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Are They Ready? Teacher Candidate Dispositions

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Abstract

The use of disposition forms to identify positive teacher candidate behaviors has become a component of many teacher education programs. The researcher has provided these disposition forms as a means of self-analysis for teacher candidates during junior level coursework; however, are teacher candidates able to accurately rank their own dispositions? The purpose of this article is to determine if teacher candidates self-identify areas of needed growth concerning positive teacher dispositions. Participants of this study include junior level teacher candidates enrolled in a field experience course. Research methods include a self-assessment questionnaire completed by the candidates at the beginning and end of the semester. Results indicate that teacher candidates, on both the pre- and post-assessments, rank themselves very high on the desired dispositions. These findings suggest that teacher candidates lack the critical evaluation tools necessary to self-rank their own dispositions. By determining if teacher candidates lack these tools, teacher education programs can make program adjustments to facilitate more critical self-evaluation and self-reflective practices to strengthen programs.

Keywords: dispositions, teacher education, teacher candidates

Teacher dispositions have been an area of research interest for well over a decade (Percy, 1990; Taylor & Wasicsko, 2000; Usher, 2002). For the past 15 years, teacher educators have emphasized the importance of teacher candidate dispositions through research encompassing everything from instruments to definitions to legalities (Cresap & Conrad, 2014; Rike & Sharp, 2008; Usher, 2003). Before, during, and after the licensure process, educators' dispositions are evaluated both inside and outside the educational arena. With technological advances providing news at our fingertips, we hear stories where teachers are found guilty of not only misconduct, but have been criminally charged in acts involving students. These same teachers were once candidates in teacher education programs. The desired dispositions are easily identifiable, but the struggle comes in how these dispositions are measured. Were the dispositions of these teachers, who have been charged with crimes, evaluated prior to entering the field, and were positive, appropriate teacher dispositions emphasized? Perhaps, these teacher candidates did not honestly evaluate their own dispositions. Perhaps, these candidates did not understand the dispositions themselves or the value of self-reflection.

Teacher education programs have moved to adopt the use of disposition forms in identifying positive teacher candidate behaviors. The purpose of this research is to determine if teacher candidates self-identify areas of needed growth concerning positive teacher dispositions.

Literature Review

Independent Variables

What are positive teacher behaviors, or dispositions? According to Usher (2002), dispositions are the qualities that characterize a person as an individual and determine the person's natural way of thinking and acting. Based on the work of Arthur W. Combs and decades of research, Usher (2003) identified five key dispositions of teacher effectiveness: "empathy,

positive view of others, positive view of self, authenticity, and meaningful purpose and vision” (p. 2).

The Council for the Accreditation of Educator Preparation (CAEP, 2015) define dispositions as “the values, commitments, and professional ethics that influence behaviors towards students, families, colleagues, and communities that affect student learning, motivation, and development as well as the educator’s own professional growth”. With teacher education programs leaning more and more on the weight of dispositions, what happens when a teacher candidate with a negative disposition is identified? Instances where teacher candidates have scored adequately in the content and pedagogical areas, but have failed to exhibit the appropriate dispositions are growing.

Various accrediting bodies have identified dispositions as a vital component of teacher education institutions. With the recent changes made by the Teacher Education Accreditation Council (TEAC) and the National Council for Accreditation of Teacher Education (NCATE), the Council for the Accreditation of Educator Preparation (CAEP) has evolved. The newly evolving council has recently changed the definition of dispositions to “The habits of professional action and moral commitments that underlie an educator’s performance” (CAEP, n.d.). CAEP has developed new goals that raise program standards for the performance of candidates and the evidence to support performance ratings; thereby, striving to raise the stature of the profession. The new CAEP standards call for dispositions to be assessed. In Standard 2 Clinical Partnerships and Practice, the institution “ensures that effective partnerships and high-quality clinical practice are central to preparation so that candidates develop the knowledge, skills, and professional dispositions necessary to demonstrate positive impact on all P-12 students’ learning and development” (2016, p. 1). Specifically, in section 2.3, all teachers and school based individuals

who assess, support, and develop a teacher candidate's knowledge and skills, also help develop professional dispositions during the clinical experiences (CAEP, n.d.).

According to Taylor and Wascisko (2000), the most effective strategy for improving growth, learning, and school climate is to select teacher candidates based on dispositions and then invest in helping those candidates become more effective; however, the question of legality arose. Could teacher education programs be sued for not admitting someone into their programs based on a non-favorable disposition? Who would evaluate these perspective candidates? Would higher education institutions be willing to use dispositions as part of the screening process if it means a decrease in enrollment? CAEP Standard 3.3 (Candidate Quality, Recruitment, and Selectivity) requires that programs "establish and monitor attributes and dispositions beyond academic ability and that candidates must demonstrate" these throughout the program (CAEP, n.d.). This also dictates that the programs develop the measures that show how non-academic factors predict candidate performance in the program and effective teaching. Finally, in Program Impact, Indicators of Teaching Effectiveness 4.2 (CAEP, n.d.), the accrediting institution must also demonstrate that teacher candidates "effectively apply the professional knowledge, skills, and dispositions that the preparation experiences were designed to achieve."

