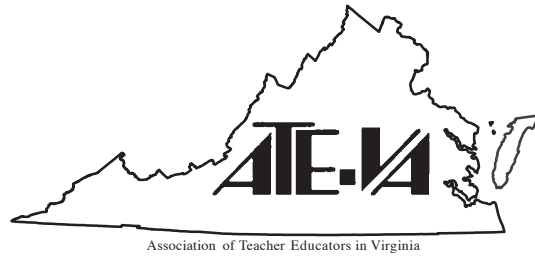


The Teacher Educators' Journal



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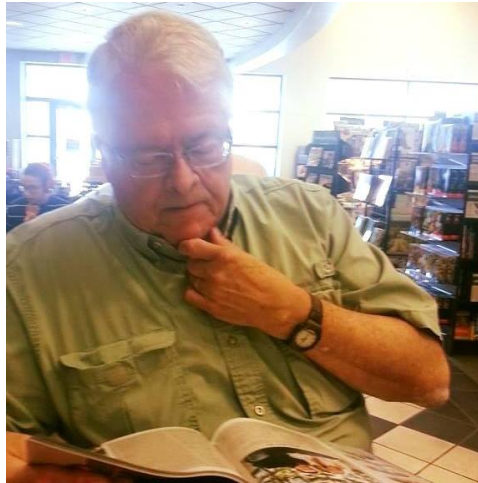
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Remembering Herb Thompson



Herb Thompson served as a mentor for me for most of the past 10 years, sharing his wisdom, insight, and passion for teacher education and teachers. He never tired of my questions, and was as a "moral compass" when I wasn't sure of when to take a stand or when and how to make my voice heard. I will miss him profoundly.

Herb was always reminding me of how thankful we should be and how "truly blessed we are to get to live a life of the mind." Herb loved researching and writing about the "Old West" and I relished each copy of a new article he would share with me each fall and spring. I will miss his voice, his humor, and his wisdom going into this next school year and beyond.

I miss him terribly.

Malcolm Lively
Virginia Wesleyan University

There are so many things I could say about Herb, an inspiration and a mentor, but I want to explain simply how when I first moved to southwest Virginia from central Texas, when I began driving a car (age 31), he offered tips on how to handle a car in cold weather. I will always think about that kindness when it is very cold and I turn on the engine. Herb was a teacher, no matter what he was doing or where. He gave us all so much.

Felicia Mitchell
Emory & Henry College

Herb Thompson was a colleague of mine at Emory & Henry College for twenty-eight years. I witnessed first-hand his work to enhance teaching and learning throughout Southwest Virginia over three decades. He will be long remembered for his personal and professional contributions at all levels of the educational spectrum. Herb Thompson shared his life with countless others; he impacted their lives beyond measure through his teaching, his constant advocacy for educational excellence, and his many writings!

A few years ago, I gave Herb a plaque I had purchased from Shakespeare & Company Bookstore in Paris, France. The plaque featured an image of Shakespeare surrounded by the words, "He/she who puts pen to writ will never die." Yes, Herb will long be remembered!

Ronald E. Diss
Emory & Henry College

How do you capture a spirit like Herb Thompson? Herb was a true Renaissance man. He was an accomplished magician, painter, poet, literary critic, and gifted teacher. He was a Vietnam War veteran. Herb's vast knowledge of people, places, and things and his ability to see the truth in the heart of most matters was amazing.

Herb never met a stranger. At the start of a conversation, he connected with people, finding common ground immediately and developing friendships for years. His students adored him. Herb was a passionate man who had little patience for ideas and policies that weren't in the best interests of public school education. He worked tirelessly over his lifetime to help lawmakers and others who held positions of authority make good decisions.

Herb enjoyed a rich lifetime filled with professional success, good friends, and good food, alongside his soul mate and wife, Dian. He filled every moment with new learning, reflecting, and thanksgiving. I was truly blessed to have him as my treasured colleague and friend. How do you capture a spirit like Herb Thompson? The way you keep a wave upon the sand.

Janet Justice Crickmer
Emory & Henry College

Herb Thompson influenced education in southwest Virginia in many ways. Teachers will convey researched based teaching methods to students for years to come because of Herb Thompson's career.

George Stainback
Emory & Henry College

I am honored to write a tribute to Dr. Herb Thompson. I knew Herb for over 25 years as a dedicated educator, leader, colleague, and friend. From our first meetings when I was a student in his class to our time together on educational executive boards, Herb was always feisty and advocating to improve the education system in Virginia. Herb was determined to make a difference...and he did!

As his student, I remember his emphasis on teaching reading and writing in all his courses. He insisted that all teachers should incorporate reading and writing into their daily routine, regardless of the subject or grade. When I started my student teaching in a local school, my mentor teacher quickly pointed out that I was a math teacher and there wasn't time for students to read or write in math class. I can find no better way to explain his response--Dr. Thompson came unglued. While I do not remember the exact words Herb used, he wove a string of profanity so finely articulated that any English professor would be proud to hear how he could so eloquently condemn the teacher's methods, trash the standards of learning, and subsequently praise students. Not only was I impressed with his tactful use of bad words, I found his passion for teaching reading and writing addictive. As a future math teacher, I knew I was going to teach reading and writing in my math classes. Herb made a difference.

As an administrator, I would call on Dr. Thompson for recommendations as positions opened in my school. I was amazed how well he knew each of the schools around Emory & Henry College. He could describe the multitude of programs in use within our schools. With brutal honesty, he could dissect the level to which we were using the programs correctly and pinpoint the areas we could improve to help program effectiveness. In multiple situations, Herb would point out what I needed to do as the school administrator to improve student progress. I loved to hear him work through each student teacher's strengths and weaknesses and match them to our current curriculum and faculty. He was amazing at recommending pre-service teachers to local administrators. Herb made a difference.

As a colleague, Herb and I sat on the executive board for the Association of Teacher Educators in Virginia. Herb was instrumental in developing and hosting a conference where all members of the 36 teacher preparation programs in Virginia could come together to learn and share. He brought in speakers who challenged each of us to examine the practices we use in our teacher education programs. He was intent on not only providing us with current trends in education, but he also gave us the insight to take the lead on educational reform. I am not sure I ever sat through a meeting where he did not question the Virginia Department of Education on their practices. I do not think he ever intended to be negative or disrespectful, he was inquisitive and demanded the state do its part in helping all students in the state of Virginia. Herb made a difference.

As a friend, this is undoubtedly the hardest part of our relationship for me to write. I am not sure who wrote that there is no greater compliment to give someone other than to emulate their actions. In every situation where I worked with Herb, I was deeply impressed with his professionalism. Herb had a way of seeing the bigger picture and understanding multiple viewpoints in a world where folks are very one-sided. Herb was the type of friend we all deserve. I hope I can be as excellent of a teacher as Herb. I hope I can be as meticulous of a scholar as Herb. I hope I can be as strong of an advocate to kids as Herb. I hope I can be as

supportive of a colleague as Herb. I hope I can Herb help teachers find a way to change a dim light to one that is blinding. And, I hope I can be as valuable of a friend as Herb was to me. Herb made a big difference!

Paul Andrew “Andy” Cox
University of Virginia-Wise

Ode to Herb (or to a Professor Retiring Young)

*We think that we shall never see
Another professor at EHC
Who will make more of noun or verb
Than our poetic colleague, Herb.*

*Prolific he with line and verse,
More so than any sailor’s curse.
In every kind of publication
His work appears with commendation.*

*So as he bids farewell to work,
His writing he’ll not likely shirk.
While teaching’s left for fools like we,
We’ll miss you, Herb, at EHC.*

Beverly Sheddan, Rebecca Buchanan, and Joy Scruggs
Emory & Henry College

Dr. Herb Thompson had many wonderful qualities, but here is one I especially admired: Herb was a born teacher. Soon after first being introduced to Herb in 1994, while enjoying lunch together at the Abingdon, Virginia, Cracker Barrel, Herb suddenly jumped up from his seat at the table and rushed across the room to greet one of the waitresses, a woman I estimated to be in her late 30s or early 40s. Although out of earshot, I could tell that she was delighted to see him. And sure enough, later, periodically, as the waitress found a few less-busy moments she would stop by our table to talk. As it turned out, the waitress was a non-traditional student, who coming from an abusive background was heading toward a new beginning as an elementary school teacher. Herb’s concern for her was genuine, as was his commitment to all of his students and the populace in general of Southwest Virginia and Northeast Tennessee.

Herb believed that through his work as an educator, he was opening opportunities for both his own students and the children that his students would teach. Along with Dr. John H. Roper and a few other committed faculty, Dr. Herb Thompson assumed a leadership role in creating Emory & Henry’s first Graduate School programs. He led in planning the curriculum, finding funding

for, organizing, and teaching numerous cohorts of Master Degree Reading Specialists. And his imprint spread much further, as it turned out, than solely to our region as he took the Emory & Henry program way to South America. Not long ago, I received inquiries about him and Dian from a former student from Brazil, who remembered when the couple took a cohort to study at the Methodist University in São Paulo. What Herb's Brazilian student most remembered was Herb and Dian's generous spirit and the excitement Herb brought to his courses.

A last comment concerning Herb's tremendous abilities as a teacher: Herb was a creative person who often published his ideas—sometimes in essays and academic articles, but also through poems and creative writing. His undergraduate and graduate students were well trained in pedagogy, but Herb believed that they should do more than simply pass forward the traditions of the past. He wished for his students to become partners in the academic discourse. That is, he hoped that our spirit of curiosity would continue throughout life, leading us to become partners in a dialogue that envisioned a better society. With that in mind, it is perhaps appropriate that I still have saved on my computer an essay that Herb wrote in 2016 while President of the Association of Teacher Educators in Virginia urging “that leaders at all levels be willing to go above and beyond in modeling exemplary behavior for all of us to follow and mimic.” As teachers, we could have few better models than Herb Thompson. He is much missed.

James M. Dawsey
Emory & Henry College

(Remarks for Herb Thompson's Memorial Service, August 26, 2017, Emory & Henry Chapel)
“When I was six and in first grade, I would bring home the little readers that I was supposed to absorb independently, take them upstairs to my bedroom and put them on my dad's old school desk—a piece of furniture I still have. Then I would go downstairs and turn on our big black box Emerson television.. Upstairs lay books that I would take back to school unread. Downstairs on TV there was Wild Bill Hickok, The Cisco Kid, Hopalong Cassidy, Sergeant Preston of the Yukon and other similar shows. Western adventure awaited me daily and I was not going to miss it.”

Those were the words of Edgar H. “Herb” Thompson from an article in the March 2017 edition of the Wild West History Association Journal. So, the Wild West became a lifelong pursuit and scholarly passion of Herb Thompson.

*Herb Thompson, from an early age, knew what he wanted to do in life. He was fond of telling the story that, as a young boy, after reading Jessee Stuart's *The Thread That Runs So True*, he fell to his knees and dedicated his life in service to others as a teacher. Just like Jessee Stuart, Herb Thompson had an abiding faith in the power of education. No other profession in America has directly or indirectly affected the lives of so many people as has the teaching profession. So, after Herb graduated with a degree in English and Psychology from Marietta College, he served an enlistment in the Air Force where he taught English as a Second Language to Vietnamese officers and enlisted men in Saigon. After being discharged from the Air Force, Herb became a high school English teacher, completed his Master's Degree in English Curriculum and Instruction and his Doctorate in English Curriculum and Instruction- all from*

Virginia Tech. He came here to Emory & Henry in 1985 where he remained until 2015 when he retired as Professor Emeritus in Education.

Herb often reminded me that I was the first person to introduce him at a Washington County Public Schools' staff development day. He was delivering a program on Reading and Writing Across the Curriculum. This was in 1985. Our paths crossed again in the early 2000s when I was Assistant Superintendent of Schools in Galax and I asked Herb to bring the reading specialist program to a cohort of my teachers. He did. And since our first meeting in 1985, Herb Thompson has been influential in my career and my professional growth as an educator. And I discovered we had some things in common. We both were born in the same year, we both were English teachers, and we both had masters and doctorates from Virginia Tech. In fact, I owe my being a faculty member in the Neff Center for Teacher Education directly to Herb Thompson. Herb knew that I was going to retire from the superintendency of Bristol, Virginia schools in 2008. And of the many he could have chosen for the then part-time position, he chose me. And I am eternally grateful for that opportunity and for the confidence he showed in my abilities. It is true that one door closes, and another opens!

To know Herb was...well...to know Herb. He possessed a keen intellect and could hold forth in conversation on just about any topic. And you could quickly and easily determine his opinion of the topic. He didn't often mince words.

Herb was a talented man. He was a junior magician, he could play a guitar and dulcimer, he liked to sing, he enjoyed painting with watercolors, and of course reading and writing. Herb Thompson was a gentleman, a scholar, a patriot, a poet, a writer, a literary critic, essayist and a friend. His research interests were the American west, the concept of play, literacy and educational policy. It seems, too, that Herb always had an article or two in development of the stem of an article that he was going to flesh out. I felt honored to co-author an article with Herb that outlined the college's outreach with the Southwest Virginia Public Education Consortium. It appeared in the national publication, The American School Board Journal in 2012, and led to a conference presentation at the Virginia Educational Research Association.

And, Herb could write a poem on just about anything, anywhere. He kept mental and written notes on daily occurrences and commonplace happenings. He would say: "I am going to write a poem about that." Even when he cleaned out his office here at Emory & Henry, he wrote a poem for its new occupant.

He knew that every student he taught and every teacher he trained had a verse to write. That they were somebody and that they would be somebody! That they would not hide their talents under a basket, but would let their light shine! That was the Herb Thompson I knew.

Good teaching is forever and the teacher is immortal. So it is with Herb Thompson. His teaching influence is embedded in thousands of educators- teachers- in our service region and beyond who enjoyed the honor of Herb's instruction, whether in reading, or in writing, or in literature study, or mentoring, or in how to be an effective teacher.

As Herb was a public school teacher for 8 years and a college professor for 30 years.

It is said that when we come into this world, we are crying and others are laughing. But, when we leave this world, others are crying and we are laughing.

So, all who knew Herb, we laugh with you and we cry with you.

Douglas E. Arnold
Emory & Henry College

My Science is Better than Your Science: Conceptual Change as a Goal in Teaching Science Majors Interested in Teaching Careers about Education

Brian C. Utter

Bucknell University

Scott A. Paulson
John T. Almarode
David B. Daniel

James Madison University

Abstract

We argue, based on a multi-year collaboration to develop a pedagogy course for physics majors by experts in physics, education, and the science of learning, that the process of teaching science majors about education and the science of learning, and evidence-based teaching methods in particular, requires conceptual change analogous to that encountered by students in introductory physics classes. Similar to students learning many natural science concepts, science majors default to naïve theories of learning based on their own experiences and preferences, even when in conflict with educational research. Their demonstrated ability to analyze research on teaching and learning in the framework of the scientific method ultimately does not translate into acceptance of the outcomes as valid. We suggest a number of contributing factors. Recognizing the need to target conceptual change is critical in informing how we educate science students who are interested in teaching, whether as a profession or in a shorter-term capacity such as a graduate teaching assistant. It also suggests that an approach different from the way we typically teach science-education students is needed.

Conceptual change is a familiar concept in the teaching of science literature (e.g., Driver, Squires, Rushworth, and Wood-Robinson, 1994; Vosniadou, 2002). It remains a challenge to encourage the sort of learning that truly transforms student misconceptions and prior beliefs into conceptions more aligned with scientific theory and data. These early beliefs tend to resist change for a number of reasons (Chi, 2005; Chi, 1992) and, because they tend to be “good

enough” explanations for the day-to-day experiences of most students, they tend to guide behavior despite student access to more accurate or appropriate alternatives.

While we commonly attend to such issues around the conceptual changes of K–12 students and non-science-majors in natural science teaching and learning, we are unaware of discussions of the role of conceptual change for science majors as they learn in other domains such as the science of learning. Similarly, naïve notions of learning based on biased views of personal experiences are frequently extrapolated to beliefs about the nature of learning itself. In addition to students who pursue a career in secondary education teaching, many science majors will play some role in the teaching of other science students should they pursue graduate school and ultimately find themselves in an academic department teaching courses within their discipline.

Over the past several years, an interdisciplinary team of physicists, a learning scientist, and a science educator have been delivering a class on teaching and learning aimed at sophomore-level physics majors interested in careers as educators as part of a project funded by Physics Teacher Education Coalition (PhysTEC). Given that the academic experience of physics students is firmly rooted in the natural sciences, we sought to leverage a scientific perspective by organizing the class around educational research and scientific findings in the study of teaching and learning (the Science of Learning). In short, this was an introductory class on the science and evidence-based practices of learning appropriate for science majors. The underlying assumption behind the design and teaching of this course was that students rooted in the natural sciences would easily transfer a perspective they had already developed on the nature of scientific knowledge (i.e., the scientific method) to the nature of the science of learning. For example, these students have demonstrated proficiency in engaging in the processes of science to

address scientific hypotheses through deep engagement in the practice of science. We would think that students fluent in the scientific method with respect to physics would resonate with a similar approach to teaching and learning.

Will physics majors transfer their perspectives on the nature and process for developing scientific knowledge to the science of learning?

Just as students in natural science courses tend to differentiate course knowledge from the constructs which they habitually use to explain their world, physics students in our class on education tended to separate the class material from their personal theories of how people learn. While being able to tell us, for example, that the scientific basis for learning styles is relatively weak according to multiple primary sources that were assigned as required readings, they would follow up with statements that indicated that they clearly believed in the theory just discredited by data. Support for such a belief was rooted in egocentric evidence manifested by comments such as, “This is how I best learn the material,” or “They just need to do it this way,” referring to the strategies that particular students tended to use in their own lives.

After our first semester teaching this course and obtaining little movement in getting students to formulate data-based opinions of learning, we hypothesized that we needed to emphasize the science aspects of the course and explicitly map these onto terminology and processes in physics research with which the students were already familiar. We asked students how they would test the validity of learning styles and determined a potential experiment as a class. We then shared an article from the literature that had already carried out this experiment. We asked them to identify dependent and independent variables in the learning literature, comment on design, and even construct alternative tests of the same hypotheses, just as they would for physics experiments. Our students fully engaged in this process in class and in assignments.

However, when it came time to discuss the findings in the context of their own teaching, our students consistently reverted to pre-existing personal theories of learning. We quickly found that physics students did not apply their scientific perspectives to educational issues, reverting to or maintaining evidence-contrary and personal perspectives on learning. In fact, they would commonly parse the issues at hand to reflect their understanding of the abstract concept while leaving their prior theories intact: “I know learning styles don’t exist. But, I learn better visually.” We did not expect to deal with persistent resistance to the idea of applying scientific thinking to an area in which they already possessed, rather confidently, misconceptions or egocentric conclusions about learning. However, personal opinions and experiences around learning frequently overrode discordant conclusions based on data.

This strong resistance to the idea of applying scientific thinking to the science of learning generated the following essential question around the learning trajectory of these students. We began to suspect that the presenting issue was not one of transfer but conceptual change.

Are we pursuing conceptual change of pre-existing conceptions of learning?

Every person has a theory for how people learn, and it is usually a theory of how they themselves learn. Just as the student early in his or her introductory planetary motion course typically attributes the reason for the Earth’s seasons to the distance from the Sun at various locations in the revolution of Earth based on their personal experience with light and heat sources, our students attributed their learning trajectories to their own personal theories of how they learn. Thus, assimilating the science and evidence-based practices of learning into their future work as educators was met with barriers commonly associated with the assimilation of ideas about the natural sciences. To date, however, there is a paucity of work on the process of conceptual change in natural science students for concepts relevant to teaching and learning.

McDevitt and Ormrod (2008) offer insight into this process for pre-service teachers and their prior beliefs about child development. With the aim of promoting understanding of concepts in child development, and thus the transfer of this learning to the teaching and learning of young children, McDevitt and Ormrod (2008) identified three major barriers: (1) tenacity of prior beliefs; (2) cognitive biases; and (3) personal epistemologies. Just as in McDevitt and Ormrod (2008), these three barriers inhibited the learning outcomes associated with this course on science teaching and learning. While each student would perform well on exams, papers, and focused discussions, our students tended to revert to their prior theories in broader discussions and microteaching demonstrations.

Each student in the class possessed a personal story describing his or her pathway to the university and the selection of his or her undergraduate major. This pathway is both personal and value-laden, documenting specific experiences, individuals, and outcomes that, cumulatively, make up the individual's tacit knowledge about the teaching and learning of science. As noted by Keil and Silberstein (1996) and Strike and Posner (1992), this tacit knowledge is not easily accessible to the individual and is often overlooked or simply not considered relevant. This, in turn, exacerbates the tenacity of each individual's prior beliefs because, in the end, these experiences worked for the individual, leading them to the university and to a particular major with the end justifying the means. That is, the students believe that since it worked for them, it should work for everybody else. A specific example of this appeared when students presented their microteaching demonstrations and were questioned about a particular approach or example they chose to use in the demonstration. Common responses suggested that not only could students not draw from course content focused on evidence-based practices, but students could also not see the need for a different approach, as their approach was

the one that should lead to understanding. In spite of exams, papers, and focused discussions, the students regressed to their personal beliefs when put into the context of microteaching demonstrations.

Similarly, our students demonstrated several cognitive biases during the course, mainly confirmation bias and belief perseverance (e.g., Chinn and Brewer, 1993; Kuhn, Amsel, and O'Loughlin, 1988). Course materials, including readings from a textbook as well as primary sources, exams, and papers provided multiple opportunities for students to actively engage with the research on the science of learning. Through focused discussions, students were encouraged to process this information, and through Socratic questioning, make meaning of the information. Furthermore, outside assignments were designed for students to make connections rather than simply summarize or regurgitate the information or content. Time and again, students would actively engage in the material in two very specific ways: (1) focus on information that resonates with their beliefs (confirmation bias) or (2) skepticism (belief perseverance). In the first situation, students would only highlight, reference, or make connections to course materials that could be used to confirm their prior beliefs. Rarely accompanied by a related story, this situation was instead followed with an air of confidence that the conflicting information is somehow not credible or valid. In the second situation, students would discuss, respond to questioning, and make specific connections by providing counter arguments to the finding or outcomes presented in the course materials. This often was accompanied with an overgeneralization about one specific example or an anecdote that was in direct contradiction to the nature of science, something in which these students have already demonstrated proficiency. This leads to the third major barrier.

Personal epistemologies based upon their own experiences and successes seemed to dominate in our classroom. Majors in the natural sciences, occasionally spurred on by some of their professors, believe that they are at the top of the intellectual food chain, in possession of concrete knowledge and skills beyond the grasp of students in other majors. Indeed, it was not uncommon for our students in the natural sciences to believe that psychology or education are not sciences. We heard this from our students time and again. This may contribute to their resistance to consider learning strategies other than the ones they personally use, as well as the consideration that data from other fields is valid when it conflicts with their own beliefs. Indeed, we were surprised at how often our students would proudly comment that strategies other than the ones they personally deploy were “dumb,” and the students who use them were flawed in their thinking and ability to learn science: “They just don’t get it.” Students in our class were often asked to discuss challenges they encountered in the teaching and learning of science through their work as laboratory, teaching, and learning assistants. In many situations, our students gave up and attributed the apparent lack of understanding of physics to personal attributes of the learner and not the teacher. This personal reaction may have led the students to discount the scientific aspects of course content, especially when at odds with their idiosyncratic theories, with a sense of self-righteousness we do not typically see in students in the social sciences.

The course has changed. It is less ambitious with respect to the science of learning, and more hands-on with the core content. We focus less on the scientific aspects of teaching and more on the practice. In that sense, it is more “fluffy.” Student satisfaction has skyrocketed, as has enthusiasm for the profession of teaching, which was our core mission in this course intended as a first exposure to science pedagogy. In fact, in the last few years we have had a

drastic increase in physics majors pursuing licensure through our fifth-year Master's program after over a decade without a single graduate from the program. Yet, we note that the students generally have not loosened their grips on their preconceptions regarding teaching and learning and, importantly, physics students seem unwilling to transfer their knowledge of critical thinking and the scientific method to the science and practice of learning in the classroom. In other words, we have yet to figure out effective strategies to encourage conceptual change of preconceived notions of the learner. Rather, we have worked around them by targeting how to teach secondary science instead of changing their beliefs about how people learn. This is perhaps particularly ironic for physics majors who have grappled with a subject with well-identified hurdles requiring conceptual change and understand well the nature of the scientific method.

We still believe that if our students embraced pedagogy as a learning science, they would benefit greatly by going beyond their idiosyncratic notions of learning to focus on effective, research-based strategies. However, we also note the change in perspective for us as instructors of this course; namely, we recognize the value of exposure to activities designed to engage students in teaching and providing opportunities for them to simply take on and enjoy the role of teacher, perhaps deferring conceptual change to a later course. We recognize, though, that the core mission of enthusiasm for the profession of teaching cannot ultimately be the only desired outcome.

