

Fall 2013

Co-Learning: Maximizing Learning in Clinical Experiences

Hillary Merk

University of Portland, merk@up.edu

Jacqueline Waggoner

University of Portland, waggoner@up.edu

James Carroll

University of Portland, carroll@up.edu

Follow this and additional works at: http://pilotscholars.up.edu/edu_facpubs



Part of the [Educational Administration and Supervision Commons](#)

Citation: Pilot Scholars Version (Modified MLA Style)

Merk, Hillary; Waggoner, Jacqueline; and Carroll, James, "Co-Learning: Maximizing Learning in Clinical Experiences" (2013). *Education Faculty Publications and Presentations*. 9.

http://pilotscholars.up.edu/edu_facpubs/9

This Journal Article is brought to you for free and open access by the School of Education at Pilot Scholars. It has been accepted for inclusion in Education Faculty Publications and Presentations by an authorized administrator of Pilot Scholars. For more information, please contact library@up.edu.

**Co-Learning: Maximizing Learning
in Clinical Experiences**

**Hillary Merk, Ph.D.
Jacqueline Waggoner, Ed.D.
James Carroll, Ph.D.
University of Portland**

Abstract

Researchers and teacher educators have given increased attention to co-teaching during the student teaching experience. Co-teaching facilitates an apprenticeship arrangement that encourages modeling of classroom practice for the candidate and a chance to implement directly what is being learned by the apprentice. The co-teaching model can be expanded to form a co-learning model in which there are three constituents of learners: the P-12 students, the candidate, and the cooperating mentor teacher. This co-learning model results in a synergistic effect that is greater than the sum of the parts.

***Keywords:* Co-teaching, co-learning, student teaching**

Merk, Waggoner, and Carroll

Traditionally, in a co-teaching teacher preparation model, a cooperating teacher and teacher candidate simultaneously have responsibility for a common group of learners. These two adults collaborate in lesson planning and instruction of these students. Of importance, evidence indicates that learners do as well—and often better—when being taught in two-teacher environments than when similar students are taught in single-teacher classrooms (Castle, Arends, & Rockwood, 2008; Fisher, Frey, & Farnan, 2004). Co-teaching appeared as an instructional approach in the early 1990s, as a way to address better the needs of special education students (Morsink, Thomas, & Correa, 1991). Increasingly, practitioners saw that co-teaching was an effective approach in all classrooms (Cook & Friend, 1995). Eventually, the co-teaching model was given increased attention as a new approach to the student teaching experience. Leadership in this approach was provided by St. Cloud University's teacher preparation program (Heck et al., 2010).

The co-teaching model can be expanded to form a co-learning model in which there are three constituents of learners: the P–12 students, the candidate, and the cooperating mentor teacher. This co-learning model results in a synergistic effect that is greater than the sum of the parts. Co-learning recognizes the fluidity of knowledge transmission among the students, cooperating mentor teacher, and the teacher candidate. A co-learning classroom is transformed into a vibrant learning laboratory that connects practice, research, and theory.

Currently, the focus of possible interactions in the traditional student teacher classroom is how and what P–12 students learn from the classroom teacher or the teacher candidates when they are solo teaching. The P–12 students are constantly learning both overt and hidden curricula in their educational experiences, and considerable resources are applied to determine what they have learned. A current intention is that teacher candidates work in clinical placements in order to learn about teaching from both the students and the cooperating teacher. It is rarely considered that clinical experiences can be structured in order to maximize the professional development of the cooperating mentor teacher who has the opportunity

Co-Learning

to learn not only from the P-12 students but also from his or her teacher candidate during the mentoring process. With shrinking district professional development funds and elimination of tuition reimbursement programs for educators, co-learning provides the cooperating mentor teacher professional development opportunities without cost to the school district or the teacher.

Theoretical Framework

Situated cognition (Brown, Collins, & Duguid, 1989) has been the hallmark of teacher preparation's orientation of theory into practice. How can we help teacher candidates learn about teaching in environments in which they will *authentically* use their new knowledge? Cognitive apprenticeship tries "to enculturate [candidates] into authentic practices through activity and social interaction in a way similar to that evident ... in craft apprenticeship" (p. 37). Co-learning encourages a reduction of the inherent directionality of the learning in the clinical experience. The experience retains all of the elements of authenticity that are needed but also encourages a move toward creating a learning community in which all participants benefit (LeCornu & Ewing, 2008).

