



Preconditions for Success and Barriers to Implementation

The Importance of Collaborative and Reflective Dispositions to Foster Professional Growth during a Coteaching Clinical Experience

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Drawing on the work of Badiali and Titus (2010) and Bacharach, Heck, and Dahlberg (2010), we define coteaching as the following: both cooperating teacher and teacher candidate are engaged in student learning at all times through daily coplanning, coinstruction, and coassessment. We argue that collaborative planning (e.g., sharing ideas, developing instructional materials for feedback, sharing resources), instructing (i.e., the development of specific roles using a coinstructional strategy¹), and assessing (collaborative evaluation, grading, and reflection on both formative and summative assessments) are the keys to successful coteaching.

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Early research on coteaching explored how coteaching could better support special education students. With the move toward inclusion and legislation that required students to be educated in the least restrictive environment as part of the Individuals With Disabilities Education Act and No Child Left Behind, coteaching began to be a model of instruction that paired general and special education teachers to serve both populations of students in the inclusion classroom (Austin, 2001; Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010; Kamens, 2007).

Research on the perceptions of coteachers in the field of special education found that teachers and students perceive coteaching as favorable, citing reasons such as lower student-to-teacher ratio, more attention paid to individual students, and more expertise in the classroom (expertise in terms of content knowledge and teaching students with special needs; Austin, 2001; Kamens, 2007; Keefe & Moore, 2004; Scruggs, Mastropieri, & McDuffie, 2007). Although favorable results were found, studies also revealed the subordinate role that special education teachers feel they assume when working with the general educator (Scruggs et al., 2007) and the need for administrative support, time, and training to be able to implement coteaching effectively (Kohler-Evans, 2006; Murray, 2004; Scruggs et al., 2007).

Coteaching in the Clinical Experience

Although coteaching has its origins in the field of special education (Friend & Reising, 1993), general teacher education programs began to explore coteaching as a model for the clinical experience (Darragh, Picanco, Tully, & Henning, 2011). Bacharach et al. (2010) explored the differences in math and reading achievement of K–6 students in cotaught and non-cotaught settings and concluded that coteaching had a positive impact on learners in the classroom, using gains on high-stakes exams as one measure to show this positive impact. Additional research on coteaching has moved beyond the gains for students and has focused on the development of coteachers, specifically how coteaching pairs engage in cogenerative dialogue throughout their coteaching experience (Scantlebury, Gallo-Fox, & Wassell, 2008). Research studies on coteaching have found value in cogenerative dialogue because this dialogue provides an opportunity to reflect on a shared experience (Badiali & Titus, 2010; Beers, 2008) and to “examine their schema and practices in the presence of the other stakeholders in the classroom” (Beers, 2008, p. 447). Researchers have also posited that coteaching can provide an opportunity for teacher development through “shared contribution, collective responsibility, [and] expanded agency” (Murphy & Carlisle, 2008, p. 505).

Although research on coteaching in the clinical experience has identified favorable results, challenges include how realistic it is for two teachers to be in the room once the teacher candidate is an employed teacher, how to foster the coteaching relationship, and how to make the expectations and understanding of the coteaching model clear (Darragh et al., 2011).

Theoretical Framing

Reflective Practice

In his argument for *reflection* as a critical part of quality instruction, Amboi (2006) called reflection “a quintessential element that breathes life to high quality teaching” (p. 24). Dewey (1933) wrote about reflective thinking—thinking that is grounded in a problem, question, or unknown that leads to “an act of searching, hunting, inquiring to find material that will resolve the doubt, settle and dispose of the perplexity” (p. 12). Rogers (2002) explained that reflection is an act of meaning making that must take place “in community, in interaction with others,” and that requires commitment to “personal and intellectual growth of oneself and of others” (p. 845). Schön’s (1983, 1987) articulation of reflection extended beyond reflective thinking to *reflection-in-action*, positing that reflection can immediately impact action.

By promoting reflective thinking in teacher preparation programs, teacher educators can help their teacher candidates become active, careful thinkers who make deliberate, purposeful choices. The coteaching model of clinical practice creates an opportunity for coteachers to engage in this type of collaborative reflection by means of cogenerative dialogue (Scantlebury et al., 2008).

Teacher Dispositions

As the findings of this study reveal, one precondition for the successful implementation of coteaching was connected to the collaborative and reflective dispositions that both coteachers embodied. Similar to teacher education programs supporting teacher candidates to develop professional teaching dispositions (Arnstine, 1967; Freeman, 2007; Katz & Raths, 1985; National Council for the Accreditation of Teachers, 2002), these dispositions also impacted the implementation of coteaching. Grounding our understanding of dispositions in the work of Katz (1995), we define *dispositions* as “a pattern of behavior exhibited frequently and in the absence of coercion, and constituting a habit of mind under some conscious and voluntary control, and that is intentional and oriented to broad goals” (p. 63). Defining dispositions in this way, we also align with the work of Katz and Raths (1985), who posited that dispositions are “habits of the mind, not mindless habits” (p. 303). Viewing dispositions with an awareness of consciousness and a connection to behavior, we believe that dispositions are malleable; education programs can create spaces for “nurturing dispositions” (Hare, 2007, p. 144), and dispositions can be “learned and strengthened” (Raths, 2007, p. 162).