Conclusion

If there had been more work available discussing the necessity of conceptual change as a component of training science majors to become fluid with concepts of teaching and learning, our path would have been much clearer. The absence of attention to science majors as they learn in other domains, like education or the science of learning, seems misguided. Enthusiastic

teachers without an understanding of the science and evidence-based practice of learning likely leads to teaching based on the tenacity of prior beliefs, cognitive biases, and personal epistemologies: in other words, teaching to the way they believe people learn and not based upon the science of how we learn. We are writing this to make others who develop similar courses aware of the lessons we have learned. While there is a clear role for generating enthusiasm, our curriculum must eventually target conceptual change. If we are going to offer science majors the opportunity to develop their skill sets in the teaching and learning of science, this may require an approach that is very different from the traditional trajectory of students interested in education and self-selected to pursue teaching science.

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PreService Special Education Teachers' Perceptions: The Influence of University Coursework, Context, and Relationships, during the Clinical Teaching Experience

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Abstract

The purpose of this study was to investigate to what extent context and relationships influence preservice teachers' appropriation of coursework during the clinical experience. While there is a dearth of research regarding the clinical experience in teacher preparation programs, there are even fewer studies investigating special education teacher candidates' perspectives of their clinical teaching experiences. Interview and observational data as well as documents were collected following the completion of an eight to sixteen week clinical teaching experience. Results from this qualitative study indicated that the relationship with mentor teachers and the context of the clinical teaching setting influenced the participants' appropriation of coursework, decision-making, and overall development during their final clinical teaching experiences. Implications for future research and practice regarding the clinical practice experience in teacher preparation programs are provided.

The clinical teaching experience is sometimes referred to as student teaching, a practicum, or an internship. Despite its name, this experience is the culmination of theoretical training from the required coursework within a teacher preparation program. According to the Blue Ribbon Panel Report (National Council for Accreditation of Teacher Education, 2010), a clinical teaching experience should connect the coursework with the challenge of using it, while under the expert tutelage of skilled clinical educators. Leko, Kulkarni, Lin, and Smith (2015) emphasized identifying clinical educators who are “exemplars and whose practices are consistent with the methods endorsed in teacher education coursework” (p. 202). In addition, the Council for the Accreditation of Educator Preparation (CAEP) further suggested that the quality of both

the clinical educator and the clinical experiences are “central to the preparation of the candidates” (Council for the Accreditation of Educator Preparation, 2013, p. 6). The clinical educator, referred to here as the mentor teacher, is a teacher who supervises, supports, assesses, and guides a teacher candidate’s professional development during the clinical experience. The teacher candidate is an individual who has no prior special education teaching employment, referred to at times in this paper as a preservice teacher.

Providing quality placements and opportunities for appropriating coursework is especially complex for special education teachers. First, there is a dearth of research in this area of teacher preparation (Coggshall, Bivona, & Reschly, 2012; Conderman, Morin, & Stephens, 2005; Sindelar, Brownell, & Billingsley, 2010). Second, the research identifying the features of clinical teaching experiences that are most critical for successful teacher preparation is scattered and thin (Sindelar et al., 2010). It is difficult to ascertain what elements are necessary for a teacher candidate’s development. Furthermore, while there is a dearth of research regarding the clinical teaching experience in special education teacher preparation programs, there are even fewer studies investigating the perspectives of preservice special education teachers regarding their clinical teaching experiences.

Preservice Teachers’ Perspectives of the Clinical Experience

Seven qualitative research studies to date (Allsopp, DeMarie, Alvarez-McHatton, & Doone, 2006; Cook, 2007; Ergenekon, Özen, & Batu, 2008; Hanline, 2010; Leko & Brownell, 2011; O’Brian, Stoner, Appel, & House, 2007; Recchia & Puig, 2011) provide perspectives of preservice special education teachers in varying teacher preparation programs (i.e., Early Childhood Special Education, Mental Retardation, Learning Behavior Specialist, or Special Education). Specifically, teachers revealed how the clinical teaching experience was influenced

by the teachers' preparation program's coursework, the collaborations and relationships formed during the experience, and/or the opportunities they had to practice.

Coursework

Results from five (Allsopp et al., 2006; Cook, 2007; Ergenekon et al., 2008; Hanline, 2010; Leko & Brownell, 2011) of the seven studies emphasized how the theoretical aspects of teacher preparation coursework were realized in the practical experiences of the prospective teachers during their clinical experiences. For example, Hanline (2010) and Ergenekon et al. (2008) discovered through their investigations that special education preservice teachers not only learned more effectively through targeted experiences carefully developed to enhance their knowledge base of effective evidence-based strategies learned in preservice coursework, but they also enhanced their commitment when using these strategies. In addition, Leko and Brownell (2011) further emphasized the critical need to align coursework and the clinical teaching experience. Their investigation determined how and why preservice special education teachers acquired pedagogical tools for teaching reading. Leko and Brownell conducted interviews with six participants completing their clinical teaching experiences. Results indicated that when the preservice special education teachers were placed in a clinical teaching experience that aligned with university coursework, the participants shared that they were able to acquire pedagogical tools for teaching reading more effectively. The coursework provided the background pedagogical tools and the clinical experience setting provided the opportunities to experience the coursework. The preservice teacher, however, may not always be convinced of the linkage between coursework and the clinical teaching experience. In Allsopp et al.'s (2006) investigation, results suggested that the preservice teachers linked their coursework knowledge to their teaching experience in a developmental way. At the beginning of the experience,

preservice teachers anticipated and expected experiences to be linked to their courses. In the middle of the experience, preservice teachers critiqued the linkage, either positively or negatively. Then, at the end of the experience, 94% of the preservice teachers indicated the noticeable linkages that existed between coursework and clinical teaching experiences.

Collaborations and Relationships

Cook (2007) and O'Brian et al. (2011) found that the relationship between the assigned mentor teacher and the preservice teacher was critical for the professional development of the preservice teacher and for building his/her confidence when making decisions and using instructional strategies. The results from Cook's study indicated that the preservice teacher participants highly regarded the mentor teacher as an influential individual during the clinical teaching experience. They identified the mentor teacher as the "primary basis for their decision making regarding lesson plan content and format, teaching style, behavior management techniques, and handling difficult moments" (Cook, p. 125). Likewise, the nine participants in O'Brian et al.'s study indicated that there was the need to feel a sense of trust to take risks when trying out various aspects of their teacher roles during the clinical teaching experience. If the preservice teachers felt this support and collegiality from their mentor teachers, this relationship became foundational in their skill development as special educators. Further, the special education participants in Recchia and Puig's (2011) study indicated via written reflections that the collaborative relationships with the mentor teachers allowed them to be a part of a team and to experience learning from different perspectives. Additionally, Recchia and Puig indicated that collaboration also uncovered "discrepancies between what they learned in their coursework and what they were experiencing" (p. 140) in their clinical settings.

Opportunities for Practice

Preservice teachers in two of the seven studies (Hanline, 2010; Recchia & Puig, 2011) revealed in their reflective journals that they felt that it was important to have the opportunity to adapt the curriculum for student success and to practice assessment processes integral to special education classrooms. Other topics of reflection included an appreciation for seeing what they learned in coursework align with their current settings.

Theoretical Framework

Activity theory is predicated upon the idea that a person's decision making processes are developed by participating in various environments or settings (Grossman et al, 1999; Valencia et al., 2009). Within the clinical teaching experience, Grossman et al. (1999) suggested that, in addition to the university settings, preservice teachers are simultaneously exposed to teaching practices within the school settings of their teaching experiences. These school settings and their accompanying social structures may or may not be congruent with the university practices and goals that have been promoted for the special education teacher candidates. Additionally, within the social structure of these settings are the relationships (e.g., mentor teacher, school staff, university supervisor [US]) that contribute to the culture and values of each of the settings. If we consider the school setting, the university, and the teacher candidate's personal background as the various *settings* that may influence the experiences that the teacher candidate may have throughout the clinical teaching experience, then activity theory is "useful for understanding the process of learning to teach" and for understanding "how teachers choose pedagogical tools to inform and conduct their teaching" (Grossman et al., 1999, p. 4). In other words, context affects a teacher's learning of various pedagogical tools and knowledge (Leko & Brownell, 2011).

In addition to the influences of *settings*, one other key concept of activity theory is the notion of *appropriation* of pedagogical tools. According to Grossman et al. (1999), “appropriation refers to the process through which a person adopts the pedagogical tools available for use in particular social environments (e.g., schools), and through this process internalizes ways of thinking endemic to specific cultural practices (e.g., using phonics to teach reading)” (p. 15). Specifically, appropriation refers to how and to what extent teacher candidates acquire the pedagogical tools they use in their teaching practices. Activity theorists posit that the social context of the learning experience and the individual characteristics of the learner are key factors influencing the process of appropriation of pedagogical tools.

The contextual tenets of activity theory (Grossman et al., 1999; Valencia et al., 2009), previous literature, and the recent push to heighten the rigor of clinical practice in teacher preparation programs (Council for the Accreditation of Educator Preparation, 2013a) have all been considered in the development of the following research questions:

- **Research Question 1:** How does **the context** of the clinical teaching experience influence special education preservice teachers’ appropriation of university coursework?
- **Research Question 2:** How do **the relationships** during the clinical teaching experience influence special education preservice teachers’ appropriation of university coursework?
- **Research Question 3:** How do these self-reported perceptions of context and relationships influence the instructional decisions that the special education preservice teachers make during their clinical teaching experiences?

Method

Prior to data collection, all university and participant permissions were granted. This qualitative investigation involved prospective preservice teachers in a special education licensure program during their culminating clinical teaching experience. In this study, we wanted to highlight the perspectives of the teacher participants so as to investigate the reasons behind *how*, *when*, and *why* the participants did or did not use the pedagogical skills they were exposed to during their university coursework. Semi-structured interviews, observations, and reflective papers were used to identify other factors that may have influenced teacher use of instructional strategies and the participants' decisions made during their clinical teaching experiences.

Setting and Participants

Purposeful sampling procedures were used to identify potential participants from a large, public, state university that prepares special education teachers (SETs) with a 33-credit, K-12 licensure for Students with Disabilities who Access the General Education Curriculum. First, we obtained a list of 25 students who enrolled in the culminating clinical teaching experience course during the spring semester. The 3-6 credit course provides opportunities for extended practice teaching under the guidance of mentor teachers from the school site and a university supervisor from the university. In the licensure program, there are two, 8-week clinical teaching experiences, one at the elementary level (three credits), and one at the secondary level (three credits). From the list of 25, there were 18 individuals who were preservice teachers not employed in classrooms at the time of the study. The 18 students were sent a recruitment email with one reminder for considering participation. Criteria for the sampling of interested participants for this investigation included special education preservice teachers enrolled in the clinical teaching experience who (a) provided service to students with disabilities who access the

general education curriculum, (b) had at least 15 credits completed towards their special education license, and (c) were completing the elementary and/or secondary clinical teaching experience. Sampling and recruitment resulted in a sample of six preservice teachers (see Tables 1 and 2 for participant demographics and clinical teaching placements). Placements were made through the College of Education and Human Development office with public school partnerships.

Table 1

Participant Demographics

| Participant | Age | Gender | Ethnicity | Degrees Held/in Progress | Previous Job(s) | Current Employment |
|-------------|-----|--------|-----------|--|--|---|
| Susan | 26 | Female | Caucasian | B.A., Psychology; M.Ed., Special Education | ABA Therapist; Substitute Teaching | XXXXXXX |
| Carol | 25 | Female | Caucasian | B.A., Psychology; M.Ed., Special Education | Preschool Assistant Teacher; Nanny | Substitute Teacher |
| Helen | 24 | Female | Caucasian | B.S., Anthropology; B.S., Sociology; M.Ed., Special Education | Swim Coach; Substitute Teacher | Swim Coach |
| John | 27 | Male | Caucasian | B.S., Health Systems; M.Ed., Special Education | Volunteer with Post-Secondary Program | Employment Coordinator, Mason Life Program, George Mason U. |
| Martha | 45 | Female | Caucasian | B.A., English; M.A., English; M.Ed., Special Education | Adjunct Professor; Instructional Assistant; At-risk student tutor; Substitute teacher | XXXXXXXX |
| Cathy | 43 | Female | Caucasian | B.A., Political Science; M.S., International Relations; M.Ed., Special Education | Air Force | XXXXXXXXXX |

Table 2

Participant Clinical Teaching Experiences

| Participant | First Clinical Experience Setting | First Setting Mentor Teacher | Second Clinical Experience Setting | Second Setting Mentor Teacher |
|-------------|---|------------------------------|---|-------------------------------|
| Susan | Elementary, 1 st gr., Inclusive | SET | Middle Math, 7 th gr., Inclusive 7 th gr., Self-Contained | SET |
| Carol | High School Math, Self-Contained | SET | Elementary Reading/Math, 1 st , 2 nd gr., Resource | SET |
| Helen | High School English, 9 th gr., Self-Contained 11 th gr., Inclusive | SET | Elementary 3 rd gr., Inclusive | GET |
| John | Post-Secondary Program | XXXXX | Elementary 2 nd gr., Inclusive | GET |
| Martha | Elementary, 3 rd gr. Inclusive | SET | Middle School 8 th gr., Co-taught | SET |
| Cathy | Middle Language Arts, 6 th , 7 th , 8 th gr. Self-Contained | SET | Elementary 6 th gr., American History | SET |

Data Sources

Multiple data sources were gathered over a five-month period. Table 3 indicates the data sources collected from each participant. Each data source is described below.

Table 3

Participant Data Sources

| Participant | Interview | Observation | Final reflective paper First Clinical Experience | Final reflective paper Second Clinical Experience |
|-------------|-----------|-------------|---|--|
| Susan | X | | | X |
| Carol | X | X | | X |
| Helen | X | | | X |
| John | X | | | X |
| Martha | X | X | X | X |
| Cathy | X | X | X | X |

Interviews. As the primary data source, all six participants participated in a semi-structured interview to voice their perspectives as to how the context of the clinical teaching experience, the coursework, their relationships in that setting, and any other factors influenced the instructional decisions they made during the experience. The 60-minute interviews, conducted by the lead author, were held at a mutually agreed-upon location and time. These locations included a building on the university campus, the participant's home, and the clinical school site. An interview protocol was used to initiate and guide the interview conversation. The interview protocol of 11 questions considered key pedagogical areas addressed throughout the program's coursework. All interviews were audio-recorded, and the lead author took anecdotal notes during each interview session.

Observations. Observations of the preservice teachers were intended to corroborate or further inform participant perceptions. However, due to various internship circumstances (e.g., weather-related cancellations, end of the teaching experience), only three of the six participants were observed. The 60-minute observations took place within the public or private school setting of the clinical teaching experience, during an agreed-upon day and time. Observations consisted of participants' use of instructional and behavioral strategies. The lead researcher took field notes during the observation regarding the instructional plan, instructional delivery, and classroom management.

Reflective paper. At the completion of each clinical experience, preservice teachers completed written reflection papers of their experiences. Within this document, the preservice teacher was required to reflect on the clinical teaching experience in terms of instructional and/or behavioral decisions made, the growth they felt as a special educator, and the relationships they encountered during the eight-week experience. Two of the six participants provided the lead

author an e-copy of the final reflective paper for both clinical experiences. The remaining participants provided hard copies of the final papers describing only their second experiences.

Data Analysis

Following the interviews, the lead researcher transcribed the recordings. A written transcript of the interview and the observational field notes was emailed to the interviewees to peruse and verify comments. To analyze the data, we used open coding and a comparative analysis. We drew on Corbin and Strauss' (2008) process of open coding as "breaking data apart and delineating concepts to stand for blocks of raw data" (p. 195). With each of the interview transcriptions, observational field notes, and reflective papers, the lead researcher used an open coding analysis to delineate codes from the blocks of data. Blocks of raw data from each of the data sources per participant were placed into a table matched to one of the three research questions. This table or matrix included three columns, each headed with one of the research questions, and three rows headed with "interview," "observation," and "final reflective paper(s)." Observation field notes were sorted into the chart according to the corresponding research question. Following our open coding iterative process, a comparative analysis was conducted across all data sources, and a cross-case analysis to explore broad and emerging concepts or themes was completed. Incidents of similarities and differences were noted, as well as representative quotes from the data.

Trustworthiness and Credibility

According to Brantlinger, Jimenez, Klingner, Pugach, and Richardson (2005), qualitative researchers have the task of ensuring that their studies are trustworthy and sound. Several steps were taken to encourage credibility and trustworthiness. First, member checking of the interview transcriptions and the observational field notes were implemented to confirm the accurate

interpretations of observed events and participant perceptions. All participants verified the accuracy of the written transcripts and accounts. Second, data triangulation among the various data sources and across participants allowed us to verify the perspectives of the special education preservice teacher participants. Third, as a former university supervisor and special education teacher, the lead researcher considered her own identity when completing all data collection and analysis procedures. Specifically, memos were written to identify how the researcher's perceptions may have influenced the data. Further, peer debriefing, or "having a colleague or someone familiar with phenomena being studied [to] review and provide critical feedback on descriptions, analyses, and interpretations or a study's results" (Brantlinger et al., 2005, p. 201) helped to monitor any subjectivity (Luttrell, 2010). Throughout data collection analysis and interpretation, the lead researcher discussed the analysis with the second author to promote multiple interpretations of the results. A fourth credibility measure used in this study was an audit trail. This audit trail became a valuable resource when the author needed verification of the chronology and documentation of each step of the study process.

Findings

Results from this study indicated that the influences of the various settings were reflected within the context, the relationships formed, and in the decisions made by the teacher candidate during the internship.

Contextual Influences

A variety of clinical internship experiences was prevalent. Findings indicated that the context of the internship experiences influenced the participants' ability to appropriate (or not) their university coursework. Even though each of the participants perceived their internship experiences through their own individual lenses, three contextual influences were evident across

the participants: 1) *infrastructure of the school internship placement*, 2) *role of the mentor teacher*, and 3) *key opportunities to experience coursework*. Each is discussed below.

Infrastructure of the school internship placement. The *infrastructure of the school internship placement* was perceived in some way by all of the participants as influencing the appropriation of coursework. Specifically, the content taught in the classrooms where participants were placed (i.e., math, reading, social studies) and the service delivery models (i.e., co-taught, special education self-contained classroom, general education classroom) were influencing factors.

First, two participants felt that because they were tasked with teaching a specific content area (i.e., reading), they were given opportunities to practice instructional strategies specific to the coursework. For example, Susan shared that she was able to practice many of the instructional reading strategies from the Language Development and Reading course, given that her placement included the teaching of reading. Helen also felt that since one of her responsibilities was to teach reading to one of the students with disabilities, this gave her the opportunity to better understand and use the knowledge taught in the reading course. In contrast, Carol indicated that she was unable to practice reading strategies because she was not trained in the specific program that her mentor teacher (MT) was using with the elementary students, negating any practice opportunity. A clinical placement that involved explicit instruction in a specific content area provided participants with the opportunity to appropriate knowledge of coursework.

Second, three of the participants perceived that the service delivery model of the clinical internship (i.e., co-teaching, general education setting, special education self-contained setting) afforded them opportunities to appropriate instructional strategies. Specifically, Susan and

Martha shared that one of their internship experiences was in a co-teaching setting. Both participants perceived these experiences as positive. Martha described her participation within the co-taught setting as “just a great experience because the team that I was working with allowed me to do a lot...hands on...planning together and making lesson plans [together].” Even though each of these participants did not specifically state the coursework that was influential when working in these settings, it can be assumed that information taught in the Consultation and Collaboration course provided these participants with the knowledge of collaborative working environments. Susan and Martha described the roles and responsibilities that were assigned to the General Education Teachers (GETs) and Special Education Teachers (SETs) in the co-taught setting, suggesting an understanding of the collaborative nature of the relationships. The clinical placement of a co-taught classroom provided opportunities for the participants to appropriate knowledge of coursework.

Helen perceived that the service delivery model (i.e., general education setting vs. special education self-contained setting) of her clinical internship experiences was particularly influential to whether she did or did not practice instructional strategies. During the secondary internship experience, Helen was a special education teacher candidate in a special education self-contained secondary biology class. Helen expressed that she had a positive experience in this setting with opportunities to experience various instructional strategies. Conversely, during the elementary internship experience, Helen was a special education teacher candidate in a general education classroom with a general education MT. According to Helen, the fact that she assumed the role of the teacher in the general education classroom negatively influenced her experience to practice the roles and responsibilities of a special educator. According to Helen,

she was given responsibilities (i.e., teaching a social studies unit on Mali) for which she was “not trained”.

Role of the mentor teacher. The *role of the mentor teacher* influenced five of the participants in affording opportunities, albeit for different reasons. Susan and Martha suggested that they experienced a dichotomy of roles between their two clinical internship placements: direct instruction within the special education self-contained setting and instructional support within the inclusive general education setting. Both participants shared that within at least one of the internship settings, the role of the MT was as a supporter of instruction, not providing direct instruction. For example, Martha described her co-taught scenario in the following excerpt from her interview:

[It's] more of the content teachers delivering the material. So, I am supporting the kids in the classroom, depending what their different goals are. Some students you just have...to keep on task....clarification of materials ...And we do a lot...to support them.

Thus, Susan and Martha shared that they were not given opportunities to implement direct instruction in the inclusive settings. Consequently, these participants lacked opportunities to develop and implement lesson plans within at least one of the collaborative general education teaching settings. Conversely, Susan shared that within the secondary special education self-contained internship setting, she provided direct math instruction to the students with disabilities. Thus, Susan was given the opportunity to develop and implement lesson plans.

Helen and John were placed in a general education setting with a general education MT for one of their clinical internship placements. Helen and John perceived that their internship experiences were negatively influenced by having MTs who were GETs. In this placement, Helen was tasked with teaching the entire general education classroom and was not afforded

opportunities to experience various instructional strategies from her special education coursework. She was expected to deliver content to the entire group rather than provide scaffolded instruction for individual learners or small groups of learners with disabilities. While this task may have been less daunting for a teacher who had some experience teaching a whole group, Helen felt that the general education MT did not understand her special education teacher candidate responsibilities. She was hesitant in the environment, given the negative interactions with her MT. Although overwhelmed with the task, she proceeded as requested. Conversely, when John was mentored by an elementary GET, he took it upon himself to create opportunities in the setting in order to employ learned instructional and behavioral strategies from his special education coursework. For example, when students with disabilities struggled with math concepts during the inclusive math class, John pulled them into a small group. He perceived that he was able to experience his coursework through the opportunities that he created in the special education self-contained classroom.

Since the roles and responsibilities of MTs are established within the context of the internship settings, teacher candidates' perceptions of what they should be experiencing as special education teacher candidates and what they perceive they are actually experiencing could be in discord. This disconnect can influence whether or not teacher candidates are provided with the opportunities to appropriate coursework.

Key opportunities to experience coursework. The *key opportunities to experience coursework* was perceived by the participants as a factor that either promoted or discouraged the appropriation of instructional and/or behavioral strategies from coursework. Five of the six participants perceived that due to various contextual factors within at least one of their internship experiences, they had opportunities to experience appropriation of coursework. For example,

John and Martha shared that because the clinical internship schools were Positive Behavior Interventions and Supports (PBIS) schools, they perceived that the PBIS initiative provided opportunities to experience behavioral strategies. Further, Martha and Cathy perceived that access to computers in the clinical internship placements afforded them opportunities to implement instructional strategies with technology. Martha also perceived that because the elementary school of her clinical internship implemented Response to Intervention (RTI) strategies, she was afforded the opportunity to observe and participate in the RTI instructional framework. Clinical settings that embrace current special education initiatives provided opportunities for the participants to appropriate knowledge of coursework.

Relationship Influences

The current investigation revealed that relationships formed within the clinical internship experiences were influential in promoting the appropriation of learned coursework by special education teacher candidates. Results of this study suggested that *the relationships with MTs, students, and USs* were perceived by the participants as particularly influential.

Mentor teachers. Data analysis indicated that the participants perceived *the relationship with the MTs* as one of the most influential factors of the experience. Five out of six participants described having positive relationships with at least one of the MTs during the clinical internship experiences. According to these five participants (Susan, Carol, Helen, Martha, and Cathy), the MTs who were the most influential were the individuals who provided opportunities for the teacher candidates to observe and experience various instructional/behavioral strategies (i.e., direct teaching, co-teaching, lesson plan development, assessment, classroom management strategies, Functional Behavior Assessment/Behavior Intervention Plan [FBA/BIP], etc.) which were linked to their coursework. Additionally, these same five participants were provided

opportunities to experience the roles and responsibilities of the special educator and mentor teacher. Consequently, the positive rapport with the MTs, as perceived by the participants, provided opportunities for the participants to appropriate knowledge of coursework.