Teacher educator programs use other national standards to achieve accreditation for specific programs, such as elementary and early childhood. Prior to 2015, the Association of Childhood Education International (ACEI) standards of 2007 were used as part of the accreditation process for many years. Under the indicator of Professionalism 5.1, "teacher candidates should be aware of and reflect on their practice in light of research on teaching, professional ethics, and resources available for professional learning" (p.2). The National Association for the Education of Young Children (NAEYC) 2010 Standards for Initial Early

Childhood Professional Preparation (2011) identified Standard 6, Becoming a Professional, to address teacher candidate dispositions. Part of this standard is that candidates are reflective and take critical perspective on their work. Element 6b specifically states “knowing about and upholding ethical standards and other early childhood professional guidelines” (p.2).

Model core teaching standards, known as InTASC, were developed in 2013 by the Council of Chief State School Officers. These standards provide that dispositions are a part of the teacher’s practice (2013). InTASC Standard 9I (2013, p. 41) emphasizes the importance of teachers taking “responsibility for student learning and using ongoing analysis and reflection to improve planning and practice.” This includes that teachers must regularly examine practice through ongoing study, self-reflection, and collaboration. Teachers demonstrate leadership by modeling ethical behavior, contributing to positive changes in practice, and advancing their profession. “Teachers engage in ongoing professional learning to continually evaluate practice, including the effects their choices and actions on others” (InTASC, p. 18). The underlying question that arises is what happens if teacher candidates fail to self-assess critically. How will they be able to successfully attain the level of professionalism required of Standard 9?

Dependent Variables

Dispositions are hard to communicate. One can explain a particular disposition, but is that enough? Some institutions provide in-depth study of each disposition by providing scenarios. Rike and Sharp (2008) found “it is possible to cultivate positive aspects and decrease the influence of the more negative factors” (p. 152) through identifying specific behaviors and dispositions. These researchers also concluded that assessing dispositions is worth the effort involved and is a critical dimension of professional development. Taylor et al. (2000) emphasize the importance for teacher educators to know and understand the dispositions of effective

teachers in order to help to develop these characteristics in teacher candidates and help them discover if they have the “dispositions to teach” (p. 2).

Bigham, Hively, and Toole (2014) examined public school partners’ expectations of professional dispositions of beginning teachers and the attributes that cooperating teachers value in student teachers. Public and private school administrators were interviewed. Results showed that professional demeanor and open-mindedness were most vital to teacher candidate success. The teacher candidates’ personal outlooks and approaches were related most highly in regard to professional demeanor.

Cooperating teachers and principals hold high expectations for new teachers, and share a desire for a motivated, honest, collaborative, interactive teacher candidate who is academically prepared for the challenges of today’s classroom. Veteran educators look for teachers who can connect with students and who are able to facilitate learning (Bigham et al., p.228).

Bigham et al. (2014) concluded “Responses from the survey suggest that new teachers need multiple opportunities to develop professional demeanor and basic classroom skills” (p. 211).

Demeanor in this context was identified as interaction, preparedness, punctuality, and respect for students. These have also been identified as dispositions.

Purpose

The identification of teacher education candidates exhibiting positive dispositions has moved to the forefront of accrediting programs and colleges of education; however, there is little research available on whether teacher candidates understand the dispositions, their importance, or can self-analyze. If rating dispositions are going to be useful, teacher candidates must understand the meanings of each and be able to accurately self-identify those. Teacher candidates

are often assessed by university supervisors, field supervisors, and/or instructors each providing feedback to teacher candidates; however, if teacher candidates cannot relate to the feedback, because the disposition is ambiguous, how effective is the feedback? The purpose of this article is to determine if teacher candidates self-identify areas of needed growth concerning positive teacher dispositions.

Method

Participants

Data for this study was collected between the years of 2013-2016. Participants were teacher candidates from two different state universities approximately 250 miles apart within the same state with a comparable enrollment. All the participants involved in the study were candidates admitted in a teacher education program. The participants, all in their junior year, were enrolled in a field experience course being taught by the researcher. Of the 54 participants, 52 were females and two were males. Candidates were provided a form of expected teacher dispositions at the beginning of the course and then, again, at the end. Candidates self-assessed their initial dispositions and then re-assessed at the end of course using the same form.

Instruments

Two different forms were used and the forms were approved and required by the teacher education departments at the participating institutions. Form A was used at Institution A, and Form B was used at Institution B. On Form A, found in Appendix A, teacher candidates self-ranked themselves on 15 desired dispositions using the following Likert scale: advanced-4, proficient-3, basic-2, or below basic-1. The average of the criteria was then used for a grade. Data for Form A was collected during Fall 2013 and Spring 2014.

Form B, found in Appendix B, was different in that it contained a title for each disposition and had more descriptors for each of the nine desired dispositions for that institution. The following scale was used for Form B: Indicator not met-1, Indicator only partially met-2, Progressing toward meeting indicator-3, and Indicator met-4.

Although there are two forms, the data for this article focuses on the teacher candidates' self-assessments, not the forms themselves. Future research will compare the different forms.

Procedures

Data Analysis

The disposition forms were required by the respective institutions as part of the coursework and were graded assignments. An individual teacher candidate's grade was based on the average scores of the post assessment ratings. All identifying factors were removed prior to data analysis. A paired sample correlation was conducted of the data collected between fall 2013 through spring 2016. In fall 2013 and spring 2014, Form A was used at institution A. In spring 2015 and spring 2016, Form B was used at institution B.

