R The
Renaissance
Group

From Pre-Service to Employed Teacher: Examining One Year Later the Benefits and Challenges of a Co-Teaching Clinical Experience

Megan Guise and Krystal Thiessen
California Polytechnic State University, San Luis Obispo

Abstract

The research study described in this article is an extension of a yearlong mixed methods study of eight co-teaching pairs (four English and four science) and their implementation of co-teaching during the clinical experience. A year after these eight pre-service teachers participated in the co-teaching research study while enrolled in a teacher education program, they were interviewed at the conclusion of their first year of employed teaching with the goal of exploring the impact that the co-teaching experience had on their development as a teacher. Findings reveal that co-teaching during the clinical experience provides an opportunity to shape pre-service teachers to be collaborative, reflective practitioners who seek out opportunities to collaborate and position themselves as lifelong learners. However, teacher education programs that implement co-teaching during the clinical experience have a responsibility to ensure that co-teaching occurs with fidelity and that pre-service teachers are supported to transition to full-time employment where the day-to-day co-teaching opportunities may be more limited.

Introduction

As teacher education programs continue to explore alternative models for preparing beginning teachers, the focus of reform has turned to the clinical experience. Several key teacher educators advocate for a reconceptualization of fieldwork, stressing the importance of an extended, collaborative experience that partners a beginning teacher with a practicing teacher, reflecting collaboratively on practice (Cochran-Smith 1991; Darling-Hammond, Pacheco, Michelli, LePage, & Hammerness, 2005; Zeichner 2002). Building off of these recommendations, departments of education and other education stakeholders propose co-teaching during the clinical experience as a productive model for supporting beginning teachers to learn how to teach, moving beyond the model of traditional student teaching that has often been viewed as a "sink or swim" model with little active mentoring of the beginning teacher (The National Council for the Accreditation of Teachers, 2010; California Commission on Teacher Credentialing).

Although research on co-teaching during the clinical experience has shown a positive impact on the development of the beginning teacher (for examples, see Authors; Badiali & Titus, 2010; Murphy & Carlisle, 2008; Scantlebury, Gallo-Fox, & Wassell, 2008), the students (for examples, see Bacharach, Heck, & Dahlberg, 2010; Hang & Rabren, 2009**),** and even the cooperating teacher (for an example, see Authors), few studies have examined the long-term effects of co-teaching on the development of the beginning teacher (for an exception, see Beers, 2009). The research study described in this article is an extension of a yearlong mixed methods study of eight co-teaching pairs (four English and four science) and their implementation of co-teaching during the clinical experience. A year after these pre-service teachers participated in the co-teaching research study while enrolled in a teacher education program, they were interviewed at the conclusion of their first year of employed teaching with the goal of exploring the impact that the co-teaching experience had on their development as a teacher. This longitudinal research study addresses the current gap in co-teaching research and speaks to some of the concerns voiced by those opposed to implementing a co-teaching model for the clinical experience.

In the sections that follow, we provide a brief review of previous research on co-teaching before describing the methodology of the year-out research study. In the findings section, we present the primary themes that resonated from the data, noting both co-teaching benefits and challenges that the research participants provided when reflecting on their experience in the teacher education program and during their first year of teaching. Finally, we conclude the article with implications for teacher education programs, providing recommendations on how to capitalize on the benefits of co-teaching and address co-teaching concerns. Throughout the article, we posit that co-teaching during the clinical experience provides an opportunity to shape pre-service teachers to be collaborative, reflective practitioners who seek out opportunities to collaborate and position themselves as lifelong learners. However, teacher education programs that implement co-teaching during the clinical experience have a responsibility to ensure that co-teaching occurs with fidelity and that pre-service teachers are supported to transition to full-time employment where the day-to-day co-teaching opportunities may be more limited.

Background on Co-Teaching

Drawing on the work of Badiali and Titus (2010) and Bacharach et al. (2010), we define co-teaching as the following:

> *Both cooperating teacher and pre-service teacher are engaged in student learning at all times through daily co-planning, co-instructing, and co-assessing.*

In this definition, we communicate that co-teaching is more than just implementing co-instructional strategies (e.g., one teach/one observe, team teaching) and includes collaborative, reflective planning and assessment.

