

Co-teaching: Enhancing Student Learning Through Mentor-Intern Partnerships

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Abstract: In this article, the authors present a definition for co-teaching. They argue that co-teaching has the potential to be an effective arrangement for attending to student learning, preparing a teacher candidate to enter the profession, and eliminating some of the snags and pitfalls associated with traditional student teaching. In addition, they identify and describe six models of co-teaching along with examples of how these models may contribute to student learning in a Professional Development School (PDS). They conclude by suggesting areas for further research on the effects of co-teaching.

“To enhance the learning of all students.”

This short statement is replete with implications about the focus and direction for the efforts of Professional Development School (PDS) partnership between Penn State and the State College Area School District. It implies that learning involves each and every student, that curriculum is accessible, that the partnership’s stance is one of caring, and sharing the ethical obligations of stewardship for their schooling. This PDS has been deliberately structured in such a way as to realize these intentions. In a PDS classroom, students work collaboratively with an excellent teacher, an excellent teacher candidate, and an experienced Professional Development Associate on a regular basis. These human resources make it more possible to help every child learn. The way in which these educators are arranged, the expectations they hold, and the norms they establish make all the difference in assuring that all students having opportunities to learn. Too often, a PDS is perceived solely as a means of preparing teacher candidates to enter the profession; however, preparation is only one facet of the PDS diamond. As critically important as it is to prepare competent teachers,

it is secondary to ensuring that all children receive a good educational experience in the process. The authors believe both can occur simultaneously, but the authors’ mantra is, “students first.” The PDS is, after all, a collaborative partnership between a university and a public school that aims to benefit both.

There may be no better PDS practice to accomplish these goals than through co-teaching. In addition to student learning and preservice teacher development, the PDS presents the ideal environment for co-teaching as a job embedded professional development experience for classroom teachers as well. Co-teaching has several definitions. For the purpose of this paper, co-teaching is defined as two or more teachers working together in the same classroom sharing responsibility for student learning (Friend & Bursuck, 2011; Friend & Cook, 2000).

Co-Teaching

Co-teaching is not new. This practice has been used extensively in the area of special education where teachers use full inclusion as a means to combine the expertise of special education and

regular education teachers. The special education community came to understand through classroom experience that two teachers working side-by-side (elbow to elbow) greatly enhanced the opportunity for every student's learning, especially when that student has special needs. Similarly, mentor and intern teachers working side-by-side can serve the needs of the children in their classroom more effectively. In addition, co-teaching enables them to share invaluable insights about teaching that serve to benefit them both. How many insights they realize depends upon how much reflective dialogue they engage in after a lesson or after a day in the classroom together. There is power in the expectation for such dialogue as well as in the dialogue itself.

A look at practices in many traditional teacher preparation programs only serves to punctuate the improved school culture that exists in a PDS structure. In traditional programs, it is common practice for cooperating teachers to leave teacher candidates alone in the classroom to sink or swim. As a result, many sink, to the great detriment of children's learning. Others may swim, but awkwardly at first and without much support. The practice of letting teacher candidates go "solo" is rationalized mainly by two arguments. First, cooperating teachers feel they deserve some down time for being generous enough to open their classroom to a teacher in training. The solo is a kind of "pay back" for access to their classroom. Second, many veteran teachers feel that a new teacher must carry the burden of an entire class load to prove that she will be able to be successful in the profession. In most cases, that is the way they were "tested" in their own student teaching experience. The reasoning goes something like, "I made it through this test. Now it's your turn." Both justifications for the traditional approach are flawed, especially when we consider what happens to children and their learning when novices have to teach alone. Children are disadvantaged when one teacher works and the other does not participate. What parent, what principal, what teacher would want to have a child in a setting where the first team sits on the sideline while the second team plays

the game? As one of us overheard a mother admonish a traditional supervisor years ago, "I don't want you experimenting with my kid just so somebody can learn to teach."

Co-teaching has many advantages over the old model of sink or swim; that is one reason it has the strong endorsement of the PDS. Another reason has to do with helping teacher candidates learn more about how to collaborate within a school community. It has been our experience that no intern prepared through co-teaching has ever reported being disadvantaged because she went without a solo experience. In fact, many who take positions in schools where such collaboration is not the norm, take the initiative in forming collaborative relationships.

