

Co-Teaching in Teacher Preparation: Programmatic Priorities, Promising Practices, and Potential Pitfalls

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“All teachers need to be prepared to meet the needs of diverse learners, including students with disabilities. However, few teacher preparation programs lead to dual certification in general and special education, and even fewer include the use of co-teaching in teacher preparation programs.

ABSTRACT

Co-teaching is recognized as a best practice that is increasingly being utilized to meet the needs of diverse learners in the classroom. All teachers need to be prepared to meet the needs of diverse learners, including students with disabilities. However, few teacher preparation programs lead to dual certification in general and special education, and even fewer include the use of co-teaching in teacher preparation programs. Like in P-12 education, organizational systems and collegial dynamics can pose barriers to implementing the use of co-teaching in higher education. This article addresses the benefits and challenges of co-teaching in a teacher preparation program. Specifically included is a discussion about how engaging in the co-teaching process can be valuable to pre-service teachers and faculty members, as well as barriers to consider when navigating institutional procedures and policies. University faculty share their experiences proposing, developing, and implementing co-taught courses in an undergraduate dual certification (elementary and special education) inclusive education program. Strategies that can be used to address known barriers and successfully implement co-taught courses in a teacher preparation program are provided.

KEYWORDS

Co-teaching, higher education, inclusive education, teacher preparation

As the leading national organization for educator preparation, the American Association of Colleges for Teacher Education (AACTE) has established priorities for building and sustaining high-quality preparation for all educational professionals, which includes “valuing the diversity of students, their families, and educators; equity in access to high-quality instructional environments; and the inclusion of all students, defined as access and opportunity, in PK-20 classrooms” (AACTE, 2024, para 2). Co-teaching is an inclusive practice that involves two professionals collaborating on all aspects of instructional planning and delivery to support a diverse group of students (Lusk et al., 2016). Co-teaching is a common practice in K-12 settings used to facilitate the inclusion of students with disabilities in the general education classroom (Friend et al., 2010). According to the National Center for Education Statistics (2022), 66% of the 7.2 million school-age students identified with disabilities were included “full time,” which the Individuals with Disabilities Education Act defines as spending 80% or more of their school day in general education classrooms. Utilizing a co-teaching model allows students with disabilities to access the general education curriculum while continuing to receive supports and specialized instruction to meet their individual needs (Cook & McDuffie-Landrum, 2020).

As co-teaching practices become more prevalent in P-12 settings, teacher preparation programs must respond to better prepare teacher candidates to teach in co-taught settings by fostering collaboration skills and increasing their knowledge about roles and responsibilities in co-teaching (Ricci & Fingon, 2018). On-going research now indicates positive impacts on pre-service teachers experiencing co-teaching as part of their program, as demonstrated by the collaboration between university faculty (Buckingham et al., 2021; Pellegrino et al., 2015; Ricci & Fingon, 2018; Steele et al., 2021). Despite positive outcomes for students, university faculty may be hesitant to engage in co-teaching due to concerns about time, coordination, and potentially un-

even or disproportionate workload caused by poor implementation of co-teaching (Steele et al., 2021). Additionally, there are logistical concerns such as the need for administrative support, scheduling, dedicated time or release from duties for planning, possible collaboration across departments, and reduced student-teacher ratio (Buckingham et al., 2021). Thus, some of the same tensions and barriers to co-teaching in P-12 are also cited in higher education.

This manuscript reveals the perspective of university faculty co-teaching pairs as they share experiences in proposing, developing, and implementing co-taught courses in an undergraduate dual certification (elementary and special education) inclusive education program. Within this article, the authors address the benefits and challenges of co-teaching in a teacher preparation program. More specifically, we explain the benefits to pre-service teachers and faculty members engaged in the co-teaching process. Then, we explore barriers encountered during the proposal phase, including negotiating load, student enrollment, scheduling, physical space requirements, and gaining support from university leadership. After reviewing logistical responses to these hurdles, the authors discuss strategies used to implement co-taught courses in a teacher preparation program successfully.

Preparing general education preservice teachers to educate and support students with disabilities in general education has been a part of undergraduate curricula for decades (Friend et al., 2010; Jordan et al., 2009). However, teaching about disability and special education is often isolated to a single introductory course whereby the best practices and skills needed for all teachers to meet the needs of diverse learners are often designated as a specialized curriculum housed with special education programs. Except in relatively few integrated

programs, special education and general education teacher preparation curricula remain conceptually separate (Pugach et al., 2020). The silos between general education and special education teacher preparation perpetuate the idea that general education teachers are primarily responsible for learning how to teach students who are not identified as having disabilities (Cosier & Ashby, 2016). This divide can carry over into P-12 schools and hinder inclusive education if general education teachers only see some students as *their* students and defer to special education to support students with disabilities effectively.