For the cooperating teacher, co-learning expands beyond the supervisor/teacher relationship to one in which the cooperating mentor teacher intends to pass on his or her craft to the teacher candidate. In the process, the teacher candidate adapts teacher knowledge. "Although mentors' collaboration in this adaption may assist them in upgrading their professional expertise, the distinctive achievements of the mentor appear to be selfless transmission of one's professional legacy..." (Healy & Welchert, 1990, p. 18). Indeed, mentors seem to gain satisfaction in producing new knowledge during the mentoring relationship (Blackburn, Chapman, & Cameron, 1981). There is some truth to the oft-used aphorism, "the best way to learn something is to teach it." Cooperating teachers can gain considerable growth from the co-learning environment. Our interest is to focus on the benefits of the co-learning community and to examine the types of new knowledge that may be generated in the process.

Merk, Waggoner, and Carroll

Literature Review

Curry and Cunningham (2000) define co-learning as constructing knowledge in a community. For them, co-learning serves to deemphasize the notion that teachers are experts who provide knowledge, and students are learners or receivers of knowledge. Brantmeier (*n.d.*) more emphatically describes co-learning as an empowerment pedagogy for all of the participants in the learning community. Lawrence (1996) studied co-learning among graduate school cohorts and found students and teachers were able to co-create knowledge when group dynamics and de-centering of authority were part of the group structures.

Our work began by implementing more traditional models of co-teaching. It then evolved into a co-learning approach to augment those traditional models. Co-teaching during the student teaching experience has been given increased attention among researchers and teacher educators (Bacharach, Heck, & Dank, 2003; Heck et al., 2006; Perl, Maughmer, & McQueen, 1999). Co-teaching is defined as “two or more professionals delivering substantive instruction to a diverse or blended group of students in a single physical space” (Cook & Friend, 1995, p. 14). Others have extended this definition to emphasize that co-teaching is “a collaborative relationship for the purpose of shared work... for the outcome of achieving what none could have done alone” (Wenzlaff et al., 2002, p. 14). The literature on the benefits for P-12 students and teacher candidates of co-teaching is robust. Villa, Thousand, and Nevin (2013) provide a comprehensive review of the literature demonstrating the benefits of co-teaching. Conderman (2011) discusses the importance of student reflection in co-teaching classrooms. In a meta-analysis, Murawski and Swanson (2001) found positive effect sizes in the use of co-teaching across content areas with the highest ratings appearing in language arts classrooms. Less often has the benefit to cooperating teachers been the focus of study (Scheetz, Waters, Smeaton, & Lare, 2005).

A co-teaching model for student teaching allows the cooperating teacher to maintain the primary responsibilities for the classroom while providing the teacher candidate with initial responsibilities,

Co-Learning

such as monitoring individual work or teaching a small group of students. The difference between this approach and a traditional model is that the teacher candidate is integrated from the beginning of the student teaching placement as a teacher versus as a student observer. Thus, the cooperating teacher and teacher candidate collaboratively plan and deliver instruction from the beginning. Teacher candidates are able to see more clearly the dynamics of how a classroom works and the process by which teachers plan lessons and implement curriculum. Ultimately, the teacher candidate and cooperating teacher alternate between assisting and/or leading the planning, instruction, and assessment. This co-teaching model is transformed into a co-learning model when the P-12 students are integrated into the community of learners who construct knowledge together with the cooperating teacher and teacher candidate.

Methods

Seventeen cooperating teachers and 17 teacher candidates participated in this study. Eleven co-learning experiences took place in K-5 classrooms, three took place in middle school classrooms, and three were in high school classrooms. There was a large range of demographics for the 17 co-learning placements, and this allowed us to explore the effectiveness of co-learning across multiple characteristics. The following table (Table 1) displays the range of demographic data in the co-learning placements.

Table 1
Ranges of Percentages of Ethnicity and Learner Needs in Co-Teaching Placements

Ethnicity	Percentages	Learner Needs	Percentages
Asian	2.7-10.8	Special Education	8.8-22.3
African-American	0.9-28.0	English Language Learner	3.2-46.3
Hispanic	7.4-62.1	Talented and Gifted	3.6-14.5
Native American	0.2-3.3	Free and Reduced Lunch	14.9-88.3
White	13.8-81.4		
Multiple Races	2.5-8.5		