Results

Candidates, on both pre- and post-assessments, ranked themselves very high on indicators. Out of the 4 possible ratings, candidates ranked themselves in the upper two areas of the forms. Table 1 shows an overall total for the pre- assessment of 3.32 on a scale of 0 to 4 indicating that most candidates initially gave themselves a high rating. Based on the high rankings shown in the data, teacher candidates lack critical evaluation tools necessary to self-rank their own dispositions. The teacher candidates lack self-reflection skills necessary to think critically about areas of needed growth of dispositions. The results were consistent at both institutions. Based upon the statistical analysis Chi Square Test of Independence, there is not

statistical significance in the teacher candidates reporting of dispositions. Teacher candidates rated themselves high on both the pre- and post-assessments.

Table 1

Semester	Form	N	Average mean of pre assmt	Average mean of post assmt	Average of both scores	Std. Dev.	St. Error Mean
Fall 2013	A	9	3.08	3.68	3.38	.57	.19
Spring 2014	A	11	3.38	3.75	3.57	.53	.16
Totals for institution	A	20	3.23	3.72	3.47	.55	.18
Spring 2015	B	22	3.69	3.90	3.79	.36	.08
Spring 2016	B	12	3.14	3.50	3.32	.50	.15
Totals for institution	B	34	3.42	3.70	3.56	.43	.12
Totals		54	3.32	3.71	3.51	.49	.15

Discussion

The purpose of this article was to determine if teacher candidates self-identify areas of needed growth concerning positive teacher dispositions. Friedman (2000) suggests that professionals examine the profile of a good teacher and identify the points that apply most to themselves, facilitating their own evaluation of personal strengths and weaknesses. “Listing these attributes, both positive and negative, may prove instrumental in a self-improvement work-plan” (p. 604). How do teacher educators advise candidates who lack the appropriate dispositions and the ability to self-identify? Wasicsko (n.d.), in *The National Network for the Study of Educator Dispositions*, states “One of the most difficult situations faced by teacher educators is encountering students who clearly lack the dispositions necessary to be successful educators but meet all other requirements.” The data in this study indicates that teacher candidates lack the critical evaluation tools to self-assess accurately.

As mentioned earlier, Standard 9 (InTASC, 2013) calls for teachers to continually evaluate practices and the effects of their choices on learners. If teacher candidates are unable to

engage in honest self-identification of dispositions, will they be able to accurately evaluate practices and how these choices affect learners? Teacher candidates rated themselves high on both the pre- and post-assessments in the results of this analysis. This might create an unrealistic sense of self-efficacy resulting in burn out or could negatively impact student learning.

Limitations

The forms and this process are part of the course assessments and evaluation. This means that teacher candidates realize that their grades are based on these self-assessments; therefore, there is a high chance that high marks were given to ensure a good grade.

One issue lies in the scoring of such a form. If a teacher candidate truly identifies as having a very weak disposition in an area, how is that then reflected in the scoring? Is the candidate given credit for completing the form honestly or penalized for having a poor disposition? This seems to be a direct factor in candidates rating themselves highly on the scale.

Data collection methods used in other studies include faculty and/or cooperating teachers completing disposition forms. Forms may also be revisited when problems arise and throughout program courses. While many institutions use evaluation instruments to assess teacher candidate dispositions, the candidates themselves are usually not involved in the assessment process.

Another limitation is that teacher candidates self-assessed themselves in one semester, which may not show growth over the length of the program. One of the forms provided more descriptors than the other, which may also be considered a limitation.

Significance and Implications

DiCicco, Sabella, Jordan, Boney, and Jones (2014) conducted a phenomenological case study where their findings demonstrate how pre-service teachers view themselves in the classroom compared to how they are viewed by the classroom teachers, observers, or peers and

that this perception may differ greatly. This information, accompanied by how the teacher candidates want to be viewed, can be used to provide effective instruction in teacher education programs. By explicitly teaching the definitions and values of disposition, programs can work to help teacher candidates build appropriate expectations.

Although dispositions are not open to direct change from the environment, they can change through changes in one's physical, spiritual, emotional, and cognitive functioning that necessitates dispositional reconstruction (Usher, 2002). If teacher candidates accurately self-identify their dispositions and reflect on learning experiences, perhaps this reconstruction can take place. "There must be intentional involvement by the student in not only the dispositional assessment process but also in the development of those dispositions" (Creasap et al., 2014, p. 30).

By examining candidates' abilities to self-identify areas of growth necessary for desired teacher dispositions, candidates will become reflective teachers who can positively affect student outcomes. Teacher candidates need explicit instruction on what positive teacher dispositions are and an environment where self-identification is not penalized, but used as a platform for growth.

Contributions to the Field and Future Research

In the study of dispositions, a strong research base will provide evidence for teacher education programs to facilitate critical self-evaluations and self-reflective practices of teacher candidates' dispositions, which will strengthen programs and graduates. By examining candidates' abilities to self-identify areas of growth necessary for desired teacher dispositions, candidates will become reflective practitioners who can positively affect student outcomes.

In practice, questions arise including which dispositions are most important for teacher candidates to possess in order to impact student success; how university faculty can facilitate teacher candidates' understandings of the implications of each of the desired dispositions; and how faculty can facilitate teacher candidates' self-reflective skills to promote honest ratings.

There is a need for explicit instruction on what each disposition means and how to self-assess. Training models have been used in the past that may prove helpful today (Percy, 1990). In future research, indicators from the disposition forms could be used to create scenarios for teacher candidates to rank the disposition presented to provide practice and a deep understanding of dispositions. A comparison of forms could prove useful in helping candidates understand the desired teacher dispositions.

