Teacher Education Quarterly, Fall 2021



Faculty Perceptions of Course Attributes, Resources, and Attitudes for a Successful Co-Teaching Experience with Preservice Teacher Educators

Jessica Cannaday, Kathleen Hennigan Bautista, Joyce Gomez Najarro, Stacy Kula, & Angela Guta

Abstract

This qualitative study is a follow-up to an initial large-scale case study on the implementation of a co-taught curriculum in one California teacher preparation program. In a continuation of the initial case study, this follow-up study examined faculty perceptions of the necessary course attributes, resources, and attitudes for a successful university-level co-teaching experience in a preservice teacher education program. Nineteen faculty interviews were analyzed and included in this study utilizing cultural-historical activity theory (CHAT) to understand individual faculty perceptions in the context of the larger activity system of co-teaching. Results indicate that faculty perceived necessary course attributes in a co-taught

Jessica Cannaday is a professor, Kathleen Hennigan Bautista is an assistant professor, Stacy Kula is an associate professor, and Angela Guta is an assistant professor, all in the School of Education at Azusa Pacific University, Azusa, California. Joyce Gomez Najarro is an assistant professor in the College of Education at California State University, Fullerton. Email addresses: jcannaday@apu.edu, kbautista@apu.edu, jgomez-najarro@fullerton.edu, skula@apu.edu, & agutra@apu.edu

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course to include equal representation of special education and general education faculty; increased use of constructivist pedagogical methods; use of team teaching, parallel teaching, and station-based co-teaching models; and partnerships based on openness, flexibility, trust, and willingness to compromise. Faculty perceived barriers to co-teaching success to be lack of both time and funding. Differing perceptions of co-teaching implementation existed between adjunct faculty and full faculty and between special education and general education faculty.

Introduction

This qualitative study is a follow-up to an initial large-scale case study on the implementation of a co-taught curriculum in one California teacher preparation program. In a continuation of the initial case study, this follow-up study examined faculty perceptions of the necessary course attributes, resources, and attitudes for a successful university-level co-teaching experience in the preservice teacher education program. As far back as the 1990s, Voltz and Elliott (1997) recommended that preservice educational method's faculty model approaches to co-planning and co-teaching to better prepare new teachers for a possible co-teaching environment. Likewise, Friend et al. (1993) emphasized specific methods of co-teaching; including one teach, one assist; one teach, one observe; station teaching; parallel teaching; alternative teaching; and team teaching. Collaboration between special education (SPED) K–12 teachers and general education (GE) K–12 teachers has increasingly functioned as one approach to helping all K–12 students reach their full potential. Importantly, Friend (2016) emphasized that

in contemporary co-teaching, educators focus on integrating into daily lessons the Special Education strategies and techniques that will enable students to achieve the goals of their individualized education program (IEP). Instead of just providing on-the-spot prompting and coaching simply to get students with disabilities through the academic content at hand, the most effective co-teachers now also provide the same kind of explicitly designed and carefully documented instruction that has always characterized Special Education. (p. 18)

University teacher preparation faculty have noted the impact co-teaching can have on K–12 student achievement (Bacharach et al., 2008; Duchardt et al., 1999; Graziano & Navarrete, 2012) and have increased modeling of co-teaching practices within preservice preparation programs (Bacharach et al., 2008; Duchardt et al., 1999; Eckhardt & Giouroukakis, 2018; Graziano & Navarrete, 2012; Stang & Lyons, 2008). Eckhardt and Giouroukakis (2018) noted, "Co-taught teacher education courses have the potential of influencing how teacher candidates teach by implementing elements of situated learning in their instruction" (p. 40).

Likewise, policy decisions have also increased the prevalence of co-teaching models, as legislative efforts such as the 2004 reauthorization of the Individuals With Disabilities Educational Improvement Act, with its emphasis on inclusion and least restrictive environment, have required maximizing access to GE for all

children, including those with disabilities. Improving K–12 student outcomes by implementing co-teaching experiences between SPED and GE teachers continues to increase in prevalence in K–12 schools (Ricci & Fingon, 2018), and university preservice programs have increased modeling of co-teaching in an effort to expose new teachers to co-teaching before they arrive in their own K–12 classrooms. Determining the most conducive methods for co-teaching within university teacher preparation programs is necessary to improve the future teaching practice of K–12 teacher candidates.

Implementation and Theoretical Framework

In the initial large-scale study, a team of researchers in one California university-level teacher preparation program conducted a case study of the co-teaching experience of 29 unique pairs of university SPED and GE faculty partnerships over the span of 48 foundational, preservice teaching course sections, the teacher candidates within the co-taught courses, and the administration responsible for overarching programmatic decisions within those course sections.