Purpose of the Study

Given the body of research on coteaching and the theoretical frameworks of reflection and teacher dispositions, our study was guided by the following questions:

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1. How is coteaching (coplanning, coconstructing, coassessing) implemented in a single-subject clinical experience?
 - a. What are the actions of implementation?
 - b. How does the implementation of the model evolve throughout the clinical experience (practicum, part time, and full time)?
 - c. What factors facilitated or hindered implementation of the model?
 - d. What are the emerging conditions for success?

Our study adds to the current body of research on coteaching in several ways. First, we tease apart coteaching, examining the implementation not only of coconstructing but also of coplanning and coassessing. Second, we examine the impact that coteaching has on both coteachers, not just on the teacher candidate. Our study also addresses the recommendations provided by teacher candidates surveyed by Darragh et al. (2011), which included the need for longer placements and the coteaching pair's attendance at coteaching trainings.

Method

Context of the Investigation

The research study occurred during the 2014/2015 school year of a yearlong post-baccalaureate credentialing program. Teacher candidates enrolled in the credentialing program simultaneously completed three-quarters of course work and a yearlong clinical experience that gradually increased from a practicum experience (mainly observing, assisting, and tutoring in a secondary classroom) to a coteaching placement (teaching side by side with a practicing teacher, first half-days and then full days). Two coteaching trainings were provided to all pairs (August and January). Trainings explored a variety of coteaching topics, such as fostering the coteaching relationship; defining and exploring coplanning, coconstructing, and coassessing; planning a gradual release model of leadership while still emphasizing collaboration; and discussing coteaching successes and challenges. Coinstructional strategies (e.g., team teaching) were also modeled.

Case Study Participants

In this article, we focus on a subset of the spring cohort—Chris—to provide a more nuanced picture of the teacher candidate's participation in a coteaching experience. Prior to attending the single-subject credentialing program in 2014, Chris completed his undergraduate degree in wildlife biology in 2007. Upon graduation, he worked as a wildlife biologist before returning to school to pursue his teaching credential. Bill, Chris's cooperating teacher, was in his 18th year of teaching and taught Anatomy and Physiology as well as Biology.

Data

Weekly teacher candidate coteaching reflections. Each teacher candidate electronically submitted reflections each week of part- and full-time coteaching, totaling approximately 25 reflections. The weekly reflection had both open- and close-ended prompts about the implementation of coplanning, coconstructing, and coassessing. For coplanning, the close-ended prompts included nonexamples of coplanning to capture the planning practices that occurred, whether they were collaborative or not. (See Appendix A for the weekly reflection prompts.)

Observation report and materials. Each coteaching pair was assigned a university supervisor who observed his or her pair 12–15 times over the course of the clinical experience. Typically, one full period was observed, and then the university supervisor would debrief with the coteaching pair. For each lesson observed, the university supervisor would submit an observation report, which included quantitative data (e.g., ranking of lesson plan quality and classroom management) as well as qualitative data (e.g., what worked and recommendations for improvement). In addition, specific coteaching questions were a part of this observation report, which asked the university supervisor to describe the implementation of coteaching observed.

Semistructured interviews. Chris and Bill were interviewed separately on two occasions during the yearlong placement: a month before the transition from part- to full-time coteaching and at the conclusion of the clinical experience. Prior to Interview 2, Interview 1 was transcribed and coded, and specific questions were created for Chris and Bill for the purpose of member checking (Athanasas & Heath, 1995; Carspecken, 1996; Emerson, Fretz, & Shaw, 1995; Spradley, 1979). The main goal of these interviews was to obtain a more nuanced understanding of the implementation of coteaching for Chris and Bill. (See Appendix B for interview protocol.) In addition, the university supervisor was interviewed at the conclusion of the clinical experience. (See Appendix C for interview protocol.)

Coding and Interpretation

As in most interpretive and qualitative research, analysis for this research study was ongoing and reiterative. Initial analysis of data included the annotation of data with interpretive and analytic memos (Emerson et al., 1995). After this initial analysis of data, a more systematic and inductive coding occurred. First, we separated the data into episodes: “a series of turns that all relate to the same topic or theme” (Lewis & Ketter, 2004, p. 123). Once episodes had been demarcated, open coding occurred to explore ideas and themes related to coteaching (Emerson et al., 1995). A core set of codes was established based on this open coding, with focused coding occurring to identify patterns and subthemes related to coteaching (Emerson et al., 1995). For example, an episode from an interview was first coded for a broad theme of *coplanning*, *coconstructing*, or *coassessing*. After coding this

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interview episode as *coconstructing*, a subcode was identified for the type of coinstructional strategy that was being described (e.g., *team teaching*). When coded as *team teaching*, an additional subcode was applied that identified *how* team teaching was implemented (i.e., *joint*, where both coteachers were equally contributing at all moments in the lesson, or *divided*, where the coteachers were “tag teaming” and one coteacher was taking the lead for a portion of the lesson and then the other coteacher took the lead for a different portion). Finally, this episode was coded for additional themes related to teaching and coteaching (e.g., *classroom management*, *power dynamic*).