THEORETICAL FRAMEWORKS

Several teaching and learning frameworks guide our practice as a teacher preparation program. In this article, we discuss how we draw on the theoretical framework of Transparency in Learning and Teaching (TILT) and use a disability studies in education approach to teacher preparation with inclusive education candidates. Winkelmes' (2019) concept of making a small adjustment or "tilt" to embedded assessments is also well aligned with Tobin's (2018) "plus one approach" to inclusive teaching using Universal Design for Learning (UDL) in higher education. Both frameworks also address the importance of students understanding "*the why*" of what they are learning and the tasks they are completing in the classroom and in the field. Further, both take up the need for instructors in higher education to make intentional incremental changes to their instruction and assignments that remove known barriers, increase access points for all learners, and proactively support the various kinds of interactions that students have with learning material and with each other. Taken together, these guiding frameworks are undergirded by a commitment to making learning

accessible with explicit and purposeful attention to practices that support equitable and socially just approaches to and experiences within education.

Transparent pedagogy is a critical instructional epistemology woven throughout our inclusive education teacher preparation program. We recognize that if we expect our preservice teachers to employ best practices in the field moving forward, they need to see those skills modeled and have experiences with them as learners. Throughout coursework and clinical field experiences, we communicate together as instructors and with students to breakdown learning activities and assignments in terms of our pedagogical decisions as instructors, their immediate learning application in connection to the classroom and the field, and considerations for how to use and adapt high leverage practices for special education in their future P-12 classrooms in relation to establishing positive learning environments, using instructional strategies, and designing and adapting assessment for authentically understanding students.

In an effort to help students learn from their courses and the larger process of teacher decision-making, we routinely use the following foundational elements of TILT (Winkelmes et al., 2019):

- (a) Define the purpose of assignments, learning exercises, and academic work in explicit, accessible language for disciplinary novices preparing to use and write in the language of the profession.
- (b) Clarifying tasks and procedures in terms of productive steps for students to follow and counterproductive steps they should avoid.
- (c) Offer transparent assignments that provide students with a set of criteria for success and multiple examples from real-world work expected from educational professionals.
- (d) Students offer insight about what

types of examples and non-examples are helpful from real-world classroom contexts (Winkelmes et al., 2019).

As inclusive education faculty, we routinely use transparent pedagogy in teacher education in our instruction; however, co-teaching has provided us even more opportunities to effectively and consistently model using strength-based approaches among colleagues and with students. Through co-teaching in conjunction with transparency in learning and teaching, we have been able to model and explain our pedagogical decisions and processes to our preservice teachers. We have also been able to debrief the learner experience so that preservice teachers might be better equipped to recognize these decision-making moments as they enter the field and are supporting their K-12 students in successfully reaching learning expectations.

BENEFITS OF CO-TEACHING IN TEACHER PREPARATION

Perceived Benefits for Pre-service Teacher Candidates

Co-teaching in teacher preparation creates an opportunity for authentic learning where a best practice for inclusive education is both modeled and experienced (Chanmugam & Gerlach, 2013; Friend et al., 2010; Lock et al., 2017; Steele et al., 2021). By virtue of having two equally invested and qualified educators serving as instructors, co-teaching is a well-regarded practice in inclusive education that is utilized to increase access for students with disabilities in the general education classroom (Cook & McDuffie-Landrum, 2020). The six models of co-teaching developed by Cook and Friend (1995) – one teach, one observe; station teaching; parallel teaching; alternative teaching; team teaching; and one teach, one assist – provide a set of specific approaches for utilizing two instructors to best meet

student needs based on the instructional intent. Explicitly embedding co-teaching experiences in pre-service teachers' learning addresses Friend et al.'s (2010) concerns about a lack of preparation to effectively co-teach in P-12 settings. Overall, teacher candidates who experience co-taught classes in teacher preparation report positive attitudes toward the practice and a greater interest in co-teaching (Steele et al., 2021).