The faculty (SPED and GE) partnerships co-planned, co-instructed, and coassessed the courses. Instructors assigned to each co-taught course met weekly in course-alike meetings to debrief and share ideas for future instructional planning. In-depth interviews of faculty and administration via Zoom, observations of courses and course-alike meetings, surveys of teacher candidates enrolled in the 48 foundational courses, and other course documents were collected and analyzed utilizing cultural-historical activity theory (CHAT) as a theoretical framework.

In developing the CHAT framework, Cole and Engeström (1993) expanded on the "basic ideas of cultural-historical psychology" (p. 4) from psychologists Vygotsky, Leont'ev, and Luria. The CHAT framework allows researchers to understand individual perceptions within a larger context of an activity system. According to Foot's (2014) interpretation of Vygotsky's perspective, the CHAT framework functions based on three ideas:

(1) Humans act collectively and communicate in and through their actions; (2) humans make, employ, and adapt tools of all kinds, to learn and communicate; and (3) community is central to the process of making and interpreting meaning—and thus to all forms of learning, communicating, and acting. (p. 330)

In that frame of understanding, full conceptualization of an activity (in this case, co-teaching) is mediated and understood in terms of the human behaviors and the mental processes stakeholders undergo through their participation within the activity, as well as with their interactions with others also participating.

Vygotsky (1978) sought to understand the processes individuals encounter while participating in shared activities, and he described these processes as mediated action, wherein the individual and the environment in which the individual functions are not mutually exclusive. Each participant brings a different cultural and historical perspective, and the individual, as well as the group, shapes and mediates the new activity. When conceptualizing the co-teaching processes experienced by stakeholders within this case study, then, the CHAT framework requires that they make meaning of the activity (co-teaching) through the subjects and their community (subjects being students, faculty, and administration; community being the teacher preparation program within one California university), as well as through the tools they use to complete the activity (rules, division of labor, professional development, materials, etc.).

The CHAT framework in the initial study was used to develop categories to answer two research questions: (a) How do faculty members develop, support, and assess teacher candidates' learning goals in a co-taught curriculum? and (b) How do faculty members understand, and make sense of, a co-teaching model? The interviews were transcribed and then qualitatively coded with NVivo using a predetermined codebook based on a priori categories developed using the CHAT framework. Codes in the initial study included categories related to participating subjects, co-teaching rules, the community context, the division of labor, mediating artifacts and objects, and learner identities. Results in the initial study were broad in scope, and the researchers realized the need for additional research with more specific focus on individual categories and topics within the collected data. This particular follow-up study was conducted with the intent of completing a deeper dive into specific faculty perceptions of what makes a co-taught course successful. Specifically, as results in the initial study were analyzed, it was noted that participating subjects tended to speak a great deal to specific topics. In this instance, one such topic, faculty perceptions of what makes a co-teaching course and partnership work, became a new focus.

As such, in the new study, the CHAT theoretical framework continues to function as the conceptual framework and organization frame of reference with the original activity system, co-teaching as the intended objective and area of research. However, the subjects have been narrowed to faculty participants only, with the intent of discovering faculty perceptions specifically of what makes a co-teaching course and partnership work, and new a priori categories have been developed for the current study, taken directly from the original faculty participant responses in the initial study, namely, course attributes, material resources, immaterial resources, partnerships, professional development, and co-teaching philosophy. Consider Table 1 and Figure 1.

These categories were then uploaded into NVivo as codes, and faculty interviews from the larger case study were recoded to these new categories to better understand the mediating factors faculty perceived as necessary in their conceptualization of their co-teaching experience.

Participants

Participants for this study included the faculty participants from the original larger-scale case study. Participants were SPED faculty and GE faculty in co-teaching partnerships in one university teacher preparation program. The majority of participants (n = 16) were full faculty, but adjuncts were also utilized to a lesser extent (n = 3) and were included in the interviews and data analysis. Nineteen faculty interviews were analyzed and included in this study. These represent 29 unique SPED–GE pairs, as several faculty members had the opportunity to teach with multiple colleagues.

In the initial study, all faculty members were asked about prior experiences with co-teaching, and for this study, those responses were analyzed and defined as little to no experience with co-teaching, some experience with co-teaching, or extensive experience with co-teaching. Results indicate that participants had varied experiences with co-teaching, although (as might be expected considering the push in models of SPED sometimes used around the country) a higher percentage of SPED faculty than GE faculty had extensive experience with co-teaching. See Table 2.