Conversely, results of this study also suggested that when the relationship with the MT was perceived to be negative or neutral, the teacher candidates felt that opportunities to practice coursework were less available. Specifically, three out of the six participants (Helen, John, and Cathy) perceived that their relationships with at least one of the MTs were negative (neutral for John) in nature, albeit for different reasons. Data revealed that the MTs for Helen and John were GETs. Both Helen and John perceived that having general education MTs, as opposed to special education mentor teachers, hindered their relationships in that they were not given opportunities to appropriate special education coursework. Further, Cathy experienced a negative relationship with one of her MTs, due to the fact that the MT promoted a negative environment in the special education setting by yelling at students and staff alike. Cathy described avoiding interactions with the MT when the situation was hostile. Thus, she felt that her opportunities to experience coursework were limited. The negative (or neutral) relationships perceived by the three participants seemed to hinder the developing appropriation of learned coursework.

Students. Even though all six participants perceived that they had positive *relationships with students*, the reasons were varied and less influential to their development than the MT relationships. Three of the six participants (Susan, Helen, and John) perceived that the student relationships were directly dependent upon established behavioral systems within the internship settings (e.g., PBIS schools). The behavior systems already in place provided the teacher candidates with opportunities to model behavioral strategies that were embedded in their coursework. Further, three out of six participants (Carol, Martha, and Cathy) perceived that their

own background experiences influenced the relationships with students during the clinical experience and not necessarily any specific coursework. For example, Carol stated that, “Well, you know, I grew up working with kids, since I was in 5th grade. I moved up to babysitter, nanny, preschool teacher.” Carol, Martha, and Cathy emphasized that their background experiences gave them knowledge and an intuitive sense as to how to interact with students in the classroom setting.

University supervisors. When participants were asked in the interviews about the influence of the relationship with the USs, five of the six participants perceived that they had positive relationships, albeit minimally influential. Cathy felt that the US was a mentor to her. John described a neutral relationship with the US, by stating that he did not feel “necessarily guided” by his US. Finally, Martha perceived that even though the relationship with the US was positive, she felt that the US had no influential impact on her appropriation of skills. Even though the participants shared that there was minimal influence from the US, participants did allude to the fact that the US was helpful when explaining the teacher candidates’ responsibilities during the internship. The participants relied more on guidance from the US for fulfilling internship responsibilities, rather than for pedagogical suggestions. One example of this guidance was noted during Carol’s interview. Since Carol had a health condition that caused her to feel ill frequently, her US supported Carol by saying, “If you’re sick, you need to take care of yourself first. So, if you ever need to take off, you can make up the hours.”

Instructional Decision Influences

The participants relayed specific factors as to how the context and relationships formed during the clinical internship experience influenced their instructional decisions. Interviews,

observations, and the reflective papers revealed the following factors as having an impact: *background/experiences, seeing instruction modeled, and implementing instruction.*

Background/experiences. The first theme, *background/experiences*, suggested that participants relied on their prior work experiences and/or family experiences when making instructional decisions and when interacting with staff and students throughout their internship experiences. Susan and Carol perceived that their prior job experiences (e.g., substitute teacher, nanny, ABA [Applied Behavior Analysis] Specialist) influenced their instructional decisions. Carol stated in her interview that “I started [substitute teaching] in the classroom around the time that I started [college classes]. Martha and Cathy were influenced by their own experiences raising children with disabilities. Thus, they were more patient and knowledgeable with the students with disabilities during their internships. Further, Helen perceived that her degree in anthropology and sociology heightened her sense of cultural sensitivity, the knowledge of which she used to influence some instructional decisions during one of the internship experiences (i.e., improving wording within a vocabulary test).

Both Carol and Martha did not comment about specific coursework during their interviews. In contrast, John perceived that, due to a lack of background working with students with disabilities, his coursework was particularly influential for him when making instructional decisions. Susan, Helen, John, and Cathy specifically mentioned using coursework from six of the courses. Therefore, either coursework and/or other background experiences were reportedly influential in making instructional decisions during the clinical experience.

Seeing instruction modeled. Observing quality instructional practices was an influential factor for most of the participants. Five out of six of the participants perceived that they observed instructional practices from the coursework (i.e., co-teaching, RTI procedures, reading

procedures, intervention reading programs, IEP procedures) modeled by other teachers. In addition, Susan, Helen, and John observed lessons and/or lesson planning and assessment procedures. The participants perceived that the opportunities to observe such modeling of instructional practices influenced their own teaching practices.

On the other hand, a lack of opportunity to observe instructional practices also influenced participants. Carol and Martha shared that within at least one of their internship experiences, lesson planning was not a part of their instructional practices. Additionally, Cathy shared that her elementary placement did not implement assessment procedures because assessment was not part of the instructional practices of the school.

Implementing instruction. All participants in this study described opportunities to *implement instruction* during their clinical internship experiences. Although each participant may or may not have explicitly stated a link between implementing instruction and learned coursework, the implication was indirectly evident from participant references to specific practices. For example, Susan and Helen described opportunities to develop and implement lesson plans. Other participants described opportunities to implement instructional strategies such as differentiation, various evidence-based practices (i.e., peer-assisted instruction, math or reading intervention strategies), and behavioral strategies (i.e., FBA/BIP, de-escalation strategies, behavior management procedures). Although the participants had varied degrees of opportunity, all participants expressed gratitude for opportunities that enabled them to experience instructional/behavioral strategies.

The absence of opportunities to implement strategies or procedures during the internship experience was of concern. This was never more evident than with John. Due to his placement with a general education MT, John indicated that the MT's responsibilities were largely with the

whole class. Therefore, he felt the need to create his own opportunities to experience coursework and to employ evidence-based practices (e.g., peer-assisted strategies, trial and error) that were kindred to the special educator's responsibilities. Since John had no prior experience teaching within the PK-12 school setting prior to his elementary internship experience, this clinical experience was a crucial training ground for him to practice instructional/behavioral strategies learned within the coursework.

Discussion

Consistent with previous research, findings from this study indicated that: (a) the relationship with the MT influences the preservice teacher's use of strategies and the decisions they make during the clinical teaching experience; and (b) opportunities provided or not provided to the preservice teacher influences their appropriation of university coursework. This study extends the previous research by suggesting that in addition to the relationship between the MT and the preservice teacher and the opportunities to practice coursework, the context of the clinical setting was especially influential in appropriating coursework. In addition, Standard 2 of the CAEP Standards (*Clinical Partnerships and Practice*) and the findings of this study CAEP, 2013b) are in alignment.

First, CAEP (2013b) states in Standard 2 that relationships (i.e., 2.2 Clinical Educators) influence the appropriation of instructional/behavioral skillsets of special education preservice teachers. Findings from this study and prior research (Cook, 2007; O'Brian et al., 2007) provide specific examples as to how the relationship with the MT is an influential factor for the special education preservice teacher during the clinical teaching experience. CAEP suggests that clinical educators (i.e., MT, US) should provide a "positive impact on candidates' development" (CAEP, 2013b, p. 6). Therefore, high quality MTs would seem to be critical to the enhancement

of coursework appropriation. Even though the MT was perceived to be highly influential by this study's participants, the US, as liaison between the university and the clinical teaching setting, should also be of high quality. One avenue to ensure high-quality clinical educators in teacher preparation programs is to establish training protocols for the MT and US in the use of evidence-based teaching practices and current instructional/behavioral strategies as delineated by university coursework. Further research is needed to define the qualities of highly effective clinical educators, including the MTs and the USs.

Second, CAEP (2013b) also suggests that a quality school-partner relationship should “design clinical experiences of sufficient depth, breadth, diversity, coherence, and duration” (p. 16). Quality experiences should include sufficient modeling, observing, and experiences for special education preservice teachers so that they can make instructional and behavioral decisions and demonstrate the “knowledge, skills, and professional dispositions” (p. 6) deemed essential for quality special educators. When considering the opportunities afforded this study's participants, one can conclude that their experiences varied greatly. Some participants were exposed to schools that employed PBIS and RTI models, while others did not reference these models. In addition, the degree of technology used by participants to support instruction varied. There were also inconsistencies in the type and variety of strategies observed and implemented during the clinical teaching experiences. With the complexity of what SETs should know and be able to do, preparation programs may need to identify the essential experiences that must be fostered in a clinical setting. Should a placement site be vetted for appropriate implementation of RTI? Should a site not using a PBIS model be used for placing prospective teachers? Identifying the essential factors may also serve to aid preparation programs in the selection of quality clinical settings. An assessment of the types of opportunities that can be provided by the

school and/or personnel (i.e., MT, US) within the clinical teaching experience could be an area of future research.

Finally, CAEP (2013b) also suggests that the context of the clinical teaching experience influences a preservice teacher's appropriation of instructional/behavioral skillsets gleaned from university coursework. The findings across all cases in this study repeatedly suggested that the context of the clinical teaching setting influences the appropriation of coursework by the special education preservice teacher. Informed by activity theory, the infrastructure of the clinical teaching setting and the role of the MT were two key contextual factors of influence.

First, three participants felt because the infrastructure of their setting allowed them to teach a specific content area (i.e., reading, math, English), they were given opportunities to practice instructional strategies specific to university coursework. Second, three of the participants perceived that the service delivery model of the setting (i.e., co-teaching, general education setting, special education self-contained setting) afforded them opportunities to appropriate specific instructional strategies. Since the content of the curriculum and the service delivery models of the clinical experiences have been suggested by some of the participants as limiting or encouraging their appropriation of coursework, the infrastructure of the school setting, or placement of these experiences, largely influenced the perspectives and decision-making of the preservice teachers. This finding is affirmed by the tenets of activity theory (Grossman et al., 1999). As stated earlier, Grossman et al. (1999) suggested that the school settings and their accompanying social structures may or may not be congruent with the university setting (i.e., coursework). When both settings are congruent as perceived by Susan and Martha, appropriation of coursework is perceived to be promoted. However, when the settings are not congruent, as perceived by Helen in the inclusive general education setting,

appropriation of coursework may be interrupted, jeopardizing the link between theory and practice that has been deemed critical to a high-quality clinical practice (CAEP, 2013b). However, 28 states currently have stand-alone initial state licensure in special education that prepare teachers to work with a K-12 grade band for students with high incidence disabilities (Blanton, Boveda, Munoz, & Pugach, 2017). The breadth of knowledge and skills addressed within such preparation programs is tremendous. For example, students with high incidence disabilities may be serviced in the general education setting, in self-contained settings, and/or in co-taught classrooms. Should a teacher candidate then have an experience in each of these settings to be adequately prepared?

The second contextual factor, the role of the MT, was perceived to be influential by five of the participants in affording them with opportunities to appropriate coursework, albeit for different reasons. Two participants identified the variable role of the special education MT. Some MTs provided direct instruction to students, as in the special education self-contained placements, while others provided instructional support, as in the inclusive general education settings. Both participants shared that the role was either or not both in at least one of the clinical settings. Thus, during some experiences, the preservice teachers were not given opportunities to implement direct instruction in the inclusive settings. Consequently, these two participants never had the opportunity to develop and implement lesson plans within at least one of the collaborative general education teaching settings. Conversely, Susan shared that during her secondary special education self-contained clinical setting, she provided direct math instruction to students with disabilities, thus giving her the opportunity to develop and implement lesson plans. Again, the role of the SET is complex and varied. Providing prospective teachers

with authentic experiences across variable settings is essential yet challenging to consistently execute.

Further, two participants were placed in a general education setting with a general education MT as one of their clinical teaching placements. These participants perceived that because the MT was a GET, their clinical experience was negatively influenced. For example, Helen was not afforded the opportunity to specially design instruction for individual learners or small groups of learners with disabilities. Conversely, even though John was provided a general education MT, he took it upon himself to create opportunities to employ learned instructional and behavioral strategies from his special education coursework.

Study findings illustrate that the link between theory and practice are inconsistent for special education preservice participants. As suggested by Leko and Brownell (2011), aligning the clinical teaching experience with the university coursework promotes appropriation. However, is it realistic for a preparation program to provide opportunities for appropriating the wide range of experiences needed across the K-12 grade band and across categories of disabilities? Investigating how school-university partnerships can be created to support the skillsets promoted by university coursework is needed. Not having such opportunities for application could be a detriment to the development of a teacher candidate's pedagogical knowledge and practice.

Limitations

Generalization of findings should be realized with caution. First, the participant sample only included six teacher candidates. Second, even though participants were from the same university and same course of study, they had varied backgrounds and work experiences, influencing the knowledge they may or may not have brought to the clinical teaching experience.

Third, although other sources (i.e., reflective papers and observations) were used to validate participant perceptions, interviews were self-reported experiences. Finally, the participant sample was representative of only one teacher preparation program.

Implications for Future Practice

To maximize the individual growth for special education teacher candidates during the clinical teaching experience, a few recommendations have been formulated for quality clinical placements. As previously cited, the National Council for Accreditation of Teacher Education (2010) and the CAEP (2013a) have legitimized the importance of establishing strategic school-university partnerships to promote powerful clinical experiences for prospective educators. School-university partnerships that align theory and practices embedded in university coursework are recommended. Preservice teachers should be able to see practices modeled and have opportunities to practice the pedagogical skills learned from coursework.

Also included in school-university partnerships is the need for quality clinical educators (i.e., Mentor Teachers, University Supervisors), as suggested by CAEP's *Standard 2* (2013b). As noted in the findings of this study, the MT was regarded as one of the most influential factors contributing to a positive clinical experience. Therefore, it is recommended that both the school and the university provide professional development for the MT to include clarity of his/her role, an awareness of the skillsets that the university deems essential, and potential coaching. USs could benefit from this, as well.

Conclusions

As previously noted, the *Blue Ribbon Panel Report* (National Council for Accreditation of Teacher Education, 2010) suggested that one of the key elements to teacher preparation is providing candidates an interactive professional community to practice their craft. Research

(Allsopp et al., 2006) has also suggested that when given opportunities to implement and experience instructional/behavioral strategies from coursework, the special education preservice teacher begins to appropriate the learning into a skillset for future practice. As the participants of this study indicated, the opportunities (or lack of) to observe and practice various instructional/behavioral strategies impact their decision-making abilities during their clinical experiences and, ultimately, their development as educators. Hence, special education teacher preparation programs need to identify clinical settings that support preservice teachers' appropriation of instructional and behavioral skillsets congruent with the pedagogical principles of the preparation program.

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Performance Assessments: A Review of Definitions, Quality Characteristics, and Outcomes Associated with Their Use in K-12 Schools

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Abstract

After nearly two decades of federal and state accountability requirements relying on conventional standardized assessments, Virginia and several other states are moving to create more balanced approaches to statewide assessment systems that include the use of performance assessments. But Palm (2008) states, “Performance assessment can mean almost anything” (p. 3). This review of extant literature explores varying ways performance assessments are defined, characteristics of quality performance assessments, and educational outcomes associated with their use in K-12 schools. A rudimentary definition of performance assessment is established at the outset of this article to provide a foundation for undertaking the review, which includes sources from empirical, theoretical, and anecdotal literature. Drawing from the exploration of quality characteristics and evident educational outcomes, a refined definition of performance assessments is offered by way of conclusion to the article with the intent of providing some direction to current and future educators seeking to innovate assessment and accountability practices.

During the past two decades, assessment practices in K-12 schools have shied away from performance-based and constructed-response formats in favor of objectively scored assessments such as multiple-choice, matching, true/false, and formulaic writing prompts. Gaps in performance assessment research for approximately the last 20 years coincide with the onset of the 2001 *No Child Left Behind Act* (NCLB), which advanced the use of standardized testing as a means of assessing school children in America (H.R. 1 – No Child Left Behind Act of 2001,

2001; Stecher, 2010). However, this trend is shifting. NCLB has been replaced by the *Every Student Succeeds Act* of 2015 (ESSA), which includes provisions promoting the development of state accountability measures that assess higher-order thinking skills, may include multiple measures rather than single end-of-year measures, and may include measures of academic growth. At the same time, the Commonwealth of Virginia amended the state code in 2014 eliminating the administration of five Standards of Learning (SOL) assessments previously overseen by the Virginia Department of Education, each to be replaced by an “alternative assessment” to be developed by each local school division (*Code of Virginia* §22.1-253.13:3). The intent of this significant policy change in Virginia’s accountability system was to reduce the use of standardized, fixed-choice type assessments and to promote the use of more authentic, performance-based assessments.

Set within the context of a move toward performance assessments, this literature review draws from 12 years of performance assessment research available in peer-reviewed journals. Examined are the variety of ways performance assessments are defined; the quality features of performance assessments; and outcomes associated with their use. Key terms such as (*K-12 performance assessment, authentic assessment, performance-based assessment, alternative assessment, and portfolio assessment*) were used to search for articles that either directly or indirectly focus on the topic of this review. Twenty journal articles from the years 2006 to 2016 were located, which included empirical, theoretical, and anecdotal studies. A scant five articles from the years 1998 to 2005 appear that indirectly support the purpose of the research. Of these 25 articles, only 15 clearly fit the parameters of the search and, therefore, appear in this literature review. The lack of current research suggests that many teachers and administrators today may not be particularly well-prepared for creating and using performance assessments (having relied

for some time fixed-choice and commercially produced assessments) and, therefore, may benefit from direction, professional development opportunities, and support on the topic (Frey & Schmitt, 2010). Of course, any such shift in K-12 policy and practice necessitates the attention of those responsible for preparing new teachers, as teacher educators respond to meet the needs of the field.

Definitions of Performance Assessment

There are a variety of ways to label and define the work students do to demonstrate knowledge and skills. The terms *performance assessment* and *performance-based assessment* (PBA) are used interchangeably throughout much of assessment literature. A rudimentary definition of performance assessment offered by projectappleseed.org (2018), a nationally recognized organization known for its advocacy of performance assessments, states that a *performance assessment should allow students to demonstrate knowledge and skills, including the process by which they solve problems*. Turning to sources of extant literature, variances on this definition are evident. Frey and Schmitt (2010) state that “*performance tests* measure skill or ability; are sometimes called *alternative assessments* or *authentic assessments*; and scoring often requires subjective judgment” (p. 109).

Oberg (2010) describes performance-based assessment generally as “one or more approaches for measuring student progress, skills, and achievement” and that performance assessments are “the ultimate form of linking instruction with assessment” (p. 5). Oberg (2010) adds that performance-based assessment should be considered an *alternative assessment* when the term *authentic* is added. An authentic performance assessment has students demonstrate understanding and skills in a real-life context “rather than contrived problems for the classroom setting” (Oberg, 2010, p. 5). Koh, Tan, and Ng (2011) assert that performance assessments are

intended to measure students' knowledge and skills at deeper levels than traditional assessments and tend to prompt students to solve authentic or real-world problems. Newmann et al. (1996) claim that *authentic intellectual work* engages students in much more than routine practices of gathering facts and applying procedures. Higher-order thinking and real-world problem-solving are two important elements that make up the substance of authentic assessment (Koh, Tan, & Ng, 2011, p. 139).

Frey, Schmitt, and Allen (2012) posit that a meaningful, real-world task or problem is characteristic of performance-based assessment at some level. Referencing a book-length critique of standardized tests by Archbald and Newman from 1988, they suggest that for an assessment to be considered authentic, it must have value beyond the actual score or grade, indicating that the assessment task itself should be meaningful (Frey, Schmitt, & Allen, 2012). This suggests that assessments such as multiple-choice standardized tests are not authentic. Along with Archbald and Newman, Frey, Schmitt, and Allen (2012) cite Wiggins as early advocates for authentic assessments:

The views of Wiggins...support a definition of authentic assessment as assessment that poses an intellectually interesting and personally meaningful problem or task. These types of assessments are realistic because the questions, tasks, or problems have value and interest beyond the classroom into the 'real world' of students' values, abilities, and motivations. (p. 13)

Less critical of conventional assessments, Kan and Bulut (2014) consider a performance assessment simply an alternative method to measure what a student knows and can do. Expanding upon possible forms of performance assessments, Adeyemi's (2015) empirical study connects authentic and portfolio assessments to performance assessments because students'

selection of artifacts to include in a portfolio provide a real-world opportunity to show evidence of mastery of a set of skills, applied knowledge, and attitudes. As such, a portfolio also provides a “means for reflection and critiquing one’s own work and evaluating the effectiveness of lessons of interpersonal interactions with students or peers” (p. 127).

Table 1 (next page) shows a side-by-side comparison by skill/ability, process, and value/attitude of various ways to consider performance assessment. The common language throughout suggests the synonymous nature and purpose of performance, authentic, and portfolio assessments. *Alternative assessment* is a term used periodically in the literature to denote assessments not associated with the traditional multiple-choice and fill-in-the blank types of assessment; therefore, the term appears in Table 1 as an umbrella for all others that characterize performance assessment.

While it would be apt to conclude here with an enhanced definition of performance assessment based upon the varying definitions described, the revised definition for purposes of this review is dependent upon the further consideration of quality characteristics of performance assessments, as well as evident educational outcomes of their use.

Quality Characteristics of Performance Assessments

A variety of features of high-quality performance assessments and their use are described in the selected literature. Corcoran, Dersheimer, and Tichenor (2004) state that common characteristics of performance assessments should include asking students to perform, create, or produce something; tapping higher-level thinking and problem-solving skills; using tasks that represent meaningful instructional activities; involving real-world applications; and using human judgment in scoring. These characteristics typify performance assessments generally, while other characteristics are associated with specific forms of performance assessments.

Table 1

Summary of Common Characteristics of Alternative, Performance, Authentic, and Portfolio Assessments Recognized by Various Researchers

| Alternative Assessment | | | |
|------------------------|--|---|--|
| | Performance Assessment | Authentic Assessment | Portfolio Assessment |
| Skill/Ability | Measures skill or ability (Frey & Schmitt, 2010), clearly articulates what teachers should be teaching and what students should be learning, and allows for evaluation of both process and product (Lai, 2011) | Demonstrates knowledge, skills, or behavior in a real-life context rather than contrived problems for the classroom setting (Oberg, 2010) | Evaluates the effectiveness of lessons of interpersonal interactions with students or peers (Adeyemi, 2015) |
| Process | Demonstrates knowledge and skills, including the process by which they solve problems (projectappleseed.org) and provides insights to students' cognitive processes and their attitudes toward content (Corcoran, Dershimer, & Tichenor, 2004) | Poses an intellectually interesting and personally meaningful problem or task and engages higher-order thinking (Frey, Schmitt, & Allen, 2012; Koh, Tan, & Ng, 2011) | Shows evidence of mastery of a set of skills, applied knowledge, and attitudes (Adeyemi, 2015) |
| Value/Attitude | Has inherent value and prompts the interest and motivation of students beyond the classroom into the real-world (Frey, Schmitt, & Allen, 2012; Lai, 2011) | Realistic because the questions, tasks, or problems have value and interest beyond the classroom into the real-world of students' values, abilities, and motivations (Frey, Schmitt, & Allen, 2012; Koh, Tan, & Ng, 2011) | Provides students a real-world opportunity to select artifacts and entries for their portfolio (Adeyemi, 2015) |

According to Frey and Schmitt (2010) in their empirical study, writing assignments (such as essays) are noted by some teachers as one of the most common forms of performance assessments used in classrooms. Written assessments can be considered performance-based when their purpose is to measure skill or ability and when they are subjectively scored (Frey & Schmitt, 2010). It is important to note that *subjective scoring* requires subject-specific knowledge on the part of the teacher to evaluate student performance. Corcoran, Dershimer, and Tichenor (2004) suggest journal entries as a meaningful performance assessment because “if it is

tied to teaching and learning objectives, the teacher can gain insight into students' cognitive progress and reveal their attitudes toward content" (p. 214). As another example, historical writing assessments evaluate the skills needed to support historical reasoning, which include analytical and evaluative thinking. Such higher-level thinking skills involve being able to analyze evidence, weigh conflicting accounts, consider biases, construct arguments grounded in evidence, understand the complexities of our social world, evaluate information responsibly, and ask difficult questions (Monte-Sano, 2008). Educators who use historical writing as a performance assessment provide students another avenue by which to develop their literacy skills and to apply them in an authentic way. Monte-Sano (2008) maintains, however, that many teachers do not have the prerequisite skills necessary to teach performance-based tasks such as evidence-based historical thinking and writing, and that professional development is needed.

