ccsso.org/sites/default/files/2017-12/2013_INTASC_Learning_Progressions_for_Teachers.pdf).

APPENDIX C

FULL TEXT OF CEC STANDARDS

Initial Practice-Based Professional Preparation Standards for Special Educators
Standard 1: Engaging in Professional Learning and Practice within Ethical Guidelines Candidates practice within ethical and legal guidelines; advocate for improved outcomes for individuals with exceptionalities and their families while considering their social, cultural, and linguistic diversity; and engage in ongoing self-reflection to design and implement professional learning activities.
Component 1.1: Candidates practice within ethical guidelines and legal policies and procedures.
Component 1.2: Candidates advocate for improved outcomes for individuals with exceptionalities and their families while addressing the unique needs of those with diverse social, cultural, and linguistic backgrounds.
Component 1.3: Candidates design and implement professional learning activities based on ongoing analysis of student learning; self-reflection; and professional standards, research, and contemporary practices.
Standard 2: Understanding and Addressing Each Individual's Developmental and Learning Needs Candidates use their understanding of human growth and development, the multiple influences on development, individual differences, diversity, including exceptionalities, and families and communities to plan and implement inclusive learning environments and experiences that provide individuals with exceptionalities high quality learning experiences reflective of each individual's strengths and needs.
Component 2.1: Candidates apply understanding of human growth and development to create developmentally appropriate and meaningful learning experiences that address individualized strengths and needs of students with exceptionalities.
Component 2.2: Candidates use their knowledge and understanding of diverse factors that influence development and learning, including differences related to families, languages, cultures, and communities, and individual differences, including exceptionalities, to plan and implement learning experiences and environments.
Standard 3: Demonstrating Subject Matter Content and Specialized Curricular Knowledge Candidates apply their understanding of the academic subject matter content of the general curriculum and specialized curricula to inform their programmatic and instructional decisions for learners with exceptionalities.
Component 3.1: Candidates apply their understanding of academic subject matter content of the general curriculum to inform their programmatic and instructional decisions for individuals with exceptionalities.
Component 3.2: Candidates augment the general education curriculum to address skills and strategies that students with disabilities need to access the core curriculum and function successfully within a variety of contexts as well as the continuum of placement options to assure specially designed instruction is developed and implemented to achieve mastery of curricular standards and individualized goals and objectives.
Standard 4: Using Assessment to Understand the Learner and the Learning Environment for Databased Decision Making Candidates assess students' learning, behavior, and the classroom environment in order to evaluate and support classroom and school-based problem-solving systems of intervention

and instruction. Candidates evaluate students to determine their strengths and needs, contribute to students' eligibility determination, communicate students' progress, inform short and long-term instructional planning, and make ongoing adjustments to instruction using technology as appropriate.

Component 4.1: Candidates collaboratively develop, select, administer, analyze, and interpret multiple measures of student learning, behavior, and the classroom environment to evaluate and support classroom and school-based systems of intervention for students with and without exceptionalities.

Component 4.2: Candidates develop, select, administer, and interpret multiple, formal and informal, culturally and linguistically appropriate measures and procedures that are valid and reliable to contribute to eligibility determination for special education services.

Component 4.3: Candidates assess, collaboratively analyze, interpret, and communicate students' progress toward measurable outcomes using technology as appropriate, to inform both short- and long term planning, and make ongoing adjustments to instruction.

Standard 5: Supporting Learning Using Effective Instruction Candidates use knowledge of individuals' development, learning needs, and assessment data to inform decisions about effective instruction. Candidates use explicit instructional strategies and employ strategies to promote active engagement and increased motivation to individualize instruction to support each individual. Candidates use whole group instruction, flexible grouping, small group instruction, and individual instruction. Candidates teach individuals to use meta-/cognitive strategies to support and self-regulate learning.

Component 5.1: Candidates use findings from multiple assessments, including student self assessment, that are responsive to cultural and linguistic diversity and specialized as needed, to identify what students know and are able to do. They then interpret the assessment data to appropriately plan and guide instruction to meet rigorous academic and non-academic content and goals for each individual.

Component 5.2: Candidates use effective strategies to promote active student engagement, increase student motivation, increase opportunities to respond, and enhance self-regulation of student learning.

Component 5.3: Candidates use explicit, systematic instruction to teach content, strategies, and skills to make clear what a learner needs to do or think about while learning.

Component 5.4: Candidates use flexible grouping to support the use of instruction that is adapted to meet the needs of each individual and group.

Component 5.5: Candidates organize and manage focused, intensive small group instruction to meet the learning needs of each individual.

Component 5.6: Candidates plan and deliver specialized, individualized instruction that is used to meet the learning needs of each individual.

Standard 6: Supporting Social, Emotional, and Behavioral Growth Candidates create and contribute to safe, respectful, and productive learning environments for individuals with exceptionalities through the use of effective routines and procedures and use a range of preventive and responsive practices to support social, emotional and educational well-being. They follow ethical and legal guidelines and work collaboratively with families and other professionals to conduct behavioral assessments for intervention and program development.