Table I

	Initial study	Current study	
Research question(s)	1. How do faculty members develop, assess, and support teacher candidates' learning goals in a collaboratively designed (co-taught) curriculum?	e	
	2. How do faculty members and students understand, and make sense of, the co-teaching model?		
Participants	29 faculty pairs	19 unique faculty interviews due to duplication within partnerships	
Theoretical framework	cultural-historical activity theory (CHAT)	cultural-historical activity theory (CHAT)	
Codes	participating subjects; co-teaching rules; division of labor; mediating artifacts and objects; learner identities	course attributes; material resources; immaterial resources; partnerships; professional development; co-teaching philosophy	

Comparison Between Original Study and Current Study

Methodology

As stated earlier, a priori categories were determined in the individual largescale case study based on the CHAT theoretical framework, and this framework was continued with a specific focus on answering the research question, How do faculty stakeholders involved in co-teaching implementation within a preservice teacher preparation program conceptualize the experience? As such, as noted earlier in Table 1, a new codebook was developed in NVivo, and faculty interviews were recoded to these codes. Codes and their descriptors in NVivo included (a) course

Original codes	Topics and new codes that emerged from the origina study		
Participating Subjects	 Discussions on individual partnerships and how they worked or what should be included Discussions on professional development they wished they'd had before participating 		
	 Discussions on their specific philosophy of co- teaching 		
Co-teaching Rules	 Discussions on individual partnerships and how they worked or what should be included 		
Division of Labor	 Discussions on individual partnerships and ho they worked or what should be included 		
Mediating Artifacts and Objects	Discussions on specific classroom needs in		
	 terms of material resources Discussions on specific needs in terms of time or other immaterial resources 		
	 Discussions on what attributes a class must have or need 		
Learner Identities	 Discussions on professional development they wished they'd had before participating 		
	 Discussions on their specific philosophy of co- teaching 		

Figure I Code Emergence From Original Study to New Study

attributes (discussions of specific course attributes or content that lends itself to a successful co-teaching experience); (b) partnerships (discussions of partnership aspects that lend themselves to a successful co-teaching experience); (c) professional development (discussions of professional development experiences provided by the university or otherwise that lend themselves to a successful co-teaching experience); (d) immaterial resources (discussions of esoteric items—time, thoughts, feelings, personal experience); and (e) material resources (discussions of the "things" that were necessary to a successful co-teaching experience). Additionally, as the researcher analyzed each interview, each of the new main codes was broken down into appropriate subcode categories organically, based on faculty participants' repeated interview statements and commentary.

Included with course attributes were content emphasis of SPED or GE (weekly content), course details (course requirements, grading, length, etc.), type of co-teaching model (one teach, one assist; stations; side by side; etc.), and type of instruction (facilitation, lecture, hands-on, etc.). Included with partnerships were necessary attitudes (faculty members' perception of the necessary attitudes for a successful partnership) and variety of partners (faculty discussion of their different experiences with very different partnerships). Included with professional development (PD) were specific philosophies of co-teaching prior to PD and specific philosophies of co-teaching after PD. No subcodes were included with the material or immaterial resource codes. Coding analysis indicated that faculty spoke significantly regarding co-teaching partnerships and course attributes. Course resources (material and immaterial) were discussed at the next highest rate, and faculty discussed PD the least. See Figure 2 to view the NVivo breakdown.

The chosen codes were shared with a faculty peer, uninvolved with the original research, who did not participate in the co-teaching process, for peer debriefing, as a method of checking the researcher's thinking on the value of the chosen codes. Henry (2015) noted that when peer debriefing is done by a supportive peer who provides constructive feedback, it enhances the trustworthiness of the research. The faculty interviews were then coded to the chosen codes and analyzed utilizing NVivo's analysis, query, and exploration tools.

Table 2 Previous Experience with Co-teaching				
	Previous co-teaching experience			
Faculty type	Little to none	Some	Extensive	
Special education	3	3	4	
General education	5	3	1	

Results

Course Attributes

Analysis of the coded faculty interviews indicated that faculty viewed necessary course attributes to include (a) equal emphasis and value of SPED and GE in both content and teaching; (b) emphasis of facilitation over lecture through indirect instruction, and (c) appropriate class sizes.

Equal Emphasis of SPED and GE

The equal emphasis of SPED and GE in terms of course content and teaching was present in the responses of the majority of faculty participants. One faculty member, AN, noted, "I also think it is important to not just share from the general education or special education lens. We all have experiences and perspectives that are valuable regardless of our specialty area." Another, GL, stated, "I was really excited about having the special ed professor with me, especially when I looked at 501 [the course number], which is very heavy special ed in the beginning." A third faculty member, TC, noted, "I think the expectation that we as special educators would lend our expertise was clearly outlined, so that was . . . positive. So I had the expectation that that viewpoint would be valued and, included."