Beyond the creation and use of performance assessments at an individual classroom level, the country of Singapore offers an example of a national effort to move to more authentic assessment practices. In 1997, the Singapore Ministry of Education articulated a vision of "Thinking Schools, Learning Nation" (TSLN) as a systemic effort to develop creative and critical thinking skills, as well as a lifelong passion for learning and nationalistic commitment, within its entire population of school children (Koh, Tan, & Ng, 2011). Singapore's TSLN involves teachers moving away from traditional approaches to teaching and learning, such as rote memorization, to more authentic learning experiences and assessment practices. Inherent to this initiative has been widespread engagement in professional development in teachers' and school leaders' understanding and use of performance assessments (Koh, Tan, & Ng., 2011). Koh, Tan, and Ng (2011) point out that changes in classroom assessment practices are necessary to promoting thinking schools. The mode of day-to-day classroom assessment practices must foster

engaged learning and enhance students' mastery of 21st century competencies (Koh, Tan, & Ng, 2011). Done well, these assessments reflect more intellectually challenging learning goals and include more authentic, open-ended assessments tasks such as “sustained written prose where students are asked to elaborate on their understanding, explanations, arguments, and/or conclusions” (Koh, Tan, & Ng, 2011, p. 140).

In addition to an evident connection between teaching and assessment practices, performance assessments may also serve formative purposes at the classroom level. Oberg (2010) advocates the use of performance assessments as a pre-assessment alternative to the traditional paper-pencil methods to support teachers in their instructional planning. Pre-assessments administered in an authentic format can provide teachers an important glimpse not only to students' prior experiences and knowledge but also to their current skills and interests relative to the intended learning outcomes of instruction (Oberg, 2010). Oberg (2010) suggests that teachers consider the following guidelines when developing performance-based pre-assessments:

1. What is important about the lesson and student learning that the teacher wants to know if the student knows;
2. How students can demonstrate knowledge in a unique or non-standard way;
3. What the criteria are for competence and mastery;
4. How to judge student competence;
5. How to provide feedback in a constructive manner;
6. How to include the student within the review process;
7. How the results will be used to guide instruction and differentiation.

These guidelines are intended to provide support when creating a performance-based pre-assessment. For instance, consider a mock store in the classroom to observe how well students can count money when purchasing items, as well as when receiving or giving change: “Teachers observe adding, subtraction, multiplication skills as well as problem solving skills, language skills, and social interactions” (Oberg, 2010, p. 6). Through the use of this performance and a teacher’s observation checklist, a pre-assessment of authentically applied understandings and skill related to the intended learning of rudimentary financial literacy can be obtained.

Performance assessments can also be used for the purpose of monitoring student growth. VanTassel-Baska (2013) contends that performance assessments themselves serve as a basis for continued, authentic learning for students, including gifted students. Adeyemi (2015) demonstrates in a study of middle school students that authentic and portfolio assessments contribute to the teaching and learning process. Each of these assessment types involves students in the process, thus giving them a more meaningful role in improving achievement. Learners’ achievement and their feelings of responsibility for monitoring their own progress provide an intrinsic motivation of interest in a task. Not only did the students in this study relate the different aspects of the information to one another, they also related them to their previous learning and personal experiences (Adeyemi, 2015).

As Stecher (2010) suggests, performance assessments can take a broad array of forms. For instance, Barber, King, and Buchanan (2015) report on a measure of performance assessment known as Digital Moments. Although this study was set in a course at the undergraduate level, it is indicative of similar technology enhanced innovations in K-12 schools. In this university example, students enrolled in a course entitled “Psychological Foundations and Digital Technology” and engaged in Digital Moments activities over a 12-week period. Students

watched three hours of podcasts per week and submitted reflections to a common online learning management system (i.e., Blackboard). Students were encouraged to structure their reflections in ways meaningful to them, which included words, phrases, pictures, colors, musical links, and more (Barber, King, & Buchanan, 2015). Students viewed their classmates' work and gained new ideas with immediate relevance to them regarding ways to complete their reflections and assignments. Students also collaboratively developed criteria and tools for assessing their own work and the work of others, as well as for providing feedback to each other. As such, Digital Moments functions as a means of assessing and learning, involving characteristics of authenticity, relevance, collaboration, and technology (Barber, King, & Buchanan, 2015).

In general, high-quality performance assessments should focus on important intended learning outcomes; engage students' higher-order thinking skills; integrate authentic tasks and problems; foster both independent and collaborative work; integrate assessment within the learning process; leverage technology when appropriate; and have meaningful success criteria. In addition, performance assessments may be used for each and any of the classic uses of classroom assessment, namely as pre-assessments, formative assessments, or summative assessments. Performance-based assessments are also developmentally appropriate for grades K-12, while also being appropriate in post-secondary education. They can be designed and used in face-to-face settings, as well as online learning environments. Finally, as alluded to at the start of this review of literature, they may be used as classroom assessments, district benchmark assessments, statewide accountability measures, and even national indicators of educational achievement.

Outcomes Associated with Performance Assessments

The outcomes, results, or effects associated with the use of performance assessments generally reveal that the depth of knowledge and types of skills developed by students are greatly influenced by the nature and format of the assessments themselves (Darling-Hammond & Adamson, 2010). Returning to the example from an undergraduate course, Barber, King, and Buchanan (2015) note outcomes of the use of an authentic assessment in a study of digital pedagogy as the following: “Students began to exhibit greater competence and confidence in using digital open resources, needed less direction from the instructor, and enjoyed taking the reins of their own learning. Also, learners developed autonomy, engagement, and motivation; self and peer assessments grew to be more meaningful; and there was a shared development of collective knowledge” (p. 65). As a point particularly relevant to the use of performance-based assessments in the PK-16 continuum of elementary, secondary, and post-secondary education, Barber, King, and Buchanan (2015) suggest that performance assessments have future implications for students regardless of level, building a foundation of problem-solving, self-directed learning, and constructive collaboration for future learning.

Other recent studies situated explicitly in K-12 educational settings garner other evident learning outcomes. Kim, VanTassel-Baska, Bracken, Feng, and Stambaugh, (2014) found indicators of science reasoning and conceptual understanding in the primary grades using standardized and performance-based assessments. In a study of the efficacy of authentic and portfolio-based assessment in learning social studies, Adeyemi (2015) concludes that both modes of assessment are correlated to academic success in learners and also that these types of assessments contribute to the formative use of assessment results by both teachers and students. Several studies from the height of implementation of NCLB accountability testing also provide

some evident outcomes of the use of performance assessments. In an article about young adult literature and alternative assessment measures, Comer (2011) asserts that performance assessments can be constructed and used to engage students metacognitively. Additionally, Comer, (2011) states that there is more opportunity for students to pull from knowledge they already have to answer questions, thus making active application of their knowledge. Hallam, Grisham-Brown, Gao, and Brookshire (2007) empirically studied the effects of outcomes-driven authentic assessment on classroom quality. Their study suggests that an authentic assessment approach, which includes performance assessments embedded within the curriculum, may have a positive impact on the language and literacy environment within classrooms and as outcomes for students. In *A Teacher's Guide to Alternative Assessment: Taking the First Steps*, Corcoran, Dersheimer, and Tichenor (2004) write about students being more engaged and more willing to assess their own learning. They found that creative student projects reflect a range of intelligences, resulting from having students perform, create, produce, or do something involving higher-level thinking and real-world applications.

Although the past decade-and-a-half of high-stakes accountability testing has seen a precipitous drop in the study of performance assessment, the studies that have been published within this time provide some evidence of a number of desirable learning outcomes associated with the use of such alternative assessments. Table 2 (next page) summarizes selected examples of these studies, including their specific type of performance assessment, key characteristics, and observed learning outcomes.

Table 2

Samples of PBA Types and Outcomes

| Type of PBA | Source | Characteristics of PBA | Evident Learning Outcomes |
|--------------------|--|---|--|
| Essay | Frey & Schmitt (2012) | Essay type assessments can be considered performance-based when their purpose is to measure skill or ability and are scored by subject experts. | Increased learning in the classroom, as well as increased test scores |
| Journal | Corcoran, Dershimer, & Tichenor (2004) | Writing tied to the learning objectives and use human judgment to do the scoring | Insight into cognitive processes of students and attitudes toward the content |
| Historical Writing | Monte-Sano (2008) | Writing tied to analysis of evidence, weighing conflicting accounts, determining bias, constructing arguments, and asking difficult questions | Development of literacy skills and application in an authentic way |
| Pre-assessment | Oberg (2010) | A mock store in the classroom reflecting an authentic scenario to observe how well students can count money when purchasing items, as well as when receiving or giving change | Teachers observe adding, subtraction, and multiplication skills, as well as problem solving skills, language skills, and social interactions in an authentic format to help develop high-quality and effective instruction and curriculum. |
| Portfolio | Adeyemi (2015) | Students involved in the process of monitoring their own learning and communicating their learning and previous experiences to others | Intrinsic student motivation of interest in a task and feelings of responsibility for monitoring their own progress, which gives students a meaningful role in improving achievement |
| Digital Moments | Barber, King, & Buchanan (2015) | Students electronically complete tasks of their choosing, give and receive feedback to self and others, and immediately apply knowledge to move their project forward. | Effective use of feedback develops valuable online collaboration and communication skills and embeds assessment within the learning process. |

The review of extant literature suggests the promise of performance assessments to result in real and substantive learning outcomes not only in the cognitive domain of learning but also in the socio-emotional domain. Notably, more than one study tied student performance on conventional assessments to their engagement with performance assessments. However, it is also important to note the reliance of performance assessments on the use of use of rubrics to

gauge student outcomes. The creation and use of rubrics is clearly integral to determining evident outcomes of learning and, therefore, merits scrutiny. For instance, an empirical study conducted by Kan and Bulut (2014) examined the effects of teacher experience and rubric use in performance assessments. In this study, eighth-grade students were given a performance task, and 17 teachers with and without a rubric graded their responses. The performance assessment first graded without the use of a rubric resulted in an inconsistency of scores among the teachers. When the assessments were graded several weeks later using a rubric, the consistency among the scores given by the teachers increased, thus supporting the use of rubrics when grading performance assessments. An additional noted outcome was that teachers with more years of teaching experience tend to score performance tasks more leniently than teachers who do not have long years of teaching experience. Additional research is needed to determine why this phenomenon occurs. However, another clear implication is the need for teacher educators to prepare pre-service teachers in the technical knowledge and skills necessary to create and use valid and reliable rubrics in order to achieve the promise of performance assessments.

Conclusion

The purpose of this literature review was to explore a sampling of research regarding definitions, quality characteristics, and evidence of educational outcomes of performance assessments. In this review, the concept of performance assessment was interpreted in different ways depending upon the context in which it was used. A basic definition from the educational advocacy group projectappleseed.org offers that *performance assessments require students to demonstrate knowledge and skills, including the process by which they solve problems*. This definition coincides with the extant sampling of research; however, other words and concepts began to appear in the literature that offered more depth. Table 3 (next page) identifies the

frequency of common words and concepts associated with performance assessments by various researchers that appeared in Tables 1 and 2.

Table 3

Content Analysis of Common Words and Concepts Associated with Performance Assessments by Various Researchers from Tables 1 and 2

| Words and Concepts | Number of Occurrences in Tables 1 and 2 |
|----------------------------------|---|
| Skills/Abilities | 12 |
| Authentic or Real-world Contexts | 11 |
| Tasks | 9 |
| Value/Attitudes | 9 |
| Knowledge/Understanding | 7 |
| Process | 6 |
| Social/Emotional | 5 |
| Subjective Scoring | 2 |

Based upon the frequency of these words and concepts projected in the review of the literature, an enhanced version of the rudimentary definition developed into the following: *Performance assessments, which can develop as a task or product, necessitate subjective judgment to measure students' abilities to authentically demonstrate knowledge, skills, and processes in a way that provides value, interest, and motivation to students beyond the actual score or grade.* This definition is not exclusive, nor do we contend that it is complete. Rather, it expands upon an oft-accessed definition from a popular online resource and provides additional depth and breadth to the definition based upon a sampling of extant research.

Additional research in the area of performance assessment will be beneficial as the United States moves from the standardized testing phase of the *No Child Left Behind Act* of 2001

to opportunity to innovate with more authentic assessments under the *Every Student Succeeds Act* of 2015. While not all standardized tests will be abolished under ESSA, there will be a move away from sole dependence upon standardized, fixed-choice assessments and more flexibility given to local school divisions to assess students in a variety of ways. In this respect, Virginia is a leader among a handful of other states (such as New Hampshire, New York, and Colorado) moving toward the innovative use of locally-developed performance-based assessments. This important and strategic move toward the more authentic assessment of real-world, transferable understandings and higher-order thinking skills will necessitate increasingly clear and commonly shared understandings of the definition, characteristics, and intended learning outcomes associated with high-quality performance assessments for in-service and pre-service teachers alike. Furthermore, as the experience of Singaporean educational system suggests, this move will necessitate the continued professional development of in-service teachers to create and use performance assessments, as well as the revision of teacher preparation coursework and field experiences to prepare novice teachers for the challenge and opportunity of this change (Koh, Tan, & Ng, 2011).

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Using Professional Learning Communities to Advance Preservice Teachers' Understanding of Differentiation within Writing Instruction

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Abstract

The purpose of this study was to explore the use of Professional Learning Communities (PLCs) in preservice teacher education as a tool for learning about differentiation within writing instruction. Using online dialogue journals, preservice teachers communicated with elementary students about a shared text and met in ongoing PLC groups to examine students' work and discuss articles related to writing instruction. In end-of-course reflections, preservice teachers reported new understandings of how to guide individual students toward reasonable writing goals, as well as increased confidence in their ability to teach writing and to differentiate instruction as a result of participating in the PLCs. In particular, preservice teachers learned to build upon students' strengths in an effort to facilitate growth over time.

Elementary teacher education programs are unique in that they must train teachers to use instructional strategies and methods across all areas of the curriculum, in addition to teaching standard pedagogical skills, collaboration with parents and fellow teachers, and effective classroom management practices. Because the children they will teach are new to reading and writing, helping preservice teachers become strong in literacy methods is a priority for most elementary education programs (National Council on Teacher Quality, 2016). However, the teaching of composition tends to take a backseat to reading. Though reading and writing instruction work together in the elementary language arts curriculum, studies have shown that preservice teachers are not usually required to take courses focused solely on the teaching of writing (Troia & Graham, 2016). In the elementary classroom as well, attention to writing is often given only a very narrow space (Troia & Graham, 2016). But because learning to express

ideas in writing is so important for developing children's critical thinking (Quitadamo & Kurtz, 2007), it is necessary to find ways to devote more class time to writing and to better prepare future teachers to teach writing effectively.

Purpose

Preservice teachers need opportunities to examine differences in writing skills among elementary students and devise strategies to help individual children develop as writers (Stover, Yeara & Sease, 2014). The purpose of the present study was to explore the use of Professional Learning Communities (PLCs) in preservice teacher education as a tool for learning about differentiation within writing instruction. Using online dialogue journals, which allow students and teachers to correspond in writing about a topic of mutual interest in an authentic way (Stillman, Anderson & Struthers, 2014), preservice teachers communicated with elementary students about a shared text, then met with peers in ongoing PLC groups to examine students' work and to discuss articles related to writing instruction.

Literature Review

In recent years, PLCs have been used in schools to help teachers engage in pedagogical discourse and make collaborative decisions about how to best help students achieve learning goals (DuFour & Marzano, 2004). The key purposes of PLCs are to develop a guaranteed and viable curriculum, to monitor student learning on an ongoing basis, to ensure effective instruction, and to respond when students don't learn (DuFour & Marzano, 2004). Feger & Arruda (2008) conducted a vast literature review on the use of PLCs in education and found that "much of the literature on PLCs is grounded in theories that highlight the social nature of learning and detail practices through which teachers share and build their work (p. 5)." Vygotsky's (1978) sociocultural theory of development, which suggests that human learning is

largely a social process, is particularly applicable to PLCs in that they emphasize collaboration as a key way to increase teachers' knowledge and efficacy.

Several researchers have investigated the use of PLCs within teacher education programs. In one study, preservice teachers participated in an extra-curricular course on reading aloud to students which involved working in small groups on a continuing basis for twelve weeks (Auhl & Daniel, 2014). Participants reported that their experiences in the peer groups contributed to their understanding of teaching, learning, and children's development and the value of critical transformative dialogue in supporting professional reflection. They also credited the small groups for preparing them to engage in the professional context of schools and for increasing their confidence as beginning teachers (Auhl & Daniel, 2014).

In another study (Bond, 2013), preservice teachers met in PLC groups four times across the semester to discuss artifacts they were collecting for their professional portfolios. Data revealed that the PLC meetings helped preservice teachers think critically, approach pedagogical problems from multiple perspectives, and support one another emotionally (Bond, 2013). However, problems implementing the project showed the importance of explicitly teaching preservice teachers how to effectively navigate participation in PLCs. Bond (2013) suggested that teacher educators should model giving critical feedback and consider using a prescribed meeting protocol to keep the discussion focused on student learning.

A consultancy protocol was used successfully in a study by Kagle (2014), wherein preservice teachers presented problems of practice at each PLC meeting and then discussed how to best meet these challenges within schools. Kagle (2014) found that the PLCs helped preservice teachers build basic pedagogical skills, become reflective practitioners, transition from student to teacher, and confront educational challenges professionally. Similarly, Miller's

(2008) study used a consultancy protocol to engage preservice teachers in conversations about subject matter, pedagogy, and assessment during regular PLC meetings. Miller (2008) found that “problem-based conversations (among) teachers are integral to their learning and sense-making, particularly when these opportunities...are focused and structured to account for complexity, include all voices, and are grounded in experience” (p. 80).

Professor-led PLC groups which met regularly to discuss educational research and case studies were the subject of another study (Dillard, 2016). Group norms about participation, decision-making, expectations, confidentiality, and accountability were agreed upon at the outset and adhered to throughout the students’ coursework. The following year, four participants kept journals related to school-based PLC participation during their first year of teaching. Most reported feeling prepared to work with fellow teachers in PLC groups and appreciated the close relationships and support fostered within them (Dillard, 2016). Some felt, though, that the veteran teachers with whom they began working lacked knowledge and understanding of the purposes behind PLCs, which negated the benefits of the new teachers’ prior experience.

Preservice teachers showed improvement in their perceptions of several indicators in another study (Hoaglund, Birkenfeld, & Box, 2014), which placed a faculty mentor with each ongoing PLC. After participating in PLCs, preservice teachers were more willing to admit mistakes, share issues, support decisions, organize, volunteer, and lead: “Teachers benefit from interacting with colleagues to review assessment data, engage in professional learning, and share in planning curriculum. These activities can have a profound effect on teacher effectiveness as well as student achievement” (Hoaglund, et al., 2014, p. 524).

As teaching moves away from its history as an isolated profession toward one that centers around collegiality, collaboration skills are becoming more critical for educators (DuFour &

Marzano, 2004; Feger & Arruda, 2008), so it seems wise to foster them during teacher education programs: “A positive experience with a PLC as an undergraduate will lead these future teachers to be proactive in developing schools that provide ample opportunities for professional collaboration” (Kagle, 2014, p. 24).

Foundational theorists like Calkins (2003), Graves (1994), and Fletcher and Portalupi (2001) emphasize conferencing with young writers as a key component of elementary writing instruction. Through conferencing, teachers can tune into the individual needs of their students: “In a conference, there is a natural flow that begins with understanding and moves toward teaching a particular skill, technique or strategy” (Fletcher & Portalupi, 2001, p. 52). In suggesting broad revisions to one student and addressing minor editing concerns with another, teachers can differentiate instruction and provide each child what he or she needs for growth in writing. Stillman, Anderson, and Struthers (2014) point out that dialogue journals can serve some of the same purposes as in-person conferencing because they “offer opportunities for teachers to forge relationships with students as communication partners and...to model and otherwise support their acquisition of traditional skills” (p. 148).

Tomlinson (2001) explains that a teacher who practices differentiation “proactively plans and carries out various approaches to content, process, and product in response to student differences in readiness, interest, and learning needs” (p. 7). As differentiation is essential for maximizing student learning (Tomlinson, 2001), teacher educators need to provide opportunities for preservice teachers to practically apply differentiation strategies throughout their coursework. In writing instruction, differentiation occurs most readily through individual conferencing. Using online dialogue journals, this study provided a means for preservice teachers to simulate the experience of one-on-one conferencing while receiving peer support.

Method

I used a qualitative research design to study the attitudes and perceptions of 22 preservice teachers who engaged in PLCs with the purpose of learning to differentiate writing instruction alongside a small group of peers. I aimed to explore the following research questions: (1) How does participating in PLCs influence preservice teachers' readiness to teach writing? (2) How does participating in PLCs influence preservice teachers' readiness to differentiate instruction?

Setting and Participants

The study took place in a southeastern state in the United States. The preservice teachers were enrolled as graduate students beginning a 12-month teacher education program at a large land-grant university. Twenty-one of the preservice teachers were white females and one of the preservice teachers was a black male. Pseudonyms were used for all participants to maintain confidentiality.

The preservice teachers were enrolled in a mandatory summer course which focused on writing instruction at the elementary level. As part of the coursework, the preservice teachers read the novel *Bud, Not Buddy* by Christopher Paul Curtis. They used an Internet platform to engage in discussion about the text via a dialogue journal with rising fifth- and sixth-grade students who were reading the same book using the same prescribed reading schedule.

The rising fifth-grade students attended a summer enrichment program drawing from three public elementary schools within the same district located about 45 minutes from the university. The rising sixth-grade students attended a gifted program at a different school within the same district, but they were not participants in the summer enrichment program. Initially, the preservice teachers met both groups of students at the summer enrichment site and were assigned

partners. From there, the fifth- and sixth-grade students initiated weekly dialogue journal entries to which the preservice teachers responded. All parties were given discussion questions, though the fifth-grade students tended not to refer to them in their posts. Because the sixth-grade students used the discussion questions and the fifth-grade students did not, there was an even greater disparity between the quality of writing samples between the two different groups than could be explained by the difference in age or the fact that the sixth-grade students were identified as gifted. However, this was not problematic for this study because its goal was to elicit preservice teachers' discussion about student writing, no matter the quality.

I co-taught one of two sections of the summer writing course during which preservice teachers both studied and participated in the writing process, practiced analyzing student dialogue journal samples within PLCs, and learned how to use ongoing assessments to meet the needs of individual learners. As such, I was a participant observer with the advantage of being an insider within the university classroom.

In four PLC meetings, groups of three to four preservice teachers discussed student writing samples from the dialogue journal exchange using the following protocol questions as a guide:

- *What are the student's strengths?*
- *What things has the student not yet mastered?*
- *What suggestions might you make for this student to help improve his or her writing?*

On four alternate days, preservice teachers brought in self-selected academic articles centered on writing instruction and presented them to their PLCs for discussion, and on two occasions, preservice teachers centered their discussion on articles I had selected.

Data Collection

The preservice teachers wrote reflective papers immediately after participating in this project in response to the following questions. (Question 3, it should be noted, refers to the preservice teachers' interest in teaching in "urban" schools. The term *urban* was chosen because the school district the fifth- and sixth-grade students attended refers to itself as a "model for urban public education" in promotional literature. Question 3 was asked as part of a different study which aimed to study the influence of participating in online dialogue journals with urban students on preservice teachers' interest in teaching in urban schools.)

1. Describe your experience with the dialogue journal partnership. What was your relationship with your partner like? Did you enjoy discussing the novel with your partner? How did it feel to participate in an ongoing conversation with students via a dialogue journal?
2. Describe what you learned about teaching writing through this process. What strategies, if any, did you learn that you can take with you into your future classroom? In particular, please consider the conversations about students' writing you had during PLC sessions.
3. Have your feelings changed regarding the possibility of teaching in an urban school? Do you feel more or less inclined to teach in an urban setting after participating in the dialogue journal project? Please discuss any parts of the project that helped you feel more prepared to teach in an urban setting.
4. Please share any suggestions you have about improving this project in the future.

Data Analysis

Preservice teachers' reflections were analyzed using thematic analysis with open coding (Maxwell, 2005) in the following manner.

- First, I read through the reflections twice and identified four preliminary codes reflecting the general areas around which the preservice teachers' thoughts revolved:

differentiation, collaboration, writing instruction, and online peer discussion (see Table 1).

Table 1

Preliminary Codes

| Code | Criteria used to assign the code |
|------------------------|---|
| Differentiation | Comments related to the preservice teachers' recognition of the need to teach students differently according to demonstrated writing skills |
| Collaboration | Comments referencing PLC discussions |
| Writing Instruction | General statements regarding the teaching of writing |
| Online Peer Discussion | Preservice teachers whose elementary partners stopped attending the summer program conversed about the text in an online discussion group; comments related to these conversations were coded "Online Peer Discussion." |

- Then, I compiled all the reflections onto one document (Document 1). Because the focus of this study was PLC participation, I excised all the students' responses to Question 2 (which pertained specifically to PLC participation) and pasted them into a new document (Document 2).
- Next, I sifted Document 1 for any mentions of *differentiation, collaboration, writing instruction, and online peer discussion* in students' responses to Questions 1, 3, and 4. Sentences with these ideas mentioned were then cut and pasted into Document 2.
- I color-coded the comments on Document 2 according to the four preliminary codes and then separated the text so that the comments pertaining to each code were grouped together.
- Next, I printed and re-read Document 2 and wrote memos in the margins.
- Then, I typed these memos into a new document. Each time a new memo was added, I scanned the document to see whether it seemed to reflect an idea which was similar to

that of any previous memo. If the memo seemed similar to a previous memo, I typed it directly underneath. If the memo did not seem similar to any previous memo, I typed it at the bottom of the document.