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Appendix A

Pre-service teacher candidate dispositions form (Institution A)

The Pre-service teacher candidate:

	Advanced-4	Proficient-3	Basic-2	Below Basic-1
is <u>highly motivated and positive</u> in applying personal meaning to the defined responsibilities.				
<u>Thinks positively and enthusiastically about people and what they are capable of becoming; encourages others to be positive</u>				
demonstrates clear values which focus upon the worth and <u>dignity of human beings</u>				
demonstrates commitment to students and <u>the profession</u> (i.e. through campus, school & community involvement); consistently lives up to commitments to students and others.				
<u>relates to other people in a manner which contributes to harmonious personal and professional relationships</u> ; sees each person as a unique and valuable individual				
<u>able to share with others in a manner that encourages effective two way communication</u> ; highly organized; communicates and plans well with others; demonstrates a strong sense of personal direction.				
<u>interacts effectively with students, teachers, colleagues, administrators, and parents</u> ; demonstrates a deep sense of caring and empathy and understands the <u>in-depth feelings of students and colleagues</u> .				
demonstrates understanding of child/adolescent development; is insightful and perceptive about what motivates children and adults.				
seeks knowledge; keeps abreast of current research; has the capacity to integrate new information; <u>dependable, on time, comes prepared to participate</u> ; dresses professionally; observes confidentiality.				
adjusts the complexity of his/her language to the linguistic abilities of students; is able to express himself/herself in a clear and professional manner (in speaking and writing).				
<u>responds to constructive feedback by making appropriate changes in instruction or action</u> ; demonstrates an understanding of his/her own strengths and weaknesses.				
strives to look at all aspects of a situation and <u>remains fair and objective in the most difficult circumstances</u> .				
understands the intrinsic motivations of individuals; encourages and directs students and others to take action based upon their strengths				
is willing to alter plans in a way that will assist all people in moving toward common goals.				
is highly innovative and versatile; <u>open to new ideas</u> .				

Appendix B

Dispositions Rubric (Institution B)

Rating Indicator	Indicator Not Met-0/1	Indicator Only Partially Met-2	Progressing Towards Meeting Indicator -3	Indicator Met -4
Attendance Punctuality	Frequently absent and/or frequently tardy	Significant number of unnecessary absences and/or tardies	Rarely absent/generally punctual	Perfect attendance record always on time and/or absences excused
Reliability Dependability	Frequently fails to complete assigned tasks or duties	Regularly needs to be reminded to attend to assigned tasks or duties	Seldom needs to be reminded to attend to assigned tasks or duties	Completes assigned tasks or duties on schedule without prompting
Tact Judgment (students, peers, teachers, and others)	Appears insensitive to others' feelings and opinions.	Perceives what to do in order to maintain good relations with others but has difficulty in responding accordingly	Occasional lapses in tact and /or judgment in interactions with others	Sensitive to others' feelings and opinions, uses tact and judgment in interactions with others
Response to feedback	Unreceptive to feedback	Defensive, not open to suggestions for improvement / does not implement suggestions	Receptive to suggestions for improvement, but does not readily implement suggestions	Open to suggestions and feedback from others and adjusts performance accordingly
Interaction with students, peers, teachers, and others	Antagonistic towards students, peers, teachers, and others	Reluctant to interact with students, peers, teachers, and others	Open to interaction with students, peers, teachers, and others	Actively seeks opportunities to interact with students, peers, teachers, and others
Desire to improve teaching performance	Makes no effort to improve teaching performance	Makes some effort to improve teaching performance	Makes significant effort to improve teaching performance	Continually seeks new and better ways to improve teaching performance
Attitudes towards learners	Makes negative comments about students' abilities to learn	Provides appropriate opportunities for only average learners, reluctant to differentiate instruction	Receptive to diverse teaching strategies but does not consistently differentiate instruction	Differentiates instruction and seeks instructional strategies that provide learning opportunities for all students
Attitudes towards cultural, ethnic, and socio-economic diversity	Employs biased language and expresses disdain for tolerance of cultural, ethnic, and socio-economic diversity	Limited sensitivity and tolerance of cultural, ethnic, and socio-economic diversity	Employs un-biased language and supports tolerance of cultural, ethnic, and socio-economic diversity	Demonstrates an understanding of students' cultural, ethnic, and socio-economic diversity
Personal honesty	Interacts with others in a dishonest manner	Appears insensitive to the values of honesty	Perceives what to do to maintain honest relations with others but has difficulty in responding accordingly	Demonstrates an understanding of the values of honesty

**White and Socially Disadvantaged:
A Personal Chronicle of the Education of Poor Whites in America and
Why We as Educators Must Do Better**

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Introduction

Through a personal history of being educated in the rural mountains of the Southeastern United States, this paper seeks to open a dialogue on how and why is it critical to examine ways of improving educational outcomes in rural areas of America where most economically-disadvantaged White children are educated. In addition, this dialogue may bring opportunities to focus on the critical role social class plays in access to quality schooling opportunities.

It is important to state that rural economically disadvantaged Whites do benefit from systemic racism in the United States. These privileges are not a set of nebulous concepts, but systemic advantages measured using concrete data. According to the Urban Institute (2014), “Black students are four times more likely to attend a high-poverty school than a low poverty school and over six times more likely than white students to attend a high-poverty school” (p.2). This phenomenon is exacerbated by the fact these Black students and their families also live in neighborhoods of concentrated poverty. “Through a century of various explicit public and private housing discrimination practices, African Americans of all socioeconomic classes live in higher poverty neighborhoods than whites of similar income” (p.1). Massey and Denton (1993) described this phenomenon of systemic hyper-segregation as American Apartheid.