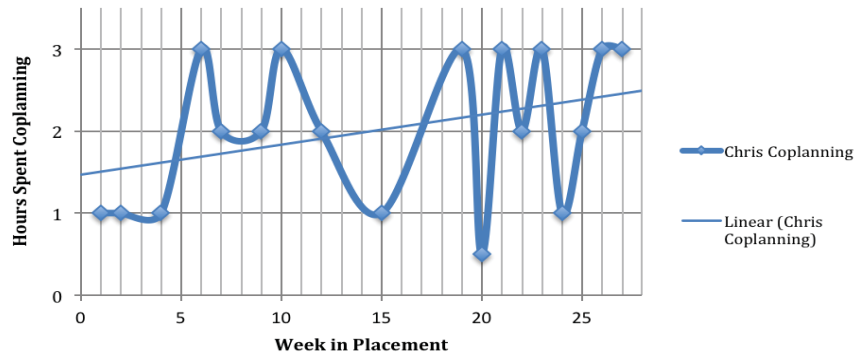
All data were double-coded, and interrater reliability was found to be at 85% or above. The agreed-upon codes for the data set were then inputted into NVivo for additional analysis.

Findings

What Are the Actions of Coplanning?

Examining weekly reflections from Chris over the course of 27 weeks, Chris’s coplanning was collaborative in that Chris and Bill would meet to discuss planning (spending at least 2 hours coplanning a week). The major dip in the amount of time spent coplanning during Week 20 can be attributed to a performance assessment required for Chris’s credentialing program, but even in this week, conversations about planning occurred for at least an hour. Data from Chris’s weekly reflections show that time spent coplanning increased throughout the clinical experience, and Chris and Bill frequently modified lesson plans together (72% of the time). Even when Chris took the leadership role in planning, he commonly consulted with Bill and/or modified a previous lesson or assessment that Bill had implemented. Figure 1 and Table 1 show data collected from Chris’s weekly reflections.²

Figure 1
Amount of Time Spent Coplanning Each Week



In addition to quantitative data collected from weekly reflections, insight into what coplanning looked like for Chris and Bill was discovered through two semi-structured interviews. Interviews revealed that there was an intentional leadership transition when it came to coplanning and that coplanning allowed for an expanded curriculum, a benefit to Bill and his secondary students. In the following sections, interview data are presented to illustrate these aspects of coplanning.

Scaffolded clinical experience: Gradual release of planning responsibility.

The coteaching experience provided Chris and Bill with an opportunity to learn and grow as teachers. For Chris, learning occurred through a carefully scaffolded clinical experience that can be described as a gradual release of responsibilities. In interviews and weekly reflections, Chris and Bill described how they approached coplanning and the leadership progression. Chris wrote, “Co-planning has become a daily task. It is at a smaller scale, but communication and dialogue about lessons, changes to lesson, assessments has [*sic*] become regular” (Week 1 Reflection). Elaborating on their planning process during Interview 2, Chris stated, “We did a lot of brainstorming and talking. There was a lot of discussion involved in our coplanning. I don’t feel like much of it was just sit by ourselves, do stuff, and then come together and discuss it afterwards.” Chris’s weekly reflection and interviews reveal the emphasis placed on daily reflective conversations about teaching.

As the clinical experience progressed, Bill intentionally allocated more leadership responsibilities to Chris; however, he still was actively involved in the planning process and would provide Chris with materials and ideas that he could use and

Table 1
Planning Practices

<i>Planning practice</i>	<i>No. of weeks</i>	<i>% of time</i>
You were given lesson(s) or page(s) to teach without discussion.	0/18	0
You were given lesson(s) to teach with discussion and/or clarifying questions asked and answered.	8/18	44
You were given lesson(s) and jointly modified with your cooperating teacher (CT).	13/18	72
You were given lesson(s) and you modified on your own.	8/18	44
Beginning with a standard/objective, you and your CT jointly developed a new lesson.	6/18	33
Beginning with a standard/objective, you developed your own lesson.	7/18	39
Beginning with a standard/objective, you provided your CT with a lesson for him/her to teach.	0/18	0
Other (e.g., designing an assessment).	4/18	22

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modify. During Interview 1, Bill described the shift in leadership: “In my mind, it’s the percentages. . . . I got a lot of stuff, but you need to make it yours . . . look at it, make it yours, and then you’ll do a lot better job teaching.” When describing how he was going to meet with Chris over Thanksgiving break to coplan, Bill explained, “It needs to happen for me too. I have to evaluate what I did last year.” This example not only reveals the gradual shift in leadership that Bill had planned during the last few weeks of part-time coteaching but also reveals that Bill himself is a reflective, collaborative teacher. He is open to new ideas (allowing Chris to make changes to his previous lessons and materials), but he is also reflective and wants to continue to improve his own instruction. As is explored in the discussion section of this article, Bill’s disposition of reflective teaching was one contributing factor to a successful coteaching experience.