Most educators continue to associate the term co-teaching with special education. After the passage of PL 94-142 (1975), a plethora of models for including special education students in regular classrooms emerged. With subsequent reauthorizations of the law (IDEA), full inclusion became the predominant model for accommodating special needs students; special education teachers and regular education teachers began to collaborate more closely. Some eventually began to teach together in a model they called co-teaching. Teacher education began to appropriate the practice and the term as early as 1980. Roth & Tobin, (2002) explain the virtues of co-teaching for professional growth and teacher preparation. This text and the follow-up, *Teaching to Learn: A View From the Field*, chronicle the benefits of co-teaching for all teachers. Additional illustrations of the benefits of co-teaching have been provided by Badiali, B. J., & Hammond, D. J. (2005). Co-teaching as an alternative to the "Take-over" phenomenon. *Pennsylvania Teacher Educator*, 4(1), 1-12. Conderman and Hedlin (2011), Friend and Cook (2000), Friend and Cook (2009), Tobin and Roth (2006), Vaughn, Schumm, and Arguelles (1997), as well as Villa, Thousand and Nevin (2004).

Several models of co-teaching have been identified as a healthy form of collaboration for all teachers (Friend & Bursuck, 2011; Friend & Cook, 2000). An adaptation of some of these models to coordinate with a mentor/intern relationship more effectively are described

below, together with brief examples from the authors' PDS experience.

Mentor Modeling

This model has also been referred to as “one teaching, one observing” (Friend & Bursuck, 2011, Friend & Cook, 2000). This model of co-teaching works well for new teacher candidates because it provides an orientation to a mentor teacher's approach to instruction. The model may predominate the relationship early on, but can and should be used throughout their time together. Mentor modeling can work in two ways. First, when a novice intentionally watches a master teacher work, she can begin to understand how to interact with children while delivering the curriculum. When a novice observes closely, she can pick up the subtleties of instructional practice. Having both experienced the same teaching episode, the pair can then have an important reflective conversation about the effects of teaching strategies on the learning of the children. The use of systematic observation with this model is recommended.

Second, when the veteran teacher watches the novice work, he can get a sense for which teaching behaviors are effective and which strategies need further development. Novice teachers thrive on feedback about their teaching, provided that the feedback is given in a manner that is possible for them to understand and utilize. Mentor teachers need to keep in mind that the purpose of feedback is to further the novice's thinking about instruction, not to simply judge performance. As much as the novice may want approval from his mentor, it is the mentor's job to go beyond surface judgments (good or bad) about the teaching performance. Co-teaching makes it possible for two teachers to have a common experience. It is of primary importance in this model that the two discuss what they both have learned from it. In this way, students benefit from an intern's enhanced knowledge about good instruction. The model is illustrated by the commentary below.

So much instruction occurs during a brief twenty minute Guided Reading session that it is

important for an intern to know what to look for during that period of time. My intern and I developed a series of systematic observations so that she would have a deeper understanding of the guided reading process. We began with the question, “What instructional strategy should I focus on during a guided reading session?” We began brainstorming. We felt it would be important to track how a mentor guided students through word attack strategies. Another day, my intern tracked my types of comprehension questions (Bloom's Taxonomy). Having a very specific focus for observation gave my intern a greater depth of knowledge about the guided reading process. She was able to look at the data she collected from various observations and make inferences about my instructional strategies. For instance, she observed that with a couple of groups I focused more on word attack strategies and concluded that some students needed that additional instruction whereas other students were already demonstrating skills for decoding words. By conducting systematic observations, she found herself inquiring more about guided reading instruction. “Did the mentor call on more boys or girls? Did the mentor spend more time with some students than other students?” Spending so much time observing me set my intern up for success when she began to take the lead teaching guided reading. I learned a few things about my own performance as well. Our students continued to benefit through this process as we kept students' instructional needs the focus during guided reading planning.