Merk, Waggoner, and Carroll

In this study, 17 cooperating teachers and 17 teacher candidates received instruction about and implemented the co-learning model for student teaching. The field placement supervisor who was a former principal, an assistant professor who teaches classroom management and assessment and who has supervised student teachers for over 5 years, and one university supervisor who also had been a principal and who supervised student teachers for over a decade, served as the trainers for the cooperating teachers, teacher candidates, and university supervisors. These individuals had received training on the St. Cloud co-teaching model. There were three training sessions for the participants in the co-learning program and one final session of sharing successes and challenges. At the first training, the participants were given an overview of the co-teaching model and how it is implemented during the student teaching experience. In addition, research findings were shared from previous years of implementation of the co-teaching model as they related to co-learning. At the next training session, participants were provided instruction on co-teaching strategies and lesson planning. Moreover, significant time was devoted to allowing cooperating teachers and teacher candidates the opportunity to build positive working relationships, a foundational element to the co-teaching model (Heck et al., 2010). Sharing values regarding timeliness, organization, and communication strategies are examples of the types of conversations in which participants engaged during session two. In addition, participants practiced co-planning strategies at the second training session. The third training provided an opportunity to check in with the co-teachers, clarify roles and responsibilities, and summarize and reinforce the co-teaching model and strategies. The final session was designed to be an opportunity for co-teachers to share successes and challenges during their co-learning experience, as well as provide an opportunity to give feedback about the program.

In this study the co-teaching placements were in schools representing a variety of student demographics, in classrooms of varying age levels and content areas, with teachers at different experience levels, and a multitude of other differences. Because this was an

Co-Learning

exploratory study of the implementation of co-teaching in teacher preparation, a qualitative approach was needed to establish the broader themes emerging from the experiences. Our approach was to use observation and interview data coupled with traditional qualitative coding strategies to identify processes in local contexts (Miles & Huberman, 1994).

Cooperating teachers and teacher candidates were interviewed individually at the conclusion of their experience using a protocol that included questions about successes and struggles related to working together using the co-learning model, perceptions of effectiveness, and their sense of how well the cooperating teacher and teacher candidate collaboratively planned, instructed, and assessed student learning. Specifically, cooperating teachers and teacher candidates were asked a series of questions to explore whether or not they believed they were now able to see more clearly the dynamics of how a classroom works, the process by which teachers plan lessons and implement curriculum, and other issues related to professional development. Furthermore, teacher candidates and cooperating teachers were asked to explore the ways in which they learned from their P-12 students and how co-constructed knowledge informed their teaching and learning practices. The following are sample interview questions:

1. How was the co-teaching experience a success for you?
2. How was the co-teaching experience a success for your P-12 students?
3. How were you better able to differentiate instruction using the co-teaching model?
4. How have your understandings and practices of classroom management changed using the co-teaching model?
5. How have you grown professionally using the co-teaching model?

In addition to interviews, observations were made by the staff, trainers, and the faculty supervisor in each of the co-learning classrooms. Approximately 300 hours were spent in the field to observe

Merk, Waggoner, and Carroll

how cooperating teachers and teacher candidates implemented the co-learning model during student teaching. Observation notes were used to triangulate interview and survey responses in order to discover emerging themes.

Finally, the co-learning participants were asked to complete an end-of-experience survey that addressed challenges and successes with the co-learning model, professional development (sample questions included lesson planning, knowledge of curriculum, and classroom management), as well as how the participants learned from each other during this co-learning experience (i.e. cooperating teacher learning from the teacher candidate and P-12 students, teacher candidate learning from the cooperating teacher and P-12 student, and both the teacher candidate and cooperating teacher addressed how the P-12 students learned from both teachers in the classroom).

Analysis

The analysis began after the initial interviews, observations, and/or personal anecdotes were documented (Maxwell, 1996). The cooperating teacher and teacher candidate interviews, observations, and field notes were analyzed using a constant comparative qualitative assessment of dominant themes that emerged during the process. Constant comparison was used in order to chunk the data into meaning units. The chunks were coded according to overarching commonalities illustrated in the data. Analysis of the data reported in this study was done using an iterative process of pattern coding (Miles & Huberman, 1994). Coding was done individually by four faculty members who then met and adjusted coding categories before coding a second time. After consultations, all four researchers agreed upon the emergent themes and exemplars. Results of the analysis were reported to principals and staff members at the participating schools and were used as source data in working groups at the University to suggest improvements to the co-learning experience.

Co-Learning

Results

Creating and implementing a co-learning model for student teaching was examined to determine cooperating teachers' and teacher candidates' professional growth in a dynamic community of learners. In addition, we explored how P-12 students benefited in this co-learning model. This research examined the co-learning model as one way to help candidates learn about teaching in environments in which they would authentically use their new knowledge.