Expanded and refined practice of the cooperating teacher. Not only did Chris and Bill both initiate and engage in reflective conversations during coplaning but Bill also expressed during Interview 1 that his own practice was made better as a result of coteaching, especially when it came to transitioning to the Next Generation Science Standards: “So that’s been really good for me, especially with the new standards because he’s always leaning on the new standards. And honestly, the new teacher candidates . . . probably know them as well as or better than us who are here.” This perspective reveals that Bill valued Chris and saw him as an equal teaching colleague and even a more knowledgeable colleague in regard to the Next Generation Science Standards. Having opportunities for Chris to share his knowledge of the standards with Bill and to design a curriculum together, Bill developed as a professional.

What Are the Actions of Coconstructing?

In Chris’s weekly reflections, he self-reported weekly coinstructional strategies. In any given week, more than one coinstructional strategy was employed. In addition, Chris and Bill implemented all six strategies at least once, except for parallel teaching, feeling that the classroom space made it challenging to implement this strategy. As depicted in Table 2, Chris and Bill implemented one teach/

Table 2
Coinstructional Strategies Implemented

<i>Strategy</i>	<i>No. of weeks</i>	<i>% of time</i>
One teach/one observe	12/18	67
One teach/one assist	16/18	89
Team teaching	13/18	72
Station teaching	5/18	28
Parallel teaching	0/18	0
Differentiated teaching	7/18	39

one observe (67%), one teach/one assist (89%), and team teaching (72%) as the primary coinstructional strategies.

The semistructured interviews provided more insight into what each coinstructional strategy looked like in action and how team teaching and one teach/one assist enhanced student learning by helping make content accessible to students.

Making content accessible through collaborative teaching. One positive effect of having two teachers actively involved in each lesson was the ability for Chris and Bill to “reach” certain students and make content accessible to a variety of students. During Interview 1, Chris described their coinstructional strategies and noted in particular that teaching required his mind to focus on several different things at the same time and that it was easy to forget something. For this reason, he saw the value of having a second person in the room to answer questions, describe something in a different way, or even to ask aloud, “Is there anything you think I’m forgetting?” He articulated that students benefited from this team teaching within lessons regardless of who was the “lead teacher.” This example of coteaching depicts both Chris and Bill interacting as a team when instructing students, able to build off of each other’s contributions and fill in any gaps as needed. Chris contended that his secondary students benefited from the coteachers’ different perspectives, and we see value for Chris’s professional growth due to Bill assisting him when he might be struggling as a beginning teacher to manage everything in the classroom at one time.

Similar to the preceding example, Chris and Bill also collaborated on planning and designing new assessments to better support student learning and prepare students for college. One such example was designing a lab practical, which Chris felt would not have been implemented had there not been two teachers in the room:

CHRIS: Thursday was the standard exam that they’re used to . . . and then on Friday we came up with a college-style lab practical.

AMY: So was this something he [Bill] hadn’t done before?

CHRIS: Correct.

AMY: Was this something he tried new because he had you?

CHRIS: Yeah.

While Bill’s teaching practices had been expanded by codesigning this assessment with Chris and coconstructing to implement the stations required for the lab practical, the students’ learning experience was also ultimately enhanced, exposing them to a different type of assessment, which they might encounter throughout their future educational careers.

What Are the Actions of Coassessing?

Coassessing occurred daily for Chris and Bill. In his weekly reflections, Chris

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reported on what types of coassessing occurred (see Table 3), which included both informal coassessing, where the coteaching pair reflected on a lesson, and formal coassessing, where the coteaching pair analyzed the results of assessments. Although Chris and Bill implemented all six types of coassessing, the practices that were most prominent included collaborative informal reflection that focused on changes to the next day’s lesson and collaboratively grading assessments.

During both interviews, Chris and Bill were asked to describe their coassessing practices and revealed that they frequently and critically reflected on their teaching and student learning.