In a survey of 957 university students enrolled in multi-instructor courses, Jones and Harris (2012) identified specific benefits from a student perspective, including a variety of methods for presenting information, assessment methods, and teacher expertise. Morelock et al. (2017) found that co-teaching encouraged instructors to put greater effort into teaching and allowed students to engage with content through different perspectives or teaching methods. Burns and Mintzburg (2019) adduced that co-teaching often invigorates the classroom with new teaching methodologies and diverse teaching styles compared to a course taught by one instructor. Lock et al. (2017) asserted that modeling collaboration – even tension or disagreement – allows teacher candidates to gain an appreciation for colleagues supporting each other's learning. Through observation, teacher candidates can form their pedagogical understandings of co-teaching as part of their professional practices (Lock et al., 2017). The research also shows that students value enhanced feedback received through co-teaching (Steele et al., 2021). Whether instructors provide joint feedback on an assignment or informal feedback in class, different voices built in as supports allow pre-service teachers to grow professionally (Burns & Mintzburg, 2019).

Guidry and Howard (2019) discussed the potential impact of co-teaching on both student-teacher relationships and student relationships to content. Further,

Wehunt and Weatherford (2014) found that co-teaching in higher education helps students and instructors develop mutual respect, leading to increased engagement. Through strategies such as think-aloud and structured class discussions, connections and authentic engagement can be better fostered with co-teaching pairs (Wehunt & Weatherford, 2014). Wilson and Ferguson (2017) advocated that having two experts to engage with allows students to feel more comfortable asking hard questions and taking risks. Additionally, connections between concepts can be made explicit, and information can be presented in multiple ways, leading to lasting retention and skill-building (Guidry & Howard, 2019). Various studies show that presenting material in multiple ways is beneficial from the instructors' perspective (Morelock et al., 2017; Wehunt & Weatherford, 2014). In sum, there is an increasing body of literature about the need for and the benefits of using co-teaching in teacher preparation. That said, Jones and Harris (2012) warned that instructors can exaggerate this benefit. Therefore, further substantiating research findings and including discussions of benefits and challenges in the literature are important.

Perceived Benefits for Instructors

The previous section focused on the benefits of co-teaching for students; however, the benefits of co-teaching also extend to instructors (Buckingham et al., 2021; Lock et al., 2017; Steele et al., 2021). The professional experience of co-teaching allows instructors to see and experience different teaching methodologies, content, and materials (Buckingham et al., 2021). Further, ongoing collaborations allow co-teaching pairs to diversify their instructional content and take more pedagogical risks (Burns & Mitzburg, 2019). In addition to exchanging content and pedagogical knowledge,

Buckingham et al. (2021) noted that co-teaching can allow for exploring the use of technology. Drelick et al. (2023) recommended leveraging co-teaching to expand comfort and overall technology implementation through the one teach, one tech co-teaching strategy. Informal mentorship and collaborative technology integration can help remove barriers affecting technology integration during co-teaching (Drelick et al., 2023).

Co-teaching allows the individuals involved to engage in a unique collegial relationship. Co-teaching contributes to developing a sense of belonging to a team and building mutual respect, trust, and accountability between instructors (Buckingham et al., 2021). Morelock et al. (2017) stated that co-teaching can lead to building authentic mentoring relationships and interdisciplinary collaborations. For example, co-teaching in teacher preparation could support new faculty transitioning to their roles at an academic institution or foster interdisciplinary learning opportunities that strengthen the teaching partnership, engage asset-based approaches to teaching, and model more robust examples of making strong interdisciplinary connections within required content. Broadly, co-teaching can increase positive relationships between instructors (Morelock et al., 2017). Regular meetings to plan and reflect on learning experiences can build a community of practice and strengthen professional relationships and practices (Steele et al., 2021). Thereby, instructors actively engage in the kinds of reflective practice expected of educators at all levels and can intentionally model these aspects of their practice for students.

POTENTIAL BARRIERS FOR CONSIDERATION

Institutional Considerations

Support for Faculty

Successful implementation of a co-teaching model in teacher preparation

is contingent upon institutional recognition and support (Buckingham et al., 2021). Rabin (2019) noted that professional development and resources for faculty may be needed to ensure success. At some colleges and universities, a faculty teaching and learning center may offer this kind of support (Wright, 2023).