Classroom Management

Teacher candidates in this study said that using the co-learning model helped them to become more attentive to classroom management issues and each student's learning needs. For example, one teacher candidate commented that gaining classroom management techniques was the greatest benefit:

In my classroom I feel like a lot of how I learned classroom management was observing and watching and then trying to mirror with what she was doing but try to adapt it to my own... 'Cause I can't do exactly what someone else is doing, 'cause it's not me... Learning how to adapt that and still be stern and seeing the value in structure with some fluidity in that as well. I've learned most of my classroom management from I think co-teaching, because of her attention-getters. I've used hers, but then she said I should create my own, so I would do that depending on the lesson... Just like adapting and modifying (1st grade, teacher candidate).

Teacher candidates had discussed co-teaching strategies with other teacher candidates in seminar classes. From those conversations candidates believed that instructional minutes were used more efficiently to meet diverse learning needs when there were two teachers in the classroom. In addition, teacher candidates stated that the co-planning process helped them gain a deeper understanding

Merk, Waggoner, and Carroll

of how to plan and pace cohesive curriculum, develop an ability to implement constructivist lessons, and create an environment that provided natural opportunities to ask pedagogical and pedagogical content knowledge questions. "I always would ask her why? Why did you do this? Why is this considered a better practice?" (middle school math, teacher candidate).

Questioning Skills

Additionally, teacher candidates gained a deeper understanding of how to ask questions that encouraged students to analyze, explore, and dig more deeply into the content. One teacher candidate commented,

I can't ask the better questions quite yet, so I like that I can hear my CT ask those questions when we are team teaching or even when I am lead teaching and she interjects better questions. Then the next time I teach that lesson, I know what questions to ask and I will know what questions get students to think more critically or better understand the content (middle school math, teacher candidate).

Improving questioning skills also allowed teacher candidates to differentiate instruction to ensure all learners were engaging in the content.

There were different situations where a student wouldn't understand how I explained but could easily follow how my cooperating teacher explained it and vice versa. They were also able to benefit by having either I or my cooperating teacher pulling out kids when necessary for more individualized instruction. This helped keep kids up to pace and even helped with behavior issues (2nd grade, teacher candidate).

Furthermore, "the co-teacher would have a purposeful vision on what demographic of student was going to be assisted the most

Co-Learning

during a particular lesson. This allowed for the assistant to help deliver the material in either a faster or slower rate, and/or in a more personal manner (2nd grade, teacher candidate).” The cooperating teacher constantly modeled best practice for the teacher candidate, and eventually, the teacher candidate was able to implement similar management and instructional strategies.

Collaboration

In this study, cooperating teachers maximized the resources to meet the professional needs of the teacher candidates, learned additional research-based instructional strategies, established a professional relationship with teacher candidates based on mutual respect, felt more optimistic about the future of the education field, felt less isolation, and felt increased professional growth. “This model has pushed me professionally to develop clear organizational formats to help my teacher candidate see how I teach and help the transition for them to teach my students with precisions (1st grade, cooperating teacher).” Pedagogically, data show that cooperating teachers perceived the co-learning model as an effective way to differentiate instruction. This helped them meet the needs of all levels of learners in the classroom in a more timely manner and model collaborative behavior to students. Additionally, the co-learning model facilitated development of professional partnerships that enhanced the ability to plan, instruct, and engage P–12 students in the learning activities, and assess the students’ academic learning gains. For example, “students liked being able to separate into groups for re-teaching or for offering extension opportunities; team teaching gave us an opportunity to blend our styles which was great for the students, since each of us had distinctly different strengths (2nd grade, cooperating teacher).”

Cooperating Teacher as Learner

A theme that emerged from the data was that the cooperating teachers also gained new knowledge in this process from the interactions among students, the cooperating teacher, and the teacher candidate. Cooperating teachers expressed the need to be learners

Merk, Waggoner, and Carroll

in this collaborative model, as the teacher candidate could provide innovative ideas that could enhance curriculum, instruction, and assessment. “The cooperating teacher has to be a learner during the co-learning process, because I often learn new strategies from my teacher candidate either in the planning sessions or in the instruction.” One cooperating teacher stated she “grew as a teacher and had the ongoing opportunities to collaborate.” In the following interview transcript, she elaborated.