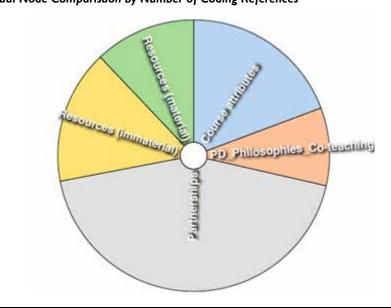


Figure 3 Visual Node Comparisaon by Number of Coding References

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Emphasizing Facilitation Over Lecture Through Indirect Instruction

Unanimously, faculty perspectives on the course attribute type of instruction clearly demonstrated a marked preference for constructivist approaches and facilitation over lecture. In an interview, one faculty member, KC, noted, "With all three of my colleagues, the classes were not lecture; they were activities more than anything. We'd present some, we'd present the needed information, and then we would have a, there were a lot of activities, and a lot of interaction between students." That same faculty member later noted, "We used a lot of Kagan structures where students would, ah, work with the material. Sometimes each group would work on the same project. Other times we would have them, ah, kind of jigsaw, either at the table or between table groups, and then do presentations." Another faculty interviewee, AC, emphasized the use of cooperative and collaborative learning, while a third faculty member, CC, focused on how co-teaching increased the faculty member's ability to use a variety of activities and technologies that really allowed students to engage with the material.

Models of Co-teaching—Also Emphasizing Facilitation Over Lecture

Another course attribute, models of co-teaching, was less distinctive in pattern, with three models of co-teaching-parallel teaching, team teaching (sometimes erroneously named alternate teaching), and station teaching—dominating. This may be because co-teaching was new to the majority of participants or because the class sizes were often quite large. In general, the thematic trend seemed to indicate exploration and a willingness to make it work and to try new things. Faculty member NH noted, "I kind of felt like it was open ... for us to decide, you know, how we wanted to approach that [co-teaching model].... We definitely had parallel teaching. We had . . . some, alternate teaching." Another faculty member, TC, indicated that their partnership made the intentional choice to push themselves in trying all of the co-teaching models. A third faculty member, AM, noted that successful implementation of co-teaching required that all aspects of communication and planning-not just in class activities-included a focus on the teachers as a "team." AM stated, "Every effort was made to be one team and not allow students to triangulate, or to get us to take sides. And I think that's ... that's essential in any relationship, like in a marriage." Other faculty emphasized utilizing a team approach within the classroom, in both lecture and class activities. Faculty member AN noted that their partnership usually used "team speaking" in lecture, and another faculty member, HM, emphasized the use of team teaching in lecture and class activities when they described team teaching as follows:

You know, the team teaching or alternative teaching like that. So sometimes he covers my part, you know? He covers, you know, general education part. Sometimes I cover the special education part. But, uh, we are mingling with each other. We are jUst, you know, totally in—both people totally involved in one specific topic together. The majority of responses noted the use of teaming, parallel teaching, and station teaching models of co-teaching. The choice to utilize these models may be connected to a respect for shared expertise and a hope to share the workload equally. According to Robinson (2017), in both the parallel teaching model and the station teaching model of co-teaching, faculty members break the class into smaller groups and teach at the same time.

Likewise, both station and parallel teaching were implemented so that the co-teachers were able to break their class in half, and one group went to a different room or space for that segment of class. Importantly, the choice to use the parallel teaching and station teaching models may connect to the final course attribute, course details, as study participants repeatedly discussed the need for more space in the form of extra or larger rooms.

Appropriate Class Sizes

Interview analysis on the final course attribute, course details, specifically emphasized the need for space, additional classrooms, and reasonable class sizes for successful co-teaching experiences. Logistics like space and class number are incredibly important to successfully implementing different co-teaching models. Space and course numbers should be considered as courses are assigned. This is an issue that has existed as long as co-teaching has existed. As far back as 1993, Friend et al. noted,

In some schools, classrooms are large and the addition of a few extra students or increased activity such as one that accompanies multiple learning groups can easily be accommodated. In others, however, the primary criterion for arranging furniture is to leave enough room for an aisle. The former schools may find coteaching a much more attractive alternative than the latter. (para. 21)

Faculty member NH noted, "I know the intent is to add more students, but the room sizes . . . I know that me and my partner struggled with that this past spring quarter," and KC stated, "Until we had space where we could split the class, it would have been impossible. . . . We couldn't be in the same classroom and each teaching at the same time."

Partnerships

The partnership coding category brought up three disparate discussions. First, faculty discussed what was required of each partner for a successful partnership. Second, faculty discussed what they themselves gained from a successful partnership. Third, faculty discussed what they felt their students gained from their successful partnership.

Requirements for a Successful Partnership

Openness, trust, flexibility, and willingness to compromise were considered

necessary attitudes within co-teaching partnerships. This perception parallels research on co-teaching, as Conderman (2011) noted that successful co-teaching partnerships must include open communication and respect between co-teaching partners for implementation to succeed. One faculty member, RC, noted, "It's really just taken a . . . a degree of vulnerability and trust between those individuals, you know, and then a kind of invitation into that space." Another faculty member, KC, noted, "I think that the nature of co-teaching is compromise, and I feel very comfortable with the very natural way my partners and I have compromised." An additional faculty participant, LC, stated, "Trust is a big issue for me. I need to be able to trust my co-teacher, or anybody I'm working with." Faculty participant GS stated, "Because both of my co-teachers were open and receptive and we were both held accountable to one another, as well as, uh, willing to receive constructive criticism in both co-teaching situations, we thrived."