Teaching Policies

Institutional policies for teaching and the distribution of an individual's time are also important considerations. There may be policies around when, how, and what instructors can co-teach (Rabin, 2019). Conversely, a lack of attention to co-teaching in policy may also limit faculty's use of this instructional approach or unintentionally communicate that co-teaching is not an option in postsecondary education. Policies governing the use of faculty time can further complicate discussions and even introduce new barriers that require administrative approval in order to use co-teaching in higher education. Finally, numerous studies have identified time as a major factor for co-teaching (Buckingham et al., 2021; Morelock et al., 2017). Time to connect with colleagues across disciplines, programs, or academic units is critical. Buckingham et al. (2021) recommended released time to build this collaborative relationship, which again requires administrative support and buy-in.

Space, Scheduling, and Load

In addition to providing time and resources, logistical challenges must be addressed by institutional leaders, including scheduling and official distribution of course load (Morelock et al., 2017). Instructional space is at a premium on many college and university campuses. First, accounting for the physical space appropriate for co-teaching might need to be considered (Morelock et al., 2017). It is critical to address institutional-level concerns such as stu-

dent-to-staff ratios (Buckingham et al., 2021). Wilson & Ferguson (2017) cited that institutions may raise class sizes, which can increase stress and workload for instructors. Further determining how faculty equitably receive teaching credit for co-teaching is needed.

From an administrative role, Steele et al. (2021) found that the successful implementation of co-teaching was centered on workload and compensation. By providing faculty with additional release time for planning and allotting full credit for co-teaching, highly qualified and interested faculty can be recruited (Steele et al., 2021). Morelock et al. (2017) validated various models for sharing the workload to institute co-teaching in teacher education. However, how credits are distributed to faculty can impact faculty's willingness and ability to participate. The workload associated with co-teaching can often exceed that of the allocated credit hours. Thus, faculty may be deterred if they receive reduced credit hours for co-teaching (Morelock et al., 2017). Institutionally, there is also concern about two faculty members receiving credit for shared time, which could be perceived as reducing the expected workload of one between two faculty members if the model for doing so is not clearly or sufficiently explained. These concerns could be reduced by adopting models that combine content across multiple courses. Guidry and Howard (2019) found success when blending content from intentionally combined courses, which allows faculty members to be associated with an individual course while simultaneously team teaching.

Another administrative consideration is how co-teaching assignments can impact the tenure and re-contracting processes. Morelock et al. (2017) reported that tenure track faculty may feel reluctant to engage in co-teaching experiences due to fear that the appearance of a reduced course load may be

looked upon unfavorably when being reviewed for tenure and promotion. Furthermore, Morelock et al. cited that teaching load reflected by credit hours, especially in institutions with larger student enrollments, could be viewed with more scrutiny in the review process. This, along with many administrative concerns, should be addressed proactively through open communication and collaborative problem-solving (Rabin, 2019). Ultimately, whether or not there is institutional support to implement this innovative practice will affect faculty participation, and whether or not co-teaching is presented as valuable to the instructional landscape of higher education will be noticed across the institution.

Collegial Co-Teaching Relationships

The need for a good working relationship between co-teaching colleagues has been well established as an attribute for successful co-teaching partnerships. In analyzing interviews with university faculty co-teachers, Steele et al. (2021) identified compatibility, compassion, and trust as key elements in positive co-teaching relationships. Ideally, co-teachers are able to select their collaborative partner, but this is only sometimes the case (Scruggs et al., 2007).

Establishing a positive working relationship is critical to helping pairs establish parity, make decisions, collaborate across content areas, and proactively address tensions that may arise (Burns & Mintzberg, 2019). Lock et al. (2016) noted that previous relationships can impact how co-teachers function, as a general understanding of teaching practices, philosophies, and beliefs may already be established. This may be particularly important when co-assessing by providing feedback and grading students (Buckingham et al., 2021).

Communication & Teaching Styles

Effective co-teaching takes time and requires sharing control, which can be disorienting as co-teachers move beyond the comfort of one instructor managing a course (Lock et al., 2016). Jones and Harris (2012) found that some co-teachers noted compatibility, communication, willingness to adjust teaching style, and a need for teaching freedom as disadvantages experienced while co-teaching. These negative impressions underscore how uncertainty and barriers around innovating can intensify individuals' resistance to change. As such, Lock et al. (2016) recommend being mindful of co-teaching pairings to maximize the likelihood of having healthy rapport.