I learned from my co-teacher. She is a whiz at technology! I know technology and SIOP better because of her. Also, I learned about current special education and neuroscience and learning research from her. She had ideas I found refreshing and innovative. We spend SO much time in collaboration: planning, reflecting, formative assessment discussions, etc. We were able to employ new strategies for instruction and group configurations because there were two of us. I strongly feel that in terms of my professional development, I was able to redefine some “best practices” and ways to better engage MORE kids, MORE often and with greater success and outcomes for KIDS! I improved my repertoire of teaching strategies and practices and engaged in more frequent more meaningful collegial dialogue (kindergarten, cooperating teacher).

In addition, one cooperating teacher said, “You have to be humble and learn from the teacher candidate...they have a lot of great strategies to offer” (2nd grade, cooperating teacher).

P-12 Learning

Drawing from classroom observations, interview transcripts, and end-of-experience surveys, the P-12 students in this study appeared to be learning from both the cooperating teacher and the teacher candidate; asking questions of both teachers and responding to discipline from both teachers was evident across all observations. Additionally, when the co-learning trainers reviewed learning

Co-Learning

data from the co-teachers' work samples, it was evident that the P-12 students demonstrated learning gains from the candidates' instructional units. Moreover, P-12 students in this study appeared to value highly having the support of two teachers and felt that their own learning and behavioral needs were met. One teacher candidate commented,

Our students were able to learn equally from two different teachers, sometimes learning two ways to come to an answer or getting to work with whatever teacher best suited their needs. They also saw us as equals in the classroom, especially when watching us teach at the same time. I think we set a great example for them when it comes to cooperation and working together (3rd grade, cooperating teacher).

As a teacher candidate was preparing the students for her departure at the end her student teaching experience, one second grade student commented, "So we are only going to have one teacher? What's the point?" The national call for improvement in clinical experiences encourages exploration of potentially more beneficial models for candidates, teacher preparation programs, and the P-12 schools that support clinical placement. The co-learning model is emerging as a successful approach to this problem. A cooperating teacher stated, "My teaching load was shared, but the outcome for the students was doubled!"

Challenges

In teacher education programs, teacher candidates are often trained to think of themselves as "guests" in their student teaching classrooms and to respect and follow the structures and processes that the cooperating teacher has in place. However, under the co-teaching model, teacher candidates are asked to co-teach, co-plan, and co-assess with sometimes very little background knowledge and experience to do so. Moreover, because they are trained to be "guests," they often feel that they are stepping on the cooperating teacher's toes or being disrespectful when they offer alternative

Merk, Waggoner, and Carroll

solutions, let alone telling the cooperating teacher what *they* will be doing during a particular lesson. During check-in sessions with the cooperating teachers in this study, it became apparent that cooperating teachers *do* want the teacher candidates to take more initiative in the planning, teaching, and assessing they were doing together.

This is an interesting challenge for teacher education programs using the co-learning model, as it assumes that all teacher candidates are ready to fulfill those requirements of taking the lead on planning, teaching, and assessing. This leads to a second challenge of the co-learning model for student teaching. Do teacher candidates get enough “full-time” teaching under this model? Cooperating teachers in the study stated that they thought it was crucial for the teacher candidates’ future success to be given opportunities to “solo” plan, teach, and assess.

Significance of the Study

While co-teaching is not a new phenomenon, applying its fundamentals to a co-learning model that investigates the fluidity of knowledge transmission among the students, cooperating mentor teacher, and the teacher candidate is a relatively new area of study. Our data supported this expansion of the co-teaching model. Our emphasis was to demonstrate how cooperating teachers and teacher candidates grew professionally and formed a dynamic learning community with their students. It explored the transmission of professional knowledge among the cooperating teacher, the teacher candidate, and the P-12 students and sought to discover what new teacher knowledge is gained when the P-12 student, the cooperating mentor teacher, and the teacher candidate become *joint sojourners* (Brantmeier, n.d.) in a co-learning model.