- The situated memos helped me to identify three themes and 13 subcodes (see Table 2), which I then applied to the entire document.

Table 2

Themes and Subcodes

| Theme | Subcode | Description of Subcode |
|---|----------|--|
| Perceptions of PLCs | PD | Peer Discussions |
| | PST L-P | Preservice Teacher Learning: Preparedness |
| | PST L-SW | Preservice Teacher Learning: Opportunity to View Student Writing |
| Impressions of Student Writing | ISS | Impressions of Student Skills |
| | IST-I | Impressions of Student Tone: Informal |
| | IST-F | Impressions of Student Tone: Formal |
| | IST-R | Impressions of Student Tone: Lack of Respect |
| | IST-E | Impressions of Student Tone: Expectations Needed |
| Descriptions of Learning to Teach Writing | AWAT-F | Addressing Writing as Teachers: Areas of Focus |
| | AWAT-SW | Addressing Writing as Teachers: Strengths and Weaknesses |
| | AWAT-FB | Addressing Writing as Teachers: Feedback |
| | GI | General Ideas for Teaching Writing |
| | OPD | Online Peer Discussion |

I offer the following excerpt from Melissa's composition below to demonstrate the way the codes were applied to the preservice teachers' reflections:

“The PLC groups gave me greater confidence in setting goals for individual students, for many of them seemed far behind where they should be in terms of their writing skills.”

I assigned three codes to this excerpt. First, I assigned PST L-P (Preservice Teacher Learning: Preparedness) because Melissa’s description of having gained “greater confidence” after participating in the PLC shows that she feels more prepared to teach writing. Second, I assigned AWAT-F (Addressing Writing as Teachers: Areas of Focus) because Melissa discusses “setting goals for individual students.” In other words, she is helping determine areas of focus for writing instruction. Third, I assigned ISS (Impressions of Student Skills) to the second part of Melissa’s sentence because she mentions that many students’ writing skills “seemed far behind where they should be,” which indicates her impression of students’ skills as lacking.

Findings

In the following section, I describe how preservice teachers’ reflections about participating in PLCs illuminate their new understandings of collaboration among professionals, their increased ability to analyze students’ writing to determine instructional focal points, and their awareness of the critical importance of differentiating writing instruction for each individual student. First, I describe the preservice teachers’ perceptions of PLCs. Second, I examine the preservice teachers’ impressions of student writing. Third, I discuss the preservice teachers’ descriptions of learning to teach writing.

Preservice teachers’ perceptions of PLCs

In their reflections, preservice teachers wrote only about the benefits they experienced from working within PLCs; they did not express any drawbacks. For example, they described the opportunity to examine student writing beyond that of their own personal journaling partner

as interesting, enjoyable, and “a learning experience.” Tammy wrote, “It was fun and exciting to read the students’ responses because it demonstrated where they were developmentally in their writing, but it also showed their personality.” The PLCs provided time and space for the preservice teachers to interact with multiple students’ writing, and they expressed appreciation for the exposure to additional students’ work. Clearly, including the PLC component broadened the impact of the dialogue journaling project on preservice teachers’ learning. In fact, one preservice teacher, Molly, wrote that “the discussions in our PLC groups proved more beneficial than my interactions with my blogging partner,” showing that extending the examination of student writing to peers helped the preservice teachers understand students’ skills and abilities much better than if they were to have simply worked one-on-one with a student. Several preservice teachers also expressed that participating in PLCs helped assure them that their analyses of students’ writing were “correct,” and it gave them greater confidence in providing formative feedback to students, setting learning goals for students, and creating activities to support students’ growth as writers.

Preservice teachers’ impressions of student writing

The preservice teachers wrote quite a bit about their impressions of student writing, both in terms of skill and tone. Nearly all the preservice teachers commented on what they perceived as a vast difference in writing ability among the students whose samples they reviewed within the PLCs. For example, Ashlee wrote, “You could definitely see the differences in students’ writing abilities. I can really see how teachers can struggle with catering to different students’ learning levels.” On the whole, the preservice teachers noted that many students seemed far behind where they “should” be in terms of their writing skills, and some found this discouraging. Diana wrote that failing to address problems with writing mechanics like forming complete

sentences and using correct punctuation “only leaves room for the children to fall through the cracks more and more, year after year.” Many preservice teachers indicated that the parallel exposure to both the summer school students’ writing and the writing of students identified as gifted was very eye-opening to them as future teachers. Maria expressed a common sentiment in writing that “the summer school group had a tremendous amount of room to grow in comparison with the gifted group.”

In terms of tone, the preservice teachers expressed surprise and dismay at the informality used by some students in their posts, citing the use of slang and abbreviations in many of the writing samples. Several preservice teachers felt that students seemed to have written quickly, in the same manner in which they would talk, and guessed that the students likely did not go back and re-read their posts before submitting them online. Some preservice teachers thought that the format of the online exchange led to the informality of the students’ writing, and many concluded that expectations for the online writing needed to be established more clearly. Hayley wrote that when students do not meet expectations, “That is not necessarily their fault. They need clear and well-communicated guidelines about the quality and content of their writing and...an understanding of the formality that an educational setting requires.”

Preservice teachers’ descriptions of learning to teach writing

Throughout their written reflections, the preservice teachers described what they had learned about teaching writing through participating in the PLCs. Foremost, they explained that their discussions with peers helped them learn to determine areas of focus for each individual child’s writing instruction. Lauren wrote that initially, “It was hard to pinpoint where instruction should start because there was so much to work on.” Other preservice teachers reflected that their discussions within the PLC groups helped them realize which parts of writing they

considered most fundamental, and that it was essential to target one area at a time so as not to overwhelm the student. Lindsey noted, however, that teachers must “devote the time needed to improve (the skill), and not just assume that since you told them, it will change the next time.”

Also mentioned frequently was the preservice teachers’ growing comfort level with the idea of providing constructive feedback to students. Jennifer wrote that she “learned how to guide students to different ways of thinking through asking questions.” Some preservice teachers wrote about learning to identify common mistakes among students, then creating plans for addressing certain needs with the whole class.

In some reflections, the preservice teachers discussed general ideas they had learned about composition instruction through participating in the PLC groups. For instance, one preservice teacher mentioned wanting to try peer editing in her future classroom after learning about the idea during a PLC meeting. Another preservice teacher discussed expanding her idea of using mentor texts in writing instruction, and another mentioned creating a project where she would match classmates together to engage in continuous dialogue about a book. After some of the fifth-grade students stopped attending the summer program, several preservice teachers were placed in a separate dialogue journaling group where they conversed online about *Bud, Not Buddy* and how they might teach this novel in their future classrooms. In their reflections, these preservice teachers all expressed benefitting from these exchanges, which served as online PLC extensions. Stephanie described that “throughout our ongoing conversations, we were able to make predictions, brainstorm possible extension activities from each section of the book, and provide feedback to one another.” Time and again, the preservice teachers described ways in which communicating with their peers enhanced their understanding of writing instruction.

Discussion

With this project, the first question I aimed to explore was: *How does participating in Professional Learning Communities influence preservice teachers' readiness to teach writing?* The data showed that preservice teachers felt more prepared to teach writing after participating in PLCs during their summer course. Preservice teachers wrote about an increased sense of how to “tackle” students’ difficulties in writing, and they perceived benefits from discussions which centered on analyzing writing samples from their elementary partners. Like many of her peers, Kristina expressed a newfound awareness of the need to build upon students’ strengths and provide positive comments before working to improve skills which they have not yet mastered. She wrote, “One of the big takeaways I have from this project is how important it is to see growth over time in a student’s writing. Even just through the few exchanges I had with Jayden, I was able to see him improve and learn new writing techniques.” Kristina’s reflection demonstrates how she is learning to approach students’ writing from an affirming stance; her understanding of the need to build on students’ strengths will make her a much better writing teacher in the long run.

Throughout the project, I noticed that the journaling exchanges between Amelia and her sixth-grade partner Lilly were among the most interesting and engaging. Lilly used a lot of voice in her writing. She wrote passionately about events that took place in the novel, expressing dismay, suspense, relief, and jubilation in turns as she experienced the text. I found Lilly to be an extremely talented young writer, though her passion sometimes led her away from traditional writing conventions. I was surprised to read Amelia’s remarks about Lilly’s writing: “While her content was good, her actual writing was not.” She went on to describe the informal tone of Lilly’s writing and how it might be improved if she were given a more structured writing task in

which she understood that “her best writing is expected.” Amelia’s comments demonstrated a need to delve more deeply into what constitutes “good” elementary school writing with the preservice teachers. It seems that more discussion is needed to come to a common understanding of what good writing looks like and what our goals for writing instruction should be; perhaps PLCs could be a vehicle for those conversations.

By comparison, Rebekah revealed a great depth of understanding of the nuances involved in assessing students’ writing. She wrote:

“As my classmates looked over one of Ellie’s posts and offered potential teaching points, I found myself defending Ellie—I had seen more of her writing so I had a better idea of the things she could do. The best example was (when) Ellie was worried about Bud and Deza kissing, so she typed fervently in what became one long run-on sentence. Many of my classmates pointed out that Ellie might need instruction to not compose run-on sentences, while I knew from her other work that she had this skill already developed.”

Clearly, Rebekah’s realization that she disagreed with her classmates’ evaluation of Ellie’s writing helped crystallize her thoughts about the ways teachers can use and misuse assessment. This new understanding would likely not have come about if Rebekah had not been given the opportunity to discuss Ellie’s writing within the PLC. Perhaps in continued conversation among PLC members, Rebekah could help her peers come to some of the same conclusions about viewing students’ writing holistically.

The second research question was: *How does participating in Professional Learning Communities influence preservice teachers’ readiness to differentiate instruction?* In their reflections, the preservice teachers revealed an increased awareness of the great disparity in writing ability displayed by students within the same school district. Collectively reviewing

student samples in PLC groups helped bring about this realization and an understanding of the need to differentiate writing instruction. Elizabeth, who was paired with one of the students identified as gifted, noted that:

“While Hope was advanced and wrote like a professional, I saw excerpts from some of the other partners that I found very surprising. I was amazed to see just how much variation there was in skill levels across the project participants, and I think that the exposure to this project will help me remember to differentiate instruction to meet the needs of all students.”

Further, the discussions within the PLCs supplied the preservice teachers with ideas for how to approach writing instruction for students of different skill levels. Preservice teachers referenced their intentions to hold individual writing conferences with students to provide feedback and help determine areas of focus, which is a key way in which elementary writing teachers differentiate instruction (Calkins, 2003; Graves, 1994; Fletcher & Portalupi, 2001). Samantha wrote, “After identifying struggling areas for the student, I now know that I can create writing activities solely for that student which target these challenges and aid in strengthening these areas.” Melissa, too, noted improvement in her ability to use differentiation strategies: “These conversations allowed me to step back and address the student work at a closer level, and I feel this gave me experience for my future career as a teacher in terms of practicing differentiated instruction for the students.” Though the preservice teachers did not necessarily discuss having learned practical differentiation strategies in their reflections, they did describe a growing awareness of the need to approach each child’s writing instruction differently as a result of collectively analyzing student writing samples within their PLCs.

Limitations and Recommendations for Future Research

Had this study been conducted during a full-length semester course rather than a summer condensed version, preservice teachers may have developed deeper relationships within their PLCs, resulting in more meaningful pedagogical discourse with an even greater effect on their ability to teach writing. One recommendation for future research is to replicate this study over a full semester during the school year. An additional recommendation is for the preservice teachers to actually provide feedback specific to writing skills to the students with whom they were partnered rather than only discussing their ideas for potential feedback with their peers. Preservice teachers could reflect on the influence of their teaching upon students' writing and collaborate with peers to plan ongoing instruction. In future research, additional data collection in the form of field notes taken at PLC meetings or preservice teacher interviews could help provide a more nuanced interpretation of the effects of the PLCs on preservice teachers' ability to differentiate writing instruction.

Conclusion

Engaging in pedagogical discourse with other future teachers within Professional Learning Communities has the potential to positively influence preservice teachers' sense of self-efficacy as composition instructors. Analyzing multiple student writing samples collaboratively with the use of a discussion protocol may help give preservice teachers confidence in their ability to recognize areas of focus for their students as writers. Discussing pedagogical practices and potential interventions with peers may help build and enhance the preservice teachers' beginning repertoires of writing instruction strategies. The support preservice teachers could receive within functional PLCs could prove valuable for them as they continue with their teacher education programs and prepare to enter classrooms as licensed teachers.

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Making Amends: A Restorative Justice Approach to Classroom Behavior

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Abstract

Enticed by developing skills that would empower students to solve problems, take responsibility for their own actions within the classroom community, and model real-life processes for resolving conflict, a team of third-grade teachers responsible for nearly 100 students embarked on creating a classroom behavior system titled *Making Amends*. Framed by social learning (CASEL, 2017) and principles of restorative justice (Evans, Lester, & Anfara, 2013), the approach promotes student-initiated protocols to resolve classroom conflicts. When harm has been caused, the offending student selects a sentence frame from the *Making Amends* binder to name the harm, take responsibility for the harm caused to persons or the classroom, and identify an action to repair the harm. As a result of the *Making Amends* system, teachers report decreased teacher involvement in resolving classroom conflicts, enhanced instructional focus by the teacher, and increased student ability to self-manage behavior and take responsibility for actions.

Classrooms are microcosms of society where children learn the social and emotional skills necessary to become engaged citizens in society. As promoted by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2017), social and emotional learning in the classroom involves the development of self-awareness, social awareness, responsible decision making, self-management, and relationship skills. Developing these skills requires that children are provided with opportunities to recognize the impact of their behavior on others, empathize

with others, constructively engage decision-making and problem-solving processes, regulate one's own emotions and behavior, and constructively negotiate conflict. A growing body of research suggests that social and emotional learning initiatives enhance classroom behavior and academic achievement (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

A traditional approach to classroom discipline focuses on violation of rules, establishing guilt, and punishment of the offender with no opportunity for remorse or amends between the offender and victim. In contrast, a restorative approach focuses on violation of relationships, the needs of individuals, and understanding the impact on all parties with opportunity for expression of remorse and repairing harm between the offender and victim (San Francisco Unified School District, n.d.). Restorative approaches assume that people make mistakes, take responsibility for their own actions, and take action to learn from one's mistakes in building positive relationships (Smith, Fisher, & Frey, 2015). Gossen (2004) refers to this restoration of relationships as restitution, a process of reflection and healing that involves discovering who one wants to be in relation to others and learning how to make amends to repair the hurt relationship. The opportunity for all parties to contribute to a resolution empowers a shift from a punishment to a repair mindset (Smith, Fisher, & Frey, 2015).

Recent studies of punitive approaches to school discipline show little evidence of improvement to student behavior (Skiba, 2013). Meanwhile, alternative discipline and behavior support models that emphasize relationship over punishment and that address student behavior alongside change in school culture are gaining attention.

Restorative justice, as defined by Amstutz and Mullet (2005), "promotes values and principles that use inclusive, collaborative approaches for being in community. These approaches validate the experience and needs of everyone within the community, particularly

those who have been marginalized, oppressed, or harmed. These approaches allow us to act and respond in ways that are healing rather than alienating or coercive” (p. 15).

Similarly, Evans and Vaandering (2016) describe restorative justice in education as “facilitating learning communities that nurture the capacity of people to engage with one another and their environment in a manner that supports and respects the inherent dignity and worth of all” (p. 8). Both definitions value the individuals within the community and the means in which the members participate with each other and contribute to the well-being of the community.

Though empirical research on restorative practices is in the nascent stage, a few studies show positive impact of restorative justice on classroom environments. Skiba (2013) argues that social-emotional learning contributes to nonviolent school climates and provides students with alternative solutions to solving problems. Hopkins (2016) presents a case for restorative justice approaches creating conditions for developing empathy and cohesion within the community. Gregory, Clawson, Davis, and Gerewitz (2016) demonstrate the potential of restorative practices in creating better teacher-student relationships, improving schools, and reducing racial inequities in discipline referrals. Similarly, Armour (2015) cites an improved school climate related to student behavior and improved racial inclusivity upon the implementation of a restorative discipline approach.

This article presents a practitioner-based examination of an outdated, ineffective, and punitive behavior system and the emergence of a restorative justice approach that values community, nurtures engagement with others, and collaboratively resolves problems.

What Wasn't Working: "I haven't moved down all year."

In 2015, a team of five third-grade teachers at an elementary school with 44% limited English proficiency (HCPS, 2015) gathered for end-of-year reflection and planning for the next year. Frustrated with the ineffectiveness of their current clip system (also known as the stoplight or traffic light) in shaping positive behavior, the team brainstormed alternative approaches that would empower students to solve problems and take responsibility for their own actions within the classroom community.

Previously the team utilized a stoplight visual posted in a dominant location in the classroom. A clothespin with each student's name visibly imprinted is clipped to the green light every morning. Based on teacher observation of positive or negative behavior and choice throughout the day, the teacher directs a student to move his/her clip a step up or down. The clip system relies on the teacher noticing student behaviors and choices and thus requires teacher surveillance in reinforcing expected standards. Negative behaviors tend to attract immediate attention, and positive behaviors often go unnoticed.

Student accountability fails in a system monitored by the teacher and void of student input. Students do not connect moving their clips with any long-term decisions to replicate or change behavior. The clip system does not motivate positive behavior nor deter negative choices. The same students who were instructed to move their clips also ended the day below green. Some student clips never moved off green.

By directing students to "take a step down," the system authorized teacher aggression instead of giving constructive feedback to guide change. An incident during whole group reading instruction reinforced its shortcomings. Frustrated by a student talking to a peer during the teacher's instruction, the teacher stated: "Ellen, go take a step down." As directed, Ellen

moved her clip to yellow and returned to the rug in tears: “I haven’t moved down all year.” An intended quick fix to disruptive behavior resulted in loss of instructional time and emotional harm to the teacher-student relationship that endured throughout the day.

Concern for the psychological impact on students rose among the teaching team as they reflected on the shame and humiliation inherent in the clip system. Public display of the stoplight and overt directives places students in an emotionally vulnerable place at a time when they are developing self-awareness, enjoying membership in the group, and learning to take responsibility for their own actions.

The Birth of “*Making Amends*”

When the team convened for beginning-of-the-year meetings, they brainstormed goals, aspirations, and practicalities that would work differently in the classroom. Thus birthed *Making Amends*, a system designed to replicate the dispositions and skills adults use to restore a situation when harm has been caused. Sufficient components and protocols were created to launch the system, with agreement to add and revise as the year progressed.

The team drew from *Talk It Out!*, a district-wide conflict resolution program for elementary students that “focuses on resolving real-life problems that occur in most classrooms, such as teasing, put downs, pushing, hitting, cheating, gossiping, or refusing to share” (“Talk it Out!”, 2017). Simultaneous to the development of *Making Amends*, the district enrolled teachers and administrators in a Restorative Justice in Education certificate program at Eastern Mennonite University to support district-wide commitment to the principles of restorative justice: creating just and equitable learning environments, building and maintaining healthy relationships, and healing harm and transforming conflict (Evans & Vaandering, 2016).

The teachers developed the *Making Amends* system based on principles that repair harm, resolve conflict, and reconcile relationships (Evans, Lester, & Anfara, 2013):

- The system replicates real-life skills needed to restore relationships when harm is caused. For example, when an adult causes harm to another, restoration of the relationship involves action that is meaningful to the person who has been harmed. The adult world does not tell someone to take a step up or down based on behavior.
- The outcome mimics the action of the behavior and connects the harm with the resolution. For example, if a student puts down another student, the offender can repair harm by personally apologizing. In the clip system, a step down does not mimic the behavior.
- When someone errs, they are held accountable to repair the harm caused by the mistake. For example, if a student destroys property by writing on a table, the student can repair harm by cleaning classroom tables. In the clip system, a wrong is acknowledged without opportunity to repair harm.

The *Making Amends* System

Children's literature focused on character development and the impact of actions on others guided the development of *Making Amends* (Table 1, next page). The mainstay book *Have You Filled A Bucket Today?* features carrying an invisible, imaginary bucket that gets filled with joy from positive behaviors and sadness and loneliness from negative behaviors. The teachers applied the concept of bucket fillers and dippers in listing actions visible around the school.

Table 1

Children's literature featuring character development

| |
|--|
| <ul style="list-style-type: none"> • <i>Have You Filled A Bucket Today?</i> By Carol McCloud • <i>Hurty Feelings</i> by Helen Lester • <i>Just Kidding</i> by Trudy Ludwig • <i>Pinduli</i> by Janell Cannon • <i>The Invisible Boy</i> by Trudy Ludwig • <i>Spaghetti in a Hot Dog Bun</i> by Maria Dismondy • <i>Chicken Sunday</i> by Patricia Polacco • <i>What if Everybody Did That?</i> by Ellen Javernick • <i>The Potato Chip Champ</i> by Maria Dismondy • <i>My Secret Bully</i> by Trudy Ludwig • <i>The Sandwich Swap</i> by Her Majesty Queen Rania Al Abdullah |
|--|

A *Making Amends* binder, housed in each third-grade and specialist subject classroom, contains a title and picture of the action on the left-hand page and a sentence frame on each of five right-hand pages (Table 2). The binder guides students in choosing how to make amends when either they or a teacher identifies a mistake has been made. The verbal apology template ends with a question “Is there anything that I can do now?” to invite input from the one who has been harmed. Students are encouraged to make amends when they are ready to discuss.

Table 2

Making Amends Sentence Frames

| Verbal Apology | Apology Letter | Help the Classroom | Show Appreciation | I create |
|---|---|--|---|--|
| I am sorry that I _____. It is wrong because _____. Next time I will _____. Is there anything that I can do now? | Dear _____, I am sorry that I _____. It is wrong because _____. Next time I will _____. Sincerely, _____ | I would like to make amends to our class for _____ by _____ in the classroom. I think this is an appropriate way to make amends because it will _____. | I would like to make amends for _____. I will show my appreciation to _____ (person) by _____ (action). | I would like to make amends for _____ by _____. I think this is an appropriate way to make amends because it will _____. |

Teaching Students about *Making Amends*

Morning meeting launches the day in every classroom in this elementary school as a time to circle up, greet each other, share important information from their lives, practice social and academic skills, and focus on the day ahead (Kriete & Davis, 2014). During this time, students learned the word “amends,” read *Have You Filled A Bucket Today?*, and engaged in frequent and extensive conversation, modeling, and role-playing relating to the different types of amends. Teachers emphasized the importance of matching the amends to the harm that was caused. For example:

- Verbal Apology or Apology Letter: If a student said or did something that upset someone, such as putting down someone, he or she could make amends by speaking or writing an apology and find out what to do to make it better.
- Help the Classroom: If a student disturbed the class or damaged classroom property by leaving pencils on the floor, the student could make amends by performing a job that helps the class community such as sweeping the floor or sharpening pencils.
- Show Appreciation: If a student hurts a friend’s or adult’s feelings by acting out in class, the student could make amends by showing thankfulness for something they do.
- I Create: If a student has dipped from someone’s bucket, the student could make amends by coming up with an idea of how to fill their bucket.

Later in the year, teachers incorporated the concept of cause-and-effect and how actions effect the feelings of others. In the second year of design, teachers created a bulletin board and posters with graphics and examples to assist students in choosing when and why to apply the *Making Amends* sentence frames (Table 3, next page). Unintentionally, teachers spent less time and attention devoted to teaching *Making Amends*, and classroom relationships and interactions

suffered. In the future, teachers plan to front-load instruction to strengthen decision-making and problem-solving practices throughout the year.

Table 3

Bulletin Board Visuals

| |
|---|
| Making Amends |
| We all make mistakes and dip from someone's bucket sometimes. |
| Making amends is a way to fill their bucket back up! |
| When you fill someone else's bucket, your bucket fills up, too! |
| Bucket filling is showing kindness and respect for others. |
| Bucket dipping is being mean to others on purpose. |

Reflections: What Works? What Doesn't Work?

Teaching students the word “amends” took more time than initially expected. Students asked many questions to conceptually understand expectations and outcomes, such as what happens if students break a rule that doesn't hurt people or yell out in class. *Making Amends* stretched students and teachers alike to move beyond traditional punitive approaches of classroom management and forced teachers to articulate with students when the classroom learning community has been harmed.

Teacher perspective on what student behavior warrants response has shifted. Not every situation requires making amends. Previously, the clip system served as a response when a student called out in class. Now teachers help students individually correct disruptive behaviors rather than dole out punishment.