Academic Hierarchy

The dynamics within the institutional hierarchy may also need to be considered as a challenge in co-teaching. Morelock et al. (2017) discussed the impact of rank on building authentic co-teaching relationships in higher education. While co-teaching provides a space for mentorship between colleagues or even between faculty and graduate students, the power dynamics within these relationships may lead to difficulty with shared ownership or authentic reflections on the process. Buckingham et al. (2021) also noted that comparison among co-teaching faculty can be worrisome as faculty do not want to be perceived as more difficult, strict, or less approachable to students.





Course Content and Format

Determining which course or courses are well suited for co-teaching and how the content load will be co-managed by instructors is a complex undertaking. Co-designing one course with two instructors poses challenges of merging teaching styles, valued learning experiences, and instructional responsibilities

(Burns & Mintzberg, 2019). Steele et al. (2019) proposed co-teaching courses across a blended elementary and special education program through intentional program design and committed faculty. The aforementioned institutional challenges often make this model more difficult to implement as capacity concerns limit the perceived value of co-teaching to administrators (Wilson, 2017). Further, student demographics are shifting away from what has been viewed as traditional college students. Ricci and Fingon (2017) alternatively recommended merging content across two courses from special and general education curricula to provide a more authentic experience and better mirror K-12 practices. Further, creating this learning experience models best practices for future special and general education teachers and better prepares pre-service teachers for building collaborative relationships through transparent pedagogical moments (Ricci & Fingon, 2017). When merging content, selecting appropriate courses can also be a challenge. Guidry and Howard (2019) found that merging literacy methods with content areas like social studies was successful when coupled with purposeful planning on developing assessments, syllabi, and field experiences.

Massey and Strong (2023) called for teacher preparation programs to engage in reflective and innovative practices to attract and maintain diverse teacher candidates. With limited time in the curriculum for special education-focused content, blended or hybrid learning, which incorporates synchronous and asynchronous learning experiences, can deepen preservice teachers' active learning (Massey & Strong, 2023). This practice can also be applied to co-taught courses to ensure specific content is covered while maximizing co-teaching opportunities during face-to-face courses.

FIGURE 1: Key Elements for Co-Teaching Decision-Making and Guiding Questions

	Key Elements	Guiding Questions
Institutional 	<ul style="list-style-type: none"> Support for Faculty Teaching Policies Space, Scheduling, and Teaching Load 	<ul style="list-style-type: none"> What types of professional development or resources, including time to plan, are available for co-teaching faculty? What institutional policies need to be reviewed or modified to support co-teaching? How can policies be adapted to allocate appropriate time for faculty to engage in co-teaching? How will co-teachers' time and workload be accounted for in scheduling and credit load? What spaces are available or need to be created to support co-teaching?
Collegial 	<ul style="list-style-type: none"> Co-teaching Relationships Communication & Teaching Styles Academic Hierarchy 	<ul style="list-style-type: none"> How can existing relationships be leveraged or new relationships fostered to support co-teaching? What structures are in place to ensure parity? How will co-teaching demonstrate and communicate parity to administration and students? What power dynamics are in play that could impact co-teaching pairs?
Course Content and Format 	<ul style="list-style-type: none"> Focus Course(s) Delivery options 	<ul style="list-style-type: none"> Which course(s) would be best facilitated through co-teaching? If multiple courses, which courses have complementary content? What is the best option for content delivery: <ul style="list-style-type: none"> Face to face Online Hybrid/Blended
Student Success 	<ul style="list-style-type: none"> Students' Perception of the Experience Grading Student Feedback 	<ul style="list-style-type: none"> What proactive plans can be developed to address potential points of confusion or tension in co-teaching? How can co-teachers establish consistency in grading and feedback for students? How can student feedback be effectively incorporated to improve the co-teaching experience?

Student Success

Students' Perception of the Experience

As students adjust to a new learning environment with two instructors, they may need to adjust to new learning styles, expectations, and communication styles (Jones & Harris, 2012). Morelock et al. (2017) found that students need clarification about which instructor is responsible for which learning tasks. Further, a lack of communication between instructors before, during, and after instruction can affect student learning by creating disjointed learning experiences and inconsistent messages (Morelock et al., 2017). While tense dialogues between co-teachers can provide unique learning opportunities where various perspectives are heard, Steele et al. (2019) warned this may affect how

students view teachers' expert knowledge and their relationship with each other. It is recommended to develop a proactive plan and uncover potential points of tension before teaching the content (Lock et al., 2016).