Daily reflective conversations. Chris and Bill expressed the value they found in engaging in daily reflective conversations and how these conversations aided their own individual growth as teachers. From Bill’s perspective, he enjoyed having someone to reflect with each day and felt like he was learning new ways of delivering his content:

It’s just so nice to have someone else that I can bounce ideas off of and give me feedback. . . . So from my perspective—a little selfish—but it’s nice to hear different ways of doing things because you know, I do things my way and to have someone in class, I always ask him, “What did you think? What would you do differently? How would you change it?” So he gives me good ideas. (Interview 1)

Table 3
Coassessing Practices

<i>Coassessing practice</i>	<i>No. of weeks</i>	<i>% of time</i>
Formal		
Your CT evaluated/graded assessments and discussed results with you.	2/18	11
You evaluated/graded assessments and discussed results with your CT.	4/18	22
You and your CT evaluated/graded assessments collaboratively.	15/18	83
Informal		
You and your CT collaboratively reflected on lesson(s), student learning, and engagement.	18/18	100
You and your CT discussed possible changes that could have improved the lesson(s), student learning, and engagement.	17/18	94
You and your CT discussed modifications to future lessons based on observations and postlesson reflections.	16/18	89

Not only did Chris and Bill frequently engage in these reflective conversations but Chris described during Interview 2 that the highlight of his coteaching experience was participating in these reflective conversations:

He's [Bill's] been teaching for 17 or 18 years now, but at the end of every lesson, he makes notes on his lessons, how long it took, adjustments to make for next year. . . . He's constantly, "So what could we do now to make that better for next year? Is there new research? Is there a better video that we could show along with that? Is there a new article that we could replace this article with?" So, that was something that we do at the end of every lesson.

Chris went on to state that other teachers do a great job of teaching, but they are not necessarily looking for "the newest, greatest thing to make their lesson that's a good lesson even better or the best." Because Bill did take this approach to teaching, it positively impacted Chris's coteaching experience and his "mind-set" for the kind of teacher he wanted to be.

Discussion

What Factors Facilitated Implementation of the Model?

Collaborative and reflective coteachers. In analyzing the data, we realize the importance of an effective coteaching pairing. Although previous research on coteaching may have suggested that personality is an important contributor to a successful or unsuccessful coteaching pairing (Darragh et al., 2011; Mastropieri et al., 2005; Noonan, McCormick, & Heck, 2003), the case study of Chris and Bill suggests that, although personality does matter, also important is whether the coteachers are collaborative, open to change, and reflective. Chris viewed Bill as collaborative and supportive throughout the entire coteaching experience. Bill asked him for input and was proactive about checking in. During Interview 1, Chris shared that Bill continually asked Chris where he wanted to take the lead in lessons, and he felt Bill genuinely wanted his input in determining how they were going to implement an upcoming sports medicine project.

In addition to having a collaborative relationship, both Chris and Bill were eager to reflect on their teaching and made time for reflecting after—and even during—a lesson. Bill described in Interview 1 how they were constantly reflecting together:

We talk kind of informally throughout the day. I mean even yesterday . . . we got to a part where the students were working somewhat independently and he kind of walked over and got this look on his face, and so we just . . . informally talked about how it went. . . . It sounds kind of weird, but there's a lot that gets done in those little talks. The little 5-minute tweaks that you do in between periods.

In Interview 2, Bill expanded on how important reflective conversations were to them as coteachers:

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It's the first sentence that comes out of my mind [*sic*]*—*we almost kind of just make eye contact after first period . . . and I'm like, "Alright. So what worked? What went well? What didn't work?" And it's just a natural kind of a starting point for us to talk about the plan.

The preceding interview excerpts show Bill initiating reflective conversations. In addition, they provide evidence of Chris and Bill being on the same page and being able to read each other. Chris and Bill seemed in tune with each other, and although they did score similarly on the informal personality test (conducted during the first coteaching training), their dispositions toward personal growth as teachers also seemed important to their success as coteachers. When asked during Interview 2 about the importance of coteachers having similar personalities, Bill responded,

Chris and I have a lot of common interests to begin with. And the two of us do work pretty easily together. But, I've had other candidates . . . and we probably weren't so similar, and it was OK too. It was fine.

In this statement, Bill explains that although similar interests and personalities can definitely help foster the coteaching relationship, he has found success in coteaching with teacher candidates with different interests and personalities from his own. We posit that Bill's success coteaching with teacher candidates can also be attributed to a mind-set of collaboration, reflection, and growth.

Coteaching schedule can promote reflective conversations. Chris and Bill's teaching schedule also encouraged ongoing reflective conversations. Chris and Bill taught several sections of the same course (Anatomy and Physiology), and their planning period occurred during Period 2. This schedule allowed Chris and Bill to teach the lesson during Period 1, reflect on the lesson during Period 2, and make changes to the lesson prior to implementing it in Period 3. During Interview 1, Bill described how they utilized the coinstructional strategy of one teach/one observe to enhance their reflective conversations during Period 2. He explained that he would teach a lesson while Chris observed during Period 1. During Period 2, they would reflect on what worked, what did not work, and changes to be made before Chris taught the same lesson in Period 3.