Faculty Gains and Improvements to Practice Through Successful Partnership

Importantly, like GS, faculty participants viewed the co-teaching experience as a catalyst for improvement in their own teaching practice through exposure to their co-teaching partner's expertise and constructive feedback. Faculty member AN noted, "I really enjoyed sharing a classroom with a colleague and hearing his or her perspective on things. This enhanced my own understanding." RC took this idea further, stating, "I think it's enabled me to see some blind spots. . . . It's been an opportunity for me to kind of go, well you know what, this really doesn't sequence well . . . and to me it's just a . . . a fuller perspective." Faculty participants expressed their perception that co-teaching was an opportunity to have someone join what has been traditionally a "siloed" classroom experience and provide constructive feedback to improve and grow the person's own teaching practice. Faculty participants viewed this aspect of the co-teaching experience positively.

Teacher Candidate Example of Positive Collaboration Due to Successful Co-teaching Practice

Additionally, faculty participants further viewed their co-teaching practice as a model for future teachers. This perception echoes previous research in co-teaching, as Rytivaara and Kershner (2012) noted that teacher candidates who experienced co-teaching had a stronger understanding of the connection between theory and practice. Likewise, Neifeald and Nissim (2019) indicated that students receive more opportunity for learning when co-teaching is implemented, and Stang and Lyons (2008, p. 183) viewed, observing co-teaching as "vital" to preservice teachers. One faculty participant, GS, indicated the hope that the participant's own students would get the opportunity to implement co-teaching in future classrooms. Specifically, GS stated, "I told the students last night that they were getting, probably, the best education they possibly could be, and that I hoped they would be able to do

this in their own institutions." Another faculty member, KC, captured the general sentiment of the majority of respondents with commentary on the advantages of co-teaching for the teacher candidates:

I think the advantages of co-teaching is that it gives the students, the candidates, an opportunity to have two different perspectives on any particular issue from both a general ed and a special ed background. And maybe even from the experience that comes from teaching different grade levels in K to 12. I think that is a huge advantage for the candidates. Another advantage is the opportunity for them to actually see how co-teaching is, ah, what it looks like, what it, what the experience is like. Many of our teach- ah, and candidates gave us, ah, feedback that they enjoyed, ah, the dynamics between the two instructors, just to see how we, think and plan, and work together. I think that makes for a fabulous role model, given that we're doing it well, hopefully, that we're a good role model for how instructors can collaborate.

Professional Development

O'Conner et al. (2016) emphasized ongoing PD as essential to the implementation of successful co-teaching practices. Faculty member participants echoed this. PD for the co-teaching process in this case was provided in multiple ways, including flipped-modality PD, an all-day PD program with an expert, weekly course-alike meetings, and being co-teaching partner-based personalized.

Flipped-Modality and Program PD With Expert

First, prior to program implementation, faculty participated in in-house flippedmodality article readings and group discussion on co-teaching, and then all faculty in the program experienced one day of formal training with an expert brought in by program administration. The majority of faculty participants indicated that they enjoyed the initial formal PD provided and, more specifically, that the entire experience functioned as PD. One participant, DT, noted, "It was sort of professional development for me to watch somebody else do their thing and to see how someone else interacts with and communicates with students." Likewise, some faculty indicated experiencing growth in their understanding, not just in co-teaching, but also in PD in general. One participant, GH, stated, "I think I'm much more open these days to professional development. If I had it to do all over again, I wouldn't go into every professional development thinking I knew more than the presenter."

Course-Alike Meetings and Partner-Based Personalized Meetings

Second, during program implementation, weekly meetings with faculty teaching the same course occurred so that all faculty on the same course could collaborate and share their expertise. In addition, co-teaching partners met constantly on course collaboration. The most appreciated aspect of the PD provided was the establishment of weekly course-alike meetings¹ led by a course lead. The majority of faculty participants indicated positive appreciation for the weekly course-alike meetings and noted their view that these meetings functioned as shared PD opportunities, in which the instructors were teaching each other. One participant, MB, noted that the advantage to the weekly meetings was that "a wealth of knowledge and experience is being brought to the table, being exchanged, so really it's very enriching, and it opens your eyes and your mind."

Resources (Immaterial and Material)

Resources were broken into two categories: (a) immaterial and (b) material. Resources were, in general, viewed as the most negative aspect of the co-teaching process. The faculty interviews clearly demonstrated an understanding that coteaching was a costly endeavor both economically and in terms of impacts on people's time and energy.