Initial Practice-Based Professional Preparation Standards for Special Educators
Component 6.1: Candidates use effective routines and procedures to create safe, caring, respectful, and productive learning environments for individuals with exceptionalities.
Component 6.2: Candidates use a range of preventive and responsive practices documented as effective to support individuals' social, emotional, and educational well-being.
Component 6.3: Candidates systematically use data from a variety of sources to identify the purpose or function served by problem behavior to plan, implement, and evaluate behavioral interventions and social skills programs, including generalization to other environments.
Standard 7: Collaborating with Team Members Candidates apply team processes and communication strategies to collaborate in a culturally responsive manner with families, paraprofessionals, and other professionals within the school, other educational settings, and the community to plan programs and access services for individuals with exceptionalities and their families.
Component 7.1: Candidates utilize communication, group facilitation, and problem–solving strategies in a culturally responsive manner to lead effective meetings and share expertise and knowledge to build team capacity and jointly address students' instructional and behavioral needs.
Component 7.2: Candidates collaborate, communicate, and coordinate with families, paraprofessionals, and other professionals within the educational setting to assess, plan, and implement effective programs and services that promote progress toward measurable outcomes for individuals with and without exceptionalities and their families.
Component 7.3: Candidates collaborate, communicate, and coordinate with professionals and agencies within the community to identify and access services, resources, and supports to meet the identified needs of individuals with exceptionalities and their families.
Component 7.4: Candidates work with and mentor paraprofessionals in the paraprofessionals' role of supporting the education of individuals with exceptionalities and their families.
Field and Clinical Experience Standard: Special education candidates progress through a series of developmentally sequenced field and clinical experiences for the full range of ages, types and levels of abilities, and collaborative opportunities that are appropriate to the license or roles for which they are preparing. These field and clinical experiences are supervised by qualified professionals.

Note. CEC = Council for Exceptional Children. Adapted from "Initial Practice-Based Professional Preparation Standards for Special Educators," by CEC, 2021 (https://exceptionalchildren.org/sites/default/files/2021-03/K12%20Initial%20Standards%20and%20Components.pdf).

APPENDIX D

RESEARCHER POSITIONALITY STATEMENT

I am approaching this dissertation with experiences from three professional identities. As a dissertation, this is the culminating project of my Ph.D. journey in Educational Planning, Policy, and Leadership. My studies have concentrated on curriculum and learning design, so I am acutely interested in the curricula that form the foundation of educational systems. I have also held two distinct roles within U.S. educational systems.

Before beginning, and during my first year of, my doctoral journey, I was an elementary special education teacher in Virginia's public school system. In that role, I taught both self-contained and inclusion special education, collaborating with general education teachers on a daily basis in both positions. That experience inspired this study, and it is through the experiences I shared with my collaborating partners that I became interested in how we are prepared for and supported in working as a team. Based on conversations with these colleagues, I expect to discover that standards for our profession encourage collaboration between educators as a means of supporting and serving students' diverse needs. Yet, general education colleagues have consistently shared with me over the years that they felt underprepared to collaborate with special education teachers, so I am prepared to discover that there are differences in how standards supporting collaboration are distributed across standard sets that target general education versus special education teachers.

As yet another layer of my professional life, I am completing this dissertation while serving as an Instructor of Education and Field Placement Coordinator for a college's initial teacher preparation program in Virginia. It is through this role that I have become particularly interested in the curricular underpinnings of our program and programs like ours. Through our

course and program design work, accreditation process, and continual improvement processes, I am actively using the CAEP, InTASC, and CEC standards investigated as part of this study. These standards are an integral part of how our program makes decisions, so this dissertation serves to inform my own practice and contributions to those discussions and decisions.

I am not able, nor would I want to, separate these roles and their influence from this study. I appreciate the influence each of these experiences has on my current perspectives and values related to education and educational research, and they drive me to engage in research that supports my own understandings of the world and systems I work within, as well as improves practices that ultimately support the learning of P-12 students. My fervent hope is that this study helps inform my own practice as a teacher educator, supports the development of future teachers, improves collaboration between general and special educators, and positively impacts P-12 students' learning experiences.

Yet, I recognize that while my experiences motivate me and drive my research in positive ways, my experiences and values may also inadvertently bias or negatively influence my findings and interpretations. Fundamentally, this study is designed to elicit my interpretations of the standards, but I will be as transparent about that process as possible so that readers can decide for themselves whether my process and findings support their learning and work and represent broader experiences and perspectives than my own.

APPENDIX E

DESCRIPTION OF PILOT STUDY

In my dissertation, I examined three sets of initial teacher preparation standards, including the CAEP, InTASC, and CEC standards. To support the methods of this dissertation study, I conducted a pilot study in the spring of 2022 to evaluate the utility of this dissertation's methodological procedures and to preview possible findings. In the pilot study, I evaluated the three standard sets using Krippendorff's (2018) content analysis design.