Although co-teaching has its origins in the field of special education with pioneers such as Friend and Cook, in the 1980s teacher education programs began to appropriate the practice of co-teaching as a model for the clinical experience (Darragh, Picanco, Tully, & Henning, 2011). Since then, research on co-teaching has found positive gains for the learning of K-12 students as well as the learning of pre-service teachers. For learning gains of K-12 students, researchers have documented gains on high-stakes exams in co-taught classrooms versus non-co-taught classrooms (Bacharach et al., 2010; Hang & Rabren, 2009). Additional benefits to K-12 students in co-taught classrooms include additional support for individual students as a result of a lower student-to-teacher ratio and differentiated instruction (Hartnett, McCoy, Weed, & Nickens, 2014; Heckert, Strieker, & Shaheen, 2013).

Research on co-teaching has also examined the affordances for pre-service teachers and their cooperating teachers. Researchers have concluded that by engaging in all facets of co-teaching (co- planning, instructing, assessing, reflecting), co-teachers have an opportunity to reflect on a shared experience and grow professionally through collaboration (Beers, 2008; Scantlebury et al., 2008). Furthermore, research has shown that co-teaching can facilitate the development of critical reflection skills (Murphy & Carlisle, 2008).

Methodology

The research study described in this article was an extension of a yearlong mixed methods study that occurred during the 2014/2015 school year of a yearlong post baccalaureate credential program. Pre-service teachers who enrolled in the credential program simultaneously completed three quarters of coursework and a yearlong clinical experience that gradually increased from a practicum experience (consisting mainly of observing, assisting, and tutoring in a secondary classroom) to a co-teaching placement (teaching side-by-side with a cooperating teacher, first part-time – half days – and then full-time -- full days). For the yearlong research study, participants included eight single subject pre-service teachers (four English and four science) and their cooperating teachers. The focus of this yearlong research study was to investigate the implementation of co-teaching and identify pre-conditions for and barriers to success.

Data collected for the yearlong study included weekly reflections (including both quantitative and qualitative prompts), which asked the pre-service teacher to reflect on his/her

experience implementing co-teaching, denoting experiences with co-planning, co-instructing, and co-assessing. Data collected also included three semi-structured interviews conducted separately with both the pre-service teacher and cooperating teacher. These interviews allowed the research team to gain more insight into what co-teaching looked like for each of the eight pairs, exploring co-teaching successes and challenges. Interview data were transcribed and coded prior to the second and third interviews, and member checking occurred at these interviews (Carspecken, 1996; Emerson, Fretz, & Shaw, 1995). Finally, bi-monthly classroom observations conducted by the university supervisor occurred for six months of the yearlong program, and the university supervisor was also interviewed at the conclusion of the experience with the goals of capturing what co-teaching looked like in action and triangulating the data.

Data presented in this article were collected a year after the pre-service teachers were enrolled in the teacher education program. The data collected in the year-out extension of the original study included an interview with the pre-service teacher – now a practicing teacher – at the conclusion of his/her first year of employed teaching. This interview included a series of questions that asked the participant to reflect on the affordances and limitations of co-teaching during the clinical experience now that he/she was concluding his/her first year of employed teaching (see Appendix A for the interview protocol). From the eight pre-service teachers who participated in the original study, six pre-service teachers were interviewed and participated in the follow-up study.

When coding the interview data, we first separated the data into episodes – "a series of turns that all relate to the same topic or theme" (Lewis & Ketter, 2004, p. 123). Once these episodes were demarcated, open coding occurred to explore ideas and themes related to teaching and co-teaching (Emerson et al., 1995). A core set of codes were established based on this open coding, with focused coding occurring in order to identify patterns and sub-themes related to teaching and co-teaching (Emerson et al., 1995). All data was double coded and inter-rater reliability was found to be above 85%. The agreed-upon codes for the data set were then put into NVivo for additional analysis.

We recognize that a limitation of this year-out study on co-teaching was that the data collected and analyzed were entirely self-reported. For example, if the beginning teacher described how co-teaching enhanced her ability to collaborate with others, we did not collect observation data or evidence from a performance evaluation to confirm whether the teacher was, in fact, collaborative during her first year as an employed teacher. However, we feel that the self-reported interviews provide insight into co-teaching successes and challenges to explore in future research studies and are an informative start to research currently not conducted on co-teaching.