Immaterial Resources

Overwhelmingly, faculty participants brought up an immaterial resource, time, more often than any other resource. Time was discussed in connection to planning, grading, getting to know their co-teaching partners, and communication with students (which was often discussed as taking double the time they were used to due to the need to communicate with their co-teaching partner prior to responding to the students, so as to remain on the same page). Often, although faculty participants saw the value in co-planning, co-communicating, and getting to know their partner well, they felt the lack of time was a disadvantage. One participant, RC, put it succinctly: "so therein lies the disadvantage—trying to find the time." Another faculty participant, JK, was also succinct and noted that co-teaching, indeed, "takes a lot of time."

Material Resources

Material resources were also mentioned consistently by multiple participants. One faculty member, TC, stated, "The disadvantage of, I think it [co-teaching], can be . . . it can be costly." Faculty member AC suggested that co-teaching was not a sustainable model and noted, "As an administrator, I see what a financial drain it is."AC further questioned whether the value of co-teaching was worth the monetary cost: "I haven't seen the benefits of it serving our students better, compared to the monetary cost." Likewise, TC also wondered if the co-teaching would do well in a cost–benefit analysis—depending on how well it is done: "If it's really just sort of done as a tag team, then it could be a little more costly, without the benefit." Other participants did see the benefits in comparison to the cost, but still acknowledged that cost was problematic. Participant KC stated, "If it were financially feasible, I would want more courses to be co-taught." Still other faculty members took the cost issue more personally in connection to their own work and compensation. One faculty participant, NH, said, "You were meeting with your partner more frequently . . . so I kind of expected that the pay compensation would be equivalent to that." Other faculty members agreed. One, RC, stated, "I think of one of the disadvantages, mainly surrounding the logistics of the program, I think a lot of us have voiced concern, as far as not receiving the credit as far as units and things like that." Both time and economic resources are also spoken of in the literature regarding co-teaching. Stang and Lyons (2008) stated in their article that "the first challenge identified under collaborative skills, was time to collaborate" (p. 189). Additionally, research participants in Sanchez et al.'s (2019) study indicated potential hindrances to co-teaching as "extra time negatively impacting my focus on research" (p. 106). Likewise, the monetary impact of co-teaching is often a concern in the research (Andersson & Bendix, 2006; Higgins & Litzenberg, 2015; Plank, 2011). In this study, both time and cost were viewed as possible detractors to a successful co-teaching experience.

Miscellaneous Additional Results of Note

Finally, two noted themes fell into none of the predetermined codes or categories. First, distinctions existed between adjunct and full faculty perceptions regarding workload. Second, distinctions existed between SPED faculty and GE faculty regarding concerns prior to co-teaching implementation.

Adjunct Versus Full Faculty Perceptual Distinctions

The first distinction of note was specific to adjunct and full faculty perceptions of workload. Full-time faculty participants held differing perceptions of the co-teaching experience from adjunct faculty participants in relation to the issue of time, previously discussed. Arranging time to meet between an adjunct working all day in a public school and a full-time faculty member who could schedule time during a weekday for such planning was noted as an issue. Full faculty members and adjuncts alike noted concerns. One adjunct faculty, NH, noted, "But as an adjunct, if you were co-teaching, the amount of time you put in, I felt was really intensive." However, a full faculty participant, DT, gave a very different viewpoint (echoed by several other full faculty members) when they stated,

So my first course that I taught was with a full-time [Azusa Pacific University] faculty member and that was amazing because she was in my building, we . . . we'd go over and set the classroom together. It was actually . . . felt like a true co-teaching experience . . . where we both put in just as much sweat. Teaching with adjuncts was very difficult. A very different experience for me because . . . the adjunct I taught with. I taught with two separate adjuncts and . . . they were unavailable because they work full-time. Well in the fall, they just were not available during the times that I was available to plan and prep together, so I felt like I was doing most of the prepping plus they couldn't show up to class until right

before class started because they were working in the daytime and so I would set up the classroom and if my co-teacher didn't like the way the classroom was set up and was stuck with it and so there was a little bit of . . . [inaudible] when I was working as a full-timer, we were completely on the same page . . . and that even with grading . . . the adjuncts had a different idea for how things should be graded, but then they were uncomfortable talking to me about it because they felt like they're an adjunct, I was a full-timer . . . so it was just a little bit of—I had to take the bull by the horns when I was working with an adjunct, but it was shared when I was working with a full-time person, so those were two different experiences that I think we need to kinda talk about in the future and explore how we're gonna do a better job of preparing adjuncts to work with full-time faculty.