Students identify and initiate a need to make amends. Whereas students previously reported playground incidents to the teacher after recess, they now request permission to go into the hall with the *Making Amends* binder. They return as two happy individuals. The teacher does not need to know what happened. Students shift quickly from a negative behavior to a positive action, and neither student nor teacher dwells on the negative.

When students create their own solutions, teachers can step away from the role of disciplinarian. In one incident, a teacher stepped into the hallway during the switching of classes to witness a girl running across the hall to jump and scramble up the wall. When the teacher asked how she could make amends, the girl said: “At the end of the day, because I wait for my bus, I could help the custodians with picking up pencils in other classrooms so they have time to wash the walls.” Students genuinely think through how their actions affect others.

Students have generally welcomed a system focused on restoring relationships, taking responsibility for one’s actions, and showing empathy toward others. One boy described his plan to resolve a soccer game conflict:

“We are going to keep on playing but we are going to like pass the ball and we are going not that hard on them were going to wait until one of the other tematte [teammate] from the other team and try to let them get the ball.”

One student valued the privacy and immediacy of an apology letter:

“I don’t like when other people stare at you when they think you are in trubble [trouble]. . . I just like to get it over with without me saying sorry in person because if they see hwo ever did it they still might be mad at them. That is why I think we should do the aplogy letter to make amend to the other person that you did it to.”

Another student sought input from the peer he had harmed:

“Dear [Marvin] I’m sorry I called you a name that I don’t know that I never herd of hope you acsept[accept] my apalage [apology] is there anything I can do to make you feel better”

This student prefers the amends system to avert individual embarrassment and shame:

“I like the amends system. I reson [reason] is you can keep it privit [private] instead of everyone looking at your clip and laghfing [laughing] a you. Because I know I would be inbarist [embarrassed] if some one was laghfing at me.”

Over time, the restorative system has diminished the teacher’s involvement in resolving classroom conflicts, increased instructional time, and freed the teacher to work independently with students who are less able to self-monitor their own behavior. Teachers anecdotally cite a decline in the frequency and nature of office discipline referrals. Where matters of damaging classroom property, unkind words exchanged between students, or disrespect of teachers may have resulted in external intervention prior to *Making Amends*, teachers and students are better equipped through the *Making Amends* protocol to converse with each other and resolve differences independent of office intervention. Further empirical research is needed to examine the impact on classroom behavior before and after the implementation of *Making Amends* across classroom settings that do and do not utilize the approach.

In the experience of this third-grade team, *Making Amends* does not attend to all behavioral challenges, particularly students with behavior plans or schools with zero-tolerance behavior policies. Teacher interventions or individual conversations to correct behavior are not sufficient to change behavior for some students who require frequent, different types of feedback. For the 5% of these third-grade students on individualized behavior plans, *Making Amends* does not provide the intervention and feedback necessary to result in changed behavior.

Making Amends teaches students to respond when harm has been caused in the learning environment. Whereas teachers are often tempted to punish for disruptions dealing with not raising a hand, talking out-of-turn, or talking with a neighbor, teachers who have implemented

Making Amends tend to address those behaviors with private conversations and repetitive review of their high expectations for classroom participation and engagement.

The third-grade teachers of nearly 100 students estimate that *Making Amends* is effective for 95% of their student population and the common behavior challenges that cause disruption to instruction or cause physical or emotional harm in the community of learners. These behaviors may involve mean words directed at another, hurt feelings, name calling, intentional physical harm, minor defacement of or intrusion into another's property, disrespect to teachers, emotional responses to a teacher that are atypical of the student's character, and other mistakes that third-graders make while they are experimenting with who they are as students at this age. *Making Amends* empowers students to "act and respond in ways that are healing rather than alienating or coercive" (Amstutz and Mullet, 2005, p. 15).

Making Amends has clearly contributed to the social and emotional well-being of children in these third-grade classrooms. While engaged in restoring what has been harmed, students and teachers alike, as valued members of a community, develop skills of self-awareness, empathy, responsible decision-making, self-regulation, and constructive conflict resolution.

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Co-Teaching in Student Teaching of an Elementary Education Program

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Abstract

Successful co-teaching relied on essential elements and different approaches. However, few studies were found on these essential elements and different approaches in student teaching. The objective of this study was to examine how teacher candidates and cooperating teachers used the essential co-teaching elements and co-teaching approaches. Questions were asked: Were there any differences in the use of essential co-teaching elements and co-teaching approaches before and after student teaching? What was the perceived effectiveness of the co-teaching approaches on children's learning and preparation of teacher candidates for their future teaching careers? What were the enjoyment and challenge levels of the co-teaching approaches? Twenty-six teacher candidates and sixteen cooperating teachers completed the Co-Teaching Survey (CTS) by the end of student teaching at a mid-sized state university in the Midwest. Results showed there were differences for teacher candidates and cooperating teachers in the use of co-teaching elements and approaches, in the perceived effectiveness of the co-teaching approaches on children's learning and teacher education programs, and in the enjoyment and challenge levels of the co-teaching approaches.

Student teaching is a core component of teacher education programs (National Council for Accreditation of Teacher Education, 2010). In the traditional model, teacher candidates spend the first few weeks observing cooperating teachers and students in the classrooms so they can take over the class by themselves for the rest of the semester. Given the high-stakes of using state tests in evaluating school performance and teachers' effectiveness, cooperating teachers were worried about students' performance when teacher candidates took over the classes (Darragh, Picanco, Tully, & Henning, 2011; Diana, 2014). Therefore, teacher educators look for different student-teaching models to address the concerns of the cooperating teachers yet also accommodate the needs of teacher candidates.

The National Council for Accreditation of Teacher Education (NCATE, 2010) recommended co-teaching, a new partnership between teacher candidates and cooperating teachers in teacher education programs as a promising model. Bacharach, Heck, and Dahlberg (2008) identified the essential elements of co-teaching (i.e., collaborative planning, communication skills, partnership relationship, classroom application, knowledge base), and Heck and Bacharach (2010) included these essential elements and co-teaching approaches in developing workshops to provide universities and school districts with the background and materials to implement co-teaching in student teaching. Since the co-teaching essential elements and approaches are not static over the course of student teaching, a better understanding of how these essential elements and approaches change during student teaching would encourage teacher education programs to adopt co-teaching in student teaching and give better guidance to teacher candidates and cooperating teachers.

Co-Teaching Approaches

Cook and Friend (1995) defined co-teaching as “two or more professionals delivering substantive instruction to a diverse or blended group of students in a single physical space.” Co-teaching is used in special education when a general education teacher works with a special education teacher to include a student with special needs in the mainstream classroom. Most studies on co-teaching focus on special education settings (Murawski & Swanson, 2001), and most show benefits for students, teachers, and schools (Hang & Rabren, 2009; Nevin, Cramer, Salazar, & Voigt, 2008; Pearl, Dieker, & Kirkpatrick, 2012).

Even though co-teaching has a long history in special education, the use of co-teaching in student teaching outside the special education setting is a relatively new initiative. With the support of a United States Department of Education Teacher Quality Enhancement Partnership

Grant in 2003, St. Cloud State University partnered with seventeen school districts and two businesses to develop and implement co-teaching in its student teaching program. The St. Cloud Teacher Quality Enhancement initiative defined co-teaching in student teaching as “two teachers (a cooperating teacher and a teacher candidate) working together with groups of students; sharing the planning, organization, delivery and assessment of instruction, as well as the physical space” (Bacharach, Heck, & Dank, 2004).

Cook and Friend (1995) outlined a variety of classroom arrangements to implement co-teaching. The first approach is *one teaching, one assisting*. With this strategy, one teacher takes the lead in the classroom while the other observes students or assists students as needed. The second approach is *station teaching* which divides instructional content into two or more segments to be presented at separate locations within the classroom. Both teachers teach one segment to one group of students and then repeat the same instruction with the other group of students. The third is *parallel teaching*, in which both teachers deliver the same instructional content to half of the class. The fourth is *alternative teaching*, which has one teacher instructing the large group while the other works with a small group of students who need enrichment or assistance. The fifth is *team teaching*, where both teachers share instruction of the whole class by taking turns leading a discussion or demonstrating a concept.

Heck and Bacharach (2010) modified these co-teaching approaches by Cook and Friend for use in student teaching. They kept *station teaching*, *parallel teaching*, and *team teaching* the same. However, the *one teaching, one assisting* approach was broken into two approaches: *one teach, one observe*; and *one teach, one assist*. *One teach, one observe* is defined as one teacher taking primary responsibility for teaching while the other gathers specific observational information on students or the instructing teacher. *One teach, one assist* is used when one

teacher has primary responsibility for teaching while the other assists students with their work, monitors behaviors, or corrects assignments. In addition, the *alternative teaching* approach also was broken into two approaches: *supplemental teaching* and *alternative teaching*. *Supplemental teaching* is used when one teacher works with students at their expected grade levels while the other teacher works with those students who need to be re-taught, extended, or remediated. *Alternative teaching* is used when students are given different approaches to learn the same information.

Essential Elements of Co-Teaching

The positive impact of co-teaching on students, teacher candidates, and cooperating teachers is supported in various studies. First, the use of a co-teaching model in student teaching showed higher academic achievement for students in co-taught classrooms than in non-co-taught classrooms (Bacharach, Heck, & Dahlberg, 2010). Children in the co-teaching classrooms, where teacher candidates taking science method classes worked with cooperating science teachers, enjoyed science lessons more and showed fewer gender or age differences in their attitudes toward science than children not in the co-teaching classrooms (Murphy, Beggs, Carlisle, & Greenwood, 2004). Second, the teaching efficacy of teacher candidates in the co-teaching model was higher than those in the traditional teaching model (Cheong, 2010), and most teacher candidates perceived co-teaching as a valuable professional practice for both student learning and the teacher candidate's professional training (Darragh et al., 2011). Third, co-teaching was beneficial to cooperating teachers because they could directly verify and develop their own teaching skills, and they had the opportunity to step back and reflect on another person's teaching (Nilsson & Driel, 2010).

What exactly happens in co-teaching to make such a difference for students, teacher candidates, and cooperating teachers? Bacharach, Heck, and Dahlberg (2008) invited university faculty involved in the implementation of co-teaching in student teaching to brainstorm on the essential elements of co-teaching. The researchers then developed a survey, *What Makes Co-Teaching Work (WMCW)*, and asked cooperating teachers to examine and modify the elements to the success of co-teaching in a workshop. Additional focus groups were organized for teacher candidates and cooperating teachers to further discuss these essential elements of co-teaching. After analyzing the results, they identified five overriding themes as the essential elements of successful co-teaching in student teaching.

First, planning includes working together to plan for the instruction, sharing ideas and materials, coordinating tasks, and assigning tasks and responsibilities. Second, communication refers to actively listening to suggestions, feedback, and instructions; bouncing ideas off each other for genuine feedback and input prior to implementation; having give-and-take in conversations; intentionally addressing communication strategies; and picking up communication clues. Third, partnership relationship means respecting and trusting each other; knowing when to jump in; accepting different personality and teaching styles; and assisting the teacher candidates to develop rapport with all students. Fourth, classroom applications involve sharing leadership in the classroom, sharing control of the classroom, using co-teaching strategies to differentiate instruction, handling interruptions without stopping the class, and being attentive and present even when not giving instruction. Fifth, the co-teaching knowledge base undertakes getting support and training, understanding the co-teaching strategies, and explaining the benefits of co-teaching to parents and students.

Co-Teaching Essential Elements and Approaches in Student Teaching

These essential elements are used as a framework to understand co-teaching in student teaching. From a focus group with teacher candidates to discuss the pros and cons of the co-teaching model of student teaching, Bacharach and Heck (2012) cited essential elements that led teacher candidates to feel like real teachers. The planning process taught them to become more aware of the resources available to them and to be responsible for directing other adults in the classroom. The classroom application allowed them to share leadership, ownership, and responsibility for teaching and classroom management. In addition, Darragh, et al. stated that communication and partnership relationship determined the success of co-teaching. Establishing clear lines of communication at the outset and developing a positive work relationship were critical. However, no studies are found on the changes of these co-teaching essential elements by the end of student teaching.

The recommendation from the National Council for Accreditation of Teacher Education (NCATE, 2010) encouraged teacher education programs to adopt the co-teaching model in student teaching. Since the use of co-teaching in student teaching is in the beginning stage, not many studies are done. There were studies promoting the adoption of co-teaching in student teaching (e.g., Badiali & Titus, 2010; Diana, 2014; Heck & Bacharach, 2015/2016), sharing experiences and steps of implementing co-teaching in student teaching (e.g., Hartnett, Weed, McCoy, Theiss, & Nickens, 2013), developing surveys to determine the perceived benefits of co-teaching to students, teacher candidates and cooperating teachers (Darragh, et al., 2011), and conducting interviews to examine teacher candidates' and cooperating teachers' professional growth (Merk, Waggoner, & Carroll, 2013). However, no studies are found on the use of co-teaching approaches in student teaching.

The objective of this study was to examine how teacher candidates and cooperating teachers used the essential co-teaching elements and co-teaching approaches. Four research questions were asked:

1. Are there any differences in the use of co-teaching essential elements (planning, communication, relationship, classroom applications, co-teaching knowledge base) at the beginning vs. at the end of student teaching?
2. Are there any differences in the use of co-teaching approaches (one teach, one observe; one teach, one assist; station teaching; parallel teaching; alternative teaching; team teaching) at the beginning vs. at the end of student teaching?
3. What is the perceived effectiveness of the co-teaching approaches on children's learning and preparation of teacher candidates for their future teaching career?
4. What are the enjoyment and challenge levels of the co-teaching approaches?

Method

Participants

Thirty teacher candidates and 29 cooperating teachers were invited to participate in a survey at the end of student teaching. Twenty-seven teacher candidates attempted the survey and 26 completed it (23 women, 3 men, $M_{age} = 27.15$ years, age range: 23-41 years). Eighteen cooperating teachers attempted the survey, and 16 completed it. The cooperating teachers had at least three years teaching experiences. Even though they hosted teacher candidates before, it was their first time using co-teaching model in student teaching. These teachers were from 4 kindergartens, 5 first-grade, 4 second-grade, 8 third-grade, 6 fourth-grade, and 3 fifth-grade classrooms in 6 different elementary schools. The student population of these elementary

schools was between 410 and 626, and the percentage of students on free and reduced lunch was between 13.1% and 88%.

Procedure

An elementary education program at a mid-sized state university in the Midwest adopted the co-teaching model in student teaching in six schools. At the beginning of the semester, teacher candidates and cooperating teachers participated in a half-day workshop on co-teaching. The workshop introduced the essential elements of co-teaching, i.e., collaborative planning (working together to plan for the instruction), communication skills (listening actively and bouncing off feedback), partnership relationship (respecting and trusting each other), classroom application (sharing leadership), and knowledge base (getting support and training); as well as co-teaching approaches (*one teach, one observe; one teach, one assist; station teaching; parallel teaching; alternative teaching; and team teaching*). Teacher candidates and cooperating teachers were expected to plan the instruction together, use different co-teaching approaches to teach the class together, and evaluate their instruction together.

Emails were sent to teacher candidates and cooperating teachers to invite them to participate in the current study during the last week of student teaching. Those who agreed to participate would go to a URL address of Qualtrics, an online survey software and insight platform, to access the online survey.

Instrument

The Co-Teaching Survey (CTS) was developed to examine changes in the use of the co-teaching essential elements and approaches during student teaching. The first five questions were adapted from WMCW (Bacharach, Heck, & Dahlberg, 2008). The content validity was assured by the involvement of university faculty, cooperating teachers, and teacher candidates in

brainstorming, examining, and modifying the statements. The WMCW used a 6-point Likert scale to rate how important these essential elements were (1 = *not at all important*, 6 = *extremely important*), but the CTS used a 5-point Likert scale to rate how often these essential elements were implemented (1 = *never* and 5 = *always*) at the beginning versus the end of student teaching. There was a high internal consistency of the adapted survey with an overall Cronbach's Alpha .948 at the beginning of student teaching and .949 at the end of student teaching. There were 32 statements in five categories: collaborative planning (7 statements), communication skills (6 statements), partnership relationship (7 statements), classroom application (8 statements), and knowledge base (4 statements).

The last five questions of the CTS were added by the researcher to examine the use of co-teaching approaches. First, participants were asked to rate how often (1 = *never* and 5 = *always*) they used the six co-teaching approaches at the beginning versus at the end of student teaching, i.e., *one teach, one observe*; *one teach, one assist*; *station teaching*; *parallel teaching*; *alternative teaching*; and *team teaching*. There was also a high internal consistency of this statement with a Cronbach's Alpha of .822 at the beginning of student teaching and .823 at the end of student teaching. Second, they were asked to rank the effectiveness (1 = *least effective*, 6 = *most effective*) of the co-teaching approaches on children's learning and on preparation of teacher candidates for their future careers. Third, they were asked to rank the enjoyment (1 = *least enjoyable*, 6 = *most enjoyable*) and challenge levels (1 = *least challenging*, 6 = *most challenging*) of the co-teaching approaches.

Results

Essential Elements of Co-Teaching

The first five questions on the Co-Teaching Survey (CTS) answered the first research question on how teacher candidates and cooperating teachers used essential co-teaching elements (planning, communication, relationship, classroom applications, co-teaching knowledge base) at the beginning versus at the end of student teaching. Paired *t*-tests were used to compare the findings at the beginning and the end of student teaching. To indicate significant difference ($\alpha = .05$) from Table 1 to Table 5, the symbol “*” was used for “Teacher Candidates, and the symbol “***” was used for “Cooperating Teachers.”

Teacher candidates rated statements in all aspects of planning higher by the end of student teaching (all $ps < .05$) with the exception of “planning together for co-taught instruction” (see Table 1). Cooperating teachers pointed out that teacher candidates assumed more “leadership in planning”, $t(12) = 3.77, p = .003$, and assigned more “tasks to cooperating teachers and other adults in the classroom”, $t(12) = 3.255, p = .007$, by the end of student teaching.

Table 1

The Use of Planning in Co-Teaching (1=Never and 5=Always)

| Question | Teacher Candidates <i>N</i> =24 | | Cooperating Teachers <i>N</i> =13 | |
|---|---------------------------------|-------------|-----------------------------------|----------------|
| | Beginning | End | Beginning | End |
| 1. How often did you and your co-teaching partner participate in the following instructional activities together at the beginning and at the end of student teaching? | | | | |
| • Planning together for co-taught instruction | 3.79(1.14) | 4.08(1.06) | 4.54 (.97) | 4.38 (.87) |
| • The teacher candidate assumes leadership in planning and teaching lessons | 3.38(.92)* | 4.25(.85) * | 2.77 (1.3) *** | 4.08 (.49) *** |
| • Sharing creative ideas and materials with each other | 4.29(.96) * | 4.58(.72) * | 4.31 (.75) | 4.62 (.51) |
| • Coordinating tasks | 4.08(1.02) * | 4.54(.72) * | 4.15 (.99) | 4.54 (.66) |

| | | | | |
|--|-------------|-------------|----------------|---------------|
| • When leading instruction, the teacher candidate assigns tasks and responsibilities to the cooperating teacher and other adults in the classroom. | 2.96(1.0) * | 3.79(.88) * | 2.15(1.07) *** | 3.38(.96) *** |
| • Planning specifically not in generalities | 3.58(1.1) * | 4.21(.78) * | 3.31 (1.38) | 4 (.91) |
| • Clarifying or making instructional decisions explicit | 4.0(1.02) * | 4.5(.66) * | 3.31 (1.44) | 4 (.91) |

Teacher candidates, $t(22) = 2.328, p = .03$, and cooperating teachers, $t(13) = 2.857, p = .013$, attended more “to their partner’s body language and non-verbal cues” by the end of student teaching (see Table 2). Candidates also communicated more “honestly with cooperating teachers even when it was difficult”, $t(22) = 2.472, p = .022$, and cooperating teachers had more “give and take in conversations with candidates” , $t(22) = 2.188, p = .047$, by the end of student teaching.

Table 2

The Use of Communication in Co-Teaching (1=Never and 5=Always)

| Question | Teacher Candidates N=23 | | Cooperating Teachers N=14 | |
|---|-------------------------|-------------|---------------------------|---------------|
| | Beginning | End | Beginning | End |
| 2. How often did you communication with your co-teaching partner at the beginning and at the end of the student teaching? | | | | |
| • Communicating honestly with my co-teaching partner even when it is difficult | 4.39(1.03)* | 4.83(.49) * | 4.5 (.65) | 4.71 (.47) |
| • Actively listening to suggestions, feedback and instructions from my co-teaching partner | 4.87 (.34) | 4.96(.21) | 4.5 (.65) | 4.64 (.5) |
| • Bouncing ideas off each other for genuine feedback and input prior to implementation | 4.48 (.85) | 4.74 (.54) | 4.43 (.65) | 4.43 (.65) |
| • Having a lot of give and take in conversations between co-teaching partners | 4.26 (.96) | 4.52 (.90) | 3.93(1.0) *** | 4.43(.85) *** |
| • Intentionally addressing communication strategies | 3.96 (1.19) | 4.22 (1.04) | 3.79 (1.12) | 3.93 (1.0) |
| • Attending to each other’s body language and non-verbal cues | 4.04 (.98) * | 4.48(.79) * | 3.86(.95) *** | 4.5(.65) *** |

Table 3 shows cooperating teachers were stronger in all but two aspects of partnership relationship by the end of student teaching (all $ps < .05$): “accepting different personality and teaching styles” and “openly assisting teacher candidates to develop rapport with all students.” Both teacher candidates and cooperating teachers rated the areas of “respecting each other,” “knowing when to jump in,” and “adjusting in the moment-making changes” higher by the end of student teaching (all $ps < .05$).

Table 3

The Use of Relationship in Co-Teaching (1=Never and 5=Always)

| Question | Teacher Candidates N=25 | | Cooperating Teachers N=16 | |
|--|-------------------------|------------|---------------------------|---------------|
| | Beginning | End | Beginning | End |
| 3. How often did you interact with your co-teaching partner at the beginning and at the end of student teaching? | | | | |
| • Respecting and trusting each other | 4.72(.66)* | 4.88(.44)* | 4.06(.85) *** | 4.63(.62) *** |
| • Working well as partners-being in sync | 4.44 (.92) | 4.64 (.76) | 4.06 (.85) *** | 4.63(.62) *** |
| • Knowing when to jump in | 4.04 (.94)* | 4.6 (.71)* | 3.5 (.97) *** | 4.38(.72) *** |
| • Adjusting in the moment-making changes as you go along | 4.2 (.87)* | 4.68(.56)* | 3.63(1.03) *** | 4.44(.51) *** |
| • Accepting different personality and teaching styles | 4.4 (.87)* | 4.6 (.71)* | 4.06 (.93) | 4.31 (.70) |
| • The cooperating teacher openly assists the teacher candidate to develop rapport with all students. | 4.52 (.92) | 4.6 (.92) | 4.63 (.72) | 4.69 (.6) |
| • Allowing my co-teaching partner to take a lesson or unit that I would really love to teach | 4.28 (.84) | 4.4 (.67) | 3.5 (.89) *** | 4.5 (.63) *** |

Both teacher candidates and cooperating teachers used more classroom applications (all with $p > .05$), with the exception of “being attentive and present during times when not directly providing instruction” (see Table 4).

Table 4

The Use of Classroom Applications in Co-Teaching (1=Never and 5=Always)

| Question | Teacher Candidates N=25 | | Cooperating Teachers N=13 | |
|--|-------------------------|--------------|---------------------------|------------------|
| | Beginning | End | Beginning | End |
| 4. How often did the following activities take place in the classroom at the beginning and at the end of student teaching? | | | | |
| • Students in the class view the teacher candidate as a real teacher. | 4.08(1.15)* | 4.64(.70)* | 3.54(1.05) *** | 4.54(.66) *** |
| • Sharing leadership in the classroom | 4.04(1.06)* | 4.76(.66)* | 4.0(1.0) *** | 4.69(.48) *** |
| • Sharing control of the classroom | 4.12(1.09)* | 4.68(.69)* | 3.62 (.96) *** | 4.62(.51) *** |
| • Using co-teaching strategies to differentiate instruction | 3.88(1.24)* | 4.32(1.07)* | 3.77 (.93) *** | 4.54(.52) *** |
| • The teacher candidate is attentive and present even during times when you are not directly providing instruction. | 4.88 (.44) | 4.72 (.74) | 4.46 (.78) | 4.77 (.6) |
| • Handling interruptions without stopping the class | 4.2 (.92) * | 4.56 (.92) * | 4.0 (.91) *** | 4.77(.44) *** |
| • Starting co-teaching within the first week of the student teaching experience | 3.64(1.25)* | 4.52(.96) * | 3.69 (1.5) *** | 4.62(.51) *** |
| • The cooperating teacher is attentive and present even during times when you are not directly providing instruction. | 4.48 (.82) | 4.28 (.98) | 4.69 (.48) | 4.46 (.66) |

Teacher candidates were better able to “explain the benefits of co-teaching to parents,” $t(25) = 2.848, p = .009$, and to “explain the benefits of co-teaching to students,” $t(25) = 2.518, p = .019$, by the end of student teaching (see Table 5). Neither the teacher candidates nor the cooperating teachers mentioned any differences in “receiving support or training from the university” or in “understanding each of the co-teaching strategies” by the end.