Grading

Inconsistent grading and the rigor of grading and feedback can also be a point of frustration for students in co-taught courses (Steele et al., 2019). Burns and Mintzberg (2019) recommended co-grading and engaging in critical discussions beyond rubrics or established metrics to establish consistency and shared expectations for grades and feedback. In any arrangement, it is imperative that co-teaching faculty make purposeful, shared decisions about how to handle assessment, including the pro-

cedures and products, with their students (Winkelmess et al., 2019).

Student Feedback

Jones and Harris (2012) offered recommendations to support student success in the co-taught college or university classroom. Minimizing the adjustments students must make related to the pedagogical approaches, teaching methods, and assessment styles of two instructors can help reduce confusion. Further, surveying students to obtain feedback that instructors then reflect and act on allows students to be heard. Explicitly noting why some suggestions from students were taken or not also provides a level of transparency in teaching (Jones & Harris, 2012). Thus, the co-teaching classroom provides a unique context for modeling, eliciting students' contributions, and engaging in reflective practice as educators.

Implementing Co-Teaching Practice

Figure 1 lists each of the categories highlighted in the literature, which is supplemented by an outline of key elements and guiding questions that can support practitioners in making decisions about implementing co-teaching in their own teacher preparation programs. The remainder of this article offers detailed explanations for how our university navigated each of these key elements, including implementing our programmatic commitments to inclusion with fidelity and navigating tensions throughout the process.

Below, we describe how barriers to successful co-teaching implementation were addressed at one university in an Inclusive Education Program. The program was developed by faculty with both elementary and special education backgrounds and leads to dual certification in these areas. Pugach et al. (2020) stressed the need for inclusive education programs to break down silos between

elementary and special education to shift the traditional views of teachers in these respective roles. As such, this program is built on addressing certification standards, with a strong focus on UDL, high leverage practices, multi-tiered supports, and disability studies in education. Modeling co-teaching to students was identified as a program goal to provide teacher candidates with direct experience in a co-taught environment.

Committing to the Process and Engaging Stakeholders

In line with the program goals, modeling co-teaching practices was a high priority for faculty. With department-level leadership's support, program faculty interested in co-teaching committed to planning and collaborating to align course content. Faculty shared their backgrounds, experiences, and availability for in-person teaching during the vetting process of potential co-teaching pairs. Faculty members co-teaching courses were either special education faculty or faculty with dual certification and backgrounds in elementary and special education. Each faculty member elected to engage in this process and played a part in forming partnerships, which built upon previously established collegial relationships.

Instructional Load and Scheduling

To meet university-level demands for faculty course load, it was determined that each faculty member must be associated with one 3-credit course as a lead instructor, ensuring that both faculty members receive full credit allotment for teaching one course. Thus, in our model, two courses were paired and co-taught. As the instructor of record, each faculty member was responsible for managing one course, which included instructing, grading, managing the course shell on our instructional learning system, and providing feedback for all students en-

rolled in that section of the course.

Scheduling joint time for co-taught courses was initially a challenge. Paired courses were listed as co-requisites, and the co-taught sections of each bundled course were blocked off on the registration schedule for students who would be cohorted for the bundled co-taught courses. In two pilot semesters, each course was scheduled for a traditional 3-hour face-to-face teaching block. Therefore, students had the full instructional time required for both 3-credit courses. However, co-teaching via shared content was delivered over the last half of one course and the first half of the other. The additional face-to-face hours in each course were used for course-specific purposes, including, but not limited to, structured learning activities, small group work sessions, and one-on-one meetings with students or assignment support.

The physical space required to co-teach was also a consideration when scheduling courses. It was important to teach students in a room that allowed for the implementation of the six models of co-teaching. Classrooms with tables for group work and station teaching were identified. From that group of rooms, spaces that allowed students to be split into groups, with each having access to whiteboards and projectors, were selected for parallel or alternative teaching models. In order to secure these locations, program chairs worked directly with the administration to prioritize access to these spaces.

Selecting Courses, Aligning Content, and Determining Format

Firstly, courses that shared clear content connections (i.e., educational processes, technical/professional preparation skills, interdisciplinary application) were identified and paired. Then, based on faculty expertise and commitment to the process, sections of inclusive special education-focused courses were selected