Co-Learning

References

- Bacharach, N., Heck, T., & Dank, M. (2003). *Co-teaching: A partnership in the classroom*. Paper presented at the Annual Meeting of the Association of Teacher Educators, Jacksonville, FL.
- Blackburn, R. T., Chapman, D. W., & Cameron, S. M. (1981). "Cloning" in academe: Mentorship and academic careers. *Research in Higher Education, 15*(4), 315-327.
- Brantmeier, E. J. (n.d.). *Empowerment pedagogy: Co-learning and teaching*. Retrieved from <http://www.indiana.edu/~leeehman/Brantmeier.pdf>
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher, 18*(1), 32-42.
- Castle, S., Arends, R. I., & Rockwood, K. D. (2008). Student learning in a professional development school and a control school. *The Professional Educator, 32*(1), 65-80.
- Conderman, G. (2011). Middle school co-teaching: Effective practices and student reflections. *Middle School Journal, 42*(4), 24-31.
- Cook, L., & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children, 28*(3), 1-16.
- Curry, R. M., & Cunningham, P. (2000). Co-learning in the community. *New Directions for Adult and Continuing Education, 87*, 73-82.
- Fisher, D., Frey, N., & Farnan, N. (2004). Student teachers matter: The impact of student teachers on elementary-aged children in a professional development school. *Teacher Education Quarterly, 31*(2), 43-57.
- Healy, C. C., & Welchert, A. J. (1990). Mentoring relations: A definition to advance research and practice. *Educational Researcher, 19*(9), 17-21.
- Heck, T., Bacharach, N., Dahlberg, K., Ofstedal, K., Mann, B., Wellik, J., & Dank, M. (2010). *Mentoring teacher candidates through co-teaching*. St. Cloud, MN: Teacher Quality

Merk, Waggoner, and Carroll

- Enhancement Center.
- Heck, T., Bacharach, N., Ofstedal, K., Mann, B., Wellik, J., & Dahlberg, K. (2006). *Rethinking student teaching*. A paper presented at the Annual Meeting of the Association of Teacher Educators, Atlanta, GA.
- Lawrence, R.L. (1996). *Co-learning communities: A hermeneutic account of adult learning in higher education through the lived world of cohorts* (Doctoral dissertation, Northern Illinois University). Retrieved from <http://search.proquest.com/docview/304274428>
- Le Cornu, R., & Ewing, R. (2008). Reconceptualising professional experiences in pre-service teacher education: Reconstructing the past to embrace the future. *Teaching and Teacher Education, 24*(7), 1799-1812.
- Maxwell, J. A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Newbury Park, CA: Sage.
- Morsink, C. V., Thomas, C. C., & Correa, V. I. (1991). *Interactive teaming: Consultation and collaboration in special programs*. Englewood Cliffs, NJ: Merrill.
- Murawski, W. W., & Swanson, H. L. (2001). A meta-analysis of co-teaching research: Where are the data? *Remedial and Special Education, 22*(5), 258-267.
- Perl, M., Maughmer, B., & McQueen, C. (1999). *Co-teaching: A different approach for cooperating teachers and student teachers*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Scheetz, J., Waters, F. H., Smeaton, P., & Lare, D. (2005) Mentoring in a PDS program: What's in it for me? *Kappa Delta Pi Record, 42*(1), 33-37.
- Villa, R. A., Thousand, J. S., & Nevin, A. I. (2013). *A guide to co-teaching: New lessons and strategies to facilitate student learning* (3rd ed.). Thousand Oaks, CA: Corwin.
- Wenzlaff, T., Berak, L., Wieseman, K., Monroe-Baillargeon, A.,

Co-Learning

Bacharach, N., & Bradfield- Kreider, P. (2002). Walking our talk as educators: Teaming as a best practice. In E. Guyton & J. Ranier (Eds.), *Research on meeting and using standards in the preparation of teachers* (pp. 11-24). Dubuque, IA: Kendall-Hunt.

Dr. Hillary Merk is an Assistant Professor in the School of Education at the University of Portland in Portland, OR. She received her Ph.D. in Education with an emphasis in classroom management and diversity, and a specialization in Cultural Studies and Social Thought in Education from Washington State University in Pullman, WA. She researches in the area of classroom management, diversity, cyberbullying, co-teaching, and teacher education.

Dr. Jacqueline Waggoner is a tenured Associate Professor in the School of Education at the University of Portland in Portland, OR. She received her bi-university Ed.D. from the University of Portland and Portland State University in Public School Administration and Supervision and has worked in public P-12 and higher education for over 25 years in the areas of measurement, instrumentation, assessment, and data-driven decision making. She researches in the areas of teacher education, sex offender risk, aggression, and cyberbullying.

Dr. James Carroll is a tenured Associate Professor in the School of Education at the University of Portland. He received his Ph.D. from Washington State University in Educational Administration and Supervision. James has written in the areas of assessment in teacher preparation and educational technology. He teaches courses in educational research and has co-authored a book on that topic.