One Teach, One Guide

Another term for this model is “one teach, one drift” (Friend & Cook, 2000; Friend & Bursuck, 2011). This second model for co-teaching is especially helpful for learning how to collaborate with one another. In “one teach, one guide”, the primary responsibility for delivering instruction falls to one teacher while the other teacher circulates around the classroom to provide individual help to students. As teachers work on building students' self-confidence and academic learning, this model is a great way for one teacher to monitor individual student's progress and provide correctives or positive feedback while the other teacher is

focusing on the whole group. This model requires some co-planning so that both teachers understand a common objective for the lesson. The guide needs to anticipate where students might have difficulty and stay tuned in to the progression of the lesson while helping individual students in a nonintrusive way so as not to disturb the rhythm of the lesson. Another role of the guide can be to collect data on students' understanding throughout the lesson. This information can be invaluable when reflecting on the impact of the lesson. For example:

In a sixth grade science lesson, the intern was attempting a rather complicated experiment where student teams were expected to get materials, mix solutions and measure the outcomes. Despite the fact that the intern planned the experiment very thoroughly, and despite the fact that she gave the students very clear directions, the inevitable began to happen – experiments were going awry. Seeing this, the mentor moved from team to team making sure that the mixtures were being handled in the right amounts and in the appropriate sequence. The mentor headed off disaster drawing little attention to himself. Student learning about science flourished during this lesson in large measure because the mentor drifted around the classroom and provided individual guidance.

Station Teaching

Station teaching is popular because of its instructional benefits and is used widely in the authors' PDS. In a co-teaching format, teachers design station teaching around a common objective: all "stations" would be centered on a similar theme/concept (i.e. multiplying single digits, state symbols of Pennsylvania, a science experiment). Students progress through a series of stations to learn similar skills. Teachers have separate responsibilities working with small groups on targeted knowledge and skills. Stations lower the teacher-student ratio allowing for more individual student attention. Teachers purposefully plan student groupings using criteria such as similar abilities and group dynamics. Stations are also an effective way to

meet the many different learning styles of students. For instance, individual stations can be co-designed with the "word smart," "art smart," "people smart," "music smart," etc., students in mind. As with all of the other models, co-teachers debrief their experience in station teaching and its effect on student learning. As an example:

My intern and I were discussing that we had one group of students that would benefit from additional phonics instruction. These students didn't qualify for Title 1 services, yet they needed an extra boost with reading. We brainstormed ways that we could incorporate an extra reading session for these children during our literacy stations. My intern observed another teacher using poetry to reinforce word families that made her interested in developing a poetry station to help this group of students. During the poetry station, she introduced a poem and conducted a mini-lesson associated with word families in that poem. She had students find rhyming words in the poems. Then students had to create word lists applying their word family chunks. She concluded the station by having students read the day's poem to practice their reading fluency. Students were enthusiastic about working with the intern, and they were more actively engaged than they had been in the past during an independent center.

While my intern was teaching the poetry center, I was able to deliver guided reading instruction to another group of students. The students in our classroom benefited by having two teachers work with small groups targeting their needs.

Parallel Teaching

Another model that lowers the teacher-to-student ratio is parallel teaching. In parallel teaching, co-teachers are teaching the same content, but splitting the class for instructional purposes. They may teach this way to accommodate student pace, learning style, or prior achievement patterns. Parallel teaching is an exceptionally effective model for students who may be hesitant to participate in class. Some students are reluctant to participate in front of a

large group of peers. Parallel teaching provides an opportunity for greater participation for all students and can reduce the anxiety that some students feel. Parallel teaching can help co-teachers differentiate to foster student learning. For example:

During a unit on the skeletal system of the human body, one lesson objective was for students to identify attributes of chicken bones. My intern and I began the science lesson with the whole class by activating students' prior knowledge about bones. To encourage closer examination of the bones and greater student participation, we divided the class into two groups to make their observations. My intern and I each facilitated half of the class. Students recorded their findings and sketched the bones in their journals. As facilitators of smaller groups, my intern and I were able to hear from a greater number of students about their observations. At the conclusion of the observation, we pulled the two groups back together to discuss the students' findings. Together, we charted the two groups' responses on a Venn diagram and found similar observations and unique observations from each group. Being able to parallel teach created the opportunity for the class to have two sets of data to compare and a more in-depth concluding class discussion about bones.