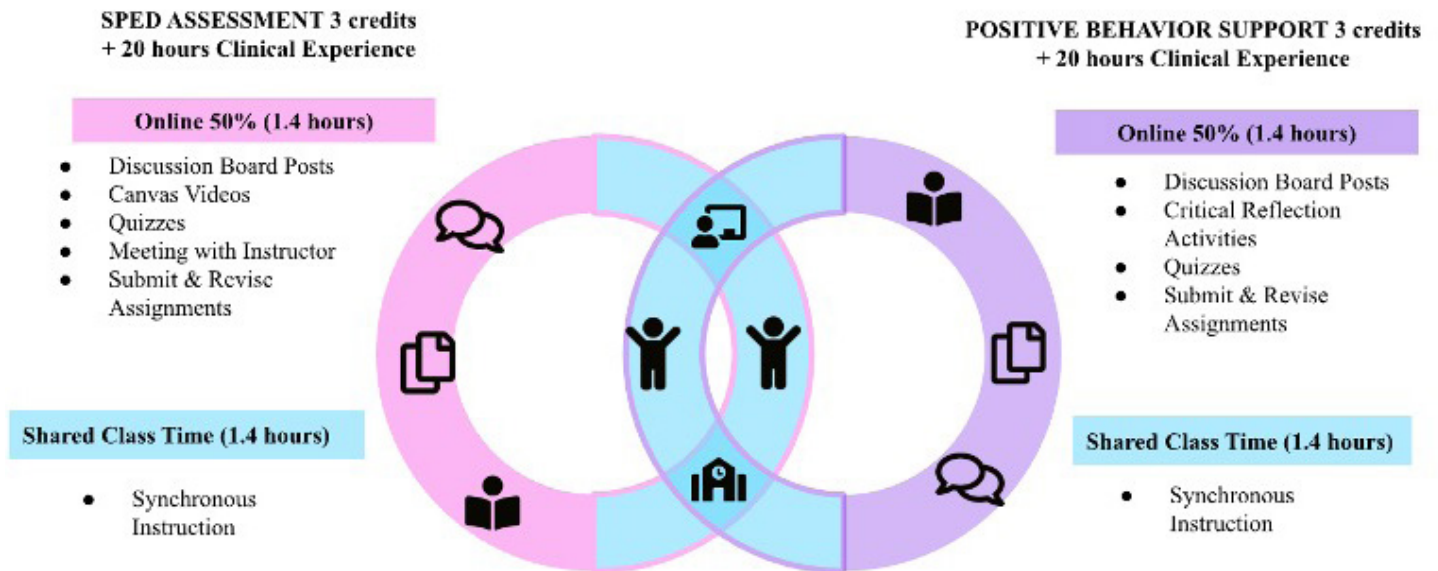
for co-teaching. Based on the course sequence of our program and shared field experiences, two special education courses were selected as "bundled" implementation sites for co-teaching over 2 consecutive years. The bundled courses were *Assessments in Inclusive Education* and *Positive Behavior Supports*, which are taken in Year 3 of our teacher preparation program. Both courses focus on technical aspects of special and inclusive education, including laws and policies protecting students with disabilities, multi-tiered supports, collecting data, creating and implementing interventions, responding to data, and informing stakeholders of progress. In Year 4, *Specialized Instruction* and *Assistive Technology* were bundled. Both of these courses focus on accommodations, modifications, and adaptations to the curriculum to support students with disabilities. With shared field experiences for each set of courses, learning experiences aligned to clinical requirements and field applications could be streamlined.

In addition to the complementary content, the selected courses were already developed as online learning courses and had a wealth of online materials from virtual instruction during COVID-19. The additional online content could be used to supplement co-taught materials. This reduced some of the planning and preparation required by the co-teachers. The original pilot design was then adapted, and the program team elected to run the courses as hybrid-bundled, co-taught courses. This meant 50% of the course content could be taught asynchronously online. This also allowed class hours to be scheduled with 1.5 hours in person and 1.5 asynchronous for each course with a 3-hour block of time for co-taught, face-to-face instruction. While the course schedule only reflected 1.5 hours for each course, instructors agreed to teach across the 3-hour time block and facilitate asynchronous instruction for their assigned course.

FIGURE 2: Visual Representation of Semester Hours for Synchronous and Asynchronous Learning

3 Credits= 2 hours 45 minutes of instructional time + 6 hours of readings/ assignments each week

Co-Taught Hybrid Bundle



In aligning the content for each course bundle, instructors first met to compare existing syllabi. Several topics shared across both courses were easily scheduled in corresponding weeks. Major field assignments were also carefully reviewed and aligned to demonstrate shared elements or corresponding tasks and to provide pacing guidelines for the suggested progression of steps for working directly with students in the field. It is also worthwhile to note that due dates for major assignments were staggered in bundled courses, while redundant assignments were streamlined. Content unique to one course was identified, and co-instructors determined when and how it would be covered together.