Findings

In the yearlong study that occurred during the 2014/2015 academic year, one finding of the study of the implementation of co-teaching was that there was variety in the degrees to which co-teaching was implemented by the eight pairs. We posited that a continuum of co-teaching implementation exists with some pairs aligning more with notions of traditional student teaching (e.g., differential in power dynamic between pre-service and cooperating teacher, extended periods of solo teaching) while others collaborated even when one teacher was in the lead.

Knowing where each of the pairs lived in terms of the co-teaching continuum, we kept this in mind when interviewing them a year later because for some, co-teaching might have not impacted their first year of employed teaching since they did not fully experience the model during their teacher education program. See Table 1 for a description of each pre-service teacher (all names are pseudonyms) and Appendix B for a description of the continuum categories.

Table 1: Description of Pre-Service Teacher and School Site

Pre-Service Teacher	Classes Taught	Grade(s)	Description of School Site	Continuum Identification
Elliot	Biology & Life Science	7th & 8th	Suburban	Traditional Student Teaching
Grace	Environmental Science & AP Biology	9th - 12th	Urban	Traditional Student Teaching
Molly	English	7th & 8th	Urban	Forward Momentum
Carol	English	11th	Suburban/Rural	Forward Momentum
John	Physics	11th & 12th	Suburban/Rural	Scaffold & Grow
Lexie	English	7th	Urban	Scaffold & Grow

In the sections that follow, we present our findings from the year-out study, organizing these findings thematically around the affordances and challenges of how the yearlong co-teaching clinical experience impacted the practices of pre-service teachers one year after the experience.

Affordances of a Co-Teaching Clinical Experience When Learning to Teach

Collaborative and reflective view of the profession. Three of the six first-year teachers interviewed for this year-out study expressed an appreciation for co-teaching during the clinical experience because of its alignment with the field of education that embraces collaboration and continual learning. When asked whether the teacher education program should continue to implement co-teaching as the model for the clinical experience, Molly explained,

> *I would say yes just because I think that's the way education is going anyway. It's becoming a much more collaborative experience. It's not just a teacher in that classroom kind of doing their thing. It's much more of a community effort. And I think that the sooner we [pre-service teachers] get into that mentality, especially just starting out as student teachers, the more we will be able to improve and grow.*

In these comments, Molly posits that co-teaching during the clinical experience could impact the mindset of a beginning teacher, encouraging him/her to collaborate and become part of a

"community effort" if afforded the opportunity to do so when enrolled in a teacher education program.

Similarly, Carol also expressed that participating in a co-teaching model to the clinical experience reiterated the importance of teachers being life-long learners and learning through collaboration. Carol stated, "Co-teaching is something that is ideal in terms of being a positive environment for both new teachers and for more experienced teachers to be able to learn and to grow. And for me, that's a huge core value – continuing to learn and continuing to grow. It's one of the reasons why I became a teacher in the first place."

Although Molly and Carol posited that co-teaching was in line with their desire for collaboration and continual learning, the interviews also revealed that the beginning teachers' views of feedback had been shaped by the co-teaching experience. For example, when reflecting on her co-teaching experience and the subsequent year of employed teaching, Lexi explained, "that a lesson plan should always go through another person first – like, that seems really normal to me now because that's what co-teaching taught me – that the more feedback is always better." Working in a collaborative school environment for her first year of employed teaching, Lexie often sought out the advice of her colleagues when planning her lessons, perhaps a receptiveness to feedback established because of the collaborative feedback experienced from her clinical experience.

Influenced by cooperating teacher's practice. Another common finding across the six interviews was that for those beginning teachers who experienced co-teaching during the clinical experience, the yearlong experience allowed them to learn side-by-side their cooperating teacher and a year later had identified numerous practices that they now implemented in their own classroom that they attributed to their cooperating teacher. For example, John explained that the greatest benefit to him when learning how to teach was to observe and teach with an effective teacher, something that could not have occurred if the cooperating teacher allowed him extended periods of solo time where the cooperating teacher was not in the room:

> I think I really got lucky because my collaborating teacher – he's like the Dumbledore of teachers. He's really funny, and so I learned a lot just watching him. He's a very masterful teacher. I mean, very good at all the different aspects of teaching with regards to delivering instruction, and assessing, and reflecting, and developing performance in students. And so picking up on all that, I think that's just really helped me.