SPED Versus GE Perceptual Distinction

A separate, unrelated distinction observed in data analysis was that SPED faculty held different initial concerns prior to co-teaching in the program than did GE faculty. SPED faculty members seemed to indicate more fear regarding the co-teaching experience initially—not with regard to implementing co-teaching itself but in that they may not be accepted by their GE colleagues as experts. Faculty member TC noted, "There's definitely a feeling amongst general education teachers that you have . . . you have to prove yourself before they will invite you in. Because special education teachers have some stigma along with their students." This expectation was attributed to SPED faculty members' previous experiences with co-teaching in the K–12 schools. Specifically, SPED faculty indicated a concern that they would be viewed by their GE faculty partners as "secondary" or given less chance to share. SPED faculty member TC further stated this clearly:

Sometimes I've seen in my past experiences that people will assume that they can just take over . . . will I be fully integrated into the course, or will I be kind of an addition? Just add the special education at the end. You know, kind of, not exactly an equal partner in all decision-making. That was a worry.

However, SPED faculty noted that those concerns were ameliorated during the co-teaching process. One faculty member, MB, specifically noted,

In the eyes of the students, you might be a second-class citizen, but she [the coteaching partner] was so respectful and elevated me to a level that was . . . that brought a lot of respect. Also, exchanged ideas. She was very respectful in adopting my ideas and accommodating my views in planning together. So overall, it was a very, very constructive experience and I learned a lot from it.

Implications and Recommendations for Future Practice

One implication for practice is that modeling of co-teaching within teacher preparation programs can allow teacher candidates to become more familiar with the use of co-teaching, inclusion, and collaboration between SPED and GE teachers and, in turn, may allow for transfer to their own future classrooms (Eckhardt &

Giouroukakis, 2018). Student participant data from the original research support the faculty perceptions articulated in this study (Gomez-Najarro et al., 2021). Student responses repeatedly indicated positive feelings toward the co-teaching experience, and a belief that they might utilize co-teaching in the future as a result. In data from the previous study, one student participant noted,

I believe that any of the courses that I've taken that have had two teachers just seem more easygoing for me, so I think I would honestly be open to the possibility of being a co-teacher with somebody else in the future. So, I think it's just kind of made like a positive experience for me.

This perception paralleled well with faculty views already noted in this study, in the "Partnerships" section, for instance, when KC noted, "I think that it makes for a fabulous role model, given that we're doing it well, hopefully, that we're a good role model for how instructors can collaborate." Faculty participants indicated a belief that the co-teaching process would model co-teaching and increase students' understanding regarding both co-teaching and student needs.

Likewise, other research supports the positive perceptions toward preservice co-teaching that faculty in this study discussed (Drescher, 2017; Gladstone-Brown, 2018; Neifeald & Nissim, 2019). Drescher (2017) noted that in-service teachers often feel negatively toward inclusion, collaboration, and co-teaching due to lack of exposure and preparedness to collaborate within their preservice teaching programs. Drescher further showed that modeling of collaboration and co-teaching in a co-taught preservice classroom becomes a model of collaboration for teacher candidates to use within their own classes. Likewise, Neifeald and Nissim (2019) discussed the use of co-teaching in preservice programs as a model that benefits both the teacher trainer and the teacher trainee. Gladstone-Brown (2018) also supported modeling co-teaching in preservice teacher preparation programs and noted it as beneficial as a model in future work with students with special needs. She stated,

Future educators should have firsthand experience in collaborative planning and consultation with other professionals who may have a different educational lens. The research offered the teacher candidates an opportunity to see firsthand the modeling of co-teaching practices and how they may adapt those lessons and experiences when working with children identified with special needs. (p. 14)

A second implication of study results was that the co-teaching format may increase instructors' willingness to engage in constructivist, hands-on approaches on the part of faculty involved, allowing for greater student engagement in the teacher education classroom. In the "Course Attributes" discussion earlier in this article, we noted that faculty showed a marked preference for facilitation over lecture. Faculty participants consistently reported that the co-teaching format enabled them to split the classes into more groups and complete both hands-on and station activities. Faculty also indicated applying cooperative learning techniques, such as Kagan strategies. In constructivist learning, students form their own understandings of new information through participation in learning experiences, rather than through lecture and rote learning, and as a result of these experiences, understandings of new concepts are deeper (Abbot & Ryan, 1999). Constructivism theory focuses on how students construct knowledge and understanding, rather than on how they discover it (Fosnot, 2005). It is through connections of prior knowledge (often built through planned classroom experiences), questioning, open-ended tasks, and social activities like cooperative learning that students engage with and construct new knowledge (Neutzling et al., 2019). Faculty participants in this study indicated, consistently, that the format of the co-taught courses lent itself to constructivist learning techniques that included an emphasis on discussion and group activities. This result is supported in other research on co-teaching as well. In their study of a team-taught humanities course, McKinley and Warrence (1996) found that their students wrote more deeply and demonstrated more critical thought than students in non-team taught courses. They noted,

Faculty stated that the overwhelming sense from students over the years, is that integrating different kinds of experiences, materials and points of view require[s] them to think and write at a level that is not often present in a traditional course. (p. 17)

Likewise, Murawski (2009) noted that one advantage of co-teaching is that it allows for a variety of teaching methods, rather than simply lecture. Neifeald and Nissim (2019) paralleled this view when they noted that an advantage of co-teaching is that it enables "the use of a wide range of teaching practices" (p. 96). Gladstone-Brown (2018) further noted that co-teaching acts as a model for increased collaborative and problem-solving pedagogy in the preservice classroom. Co-teaching, when implemented in teacher preparation university-level coursework, allows both faculty members to use a broader array of teaching strategies, rather than focusing on lecture only. Moreover, having two faculty members in the classroom allows for easier classroom management and monitoring of group activities (Gladstone-Brown, 2018), which can increase the use of more constructivist activities.