In some cases, one instructor led full weeks of instruction; in others, students were given material to discuss in class, or asynchronous tasks (i.e., recorded lectures, discussion board, quiz, or mini reflection) were assigned. All content delivered in co-taught class sessions,

including lectures and learning activities, was planned together. Additionally, course layout and content organization within the learning management system were streamlined to have a similar workflow and organizational structure in both courses. For example, students had formatted weekly overviews in each of the two bundled courses that presented due dates, readings, learning activities, and a breakdown of the use of co-taught instructional time.

Aligning Pedagogical Approaches and Implementation

Prior to beginning instruction, instructors sought to align course policies and teaching styles to streamline the learning process for students. First, co-established policies such as how to approach absences, late work, requests for extension or revisions, use of technology, and academic integrity were discussed. In alignment with a joint commitment to inclusive education, co-teachers adopted

shared policies that provide universal access to common accommodations such as flexible deadlines, shared notes, and open technology policies to model accessible learning through UDL.

More conversations were needed to establish sustainable learning goals, which would be non-negotiable criteria for successful completion of courses. These included using strengths-based language when discussing and writing about students with disabilities, completing allotted field hours according to our College of Education and State criteria, and demonstrating attention to professionalism in the field, aligned to the Council for Exceptional Children's (2020) Special Education Standards for Professional Practice and Special Education Professional Ethical Principles. With these non-negotiable skills and dispositions in mind, instructors could provide united feedback on key assignments. Finally, instructors examined how to best communicate shared

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expectations to students. Co-teachers also reviewed and came to a consensus about communication between them, the expected rate of communication, and how messages were distributed to students.

In teaching lessons, both instructors provided virtual updates as to what would be covered in class related to each course. Material that needed to be reviewed or completed prior to class was sent out as a reminder 2-4 days before the face-to-face class meeting. During class, instructors strived to explicitly use and engage students in the various models of co-teaching outlined by Friend (2010): one teach, one observe; station teaching; parallel teaching; alternative teaching; teaming; and one teach, one assist. The instructors also explicitly discussed their pedagogical choices with pre-service teachers, explaining how and why they made specific co-teaching decisions. They further debriefed regarding the impact of these decisions from the learner experience, including potential ways to adapt the use of numerous instructional strategies from the university to the P-12 classroom. Following each co-taught lesson, instructors co-reflected on what worked and what posed a challenge for instructors and/or students. Any points for clarification or additional resources needed immediately as a result of these reflective practice conversations were distributed in the asynchronous portion of the class. Instructors also documented suggested course updates for the following semester.

Maximizing Student Success

Despite instructors' best intentions and efforts, students entering co-taught

courses still experience some confusion and express misunderstandings. Often, early in the semester, it is difficult for students to think about content from two different perspectives based on the two courses. Additionally, the adjustment to hybrid courses, with 50% of the course hours being online, was turbulent. Students reported feeling overwhelmed by what was perceived as increased out-of-class work. To make the need for instructional hours related to earned credits explicit to students, Figure 2 is used in discussions about managing time and expectations in hybrid bundled coursework.

In line with recommendations from Jones and Harris (2012), faculty offer various opportunities for students to anonymously provide feedback on what is working well and what is not working. The co-teaching university faculty reviews feedback, and changes are made, or the rationale for a practice, process, or learning experience is explicitly shared with students.

As there are two opportunities for students to learn in bundled co-taught courses in our program (Year 3 and Year 4), instructors in Year 4 report less of an adjustment period for students when they enter their second semester of co-taught classes.

CONCLUSION

Co-teaching in teacher preparation programs is beneficial for both pre-service teachers and instructors. To reap the benefits of this rich learning environment and deepened professional collaboration, programs and instructors must set priorities to establish co-teaching and proactively address potential pitfalls around institutional procedures, collegial relationships, instructional

decisions, and expectations for student success. With administrative support, collaborative planning, creative problem-solving, and ongoing reflection, one program established a successful model for co-teaching across courses. As each teacher education program has unique aspects, programs are encouraged to explore the benefits and barriers to success they anticipate within their institutional and program structures. By rethinking how courses are offered and embedding a best practice, such as co-teaching, into instruction, teacher education programs can provide innovative learning experiences to prepare teacher candidates to educate diverse learners in today's ever-changing classroom landscape.

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