John's comments stress the importance of what can be learned by "watching" and "picking up on" the practices of an effective teacher.

Similarly, Lexie expressed that she learned a lot from the co-teaching clinical experience by working with a cooperating teacher who was strong in classroom management. In addition, Lexie implemented instructional strategies, graphic organizers, and other techniques that she had learned from her cooperating teacher during her first year of teaching.

Desire to collaborate with others. The beginning teachers interviewed who experienced co-teaching during the clinical experience reported that they sought out opportunities to collaborate with colleagues at their new school because they learned the value of collaboration

during the clinical experience. Molly explained how she goes "to other members of [her] English department regularly and asks them for contributions, to see what they're doing in their class," with Molly arguing that "the more information and ideas [she has], the more to choose from, and the better to enhance [her] teaching with." Lexie also expressed how the school in which she works is "really collaborative" and how that during her first year she was able to "collaborate all the time" recognizing that she was really used to collaboration since she "worked with [her] co-teacher so well" the previous year.

Similar to Molly and Lexie, Carol saw opportunities to collaborate with another teacher when planning for instruction. Missing being able to work with a co-teacher like Carol had done the previous year, Carol explained:

> *A coworker and I have essentially decided to co-teach. We're teaching the same course. And so we're not necessarily co-teaching in the sense that we are in the same room at the same time and we can do co-instructional strategies….We'll co-plan it of course. And so using lesson plans and developing them together, which will relieve a lot of the stress of planning and developing good activities.*

Not only did Carol intend on co-planning with a colleague, but she recognized that co-reflection could occur since she and her colleague would be teaching the same lessons. Carol elaborated that the impetus for the co-planning and co-reflecting was a result of her colleague also having "co-taught before and had enjoyed the experience."

In John's first year of employed teaching, he was the only physics teacher at his school site, so there was not an opportunity to collaborate with another teacher who was teaching the same content like Carol. During the interview he explained how this was good and bad for it "gave [him] the freedom to kind of do what [he] wanted but [he] also didn't have anyone to bounce ideas off of." Desiring an opportunity to collaborate with others and looking ahead to next year, John reached out to a math teacher:

> *One of the major issues I had with my students this year was their lack of preparedness in math for physics. And so I'm going to be working alongside another teacher next year, and we're going to try align our curriculums so that they're working on the techniques in math that they're going to need in physics. And we're also going to give them a pre-assessment that he's going to help me write.*

Although participating in a co-teaching clinical experience may not be the sole reason why John sought out this collaboration possibility, having an opportunity to collaborate when learning to teach perhaps made John more open to this approach to planning curriculum.

Challenges of a Co-Teaching Clinical Experience When Learning to Teach

Transition to non-co-taught classroom. Although the four participants interviewed who experienced high levels of co-teaching during the clinical experience identified aspects of the experience that set them up for success during their first year of employed teachers, these participants also identified challenges. One challenge in particular was the transition from co-teaching in a supportive, collaborative environment to one where there perhaps was less support

and collaboration. During her interview, Carol communicated that one challenge she faced with this transition was specific to planning: **"**I really struggled with planning properly in a sense that I didn't have someone to bounce ideas off of." John also echoed Carol's sentiments and found the biggest challenge his first year of teaching was planning, for "it can be hard to plan without somebody" because he had grown accustomed to collaboratively planning with his cooperating teacher. Although Carol and John both faced challenges when it came to planning during their first year of employed teaching, both sought out the help of colleagues with Carol creating a co-planning relationship with another teacher since they were teaching the same course. This shows that the value seen in this collaboration enabled Carol and John to find a solution to not being in a co-teaching environment.