While lack of educational opportunities affects the lives of Black students who live in high-poverty neighborhoods and attend high-poverty schools, Black unemployment rates are significantly higher than White unemployment rates regardless of educational attainment. According to the Economic Policy Institute analysis (2015), the average unemployment rate for Black college graduates for the twelve months studied was 4.1 percent, while the unemployment rate for White college graduates was 2.4 percent. So, Black college graduates were experiencing unemployment rates nearly two times the average for White college graduates. The starkest disparity in unemployment rates is seen among those who have not earned a high school diploma. The unemployment rates among Whites without a high school diploma is 6.9%, while Blacks without a high school diploma experienced unemployment at a rate of 16.6 percent. The overall national employment rate for this time period was 5.3 percent, so the unemployment rate for Blacks was higher no matter the level of educational achievement, and their unemployment rates were higher than the national unemployment rate in every attainment category except those Black students who obtained a college degree.

The struggle for equality in The United States by African Americans continues to be impeded by infrastructural and systemic racism. Yet, the realities for those growing up White working class and poor are antithetical to notions of White Privilege afforded to the majority of White Americans. This is particularly true for White Americans living in the poorest regions of rural Appalachia. The Appalachian Regional Commission, (ARC) homepage (2017), defines the Appalachian region as “all of West Virginia and parts of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. Forty-two percent of the Region's population is rural, compared with 20 percent of the national population” (p.1). The region consists of 420 counties with 87 of

those counties having poverty rates more than 1.5 times the national average. Results from a data overview prepared for the ARC (2017) determined that one out of five persons 18-64 are living below the poverty level. Poverty level is defined as “income of less than \$24,036 for a family of two adults and two children in 2015” (p.73).

In addition to high poverty rates, educational attainment rates for these poorest counties are below the national average. According to a data overview prepared for the ARC (2017) in Central Appalachia, for people ages twenty-five years and over, 28.9% have less than a high school diploma, as compared to the United states average of 15.4% for the same age levels. South Central and Southern Appalachia have improved their rate of high school completion with rates of 19.4 % and 19.5 % for the same age levels. In the United States using the same age categories 27% have a Bachelor’s degree or more. In Central Appalachia only 11.9% of those twenty-five years and older hold a Bachelor’s degree or more. In South Central Appalachia, the number is 20.9% and in Southern Appalachia the number improves to 22.5 %.

Moreover, the people living in the most isolated and poverty-stricken areas of Appalachia are struggling with a public health crisis. In a 2017 report prepared for the ARC by a group of public health experts from the Walsh Center for Rural Health Analysis at the University of Chicago researchers found that residents of rural Appalachia are suffering increase morbidity and mortality from these three main causes, “alcohol, prescription drug, and illegal drug overdose; suicide; and alcoholic liver disease/cirrhosis of the liver, which have been referred to as “deaths of despair” or “diseases of despair” (p. 1). Results of the study found disease and death related to the diseases of despair are greater within the Appalachian region that the non-Appalachian United States.

“The combined mortality rate from these diseases of despair was 37 percent higher in Appalachian than the non-Appalachian U.S. In 2015, 11,187 deaths in Appalachia among 15 to 64-year olds were attributable to diseases of despair. Compared to the rest of the nation, the Appalachian Region experienced higher rates of mortality from diseases of despair for all 10-year age ranges between 15-64. The most notable disparities existed for the 25-to 45-year age group. More specifically, when analyzing overdose deaths, 25-44-year olds experience mortality rates greater than 70 percent higher than the non-Appalachian U.S. (p.18).”

Moreover, in the years 2009-2015, the mortality rate from diseases of despair in the Appalachian Region grew to an alarming thirty-seven percent higher than the rest of the United States. These findings are stark and have significant economic consequences on this population because they are in the prime of their wage-earning years.

While the portrayal of African American parents’ and students’ struggle for access to public education in the United States is accurate and undeniable, the notion that all Whites benefited equally from the system is misleading. This portrayal has created a mindset that Whiteness is rarely, if ever, connected to poverty and denial of privilege. According to Wray & Newitz (1997), “A critical discussion of white trash identity, which is both a particularized and hybridized form of 'whiteness,' can provide one model for reconceiving whiteness itself within the evolving political project of multiculturalism” (p. 5). These discussions have the potential to influence how we view poor Whites and their access to quality schooling. (I took out the preach sentence.)

In recent decades, British scholars argue the need to examine the central role social class plays within the structures of education. Reay (2006) argues the need to “reclaim social class as

a central concern within education, not in the traditional sense as a dimension of educational stratification, but as a powerful and vital aspect of both learner and wider social identities” (p.288). With Reay (2006), I share the concern that our current educational systems can “address the influence of social class in the classroom when contemporary initial teacher training rarely engages with it as a relevant concern within schooling” (p.288). Furthermore, Bourdieu & Passeron (1990), argue education does not “collaborate harmoniously” in reproducing cultural capital shared in equal measure by all members of a society (p. 11). On the contrary, because educational systems are strongly influenced and controlled by groups holding power and class advantages, cultural capital remains in the hands of the powerful. Poor white students and their parents do not and have never had a seat at the tables of power responsible for creating and sustaining elite educational structures and opportunities.