Table 5

The Use of Co-Teaching Knowledge Base in Co-Teaching (1=Never and 5=Always)

| Question | Teacher Candidates N=26 | | Cooperating Teachers N=13 | |
|---|-------------------------|-------------|---------------------------|------------|
| | Beginning | End | Beginning | End |
| 5. How often did you learn about co-teaching at the beginning and at the end of student teaching? | | | | |
| • Getting support and training provided by the university | 3.42 (1.1) | 3.46 (1.17) | 3.0 (1.16) | 2.85(1.07) |
| • Understanding each of the co-teaching strategies | 3.73 (1.08) | 3.92 (1.06) | 3.85 (.9) | 4.0 (1.29) |
| • Being able to explain the benefits of co-teaching to parents | 3.27(1.28)* | 3.69(1.49)* | 4.0 (1.16) | 4.62(.51) |
| • Being able to explain the benefits of co-teaching to students | 3.31(1.29)* | 3.73(1.43)* | 4.08 (.95) | 4.54 (.66) |

Approaches in Co-Teaching

The six co-teaching approaches used in this study were: *one teach, one observe; one teach, one assist; station teaching; parallel teaching; alternative teaching; and team teaching*. Table 6 presents the results to the last five questions on the Co-Teaching Survey (CTS) about the co-teaching approaches used in student teaching. These results also answered the second research question on the use of co-teaching approaches, the third question on the effectiveness of co-teaching approaches, and the fourth question on the enjoyable and challenging levels of co-teaching approaches.

Table 6

The Approaches Used in Co-Teaching (1=Never and 5=Always)

| Question | Teacher Candidates N=26 | Cooperating Teachers N=13 |
|--|--|--|
| 6. Co-teaching approaches (1=Never and 5=Always) | Candidates used more <i>parallel teaching</i> (2.69 vs. 3.0) and <i>team teaching</i> (3.15 vs. 3.5) by the end of student teaching. | Teachers used more <i>alternative teaching</i> (3.2 vs. 3.87) and <i>team teaching</i> (3.13 vs. 3.67) by the end of student teaching. |

| | | |
|---|---|---|
| 7. Effectiveness of co-teaching approaches on children learning. (1=Least effective, 6=Most effective) | Most: <i>Alternative teaching</i> (4.5). Least: <i>One teach, one observe</i> (3.0). | Most: <i>Alternative teaching</i> (4.33). Least: <i>One teach, one observe</i> (3.13). |
| 8. Effectiveness of co-teaching approaches on preparation of teacher candidates for their future teaching career. (1=Least effective, 6=Most effective) | Most: <i>One teach, one assist</i> (4.32). Least: <i>Parallel teaching</i> (3.16). | Most: <i>One teach, one assist</i> (4.53). Least: <i>Team teaching</i> (3.47). |
| 9. Enjoyment of co-teaching approaches. (1=Least enjoyable, 6=Most enjoyable). | Most: <i>Station teaching</i> (4.5). Least: <i>One teach, one observe</i> (2.8). | Most: <i>Team teaching</i> (4.73). Least: <i>One teach, one observe</i> (3.27). |
| 10. Challenge of co-teaching approaches. (1=Least challenging, 6=Most challenging). | Most: <i>Team teaching</i> (4.48). Least: <i>One teach, one observe</i> (2.44). | Most: <i>Parallel teaching</i> (4.0). Least: <i>One teach, one assist</i> (2.13). |

Both teacher candidates, $t(25) = 2.368, p = .026$, and cooperating teachers, $t(14) = 2.256, p = .041$, used more *team teaching* by the end of student teaching. In addition, there were increases in the use of *parallel teaching* for teacher candidates, $t(25) = 2.309, p = .029$, and the use of *alternative teaching* for cooperating teachers, $t(14) = 2.646, p = .019$, by the end of student teaching.

Both teacher candidates and cooperating teachers ranked *alternative teaching* as the most effective and *one teach, one observe* as the least effective for children's learning. On the other hand, teacher candidates and cooperating teachers ranked *one teach, one assist* as the most effective approach for preparing teacher candidates for their future teaching career. Even though candidates and teachers used *parallel teaching* and *team teaching* more by the end of student teaching, they thought these were the least effective approaches to prepare candidates for teaching careers.

Teacher candidates enjoyed *station teaching* the most, whereas cooperating teachers enjoyed *team teaching* the most. In addition, both candidates and teachers enjoyed *one teach*,

one observe the least. On the other hand, teacher candidates found *one teach, one observe* the least challenging, and cooperating teachers found *one teach, one assist* the least challenging. Also, teacher candidates found *team teaching* the most challenging, and cooperating teachers found *parallel teaching* the most challenging.

Discussion

This study examined how teacher candidates and cooperating teachers used essential co-teaching elements (planning, communication, partnership relationship, classroom applications, co-teaching knowledge base) and co-teaching approaches (*one teach, one observe; one teach, one assist; station teaching; parallel teaching; alternative teaching; team teaching*) by the end of the student teaching semester.

Essential Elements of Co-Teaching

Results showed there were differences for candidates and teachers in the use of co-teaching essential elements by the end of student teaching. First, for collaborative planning, the participation of candidates in planning together remained the same by the end of student teaching. Bacharach, Heck, and Dahlberg (2010) expected candidates to assume more responsibility and take the lead in planning as the co-teaching experience progressed. However, in most schools where candidates were placed in the current study, teachers of the same grade-level planned together every week for instruction and shared activities to be used in classrooms. Instead of planning together for co-taught instruction with their cooperating teachers, candidates have to plan with other teachers in the placement school. Candidates may not be sure of their roles in this team planning: How much could they be involved in planning? Which ideas are appropriate to share?

Second, for communication skills, candidates might find it intimidating at the beginning of the semester to honestly discuss difficult topics with cooperating teachers. Bacharach, Heck, and Dahlberg (2010) pointed out that candidates in co-teaching received guidance on the importance of strong communication skills and opportunities to practice effective communication strategies with teachers. Therefore, the longer they work together, the better they attend to each other's body language and non-verbal cues. When cooperating teachers have more give and take in conversations with candidates, candidates also feel more comfortable in talking about difficult topics with cooperating teachers.

Third, for partnership relationship, there was significant growth in more aspects of the partnership relationship for teachers than for candidates. Even though the co-teaching model encourages teachers to work with candidates as equal partners (Bacharach, Heck, & Dahlberg, 2010), it takes time to build up the rapport to the extent that teachers are able to work well with candidates as partners in the classrooms and to allow candidates to assume a lesson teachers really love to teach.

Fourth, for classroom application, candidates and cooperating teachers applied more co-teaching activities by the end of student teaching. Bacharach, Heck, and Dahlberg (2010) stated that co-teaching allowed candidates the time to develop instructional and management strategies with the support of their teachers. Therefore, the more they practice co-teaching, the more they are able to share leadership and control of the classroom, handle interruptions without stopping the class, and use co-teaching strategies to differentiate instruction by the end of student teaching.

Fifth, for knowledge base, candidates were better able to explain the benefits of co-teaching to parents and to students. The benefits of co-teaching were included in the training workshop to

promote co-teaching by Heck and Bacharach (2010). However, the co-teaching workshop given to candidates and teachers at the beginning of the student teaching semester was the only training provided by the university. During the semester, university supervisors observed candidates' teaching five times and discussed their observations with candidates, but no further support or training was given. The knowledge base of co-teaching for candidates or teachers remained the same by the end of student teaching. However, with personal experiences of implementing co-teaching, candidates could see the benefits of co-teaching and feel more confident that they could articulate them to parents and students.

Approaches in Co-Teaching

Results also showed there were differences for candidates and teachers in the use of co-teaching approaches by the end of student teaching. First, both teacher candidates and cooperating teachers used more *team teaching* by the end of student teaching. In order to use *team teaching*, candidates and teachers have to incorporate the essential co-teaching elements in student teaching. No matter whether it is leading a discussion or demonstrating a concept, team teaching requires good collaborative planning, communication skills, and a partnership relationship.

Second, both teacher candidates and cooperating teachers ranked *alternative teaching* as the most effective and *one teach, one observe* as the least effective for children learning. In *alternative teaching*, one teacher instructs the large group while the other works with a small group of students who need enrichment or assistance. All children are able to receive instruction differentiated for their own needs. However, in *one teach, one observe*, one teacher has primary responsibility for teaching while the other gathers specific observational information on students

or the instructing teacher. No intervention is given to help those students who excel or those who struggle.

Third, both teacher candidates and cooperating teachers ranked *one teach, one assist* as the most effective for preparing teacher candidates for their future teaching.. This approach is familiar to candidates and teachers because it is used in the field experiences prior to student teaching when candidates serve as teacher aides in the classrooms. When candidates help teachers run the classrooms, they are learning how to be teachers. Candidates ranked *parallel teaching*, and teachers ranked *team teaching*, as the least effective approaches because these were unrealistic to use in classrooms. Teachers use *parallel teaching* when both deliver the same instructional content to half of the class, and they use *team teaching* when both share the instruction of the whole class by taking turns leading a discussion or demonstrating a concept. In a regular classroom, there are not two teachers to do *parallel* or *team teaching*. Candidates have to be able to plan lessons, design activities, deliver curriculum, assess learning, and evaluate instruction by themselves.

Fourth, teacher candidates enjoyed *station teaching* the most, but cooperating teachers enjoyed *team teaching* the most. In *station teaching*, instructional content is divided into two or more segments to be presented at separate locations within the classroom. Candidates found *station teaching* fun to implement because children liked moving around the classroom to participate in different activities in different stations. Even though teachers thought *team teaching* was the least effective approach to prepare candidates for a teaching career, they enjoyed this approach most because it was challenging. Both candidates and teachers enjoyed *one teach, one observe* the least. In *one teach, one observe*, one teacher has primary responsibility for teaching while the other gathers specific observational information on students

or the instructing teacher. This approach requires the least preparation and interaction among children, candidates, and teachers.

Fifth, teacher candidates found *team teaching* the most challenging, and cooperating teachers found *parallel teaching* the most challenging. *Team teaching* requires candidates to be in sync and to adjust to the moment with teachers, whereas *parallel teaching* requires teachers to make sure candidates teach the same content in the same way. In addition, teacher candidates found *one teach, one observe* the least challenging, and cooperating teachers found *one teach, one assist* the least challenging. These two approaches require the least preparation and collaboration between candidates and teachers, thus the ease of implementing these approaches may render them the least challenging.

Implications for Student Teaching

With a better understanding of how candidates and teachers use co-teaching essential elements and co-teaching approaches, Table 7 suggests some strategies for using co-teaching model in field experiences and student teaching.

Table 7

Implications of Co-Teaching for Field Experiences and Student Teaching

| | |
|----|--|
| 1. | Expanding co-teaching to field experiences |
| • | Early field experiences: <i>one teach, one observe & one teach, one assist</i> |
| • | Later field experiences: <i>station teaching & alternative teaching</i> |
| • | Student teaching: <i>parallel teaching & team teaching</i> |
| 2. | Developing evaluations of co-teaching essential elements |
| • | Develop a rubric to evaluate how teacher candidates and cooperating teachers utilize collaborative planning, communication skills, partnership relationship, classroom applications, knowledge base, and co-teaching approaches. |
| 3. | Offering more university support and training |
| • | Collaborative planning: a timeline with suggested implementation guideline |
| • | Communication skills & partnership relationship: a paired workshop between teacher candidates and cooperating teachers handling difficult situations |
| • | Classroom applications: feedback from university supervisors |
| • | Knowledge base: articles, research findings and videos |
| • | Co-teaching approaches: anecdotes, videos or focus groups |
| 4. | Modeling co-teaching approaches |

-
- Provide training workshops to faculty and university supervisors.
 - Encourage faculty to model co-teaching approaches in methods courses.
-

Expanding Co-Teaching to Field Experiences

The current study revealed the participation of candidates in planning together remained the same by the end of student teaching, and candidates found *team teaching* the most challenging. Darragh, et al. suggested introducing co-teaching strategy into coursework early on in teacher preparation programs so that candidates would be prepared to use co-teaching in student teaching. In addition, Bennett and Fisch (2013) recommended introducing a co-teaching assignment to engage candidates in a meaningful discussion of the challenges and benefits of co-teaching in field experiences.

In fact, not only can teacher education programs use co-teaching strategy in coursework, they can also extend co-teaching from student teaching to field experiences. Instead of using all of the co-teaching approaches during student teaching, co-teaching approaches could be used in early field experiences when candidates are unfamiliar with the classrooms and in later field experiences when candidates are taking methods classes.

Without much classroom experience, the use of *one teach, one observe* and *one teach, one assist* in early field experiences can help familiarize candidates with the routine of the classrooms since these approaches were ranked as easy and beneficial in this study. In *one teach, one observe*, the role of candidates is more than being peer reviewers to teachers. When teachers teach, candidates can observe students' behavior or teachers' instruction to gather specific observational information. For example, candidates may observe students to determine how well they understand directions or the instructional content. In *one teach, one assist*, candidates can assist students when they don't understand or are experiencing difficulties. For

example, candidates may help teachers passing out worksheets, preparing materials, answering students' questions, assisting students with their work, monitoring students' behaviors, or correcting assignments.

After becoming familiar with the classroom routines, candidates can use what they have learned from the methods classes to do *station teaching* or *alternative teaching* since they step up their responsibility and are still scaffolded by small group structure. In *station teaching*, the instructional content is divided into parts, and the students are divided into groups. Teachers can lead a station while candidates can run another station. Students may spend a designated amount of time at each station. In *alternative teaching*, different approaches to learning the same information are provided. Teachers may lead a large group of students at their expected grade level while candidates work with a small group of students who need enrichment or assistance. The small group instruction can prepare candidates for whole-class instruction in student teaching.

With experiences in small group instruction, candidates can use *parallel teaching* and *team teaching* in student teaching since these approaches were ranked challenging in this study. In *parallel teaching*, students are divided into half and given the same instructional material and teaching strategy. When teachers deliver the instructional content to half of the class, candidates can deliver the same instructional content to the other half. In *team teaching*, teachers and candidates share the instruction, freely interject information, assist students, and answer questions. Candidates and teachers may share the instruction of the whole class by taking turns leading a discussion or demonstrating a concept.

Developing Evaluation of Co-Teaching Essential Elements

There were several studies on evaluation of co-teaching in special education setting (e.g., Gately & Gately, 2001; Hang & Rabren, 2009; Magiera, Simmons, Marotta, & Battaglia, 2005; Murawski & Lochner, 2011; Noonan, McCormick, & Heck, 2003). However, only a few studies were related to the evaluation of co-teaching in student teaching (e.g., Bacharach, Heck, & Dahlberg, 2008; Heck & Bacharach, 2010; Villa, Thousand, & Nevin, 2013).

The current findings showed candidates and teachers used co-teaching approaches more often by the end of student teaching. During the semester of student teaching, teacher candidates are evaluated by cooperating teachers and university supervisors. Even though co-teaching is used in student teaching, the evaluation focuses only on teacher candidates' solo instruction. There is disconnect between the use of co-teaching and the evaluation of teacher candidates in student teaching. To evaluate the use of co-teaching in student teaching, the evaluation could incorporate the co-teaching essential elements such as collaborative planning, communication skills, partnership relationship, classroom applications, knowledge base, and co-teaching approaches.

In addition to using a rubric to evaluate teacher candidates' solo instruction, a rubric could be developed by the university supervisors, teacher candidates, and cooperating teachers to see how teacher candidates and cooperating teachers utilize these co-teaching essential elements. Some essential elements may not be in use when university supervisors are observing in the classrooms. Therefore, this rubric could be used by teacher candidates and cooperating teachers to self-evaluate their use of the co-teaching essential elements.

Offering More University Support and Training

Another finding was that neither teacher candidates nor cooperating teachers mentioned any differences in receiving support or training from the university, or in understanding each of the

co-teaching strategies by the end of student teaching. Bacharach, Heck and Dahlberg (2010) stressed the importance of providing professional development and ongoing support for candidates, teachers, and university supervisors, and Heck and Bacharach (2015/2016) suggested providing timely, ongoing refresher courses and updates for university and school personnel.

In addition to co-teaching workshops at the beginning of the student teaching semester, the university could provide more support and training to teacher candidates and cooperating teachers on co-teaching throughout the semester. To foster collaborative planning, a timeline for suggested implementation for teacher candidates and cooperating teachers would help promote planning for co-taught lessons. To strengthen communication skills and establish a partnership relationship, a paired workshop between teacher candidates and cooperating teachers could focus on strategies for handling difficult situations, such as constructive criticism on teaching, disciplines, and behaviors. To encourage the use of co-teaching in classrooms, university supervisors might provide feedback on what they have observed in their visits to classrooms. To increase the knowledge base of co-teaching, articles, research findings, and videos of co-teaching can be distributed to teacher candidates and cooperating teachers, as well as being discussed in the co-teaching workshop. To experience different co-teaching approaches, teacher candidates and cooperating teachers from different classrooms can use anecdotes, videos, or focus groups to share their experiences of successes and challenges in using co-teaching.

Modeling Co-Teaching Approaches

The current study found candidates used *team teaching* more by the end of student teaching, but they ranked *team teaching* the most challenging co-teaching approaches. Ferguson and Wilson (2011) co-taught an undergraduate reading methods course to model co-teaching for their students. Teacher education programs may encourage faculty to model *team teaching* in

methods courses so that candidates would be exposed to this approach before taking the challenge to use it in student teaching.

Before teacher education programs adopt the co-teaching model in student teaching, they could provide training workshops to faculty and university supervisors about the background of co-teaching, data supporting co-teaching, roles of members in co-teaching, co-teaching essential elements, and co-teaching approaches. Even though faculty may not supervise student teaching like university supervisors do, faculty are in a better position to model different co-teaching approaches in methods courses. Some co-teaching approaches are easier to learn than others. *Team teaching* may be one of the approaches that takes longer to perfect. However, candidates would learn much better when they are exposed to it in their coursework.

In order to encourage faculty to model co-teaching approaches, teacher education programs may have to provide incentives and support. Faculty could be able to receive credit hours to team teach the same course. Professional development could also be provided to help faculty improve their teaching.

Limitation and Recommendation for Future Studies

Since the co-teaching model in student teaching has received more attention, other teacher education programs may learn from the results of this study when they are thinking of adopting the co-teaching model. However, the findings may not be generalized to larger or smaller institutions, programs with more diverse student populations, or locations with more urban schools. In addition, there may be social desirability bias in candidates' responses to the survey, and observational data could be used to help triangulate survey results.

With a limited number of studies on the co-teaching model in student teaching, many topics are worth exploring. First, what is the impact of co-teaching on candidates? Would it be easier

for candidates to find a job? Would candidates stay longer in the teaching career? Second, what is the impact of co-teaching on teacher education programs? What curriculum and institutional changes are involved if teacher education programs are adopting the co-teaching model? Third, is co-teaching the best way to do student teaching? What are the advantages of the co-teaching model over the other clinically-based student teaching programs?

Conclusion

Successful co-teaching relied on essential elements (collaborative planning, communication skills, partnership relationship, classroom application, knowledge base) and different approaches. There is an increase for teacher candidates and cooperating teachers in adopting these essential elements and approaches by the end of student teaching. To promote the co-teaching model, teacher education programs may expand the co-teaching model to field experiences, develop evaluation of co-teaching essential elements, offer more university support and training, and model co-teaching approaches. More studies can be done on the co-teaching model to benefit teacher education programs.

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Developing and Implementing a Postsecondary Education Program for Young Adults with Intellectual and Developmental Disabilities: Processes and Procedure

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Abstract

Postsecondary education programs (PSEs) for young adults with intellectual and developmental disabilities in colleges and universities expand opportunities for these young adults and result in positive outcomes, including employment and improved social networks. Although participating in postsecondary education results in numerous benefits for young adults with intellectual and developmental disabilities, professionals are often unsure how to conceptualize or develop programs. This manuscript provides a step-by-step description of the development and implementation of a PSE at a Midwestern public university. Implications for high school and university professionals are discussed.

Hazel was thrilled when she received an offer to work as a Student Support Specialist at a postsecondary education program (PSE) for young adults with intellectual and developmental disabilities at a large public university. She was especially excited because the program was only one year old- what a great opportunity to be part of something new and innovative! Hazel met with her new co-workers before the beginning of the year to learn about the program. Her feelings of excitement started to shift to uneasiness when she learned of barriers staff experienced last year, including difficulty establishing supportive relationships with campus

departments, trouble helping faculty determine and deliver appropriate classroom accommodations, and concerns managing hyper-focused parents struggling to support their young adults from a distance. As a former special education teacher, Hazel was also surprised by the degree of autonomy expected of the young adults, as well as university policies that prevented PSE staff from sharing information with parents.

Students with intellectual and developmental disabilities have significant limitations in the areas of intellectual functioning (e.g., learning, application of information) and adaptive behavior (e.g., social skills, daily living skills, self-management; American Association of Intellectual and Developmental Disabilities, n.d.). These individuals are significantly less likely to gain employment, live away from their families, and attend college following high school (Wagner, Newman, Cameto, Garza, & Levine, 2005). However, PSEs in colleges and universities expand opportunities for these students (Grigal, Hart, & Weir, 2012) and are found to increase rates of employment, independent living, social networks, self-determination, self-esteem, and meaningful community participation (Moore & Schelling, 2015; Thoma et al., 2011).

In general, PSEs are designed for students with intellectual and developmental disabilities to gain social, academic, and employment skills to enhance independence and self-sufficiency (Griffin, McMillan & Hodapp, 2010). Successful PSE programs include access to academic opportunities, career development activities, participation in campus organizations and activities, and development of self-determination skills (Lynch & Getzel, 2013). However, PSEs vary widely in size, enrollment, activities, requirements, and other program characteristics (Grigal et al., 2012; Plotner & Marshall, 2015). As a result, and in spite of organizations such as Think College (<http://www.thinkcollege.net>) designed to provide information and support related to

PSEs, professionals are often unsure how to conceptualize and develop PSEs at their home institutions (Mock & Love, 2012). In this manuscript, we describe steps taken to develop a two-year, residential PSE for students aged 18-25 with intellectual and developmental disabilities at a Midwestern public university; pre-academic year procedures; and academic year procedures. We also discuss implications for high school and PSE professionals.

Steps to Program Development

Hazel's co-workers held a meeting to inform Hazel about how the PSE was developed to help her better understand the program's foundation. The Director of the program identified a total of five steps taken to develop the PSE: (1) form a program development committee; (2) learn from other PSEs; (3) develop relationships on campus; (4) solicit community feedback and petition university leaders; and (5) hire program staff.

Development Step #1: Form a Program Development Committee

An Associate Dean from the Department of Continuing Studies developed an interest in creating a PSE and forged a relationship with the Vice President of Support Services and Director of Family Supports from a community disability service agency to discuss initial development plans. The Associate Dean also recruited the university's Director of Residential Life, the Assistant Dean of Students, and an Assistant Professor of Special Education to join the program development committee. Consistent with the evidence-based transition practice of interagency collaboration (Kohler, 1996; Tatnall, 2014), the contributions of committee members representing diverse university departments enhanced the development process, as they were able to answer questions and provide information specific to their areas of expertise (e.g., campus enrollment policies, disciplinary procedures, best practices to support students with disabilities).

This committee brainstormed possible program designs (e.g., student requirements, inclusion of students in the residence hall), student support needs (e.g., academic support, compliance with taking prescribed medication), residence hall configurations (e.g., roommate matching), and staffing needs. Once the committee decided on the basic elements of the program (e.g., students would attend for two years, live on campus, take at least one university class in addition to three classes developed by the PSE each semester to reduce tuition costs), they realized that learning from other programs would help them enhance or reconsider aspects of their initial plan.