Data Collection

In order to analyze the content of the standards at the time of the pilot, I collected the original text from newly revised 2022 CAEP standards, as well as the 2011 InTASC and 2012 CEC standards from their respective websites. This involved creating a table of all standards referring to teacher collaboration, or related terms and phrases like collaboration with general educators, related service providers, colleagues, other educators, other professionals, or teams. The identified standards included one CAEP standard, seven CEC standards and sub-standards, and 29 InTASC standards and sub-standards related to teacher collaboration:

- New CAEP standards were published in 2022, and collaboration was referenced within the content and pedagogical knowledge strand in one of its four sub-standards, RI.4 Professional Responsibility, stating that "[teacher] candidates…must collaboration with others…to work effectively with diverse K-12 students and their families" (CAEP, 2020b).
- Developed in 2013, the InTASC standards are organized into four categories: the learner and learning, content, instructional practice, and professional responsibility (Council of Chief State School Officers, 2013). All of these categories, other than

content, include standards referencing teacher collaboration. InTASC goes so far as to describe professional collaboration as a key theme that cuts across their standards, including the areas of learner development, learning environments, assessment, planning for instruction, professional learning and ethical practice, and leadership and collaboration.

- Published in 2015, the CEC's initial preparation standards include a dedicated set of collaboration standards and sub-standards stating that "special education professionals collaborate with…other educators [and] related service providers…in culturally responsive ways to address the needs of individuals with exceptionalities across a range of learning experiences" (p. 4), the CEC references teacher collaboration within three of the other six standards (50%).

Data Analysis

I analyzed the content and desired professional practices within the standards addressing teacher collaboration using a basic content analysis approach (Disko & Maschi, 2015), a descriptive content analysis design in which content and contexts are defined and described (Krippendorff, 2018). This approach allowed me to discover evidence and patterns within and across the standards.

Following Drisko and Maschi's (2015) procedures, I first developed a concordance as a means of determining which keywords and phrases occur most often across the standards, as well as an index of when and where these keywords and phrases occurred within the standards. My concordance was developed by generating an alphabetized list and frequency count of all words used within the standards using Write Words' online word frequency counter. Then, I repeated this procedure using the phrase frequency counter for phrases of two to five words. In

order to narrow the list of phrases down, I identified meaningful two-word phrases and continued this process using larger word phrases until I hit saturation, or the point when no new meaningful phrases emerged (Strauss & Corbin, 1998). This process resulted in 12 phrases being included in my concordance. This concordance ultimately created an index that listed the standards using each keyword or phrase.

Next, I used emergent coding to analyze the standards identified by the concordance (Drisko & Maschi, 2015). To develop an emergent code list for this phase of analysis, I employed Saldaña's (2021) descriptive coding and pattern coding. As such, I coded the standards by summarizing how the keywords and phrases from my concordance were used in context using nouns or short phrases that describe the key topics within the text (Saldaña, 2021). After coding these key topics, I used pattern coding to classify these topics into overarching themes based on commonalities across the topics (Saldaña, 2021).

Summary of Findings

Through this pilot, I discovered that, together, the three sets of standards suggest three purposes of collaboration between educators: teacher collaboration (1) effectively ensures academic growth, development, and well being for all students; (2) advances the profession; and (3) enacts system change (Smucker, 2022). However, the CAEP standards focused on overall practice and the student-centered purpose, the InTASC standards addressed all three purposes and focused on sharing responsibility and accountability within the student-centered purpose, and the CEC standards focused on the student-centered purpose, with specific foci on research-based practices, IEPs, and inclusion. In analyzing the standards, an additional theme emerged related to diversity. Frequently used words within the standards indicated that teacher collaboration is related to diversity in collaborative settings, students, collaborative partners,

learning experiences, communication strategies, data, student learning plans, and student needs. Upon further investigation into the diversity of collaborative partners, I discovered that the standards expect partnerships to exist between general education teachers, special education teachers, related service providers, language learning specialists, librarians, media specialists, families, students, community partners, and others unspecified. Together, these findings influenced my dissertation study by renewing my focus on professional collaboration between educators, specifically special and general education teachers.

Methodological Realizations

Despite the overall positive nature of engaging in this pilot, there were three things that I adjusted before engaging in my dissertation study. First, new standards were currently being published by the CEC, so my dissertation included an examination of the new standards, rather than the 2015 set examined as part of this pilot. Second, I did not engage in memoing during the content analysis process and was unable to capture my thinking and meaning making along the way. For my dissertation study, I elected to use the Pillar Integration Model (R. E. Johnson et al., 2019) as a way to take notes for and organize my thinking during data generation and analysis tasks. Third, while I was creating the concordance, I found that some of the frequency counts in my index were incorrect, which could have caused me to undervalue some of the keywords or phrases when coding if I perceived them as not being used very frequently in the standards. Therefore, I used different software for my dissertation study.

In addition to the reflections on what did not work well for me during my pilot study, I found that the combination of quantitative frequency counts and qualitative coding was a good fit for how I process the world around me and for answering my research questions, so I continued to use this form of data analysis during my dissertation.

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