In the United States, we are experiencing, a time when working class Whites, in large numbers, have once again been pitted against people of color for political, social, and structural power. This is not a new phenomenon. On the contrary, it is a pattern that has been repeated often in the relatively short history of the United States. According to Isenberg (2017), “the label southern white trash’ was not, as some would argue, a northern creation alone. While the ‘po’ in “po white trash” may have been derived from slave vocabulary, it clearly resonated among southern elites who dismissed the poor (as Jefferson did) as ‘rubbish’ (p. 150).” Isenberg goes on to say, “a New Hampshire school teacher observed of clay-eaters in Georgia, the children were prematurely aged, even at ten years old, ‘their countenances are stupid and heavy’ (p.51).” In addition, historian Robert Cruden (1980) describes the complex relationships between wealthy White planters, White squatters, and Black slaves. While Cruden notes the disdain elite planters

had for poor White squatters, he makes it clear the planters recognized and helped fuel the resentment and hatred poor Whites had for Black slaves.

“At the very bottom of the white social scale were the folks contemptuously called ‘poor white trash.’ Nevertheless, planter society had uses for poor whites. Given their hatred of blacks, they and their scroungy hounds were invaluable in helping track down fugitive slaves. Some made a little money as professional floggers for local authorities. More added to their meager incomes by serving as substitutes for more prosperous whites on night patrols required to keep blacks off the roads after dark. In such contacts, the poor white could take a measure of pride. He might be poor and degraded, but he was still a member of the white brotherhood, immeasurably superior to all black folk” (p. 209).

To deny that poor Whites did not play an important role in the sufferings of Black slaves and continued to do so after emancipation would be inaccurate and immoral. My attempt here is not to diminish these truths, but to ask that we look deeper at the struggle of poor Whites and create a space for conversation about these struggles and how class and race intersect. More importantly, how might these conversations assist us in finding common ground in our endeavors to create access to quality schooling for all children?

This paper does not attempt to create a status of victimhood for poor Whites, nor does it attempt to paint the plight of the poor White American as equal to that of African Americans. It is important I state that I adhere to the concepts of White privilege as outlined by McIntosh (1989) and the concepts of White racism as stated by Sleeter (1994). Christine Sleeter (1994) defines White racism as “the institutionalized set of rules and policies, as well as individualized beliefs that have given White people control over the power and wealth of America” (p. 211). Sleeter (1994) purports that White Americans do not wish to acknowledge the privileges they are

afforded and the power they possess as the dominant culture. I acknowledge that, despite growing up poor, female, and White, I have benefited from the system of White hegemony that exists in the United States and have had the privilege that comes with being born White, privileges that are unearned. As I share my experiences, I am fully acknowledging, until approximately 6th grade, I attended an all-White school that possessed greater resources provided by an all-White board of education. While the Black children in the county were small in number, they received very little support from the county and their school buildings and materials were inadequate.

In this paper, I share my personal experiences growing up White, and poor in the rural mountains of the Southeastern United States. My personal story of poverty is relayed particularly through the effects it had on my schooling experiences from elementary to graduate school. Lastly, I will discuss how my social class background connected me to my primarily African American students throughout my K-12 teaching career and why such connections will become even more crucial in ensuring educational access and success for all students.

I hope to encourage conversation focusing on how experiences of rural poverty in a primarily homogeneous White racial environment influenced my beliefs and practices. Frankenberg (1993), argues,

“the landscapes of childhood are crucially important in creating the back-drop against which later transformations must take place. Looking at the social geography of race in white women’s childhoods may then provide information and tools useful to us in the project of comprehending and changing our places in the relations of racism” (p. 55).

While Frankenberg's in-depth interviews with thirty White women did not focus on the experiences of White women in the rural southern Appalachian region, her work provides a lens through which to view my experiences.

I aspire to encourage conversation among multicultural scholars and practitioners in order to complicate our monolithic notion concerning poor Whites and to discuss the place poor Whites should occupy under the multicultural umbrella. In addition, as the United States continues its trajectory toward a more diverse nation, a nation where people of color will be the dominant racial group, the critical influence of social class becomes a vital area of research.

Sharecropping in the Rural South

I grew up in rural North Georgia in the foothills of the Appalachian Mountains, with its fast-moving water and towering hardwoods. I lived in a community and county that was predominately White with few exceptions. My Mother, Grandmother (affectionately called "Big Mama"), and Grandfather ("Pa") raised me. "Big Mama" told me the stories of her childhood and youth. She told me about growing up in a sharecropper family in the cotton fields of Jackson County, Georgia. Jackson County is located between Athens, home of the University of Georgia, and Atlanta, Georgia. During the early years of the 20th century this area was dominated primarily by cotton fields, and the need for cheap labor abounded.

Sharecropping was a system of peonage instituted by wealthy White planters after the American Civil War. Wealthy planters needed cheap labor to insure they would continue to reap profits from cotton. The need for cheap labor was combined with the desire of White Southerners to continue to impose servitude on African Americans. Limitations on African Americans' mobility created the perfect conditions for the Planters (Raper, 1937). However, the

system that was developed to keep African Americans in a place of servitude became two-thirds White by 1935 (Raper, 1937).