Challenges to Implementation of the Model

One challenge for Chris and Bill was the leadership transition for Chris assuming more lead responsibilities within the coteaching model. Both Bill and Chris attributed a slower progression in the shift in leadership to Chris teaching outside of his content area. During Interview 2, Bill reflected on the leadership transition, stating that initially Chris did not offer much input specifically with physiology and anatomy. He posited that Chris "doesn't have maybe the confidence that he would have had in biology or maybe the background" and recognized that this limited background knowledge perhaps made it "kind of hard for him [Chris] to

speaking up and saying, "Let's try this." Because Chris had a degree in biology and had not taken an anatomy and physiology class since high school, Bill understood why Chris might have been hesitant to lead the coplanning meetings. Chris commented during Interview 2 on why he would defer to Bill during part-time coteaching:

In the beginning . . . Bill had a lot of input as far as "Hey, this is what I would normally do. Here you go. Take a look at it." And then I would look at it and kind of "Oh, yeah. That's cool. That's good," and I think kind of go with it that way. And over time and progressively . . . I felt a lot more comfortable just going with my own ideas. And I think that was because I got a lot more comfortable with the content as well. So that was a big hurdle for me.

In addition, Bill mentioned during Interview 2 that he was unsure of what the transition looked like and what the credentialing program recommended for its coteaching pairs, explaining that he believed the university wanted a "50/50 kind of thing" in terms of involvement and leadership. In addition, Bill recalled a conversation with another cooperating teacher who was also unsure about the progression of leadership:

There was another teacher, and he asked me that question. He said, "How many . . . like what percentage is your student teacher doing in there?" Or "How much planning?" And I said, "That's the same question I have. I don't know." . . . They're going to need to know how to do all this on their own . . . I feel like I've kind of struggled with that.

As previous research on coteaching has found (Darragh et al., 2011), a challenge of the coteaching model for the clinical experience is ensuring that the teacher candidate, upon completion of the program, is ready to be a solo teacher once employed. Cooperating teachers, like Bill, worry that if they provide too much support and do not provide an opportunity within coteaching for the teacher candidate to take the lead in collaboration and experience solo time, teacher candidates may struggle when employed and no longer coteaching. To prepare Chris for this, Bill stressed the importance of shifting who was leading the coplanning, coinstruction, and coassessment, but he felt unprepared regarding when and how to make those decisions. It is important that credentialing programs recognize and address this concern, better supporting the implementation of the model and leadership transition.

In addition, future research on coteaching could benefit from continuing to follow teacher candidates into their first several years of teaching to determine the impact that coteaching during the clinical experience has on preparing them for the profession. Although we argue that Chris and Bill found success when implementing coteaching and that both grew professionally, it is important to investigate the long-term effects on teacher candidates and the possible negative effects of coteaching.

Chris and Bill After the Coteaching Experience

Immediately upon completing the credentialing program in March, Chris was hired as a long-term substitute teacher until the end of the school year in June. When asked about the impact that the coteaching experience had once he was teaching in his own classroom, Chris revealed both benefits and challenges associated with planning, instructing, and assessing. Chris explained that planning on his own took longer than when he planned with Bill and attributed this increase in time “to the fine-tuning decisions that I would mull over and over, whereas before I could bounce them back and forth with [Bill] and we’d make a decision quickly” (Interview 3). For Chris, the coteaching experience distorted the amount of time needed to plan when he had to do it all on his own. Although time management was a challenge due to limited feedback during the planning stage, even when the professional ideas of others were not readily available like they were when coteaching, Chris made a concerted effort as a long-term substitute teacher to seek out the professional opinions of others by “popping into other people’s classrooms and hearing three or four different opinions about the same question and then pulling the best pieces of the recipes and adding together” (Chris, Interview 2). Learning the value of feedback and collaboration during the coteaching experience, Chris continued to collaborate with other teachers when on his own.

In addition, Chris faced a challenge in finding his own style of teaching during his long-term substitute teaching position. He found himself mimicking instructional strategies and ways to structure the classroom that Bill had modeled, and during Interview 3, Chris explained his awareness of this challenge and how he chose to address it: “Soon I realized I had to do it the way that worked best for me. So the ‘harm’ was short-lived, and I learned a very valuable lesson about making things your own rather early on.” Similarly, Chris found success with classroom management in his own classroom when he “used a lot of what he [Bill] does and then added my own little twist to it that suits me best” (Interview 2).