In addition to challenges with transitioning to solo planning, the participants also mentioned needing help in having a realistic understanding of what the level of support might look like their first year of employed teaching. For example, Carol stated that when comparing her first year of employed teaching to the clinical experience, "[She] just didn't have that same support to the extent that [she] did as a co-teacher." It is vital that pre-service teachers feel supported throughout the clinical experience and that when learning to teach, it is important to have strong role models and someone with whom to collaborate and reflect. In order for teaching decisions to be transparent, this collaborative reflection is essential. However, more support does need to be provided in helping the pre-service teachers to transition to more of a leadership role toward the end of their clinical experience as well as the following year as an employed teacher. Carol, specifically, struggled with the "freedom and a lot more independence" that her first year of employed teaching provided, and teacher education programs need to prepare pre-service teachers for this transition.

Implementing co-teaching with fidelity. A second challenge associated with the co-teaching model was in regards to the fidelity to which the co-teaching model was implemented. The pre-service teachers who when reflecting on their clinical experience recognized that they did not, in fact, co-teach, felt like they missed out on an effective approach to preparing beginning teachers, especially when they saw co-teaching implemented at their school site during their first year of employed teaching. Elliot, having had experienced more of a traditional approach to student teaching, reflected in the year-out interview on the benefits and drawbacks to this approach when learning to teach. Elliot stated, "We never did co-teaching anyway...I guess last year kind of prepared me for what it was to kind of be on my own….I would say maybe doing it individually like we did do it kind of was better for my first year as a teacher because it was kind of more realistic." Elliot seemed torn, however, when he reflected on his first year of employed teacher and recognized the value in collaboration, commenting "We [teachers at his school site] really got to collaborate a lot and work together, so that made my experience as a first-year teacher so much easier." He elaborated and described how co-teaching was implemented at his school site with a special education teacher paired with a general education teacher, and he felt like the co-teaching model during the clinical experience was "kind of cool because they're [his current school site] doing it." Elliot in particular felt like he "signed up to

co-teach, and then just didn't get it" during his clinical experience. Reflecting on this experience a year later, he wished that "there was follow through" on the part of the university that "we [Elliot and his cooperating teacher] weren't actually doing it."

Lexie expressed similar sentiments to Elliot when reflecting on the members of her credential cohort who did not implement co-teaching to the extent that she and her cooperating teacher did. Lexie attributed this difference in co-teaching implementation to the dispositions of the cooperating teachers and their motivation for hosting a pre-service teacher. Lexie stressed the importance of properly screening cooperating teachers if implementing co-teaching with fidelity was the goal: "Having them [cooperating teachers] interview just so you can see if they are a naturally collaborative person….Even people who are just naturally outgoing or have warm personas….Or even maybe asking them, 'What is your intention on having a co-teacher?'"

In addition, the year-out data revealed that there was confusion about the co-teaching model and the extent of collaboration and solo time. This was revealed in the interview with Grace who explained:

> *Pretty much at the end when we were supposed to mostly take over and do more of our individual teaching, it was very difficult that quarter because we were basically teaching on our own. We still had the co-teacher with suggestions and everything in there for support, but we had to do all the lesson plans, and all the teaching, and all the grading. The difficult part was going back to [the university] to take the night classes."*

Grace's comments reveal a misunderstanding of the co-teaching model for during the times when she was taking evening classes at the university, she was in the part-time portion of the clinical experience (phase #2). This portion of the experience was not meant to be extended solo time, and her description of her experience aligns more with traditional student teaching. In addition, there was little collaboration evident in Grace's description of her experience, and one characteristic of co-teaching is to have collaboration even when one teacher is in the lead. Grace's comments solidify the importance of a teacher education program clearly articulating the co-teaching model and ensuring that all co-teaching pairs understand how to implement co-teaching and are able to recognize when their approaches to mentoring a beginning teacher misalign with this model.

Implications

Although the case studies presented in this article provide further support as to the benefits of the co-teaching model when learning to teach, it is important for future research and teacher education programs to investigate and address these challenges in order to strengthen the co-teaching model and its potentially positive impact on beginning teachers. Two key areas of concern include the transition from a collaborative co-teaching clinical experience to solo, employed teaching in addition to how teacher education programs can intervene when a co-teaching pair is not implementing co-teaching with fidelity.