Sharecroppers were the lowest type of tenant farmers and the White families who fell into this economic system came to the United States primarily from England. The early colonists brought with them the notion that those born into the higher classes were given, by God, the rights to rule those born into the lower orders. They were indebted to landowners and merchants because of a system that instituted crop liens. The typical sharecropper rented a house, the land surrounding it, and rudimentary equipment. Sharecroppers' houses were made of rough-cut lumber, and the tenants used paper or mud to fill the cracks to protect them from the elements. Families were expected to grow crops of cotton or tobacco to be sold at the time of harvest. The "croppers" were rarely paid cash for their labor. Merchants, and sometimes the landowners themselves, extended credit to the families for the purchase of items, such as clothing, that they could not grow in their gardens. At harvest, the families paid the merchants or landowners from the profits they earned. In most cases, there was little cash left for the family. Often there was nothing left to carry the family through to the next season. The sharecropping system enveloped families in a continuous cycle of debt and poverty (Hall et.al, 1987).

Schooling was available for sharecroppers like my grandparents. By the early 1900s, some larger towns had brick schools for the students to attend. However, attending school proved to be difficult for the children of sharecroppers in several ways. Scant clothing for cold and rainy days forced many children to stay at home. When they were in school, they came with lunches that consisted of a cold biscuit, a potato, and maybe a piece of fatback meat. There were White students who had access to buses. However, many poor White children had no access to buses. Georgia's rural schools required students to buy their textbooks. In sharecropper

families, with large numbers of children, this was a difficult task (Davis, 1920; Duggan, 1912, Raper, 1937). When clothing and books were available and the children of “croppers” did attend school, they went to schools that had short school terms. The average rural school operated six months out of the year (Betts & Hall, 1923). It is a fact that the children of “croppers” did have access to schooling that was funded by local districts and state funds. However, poverty and its effects did have an influence on the ability of children from sharecropping families to attend these schools.

“Big Mama’s” stories corroborate the conditions described in the previous paragraph. She was one of seven siblings. She completed the 6th grade, and her siblings fared no better; none of them graduated from high school. Three of her siblings lived in Jackson County their entire lives. They lived in the tenant houses that had been there for decades. Although my grandparents left the area and moved to Atlanta to pursue the plentiful jobs that were generated during World War II, they never purchased a house, and neither my mother nor her siblings received a high school diploma. The first high school diplomas earned in my family came from my generation, which was twice removed from the sharecropping system.

Personal Schooling Experiences

I began first grade at age five. At the time, Georgia law allowed students to enter the first grade if they turned six by January 1 of the next calendar year. There was no option of public kindergarten at the time. However, private kindergarten was available for those who were able to pay. My mother’s minimum wage job at a local laundry prohibited her from enrolling me in a private kindergarten. Despite the fact, I did not attend private kindergarten, I feel I received education at home from my “Big Mama” and my “Pa”. My grandparents told me stories about their youth, played games with me, and read me books. My Pa took me to the local country

store, put me on a stack of Coca Cola crates and let me sing for everyone there. My repertoire consisted of songs by Patsy Cline, Skeeter Davis, Hank Williams, and other country and bluegrass greats! Of course, I also sang many of the great spirituals. My reward was a small bottle of Coca Cola with a pack of peanuts that was opened up and poured into the Coca Cola. The country store was more than a place to buy a few groceries on credit. On the contrary, it was the gathering spot for locals where many serious topics were discussed, and political debates were fought and won. This environment was rich with experiences. Only on entrance into public school did I learn that the school considered my environment “culturally deprived.”

I lived with my grandparents much of the time due to the instability of my parents’ marriage and living situation. It was not unusual for my mother to come home from the laundry and find all of our possessions out on the street because my father had not paid the rent. Therefore, my “Pa” handled the much anticipated first day of school for me. We made a trip to the local five and dime, the stores that smell like a combination of wood, cigars, popcorn, and chewing gum. We purchased the pencils, paper, and glue necessary for first grade success. I did not have many new clothes, but the ones I had were washed and starched to perfection by “Big Mama.” I can remember being so excited about the prospects of my first day that I could not sleep the night before. I arose early that morning, and my “Pa” announced he would be taking me to school because he thought I was too little to ride the bus. I can remember that morning as if it were yesterday, my “Pa” holding my hand, taking me to the front doors of the school. I entered that first day, excited, full of confidence about the limitless possibilities that first grade would bring. I had no fear because the two people who loved me the most had built this up as the greatest day of my life.

I was soon to find out that they had made a terrible mistake. It was a shock when my teacher did not seem thrilled to see me, and it did not make sense because there seemed to be students in the class that she was glad to see. She greeted these students with a warm “hello” and welcome. In contrast, there were students, myself included, that she spoke to only when giving directions. We were the students who were dressed in simple clothes; some of the boys wore overalls and farm boots. Most of these students, like me, had never seen a dentist, and our baby teeth were decayed. On my first day of school, I learned that there were children who had store bought clothes and pearly white teeth. I also learned that the teacher seemed to like these children better than me and the other children who did not have store bought clothes and pearly white teeth. She appeared to be more patient when asking the nicely dressed students questions and praised them for the slightest accomplishments. It was not until I entered a doctoral program that I learned about these phenomena as they applied to African American children. In the absence of children of color, my teachers used social class as the measuring stick for what was acceptable.

Experiences with Tracking

By the end of the day, I was placed in the reading group for the students who did not attend kindergarten. I promptly protested to my teacher explaining that I already knew my numbers to 25 and my ABC's. She let me know that she was the teacher, and I was going to the reading and math group for students who had not attended kindergarten!