Chris also had to reorient his reflection without the benefit of a coteacher. During Interview 3, he reported that daily reflection on his teaching had become routine and that he sought out other teachers for reflective conversations. Chris attributed his daily habit of reflection to what Bill had modeled to him throughout his clinical experience. Chris, however, identified a challenge to reflecting on his own:

Reflecting was easier when I had an outside observer. [Bill] usually had great things to offer but would also pick up on stuff I hadn’t noticed. . . . Reflecting [on my own] took more time, and I had to be more proactive with making little notes to myself during class in order to remember them afterward. (Interview 3)

Although Chris experienced challenges with the three aspects of coteaching (planning, instructing, and assessing) when he transitioned into long-term substitute teaching, he was able to overcome these challenges by positioning himself as a collaborative and reflective practitioner—dispositions that were modeled by Bill

and practiced by Chris during the coteaching experience. When asked to reflect on the coteaching experience and how it had prepared him for his long-term substitute teaching position, Chris explained,

Maybe it's a good thing for some people to be just like thrown out of the boat, learn to swim [traditional student teaching]. I definitely think that the time that I had building up to now [long-term substitute teaching] was invaluable. (Interview 2)

When we interviewed Bill a year later, he also expressed lasting positive effects of coteaching on his own professional development. Bill's instruction without a coteacher in the classroom had changed to include station teaching, an instructional practice Bill had not implemented before working with Chris. In addition, Bill expressed that he could see a year later how he had grown professionally through conversations with Chris "talking through everything" and seeking out Chris's help with the Next Generation Science Standards (Interview 3).

Implications

The case study of Chris and Bill reveals the importance of both coteachers positioning themselves as collaborative, reflective teachers. Chris found the coteaching pairing to be positive because Bill did possess the qualities of a collaborative, reflective teacher, always seeking out and valuing Chris's feedback on *his* teaching and *their* teaching. The findings of this research study highlight the importance of a credentialing program screening cooperating teachers to determine their motivation for serving as a coteacher and whether one of the goals is to learn right alongside of the teacher candidate. In addition to recruiting cooperating teachers who are collaborative and reflective, credentialing programs should also consider how to support and prepare practicing teachers to possess (or strengthen) these dispositions. Providing professional development to coteaching pairs in cognitive coaching (Costa & Garmston, 2002) and cogenerative dialogue (Scantlebury et al., 2008) could help to foster these dispositions.

Although Chris and Bill are an example of a successful coteaching pair, we recognize this may have more to do with the dispositions of the pair and prior experiences hosting teacher candidates rather than the support the program provided. Although Bill did reference a coteaching training in Interview 1, both Chris and Bill appeared well suited to implementing coteaching in a way that worked for them; their only challenge came during the leadership transition. The success of their coteaching collaboration raises questions regarding the balance between the "training" required for successful coteaching and the selection of coteaching pairs who will, for whatever reason, work well together. If coteaching must rely on genial personalities to succeed, then the prospect of wider implementation is doubtful. Future research on coteaching should address this issue.

In our study, we found that the leadership transition was the only genuine chal-

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lenge for Chris and Bill. With this challenge in mind, we suggest that credentialing programs could help support the leadership transition by providing coteachers with several models for the leadership transition. For example, a model shared at a coteaching training could include an overview of the sharing of leadership in coplanning, coconstructing, and coassessing—who is taking the lead and for which units. After sharing this model and having coteachers who have implemented the model reflect on what worked and what did not work, coteachers attending the training could be allotted time to develop their own leadership transition plans. This plan could be shared with the university supervisor for feedback. At the end of each week and/or unit, coteachers could be asked to reflect on the sharing of leadership and make changes to their plan. A credentialing program might also provide minimum requirements for the leadership transition for different phases of the program. For example, by the end of part-time coteaching, a teacher candidate should have designed one unit in which he or she facilitated coplanning discussions and the teacher candidate was developing a unit in consultation with the cooperating teacher rather than developing the unit starting from the cooperating teacher's previously implemented unit. Being more transparent about what the leadership transition might look like could help to ensure that the clinical experience remains collaborative and reflective while the teacher candidate assumes more leadership responsibilities in preparation for his or her own classroom.

In addition to gaining insight into Chris and Bill's coteaching experience, our research also indicated that there was perhaps a missed opportunity for the university supervisor to provide coteaching support. In coding observation reports for the clinical experience, the university supervisor did not provide a single coteaching recommendation to Chris and Bill. In addition, Interview 2 with Chris and Bill confirmed that coteaching recommendations were not the focus of feedback that the university supervisor provided when he did observe. Educating university supervisors in coteaching and presenting types of feedback that they might provide to strengthen the coteaching being implemented may be a logical next step for our credentialing program.

As teacher education programs look to reform their clinical experience models, the implementation of coteaching has potential to create an enriching learning environment, but only if the pairs are supported in developing collaborative and reflective dispositions and in understanding the progression of leadership.

Notes

¹ As a program, we identified six coinstructional strategies: one teach/one observe, one teach/one assist, team teaching, parallel, station, and differentiated teaching.

² Although the clinical experience lasted 27 weeks, Chris only submitted 18 weekly reflections due to school holidays (5 weeks) and because he forgot (4 weeks).

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Appendix A **Weekly Reflection Survey**

Last Name:

First Name:

Current Program:

Cooperating Teacher:

School:

Date:

What was your most memorable moment this week?