For the first challenge, pre-service teachers need to be scaffolded to understand the realities of teaching beyond the teacher education program. For a pre-service teacher like Carol,

she was surprised when teachers at her school site did not collaborate or did not see opportunities for collaboration. Elliot, however, taught his first year at a school site where collaboration was encouraged and a part of the school culture. It is important for teacher education programs to expose their pre-service teachers to the different levels of collaboration that may be enacted at a school site. Engaging in conversation about these possibilities by inviting local teachers and alumni of the program to speak at a seminar class session could be a useful first step. A next step could be to prepare school scenarios and have the pre-service teachers brainstorm what they might do in that particular context. For example, pre-service teachers could be given a prompt to identify one aspect of teaching in which they would like to collaborate (e.g., planning). Then, they could be given a teaching scenario and be asked to determine how they might overcome a collaboration obstacle and achieve the desired level of collaboration. This activity could invite a rich discussion about how to negotiate tensions at a school site while maintaining a personal philosophy of teaching and how to advocate for oneself.

For the second challenge of how teacher education programs can support pairs to implement co-teaching with fidelity, as Elliot expressed in his interview a year after he completed the teacher education program, he wished that there was an intervention by the teacher education program to ensure that he had an opportunity to co-teach during his clinical experience. If co-teaching is a model that a teacher education program implements, it is important that guidance is provided to co-teaching pairs in order to encourage this type of mentoring. One way would be for a teacher education program to have co-teaching pairs complete a co-teaching self-assessment at different times in the co-teaching experience. This self-assessment could be shared with a university supervisor, and the university supervisor could facilitate a conversation on how to move beyond the current co-teaching implementation. Beyond an assessment that gauges co-teaching implementation and identifies when support is needed, providing co-teachers with a clear sense of the co-teaching model is essential in order to be able to implement the model with fidelity. Supporting co-teachers to understand the model could occur in face-to-face workshops, bi-monthly co-teaching newsletters, a co-teaching website, and other repositories for resources.

In addition, future research exploring the impact of co-teaching during the clinical experience on the practices of beginning teachers could be enhanced by collecting observation and performance evaluation data during the first year of employed teaching. Knowing where the research participant falls on the continuum of co-teaching implementation that occurred during the clinical experience and comparing this to the observation-based performance data in addition to self-reported data, more conclusive claims about the impact of co-teaching on beginning teacher practices and dispositions could be achieved.

Conclusion

Findings from the yearlong and year-out studies suggest that co-teaching during the clinical experience is beneficial to the professional growth of a beginning teacher, primarily in regards to developing beginning teachers who are collaborative, reflective, and prepared for the

first year of teaching. There is a need, however, to address the concerns of educators who posit that a co-teaching model of the clinical experience might negatively impact a beginning teacher. The year-out data shows that the transition to employed teaching can be challenging, and that the pre-service teachers may not have a realistic view of the extent to which they relied on their cooperating teacher during the co-teaching experience. Therefore, it is important for teacher education programs to be transparent about how the co-teaching experience can prepare beginning teachers for that first year while also identifying and discussing the challenges that may be faced when on their own. According to John and others interviewed, "co-teaching got [him] really ready for that first year as a teacher." John's comments further support the notion that co-teaching can be an effective model to the clinical experience, but with any model, it is important that it is implemented with fidelity and that teacher education programs realistically assess and address challenges that may result from the model.

References

Bacharach, N., Heck, T. W., & Dahlberg, K. (2010). Changing the face of student teaching through coteaching. *Action in Teacher Education*, *32*(1), 3-14.

Badiali, B., & Titus, N. (2010). Co-teaching: Enhancing student learning through mentor intern partnerships. *School University Partnerships, 4*(2), 74-79.

Beers, J. (2008). Negotiating the transition between different teaching contexts through shared responsibility and shared reflection. *Cultural Studies of Science Education*, *4*(2), 443-447.

California Commision on Teacher Credentialing (2016). Preliminary multiple subject and single subject credential program standards. Sacramento, CA: Author.

Carspecken, P. (1996). *Critical ethnography in educational research*. New York, NY: Routledge.

Cochran-Smith, M. (1991). Reinventing student teaching. *Journal of Teacher Education*, *42*(2), 104-118.

Darling-Hammond, L., Pacheco, A., Michelli, N., LePage, P., & Hammerness, K. (2005). Implementing curriculum renewal in teacher education: Making organizational and policy change. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world* (pp. 442-479). San Francisco: John Wiley.