Alternative Teaching

Similar to parallel teaching, alternative teaching allows co-teachers to meet the variety of needs of students in their classroom. Teachers deliver different content to address students' learning needs. It can be particularly effective for students with attention problems as it allows for re-teaching, tutoring, and enrichment. In this model, co-teachers can modify the curriculum content group students according to their instructional needs. See below:

A time when I wish I had been in a co-teaching relationship occurred while I was teaching middle school math. My classes were heterogeneously grouped. I did my best to accommodate the needs of my students in the class, but I found it very difficult to be effective at differentiating instruction in a 45-minute block of time. In one

instance I had a student that was passionate about math. He sought additional challenges from what I was providing the whole group. Not wanting to see him lose his enthusiasm for using the required math curriculum, I individualized a plan of study for just for him. When class began, the students would complete math warm-up exercises while I provided this student with a mini-lesson. After the mini-lesson, he would engage in independent work while I instructed the rest of the students. I have to believe that his learning, as well as the rest of the class's learning, could have been taken much farther with a co-teaching approach. I later used this approach, not just with one students, but with groups of students.

Synchronous Teaming

One might find it interesting that "team teaching" might be considered a form of "co-teaching", since this term predates "co-teaching." Team teaching is a term that has been used to depict any form of teacher collaboration regarding instruction. In this case, synchronous team teaching is viewed as the closest form of instructional partnership as it carries the greatest amount of shared responsibility. It also allows for the most creativity and spontaneity in working with another teacher. Synchronous teaming occurs when both teachers are active in working with the entire class as a whole. They synchronize their instruction by presenting curriculum together. They often finish one another's sentences and build upon one another's comments spontaneously.

This model occurs most often in the later stages of a mentor/intern relationship as time is needed to learn about each other's teaching styles. This model also requires co-planning. Synchronous team-teaching takes a great deal of trust and respect for one another. Our view of synchronous team teaching is that it encourages teachers to try innovative techniques that one teacher could not do alone. Synchronous team teaching as co-teaching should inspire teacher pairs to take risks and assess their impact on learners.

Table 1. Implementation of Co-Teaching Large/Small Group Instruction

<i>Whole Group Instruction</i>	<i>Small Group Instruction</i>
Mentor Modeling	Station Teaching
One Teach, One Guide	Parallel Teaching
Synchronous Team Teaching	Alternative Teaching

As one observer commented:

In a fourth grade mathematics lesson I observed recently, the intern had students using Unifix cubes to replicate geometric shapes she flashed on a screen using the overhead projector. The students saw the figure for just a few moments and then had to reproduce it from memory. Students were doing well replicating the figures, but they struggled when answering a few of the intern's more complex questions. I could see the consternation on their faces and I thought that soon their frustration might stall what had been a very good lesson. Then I heard the mentor's voice from the back of the room. She said to the class, "Hmmm, look at the expression on Miss Dewer's face (intern). She knows something. Look at that smile." The children looked back at the intern who looked like the cat that ate the canary. Their interest sparked; the children began to offer more (and better) answers to the intern's questions. They were getting it; but the mentor spoke again, "Look, boys and girls, Miss Dewer must still have a secret. Look at her eyes. Oh, she's just here to make your lives miserable. Let's figure out what she's up to." And the children did.

Summary and Discussion

Co-teaching occurs every day across the authors' PDS. In this article, several models together with examples have been provided to document that co-teaching not only benefits interns and mentors, it benefits students as well. Table 1 illustrates models that can be implemented for whole group or small group instruction.

The implementation of these models will significantly augment classroom learning for students and their teachers. Whether using the models results in professional growth for teachers at any stage in their careers depends to a great extent on the quantity and quality of reflective dialogue that occurs before, during

and after a co-teaching experience. Self-reflection and collaborative reflection are essential to scaffold learning, to promote greater collaboration, and to inspire insights into future possibilities. In an era focused on developing educational learning communities, co-teaching may well become the next best practice.

The authors also suspect that there are countless illustrations of co-teaching that could be cited here from other mentors and interns in their PDS. The models that have been described may not be the only types of co-teaching that are practiced in the PDS. Therefore, the discovery, documentation and sharing of the effects of co-teaching as a classroom practice are recommended. Consequently, additional research on each of the models will be conducted to collect evidence of their impact on student learning, as well as the process of learning to teach. ^{SUP}

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