Development Step #2. Learn from Other PSEs

In order to develop a robust program structure, including program philosophy, policies, and evaluation methods (Kohler, 1996), the program development committee used the Think College website to locate two nearby PSEs to visit. During these visits, the development committee met with PSE staff at the universities, visited with students in the PSE programs, and met with their institutional counterparts at the university (e.g., the Directors of Residential Life at each university met) to learn about the nature and function of the programs. The development committee also sought to learn how the programs implemented evidence-based practices such as student- and family-centered planning (Test, Smith, & Carter, 2014) and inclusive opportunities (Grigal et al., 2012). In addition, the development committee phone-conferenced with additional programs around the nation to learn how to address barriers identified by the programs they visited (e.g., disruptive behavior, resistant faculty). With information provided by other PSE programs, the literature on evidence-based practices, and resources such as Think College, the development committee determined the mission of the program would be “to provide an opportunity for students with intellectual and developmental disabilities to develop the skills

necessary to become participating members of their community through inclusion in university life and, in so doing, to enrich the diversity of the university.” Based on this mission statement, the committee created the following goals and anticipated student outcomes:

- Financial independence: Students who complete the program are expected to be better prepared to financially manage their lives, including increases in money management and budgeting skills.
- Personal development: Students who complete the program are expected to experience improvement in their personal development, including identifying and assessing personal strengths and needs, developing personal goals, and developing a stronger sense of identity, self-awareness, and recognition of how they can contribute to their own quality of life.
- Independent living: Students who complete the program are expected to develop independent living skills, including time management, self-care, personal responsibility, respect for social boundaries, development of social networks, and meaningful utilization of leisure time.
- Access to resources: Students who complete the program are expected to identify and explore resources that will allow them to grow personally, professionally, academically, and socially, including disability-related services and supports, employment opportunities, varied means of transportation, and community activities and events.

Development Step #3: Develop Relationships on Campus

Recognizing the importance of interagency collaboration and buy-in from other university personnel, the committee took care to develop partnerships across campus to ensure that the program was well-supported and received. During these meetings, committee members

provided information about PSEs, prospective students, and anticipated roles and responsibilities (e.g., PSE staff will collect tuition and route it to the Cashier's Office for processing). They also dispelled common myths about intellectual and developmental disabilities (e.g., people with intellectual and developmental disabilities need around-the-clock support), discussed instructional and behavioral strategies (e.g., universal design, visual aids, redirection), and encouraged university personnel to ask questions to proactively address concerns or negative perceptions about PSEs or students with disabilities. As to be expected, the program initially experienced growing pains (e.g., students not showing up for class, inappropriate behavior in the dining hall). Therefore, it was essential that PSE representatives immediately addressed these issues not only with the students but also with university personnel to hear their concerns, brainstorm solutions, and mitigate negative perceptions about the program.

Development Step #4. Solicit Community Feedback and Petition University Leaders

In order to ensure the program met the needs of all stakeholders, the development committee scheduled several focus groups with parents and students recruited from a local disability service agency. The committee gained valuable information about parent and student needs, expectations, and fears related to college from these conversations. The committee used this information to inform the program structure (e.g., resource allocation, family involvement strategies). In some cases, focus group information suggested the potential for a disparity in the expectations of parents and PSE staff (e.g., some parents expected 24-hour care, whereas the mission of the program promoted engaging students in supported decision-making and allowing them the opportunity to learn from failure). This led to the development of documents clearly describing the values and expectations of the program to prevent misconceptions (See Table 1).

Table 1

Expectations for vocational experiences. This figure is an example of how the PSE shares expectations with students and their family members to prevent misconceptions.

| <u>Vocational Experiences</u> | | |
|---|--|---|
| Mission Statement: Vocational Experiences will provide students an opportunity to explore and investigate employment goals, interests, and passions to guide student decisions post-graduation. Specific hours, schedules, and duties are flexible and take into consideration the needs and employment goals of the student and the needs of the employer. | | |
| <i>Student Role:</i> Work independently and/or within a team, self-advocate, and communicate with coworkers and [PSE] staff about experiences | <i>[PSE] Role:</i> Facilitate and foster a vocational pairing for students that matches personal interests and future employment goals | <i>Parent Role:</i> Support and encourage independence in the workplace, student choice of work, and provide advice to student |
| <i>Student Responsibilities:</i> | <i>[PSE] Responsibilities:</i> | <i>Parent Responsibilities:</i> |
| <ul style="list-style-type: none"> • Learn to take public transportation • Listen to and utilize advice from coworkers and [PSE] staff • Work independently • Learn to self-advocate in the workplace • Use appropriate workplace hygiene • Create and maintain a work schedule • Self-evaluate work experience • Communicate progress • Engage in workplace problem-solving and critical thinking • Be on time and respect workplace rules and policies • Explore post-graduation employment services and opportunities | <ul style="list-style-type: none"> • Support student choice • Teach work skills and etiquette, including proper hygiene and attire • Encourage independent decision-making and taking initiative • Support students to use public transportation • Provide midterm and final feedback to students • Provide on-site resources and education to students and employers • Work with students and employers on identifying support needs and establishing sustainable, least intrusive supports • Explore post-graduation employment services and opportunities with students | <ul style="list-style-type: none"> • Encourage independent decision-making through critical thinking conversations and supporting student interests • Share personal stories and strategies about work experiences with students • Support student problem-solving skills and allow natural consequences to occur • Explore post-graduation employment services and opportunities with students |

The development committee then presented a proposal to a university panel led by the Provost of Academic Affairs. The proposal included a statement of need, a program description and goals, application and admissions processes, a program reporting and organizational chart, a program budget, a program marketing plan, and a plan for sustainability (e.g., student tuition

covering costs of staff). Two young adults with intellectual and developmental disabilities from the community also prepared speeches to demonstrate support from the community.

Development Step #5. Hire Program Staff

Based on the program structure developed in steps 1-4, the development committee hired a PSE Director, Student Support Specialist, Coordinator of Instruction, Coordinator of Vocational Experiences, and an office support staff member. Table 2 provides a general description of roles and responsibilities for each PSE position. The program also allocates a portion of student tuition to pay for the room and board of two degree-seeking university students who live in the residence hall to serve as program “Mentors” by providing advice to students in the program (e.g., how to meet new people, ideas for things to do on the weekend, who to talk to about issues or concerns). Program staff collaborate with Residential Life staff to interview, select, and train the program Mentors.

Table 2.

PSE positions. This figure lists and describes each position at the PSE program.

| PSE Position | Primary Position Responsibilities |
|-----------------------------------|--|
| PSE Director | <ul style="list-style-type: none"> • Manage day-to-day program operations • Provide general program oversight • Lead parent support practices • Hire, train, and support PSE staff • Ensure adherence to all university and PSE policies • Monitor disciplinary procedures, as needed • Develop collaborative relationships with university and community partners • Seek external funding to support program initiatives and student scholarships |
| Student Support Specialist | <ul style="list-style-type: none"> • Collaborate with students to engage in person-centered planning and goal attainment • Collaborate with students to resolve social conflict • Collaborate with students to identify and engage in social activities • Collaborate with students to develop and maintain personal schedules and identify courses |

| | |
|--|---|
| | <ul style="list-style-type: none"> • Provide annual trainings to Residential Life staff, campus police, and other university staff on how to communicate with and accommodate students in the program |
| Coordinator of Instruction | <ul style="list-style-type: none"> • Design PSE program courses • Oversee PSE program instructors • Monitor student grades across all courses • Collaborate with students to identify needed academic accommodations and supports • Collaborate with university faculty to effectively implement academic accommodations and university design for learning |
| Coordinator of Vocational Experiences | <ul style="list-style-type: none"> • Investigate potential workplace experiences for PSE students at the university and in the community • Conduct work-related assessments and evaluations • Collaborate with students to identify needed vocational accommodations • Create vocational accommodations and scaffold-needed supports (e.g., use of public transportation or paratransit) • Collaborate with students to create and update resumes • Collaborate with students to locate long-term employment opportunities • Teach workplace skills and inform students of relevant antidiscrimination laws and policies |
| Office Support Staff Member | <ul style="list-style-type: none"> • Provide clerical and administrative support for the PSE office |

Pre-Academic Year Program Procedures

Equipped with a better understanding of how the program was developed, Hazel formed many questions about other logistical aspects of the program, such as admissions and where students live. The PSE Director described six program procedures that occur prior to students taking classes: applications and interviews, a family orientation workshop, a program meet and greet, university new student orientation, person-centered planning meetings, and residential hall move-in.

Applications and Interviews

Students retrieve a program application from the PSE office or the university's website. Once program staff receive an application, the Director reviews it to ensure applicants meet basic program requirements (e.g., age, disability diagnosis, reported ability to self-administer medication) and distributes invitations for applicants and their families to participate in an on-

campus interview. Program staff interview both students and their parents because parents play an intensive role in providing lifelong support for individuals with intellectual and developmental disabilities, and, in some cases, maintain conservatorship over their children (Boehm, Carter, & Taylor, 2015). However, staff interviews the student and his or her family members separately because they found that students were more candid about their interest in the program (e.g., some students only applied because of their parents) and parents were more candid about their desire for the program to provide intensive support and student oversight (e.g., provide 24-hour support, prevent students from engaging in sexual activity) when interviewed separately. After interviews occur, staff convene to discuss if the student is motivated to participate in the program and if the expectations of students and parents align with program expectations. For students accepted into the program, the Director mails an acceptance packet for the family to review together that includes documents outlining program components, roles, responsibilities, and expectations (See Table 1). The packet also includes student and parent contracts that they both must sign and return before students may enroll in courses (See Figure 1 for an example of the parent contract). Staff found that the student and parent contracts were an excellent way to reinforce expectations and served as a useful tool to refer back to, as needed.

Figure 1

PSE parent contract. This figure displays the parent contract that parents and/or caregivers must sign prior to students enrolling in courses.

[PSE] Parent Contract

Our common goals are the development of student independence and exercise of student choice. In order for us to work towards those goals, these are the commitments we ask parents to make.

I _____, agree to the following:

Please initial before each statement to indicate you have read and you understand each element of this contract

-
- I understand and agree with the common goals of student independence and student choice as well as the value systems outlined in the [PSE] procedures.
 - I understand and will encourage my student to follow the [University] Student Standard of Conduct.
 - I will effectively communicate family expectations to my child (e.g., budget, bedtime, sexual activity) and recognize that these expectations may not be shared by [PSE] or [University].
 - I understand it may take 24 to 48 hours before communication is answered by [PSE] staff.
 - I understand if my student fails to attend class and complete coursework, he/she could be placed on Academic Recovery and/or suspended from the [PSE] program.
 - I understand if my student fails to attend vocational experiences, he/she could be placed on the Vocational Performance Improvement Plan and/or suspended from the [PSE] program.
 - I understand that my student is ultimately responsible for their course schedule, time management of time, and attendance.
 - I understand that my student will make decisions that I may disagree or feel uncomfortable with, but I also understand that these choices will help my student grow and learn.
 - I will allow my student autonomy in determining his/her class schedule and vocational experiences.
 - I understand that my student may independently utilize public transportation.
 - I understand my student is responsible for their physical and mental well-being and that it is the student's responsibility to (a) take medication as prescribed, (b) attend and schedule medical and counseling appointments, and (c) exercise personal hygiene.
 - I understand it is my student's responsibility to utilize available supports.
 - I understand that [PSE] is not responsible for securing employment for my student after graduation.
 - I will participate in my student's creation of his/her person-centered plan and will respect and support the goals and next steps created in this plan to the best of my ability.

I acknowledge that I have read all the terms of the [PSE] Parent/Caregiver Contract and that I understand these terms. Signature: _____

Family Orientation Workshop

Program staff host a full day orientation workshop for parents and other family members of incoming students. During this workshop, staff describe the program, including expectations of students, staff, and families. For example, staff describe how they support self-determination by honoring student decisions unless they are in violation of program or university policies (which may or may not align with the wishes of their parents). Staff also collaborate with an alumni parent to help family members (a) move from a “caretaker” (doing for students) to an “advisor” (doing with students) (See Table 3); (b) learn about available resources, services, and

supports to help students achieve goals; (c) foster the self-determination and advocacy skills of students; (d) engage in family-to-family support; and (e) learn how to cope with fears and anxieties associated with their changing roles as parents transitioning their students to adulthood (Francis, Fuchs, Johnson, Gordon, & Grant, 2016).

Table 3

Caregiver to advisor example. This figure displays an example of a resource PSE staff use in role-play activities to teach parents how to transition from caregivers to advisors. This and other examples are included in the PSE family handbook.

| Scenario: Sam is not satisfying expectations of self-care and hygiene. His vocational experience is at risk and his roommates have complained about the bad smell in the dorm room as a result of Sam's poor hygiene. | |
|--|---|
| - Caretaker Response: Doing For - | + Advisor Response: Doing With + |
| "That is it! I am coming up there right now with my cleaning supplies, laundry baskets, and a set of clean clothes. After we clean, you're going to come home and shower." | "I get that college kids don't always take showers, but you are seriously hurting your relationships and future employment. Let's take a look at your schedule and figure out a time for you to shower at least every other day." |
| "I will call the program director and tell him that he has to make you shower!" | "Do you feel comfortable talking to the program director about showering? Maybe you guys can come up with a plan." |

Program Meet and Greet

Program staff host an informal program meet and greet for incoming and current students in the program and their family members. During the meet and greet, 1-2 program staff and students assemble at the campus residential housing complex and participate in fun "get to know you" activities. Staff solicit roommate requests (which may not necessarily include students in the program) after the students have an opportunity to get to know one another. In the meantime, current and former parents of students in the program meet with family members new to the PSE at a local restaurant to encourage new family members to get to know each other, exchange contact information, and participate in group discussions about the program and college life.

University New Student Orientation

Family members of students enrolled in the program participate in the university New Student Orientation with other families of incoming university students. However, while degree-seeking students and their family members attend sessions about degree-specific information (e.g., the number of credits needed to graduate, study abroad information), students in the PSE and their family members attend information sessions hosted by program staff designed to answer family questions, inform them about program specifics, and alert them to available university resources. Because students tend to ask more questions when separated from their families, students attend sessions with the university police and technology staff to ask questions and set up student accounts while families attend a concurrent session with university police, as well as sessions about financial aid options and meal plan information. This separation of students from family members also introduces student independence in a safe and supportive environment.

Person-centered Planning Meetings

The program uses person-centered plans (Rasheed, Fore, & Miller, 2006) to guide and evaluate student progress. Prior to the semester, students facilitate their own planning meetings with the support of the Student Support Specialist, by inviting participants (e.g., family members, faculty, agency staff), identifying goals and next steps, determining needed and available supports, and soliciting support (e.g., assigning individuals responsibilities). The person-centered plans serve as comprehensive transition portfolios that include supporting documents collected over two years in the program (e.g., revised plans, goal monitoring data, an updated

résumé, letters of reference, academic and workplace evaluations, disability resource information).

Residential Hall Move-in

Students in the PSE move into the university residence hall three days prior to general campus move-in. Early move-in provides an opportunity for students in the program to move at their own pace, practice using meal plans in the dining hall, learn their schedules and campus shuttle routes, and get to know Residential Life staff and program mentors without the chaos of several hundred other students moving in at the same time.

Academic Year Program Procedures

As a former special education teacher, Hazel identified with many of the experiences described by the PSE staff team, including the benefits of communicating with students and their family members separately before meeting as a team. She also effectively used behavior contracts as positive behavior support strategies with her students, but she never considered developing contracts with families. She also witnessed the need for families to learn how to support the self-determination of their children and cope with the stress and anxiety associated with their children gaining independence and taking more risks. However, Hazel wondered about the day-to-day functioning of the program. The Director explained that the program focused on three major areas each semester: academic, vocational, and residential and student life procedures.

Academic Procedures

Students in the PSE make an appointment each semester with the Student Support Specialist to review their person-centered plan goals and available classes to develop course schedules. During the first year, students take a minimum of three program-specific courses

(courses designed specifically for students in the PSE), as well as one university catalog course of their choice each semester. During the second year, students take two program-specific courses and two university catalog courses in order to increase student autonomy and enhance program inclusivity. Students who seek to matriculate into degree programs typically select catalog courses that fulfill general education requirements, whereas students seeking competitive employment after graduation commonly select courses that expand skills and experiences in their desired career fields. Students complete catalog courses with accommodations and modifications provided by university faculty, support from PSE staff, and one-on-one tutoring provided by College of Education students who receive internship credits toward their degree in education.

Program-specific courses reflect courses offered by the university (e.g., Greek Mythology) but designed to provide students with information and skills necessary to achieve the anticipated outcomes of the program (e.g., students explore and address their “Achilles’ heel”). These courses do not count for college credit but do count toward program completion. In an effort to move toward a more inclusive environment, degree-seeking students from the College of Education may elect to fulfill degree internship requirements by participating as full members in program-specific classes and engaging in classroom activities and discussions alongside students in the program.

Vocational Procedures

All students in the program complete a minimum of three vocational experiences on or off campus among individuals without disclosed disabilities. Students typically engage in vocational experiences for approximately 10 hours a week for an average of 10 weeks each semester. Using student person-centered plans as a foundation, the Coordinator of Vocational

Experiences collaborates with students to determine interests and strengths, develop résumés and request letters of recommendation, identify vocational opportunities on or off campus and connect with potential employers, develop interview skills, discuss responsibilities and rights afforded to employees with disabilities under antidiscrimination laws, enhance workplace social skills, and plan and learn methods for transportation.

Residential and Student Life Procedures

All students in the program live in the university's residential hall, among approximately 400 degree-seeking students. Initially, students only roomed in suites with other students in the program. However, negative student behaviors (e.g., frequent verbal arguments) escalated as time advanced because the students did not have the skills needed to resolve conflict, and they were spending too much time together. As a result, staff addressed social problem-solving skills in PSE courses, developed opportunities for students in the program to live with degree-seeking students to increase inclusivity and peer models for social skills, and collaborated with Residential Life staff to provide communication training and discuss students' needs, accommodations, and modifications with staff. Residential Life staff indicated that these changes resulted in fewer student complaints and rule violations (e.g., breaches of roommate contracts). In addition, they reported that placing students inclusively throughout the residence hall led to increased understanding, acceptance, and social awareness of disability as a part of human diversity.

Program Evaluation Procedures

Hazel was aware of the benefits of attending PSEs such as enhanced social networks and rates of employment, but wondered about the outcomes of this program. The Director described

on-going evaluation techniques to determine student outcomes during the program and explained follow-up survey procedures to collect data on alumni outcomes.

Staff collect data related to financial independence, personal development, independent living, and access to resources through successfully completed coursework and vocational experiences, sustained and positive experiences living in the residential hall, goal creation and obtainment, and observations of students leading their person-centered planning meetings and directing their educational, vocational, and social endeavors. Staff use surveys to collect post-graduation data including employment, continued education, and place of residence. As of spring 2017, 21% of PSE graduates reported continuing their education at a community college, technical school, or university; 75% reported gaining competitive employment within one year of graduation; and 54% reported living outside of the family home within one year of graduation. These outcomes are encouraging, considering increasing rates of unemployment and underemployment of college graduates in the United States (Davis, Kimball, & Gould, 2015) and the dismal unemployment rates of individuals with disabilities (Butterworth et al., 2015). In addition, staff distribute pre-post surveys before and after family orientation workshops. According to these surveys, approximately 90% of family members who participated in the workshop agreed or strongly agreed that the workshop was relevant, stimulating, and helped them transition from a “caregiver” to an “advisor” to better support their young adult with a disability (Francis et al., 2016).

Implications for High School and PSE Professionals

Hazel and the PSE staff team began to brainstorm how to enhance the program for the coming year. They began by reviewing the primary “lessons learned” from the previous year (e.g., the benefits of inclusive student housing) and discussed how they might proactively uncover

and address future barriers. As the new Student Support Specialist, Hazel wondered aloud if the family workshop could be expanded to a student workshop series that would complement the self-determination and coping strategies taught to their families. The Coordinator of Instruction enthusiastically agreed and suggested meeting with program instructors to develop a course that covers these topics. Hazel added that perhaps it could be co-taught by a PSE and university instructor and made available to all students on the university's course catalog to increase campus inclusivity. As a former teacher, she also questioned how the PSE could collaborate with high school professionals to better prepare students and their families for college.

Professionals seeking to develop a PSE for students with intellectual and developmental disabilities may consider the development steps and program procedures described in this manuscript to begin the process of including students with intellectual and developmental disabilities in their home institutions. Specifically, the documentation of barriers encountered (e.g., dorm room arguments, conflicting expectations between professionals and parents) and strategies to address barriers (e.g., integrating PSE and non-PSE students in the dorms, creating contracts outlining program expectations) can assist in the development process. In addition, including high school educators on PSE committees could enhance program development, as educators may help recruit students for the program and share evidence-based instructional and transitional strategies (e.g., direct instruction, audio prompting, task analysis, student-centered planning; Richter, Mustian, & Test, 2012; Taylor & Colvin, 2013; Uphold & Hudson, 2012) with the PSE. Further, participating on a PSE committee may better inform high school educators on how to prepare students and their families for college, as committee members share information about gaps in skills needed for success in college such as recognizing social cues, self-advocacy and decision-making skills, communication skills, and self-care skills (Dente & Coles, 2012;

Taylor & Colvin, 2013). For example, high school educators and PSE staff may collaborate to share materials that they can adapt for use in their classroom or co-develop curriculum or workshops designed to enhance emotional intelligence skills among students and their families so they are better equipped to cope with the stress of transitioning out of high school and into college (Francis et al., 2016). Further, PSE staff may attend student Individualized Education Program meetings to share information about PSEs, available resources to support a college education, and essential skills students need to experience success in college.

Several barriers, including low expectations and poor transition planning in high school, result in the underrepresentation of individuals with intellectual and developmental disabilities in university settings and the competitive workforce (Corby, Cousins, & Slevin, 2012; Martinez, Conroy, & Cerreto, 2012). However, attending PSE programs has been shown to increase employment rates by approximately 25% and weekly income by over 70%, compared to individuals with intellectual and developmental disabilities who did not attend a PSE (Migliore & Butterworth, 2008). As a result, professionals should consider facilitating experiential learning opportunities during high school to enhance expectations and functional skills, resulting in positive behavioral change and improved post-school outcomes (Migliore, Butterworth, Nord, & Gelb, 2011). High school and PSE staff may also collaborate to implement experiential opportunities such as university overnight summer camps for high school students with disabilities in which they live with roommates in residential halls (including utilizing a university meal plan, doing laundry, etc.), attend college classes with accommodations and modifications, manage leisure time, and navigate the campus and surrounding community. For institutions looking to develop faculty support for PSEs, starting with a small summer camp may facilitate positive experiences for students while also increasing the investment and capacity of higher

education faculty and staff to effectively accommodate and include students with intellectual and developmental disabilities.

Conclusion

Research indicates that gaining a college education increases positive post-high school outcomes (e.g., college, employment, independent living, community participation) for students with intellectual and developmental disabilities (Moore & Schelling, 2015). This manuscript addresses a gap in the literature on PSEs by describing the development of a PSE and providing a rich description of program procedures (including barriers encountered and strategies for addressing barriers). High school and PSE paraprofessionals may use information provided in this manuscript not only as a base from which to develop a PSE but also to spark ideas on how collaboration between these two entities may ultimately benefit student outcomes.

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Meet the New Editors of *The Teacher Educators' Journal*

Kelley Regan



Kelley Regan, Ph.D., is Associate Professor of Special Education at George Mason University. Dr. Regan received her initial license and Masters in Special Education degree from Longwood College in the areas of learning disabilities, intellectual disabilities, and emotional disabilities. After teaching students with learning disabilities and severe behavioral disabilities in self-contained classrooms and separate day facilities, she earned her doctorate in special education from George Mason University in 2005. Dr. Regan was a faculty member at The George Washington University before returning to George Mason University in 2008. Her scholarship includes investigating literacy interventions that support students with learning and behavior disabilities and improving special education teacher preparation programs. Her recent research projects, funded by the United States Department of Education's Office of Special Education Programs and the Virginia Department of Education, focus on improving the instructional practice of prospective special education teachers and teacher educators via *eCoaching*

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Malcolm Lively



Malcom Lively teaches a number of literacy-related courses at Virginia Wesleyan University, including Content Area Reading and Writing, and Language Acquisition and Assessment. His research interests currently include the nature and impact of literacy instruction and intervention on comprehension, and improving the preparation of teachers. He is an avid cyclist and can be found riding often around Hampton Roads with his cycling teammates, as well as attacking the mountains of West Virginia from his family farm. As a new editor of *The Teacher Educators' Journal*, he is interested in expanding the dialogue and discussion about teacher education – its

past, present, and future – so that we become engaged in more collaborative approaches to prepare new teachers to overcome many of the 21st century social hurdles that will confront them, both in Virginia and beyond.

Bill McConnell



Bill McConnell is an Assistant Professor of Education at Virginia Wesleyan University. He received his Ph.D. in Curriculum and Instruction with an emphasis in Science Education from Old Dominion University in 2015. He received his M.S. in Early Childhood Education and his B.A. in Interdisciplinary Studies, also from Old Dominion University. His research interests are the teaching and learning of environmental science and consensus modeling in elementary contexts. He has been involved in eight grant-funded projects in the last five years and has authored numerous published works. After enjoying his time as a reviewer for multiple scholarly organizations, he is excited to serve as a co-editor for *The Teacher Educators' Journal*.