Darragh, J. J., Picanco, K. E., Tully, D., & Henning, A. S. (2011). When teachers collaborate, good things happen: Teacher candidate perspectives of the co-teach model for the student teaching internship. *The Journal of the Association of Independent Liberal Arts Colleges of Teacher Education*, *8*(1), 83-109.

Emerson, R.M., Fretz, R.I., & Shaw, L.L. (1995). *Writing ethnographic field notes*.

Chicago, IL: University of Chicago Press.

Hang, Q., & Rabren, K. (2009). An examination of co-teaching: Perspectives and efficacy indicators. *Remedial and Special Education*, *30*(5), 259-268.

Hartnett, M.J., McCoy, A., Weed, R., & Nickens, N. (2014). A work in progress: Unraveling the lessons learned in a co-teaching pilot. *The Renaissance Group*, *3*(1), 33-54.

Heckert, J., Strieker, T., & Shaheen, M. (2013). Kennesaw Sate University Collaborative clinical practice. *The Renaissance Group*, *1*(2), 83-96.

Lewis, C., & Ketter, J. (2004). Learning as social interaction: Interdiscursivity in a teacher and researcher study group. In R. Rogers (Ed.), *An introduction to critical discourse analysis in education* (pp. 117-146). Mahwah, NJ: Erlbaum.

Murphy, C., Carlisle, K. (2008). Situating relational ontology and transformative activist stance within the "everyday" practice of coteaching and cogenerative dialogue. *Cultural Studies of Science Education*, *3*, 493-506.

Scantlebury, K., Gallo-Fox, J., & Wassell, B. (2008). Coteaching as a model for preservice secondary science teacher education. *Teaching and Teacher Education*, *24*, 967-981.

The National Council for the Accreditation of Teachers (2010). Transforming teacher education through clinical practice: A national strategy to prepare effective teachers. Washington, DC: Author.

Zeichner, K. (2002). Beyond traditional structures of student teaching. *Teacher Education Quarterly*, *29*(2), 59-64.

Appendix A

Year-Out Co-Teaching Interview Protocol

1. Tell me about your first year of teaching including successes and challenges?

2. When you were an employed first-year teacher, what aspects of planning, instructing, assessing, and/or reflecting were challenging to do without a co-teacher?

3. When you were an employed first-year teacher, did you seek out another teacher and/or resource to fill any of the roles filled by your cooperating teacher? Why or why not?

4. How did the co-teaching experience help you when you were employed your first year of teaching?

5. Are there ways that the co-teaching model made your first year of teaching more difficult?

6. Now that you have a year of experience, do you think the teacher education program should continue to implement the co-teaching model? Why or why not?

7. What suggestions do you have for improving the co-teaching model at the teacher education program in which you were enrolled?

8. If you could change an aspect of your co-teaching experience, what would it be and why?

Appendix B
Co-Teaching Implementation Continuum Categories

Traditional Student Teaching
- Planning primarily done individually (either the pre-service teacher or the cooperating teacher took the lead)
- Co-instructional strategies primarily used included one teach/one observe and one teach/one assist in addition to solo time
- Pre-service teacher received feedback on his/her teaching from the cooperating teacher

Blended Experience: Co-Teaching Guidance Needed
- Planning, instructing, and assessing occurred individually and in collaboration with the cooperating teacher
- Co-instructional strategies primarily used included one teach/one observe, one teach/one assist, and team teaching
- Pre-service teacher received feedback on his/her teaching from the cooperating teacher

Forward Momentum: Lessons Learned from Prior Co-Teaching Experience
- Co-teachers implemented various approaches to co-planning, co-instructing, and co-assessing
- Co-teachers were strategic with when to implement co-teaching and when to implement solo time
- Co-teachers reflected on lessons collaboratively, moving beyond feedback on just the pre-service teacher's practice

Scaffold and Grow: Teacher Educators & Lifelong Learners
- Co-teachers implemented various approaches to co-planning, co-instructing, and co-assessing
- Co-teachers were strategic with when to implement co-teaching and when to implement solo time
- Co-teachers reflected on lessons collaboratively, moving beyond feedback on just the pre-service teacher's practice
- The cooperating teacher showed openness to new ideas and was learning alongside the pre-service teacher

Page intentionally blank