A final implication of this study is the need for continuous PD (both that led by experts in co-teaching models and that led by the participants themselves) when implementing a co-taught curriculum. Both SPED and GE faculty participating in co-taught courses learn from each other and, as a result, expand as professionals. Intentionally providing continuous opportunities for discussion and reflection on how the co-teaching experience is progressing functions as PD and increases faculty growth. Likewise, faculty members benefit from bringing in expert voices before, during, and after the co-teaching experience, to answer questions and increase faculty confidence in their own ability to succeed as co-teachers. One faculty participant in this study, NH, noted the need to hold more formal PD in which all faculty (adjuncts and full faculty alike) can participate and from which they can all benefit, throughout the teaching experience. The same faculty member noted the value of using the weekly discussion opportunities in Zoom to emphasize a safe space for discussions on how co-teaching is going for both the faculty involved and the student experience. Other research also emphasizes the importance of continuous PD for a successful co-teaching experience. Drescher (2017) indicated that training for all professors involved should be provided. Likewise, McKinley and Warrence (1996) noted that participation in a team-teaching experience functioned as a means toward professional growth because "faculty indicated that they learned new teaching strategies from those with whom they shared a classroom" and "experience with this type of teaching helps improve the quality of their own instruction" (p. 19).

Recommendations for Further Study

We offer several recommendations for further study. First, because one of the few negative perceptions of faculty toward the co-teaching experience had to do with material resources, such as unit load, funding, and space, we recommend that further study be conducted on logistical and material issues when implementing co-teaching experiences. Second, because differing perceptions existed between adjuncts and full faculty involved in this co-teaching experience, we suggest that all faculty participants in a co-teaching experience receive the same level of training and resources (whether they are full faculty or adjuncts) and that a comparison study of co-teaching perceptions between adjunct education faculty and full-time education faculty be conducted. Furthermore, a deeper focus on constructivist teaching approaches within co-teaching courses is advised. Likewise, looking more deeply into best practices in PD for successful co-teaching on teacher candidates' future teaching practice, specifically in connection to both collaboration and meeting the needs of students with special needs, from a longitudinal perspective, is recommended.

Conclusion

Faculty interviews on the experiences of SPED and GE faculty co-teaching in a university-level program for preservice teachers were uploaded and coded with NVivo utilizing predetermined themes based on the CHAT theoretical framework. Study participants perceived the experience to include the following attributes:

• Faculty felt it important that both the SPED and GE faculty were valued equally as professionals and that neither faculty member was considered more important as a course instructor. They believed that teacher candidates benefited from equal access to both SPED and GE perspectives.

• Faculty felt that co-teaching allowed for strong constructivist teaching practices and an emphasis on a facilitation-based pedagogical approach rather than on a lecture-based pedagogical approach.

• Faculty in this study reported using parallel, team, and station co-teaching methods.

• Faculty felt that successful co-teaching partnerships required openness, trust, flexibility, and willingness to compromise.

• Faculty also perceived the co-teaching experience as a catalyst for improvement in their own teaching practice through exposure to their co-teaching partner's expertise and constructive feedback.

• Faculty participants further viewed their co-teaching practice as a model for future teachers of both collaboration and meeting the needs of all students

• Faculty participants understood continuous PD opportunities (both formal and informal) to be necessary for a successful co-teaching experience.

• Faculty perceived specific material and immaterial resources of time and funding as important to co-teaching success.

• Additional results unrelated to coded themes included different perceptions between adjuncts and full faculty and between SPED and GE faculty.

Areas and recommendations for further study include both comparison and longitudinal studies on the further implementation of co-teaching practices in universitylevel preservice teaching programs.

Faculty responses illuminate the potential benefits of utilizing a co-teaching model in a preservice teaching program. Modeling co-teaching for future K–12 teachers may improve teacher candidates' perceptions of collaboration, as well as their ability to provide a positive, inclusive classroom where students' varied needs are met and where all students can learn.

Note

¹ Course leads in this study are defined as full-time faculty assigned to a particular course as subject matter expert and "keeper" of the course. The lead writes and makes updates to the syllabus. The course lead also helps develop weekly curriculum and activities, facilitates meetings with all faculty assigned to the course (dubbed course-alike meetings), and makes themselves available to troubleshoot curricular and co-teaching issues.

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