What was your biggest challenge this week?

Did you and your cooperating teacher coteach this week?

If yes, please provide a specific example of how coteaching (coplanning, coconstructing, or

coassessing) was implemented in your classroom this past week. If coteaching did not occur, what do you see as the barriers?

Approximately how much time was spent coplanning this past week?

How often did you take the lead role during coplanning?

Which of the options below most accurately reflect your planning experiences this past week?

(1) You were given lesson(s) or page(s) to teach without discussion, (2) You were given lesson(s) to teach with discussion and/or clarifying questions asked and answered, (3) You were given lesson(s) and jointly modified with your cooperating teacher, (4) You were given lesson(s) and you modified on your own, (5) Beginning with a standard/objective, you and your cooperating teacher jointly developed a new lesson, (6) Beginning with a standard/objective, you developed your own lesson, (7) Beginning with a standard/objective, you provided your cooperating teacher with a lesson for them to teach, (8) Other.

How often did coinstruction occur this week?

How often did you take the lead role in coinstruction?

Which of the strategies below did you utilize when coinstruction this past week? (1) Station teaching, (2) Team teaching, (3) Parallel teaching, (4) Differentiated teaching, (5) None of the above, (6) Other.

How often did coassessing occur this week?

How often did you take the lead role in coassessing?

Which of the following options below most accurately reflect your assessing experiences this past week? Formal Assessment: (1) Your cooperating teacher evaluated/graded assessments and discussed results with you, (2) You evaluated/graded assessments and discussed results with your cooperating teacher, (3) You and your cooperating teacher evaluated/graded assessments collaboratively; Informal Assessment: (1) You and your cooperating teacher collaboratively reflected on lesson(s), student learning, and engagement; (2) You and your cooperating teacher discussed possible changes that could have improved the lesson(s), student learning, and/or engagement; (3) You and your cooperating teacher discussed modifications to future lessons based on observations and post-lesson reflection; (4) Other.

Do you feel your students view you as an additional teacher in the classroom?

Do you feel both you and your cooperating teacher are engaged in furthering student learning throughout the school day?

Appendix B

Teacher Candidate and Cooperating Teacher Interview Protocol

Interview 1

1. Tell me about your teaching background.
2. Describe to me a day in the life of coteaching. What would I see and hear? How do you spend your time together?

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3. Describe your planning process as a cooperating teacher/teacher candidate within the clinical experience.
4. Describe your instructional practice with your teacher candidate/cooperating teacher.
5. Describe your assessment practices with your teacher candidate/cooperating teacher.
6. Tell me about the sharing of leadership in coteaching—sharing planning, instructing, and assessing responsibilities.
7. Describe a coteaching experience that you have had this quarter that went well. In what ways did it go well?
8. Describe a challenging coteaching experience that you have had this quarter.
9. What is one goal that you have for coteaching as you continue to coteach next quarter?

Interview 2

1. What has *coplanning* looked like for you and your coteacher during *full-time* coteaching? How has *coplanning evolved* throughout the clinical experience?
2. What has *coconstructing* looked like for you and your coteacher during *full-time* coteaching? How has *coconstructing evolved* throughout the clinical experience?
3. What has *coassessing* looked like for you and your coteacher during *full-time* coteaching? How has *coassessing evolved* throughout the clinical experience?
4. Reflecting on the clinical experience, what has been the *highlight* of the coteaching experience?
5. Reflecting on the clinical experience, what has been the *greatest challenge* of the coteaching experience?
6. Has the coteaching experience shaped how you think about *reflection and/or collaboration*?
7. What *advice* would you provide to a coteaching pair beginning the clinical experience?

Appendix C

University Supervisor Interview Protocol

1. Tell me a little bit about your career in education and your role as a university supervisor.
2. What is coteaching? How would you describe it to someone who is unfamiliar with this method of teaching?
3. Describe the relationship between your coteaching pair. What are the *strengths* and *challenges* of this relationship in respect to implementing coteaching?
4. Over the course of the clinical experience, how did your coteaching pair establish that they were coteachers in the classroom?
5. Over the course of the clinical experience, what *barriers* prevented your coteaching pair from establishing that they were coteachers in the classroom?

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6. Did you observe or hear of any *strengths AND/OR challenges* from your coteaching pair regarding coplanning? If there were *challenges*, did you provide any *support/solutions*?
7. Did you observe or hear of any *strengths AND/OR challenges* regarding *coconstructing*? If there were *challenges*, did you provide any *support/solutions*?
8. Did you observe or hear of any *strengths AND/OR challenges* from your coteaching pair regarding *coassessing*? If there were *challenges*, did you provide any *support/solutions*?
9. How did the credential program help to support you to understand the coteaching model?
10. What was most helpful to you when supporting your coteaching pair to implement coteaching?
11. What would have helped you to better support your coteaching pair to implement coteaching?