Due to constraints in the length of this paper, I will not describe my entire first year of school. However, for the purpose of this paper, it is sufficient to state that I remained in the group of students who had not attended kindergarten for that year and for most of my public-school career with a few exceptions.

It would be unfair not to mention that through the years there were teachers who saw my potential and stated as much. However, the acknowledgements of a few never completely removed me from a tracking system that was never openly identified as such, but nonetheless dictated my course of study for the rest of my public-school career. The deleterious effects of low expectations and tracking were not unique to my experience. MacLeod (1987) and Oakes (1986) discuss these effects in their research. Tracking students into ability groups becomes a problem because the lowest tracks tend to have the least experienced teachers assigned to them. This was definitely the experience I had as I entered high school.

I entered high school with no expectation of furthering my education. In the 8th and 9th grade, the counselor encouraged me to take lower level general track courses. I had no idea that I should be taking higher-level courses if I intended to further my education beyond high school. The impetus for change came in my sophomore year due to the intervention of my World History teacher, Neil Nichols. I certainly had no idea that Mr. Nichols saw me as having potential to achieve and to go to college, but I soon learned that he had high expectations for me in his class and for the future. Mr. Nichols asked me to participate in a regional competition for my high school in the area of extemporaneous speaking. I told him that first he had to explain what extemporaneous meant! Despite my fear, I wanted to please my teacher, especially since he had demonstrated such faith in my ability to succeed. Mr. Nichols gave me a set of materials to study that covered the current events of 1974, and each day after school I poured over newspapers and magazines. The day of the competition arrived, and I won 3rd place in the region. It was a day that I will always remember as a stepping off place for me. I was inspired by this one experience to do more and be more than I thought I could be. I began to view school in a different light, thanks to the intervention of Mr. Nichols and Mrs. Beverley Hill, my biology

teacher. I began to take advanced level courses. Although the two years I had remaining in high school were not enough to help me “catch up” with all of the higher-level courses I needed in order to succeed in college, I was able to improve my chances for success.

College

I worked nights and weekends in order to pay for college and studied when I was not working. I did not have the grades or the money to attend a four-year school and chose to enroll in the local two-year college near my home. Attending college was exciting, and the first semester was a challenge. The struggle to be a good student and to be accepted in the college environment was difficult at best. It had not occurred to me that many of the students I attended classes with were high school students who had finished all of their requirements and were taking college courses before they graduated in June. It was a shock when many of them did not have my thick rural dialect. I cannot tell you the number of times that students and professors exclaimed, “You’re from the mountains, aren’t you!”

The relationship I had with the majority of my professors that first semester mirrored my experiences in first grade. I was enrolled in a Psychology 101 course that I found particularly interesting, but the professor rarely called on me in class and when she did, she would respond to my reply by mocking my deep mountain dialect. In the first few weeks of class she asked if “I had ever eaten a possum?” I replied, “no, but I would if I had nothing else.” The day arrived for our first test of the semester, and I made sure that I studied and was prepared for the essay and the multiple-choice portion. The professor returned our exams the next day, and I scored a 99%. As I was leaving class, my professor asked if she could see me in her office. I followed her to the office, not knowing what to expect from this professor who had enjoyed herself at what I felt was my expense. The professor looked at me and said, “I would not have guessed that you could

make a 99% on my exam. The way that you speak is obviously not an indication of your intellect, nor your abilities.” I assured her that my speech patterns were those of my parents and grandparents and the way I spoke had no bearing on the amount I could learn. If I could see her today, I would tell her that she had made the mistake of assuming my style of speech was indicative of my capabilities.

I continued my studies and was accepted at North Georgia College and State University where I received a Bachelor of Science and Master of Education degrees. I was a teacher in the public schools of Georgia for 30 years.

I am a Teacher

I began my teaching career in a rural community located in the foothills of the Appalachian Mountains. I was determined to create a warm, caring, and challenging learning environment for all of my students. In my first school, all of the students were White. In fact, during this time, there were no people of color living in the county. However, a large percentage of the students were receiving free or reduced breakfast and lunch each day. There were students whose families were middle class, and there was a small number of students whose parents had achieved a measure of wealth. The wealthy families were the descendants of land owners and farmed cattle and chickens. In addition, these families ran small businesses in “town” and were bank officers and leaders in the community. These families were also leaders in the rural county school system. At this time, a National search for a school superintendent was simply unheard of. In fact, superintendents were elected, not appointed, by the county board of education. The county board of education was also elected and the members of the board, with almost no exceptions, were prominent citizens of the county.

My first classroom was in a trailer, or portable classroom. The first days of school in the Deep South begin in the heat of August. To my dismay, the trailer did not have air-conditioning, but I was not too alarmed because I was not raised in an air-conditioned home but had learned to enjoy it during my college dormitory days. Like all teachers, I began to prepare for the arrival of my students and create exciting lesson plans for them. In the evenings, I would sit in my small garage apartment and pour over each of the school records belonging to my students. One student's record stood out from the others. This student was diagnosed with a learning disability and he was medically fragile because he was suffering from the deadly disease Cystic Fibrosis. Cystic Fibrosis (CF) is a genetic disease affecting the lungs. People living with CF produce extra-thick, sticky mucus, and this clogs their airways. They also suffer a greater number of infections in the lungs, and in spite of current medical advances most do not survive beyond their thirties. I knew this student could not tolerate being in a trailer without air-conditioning.

When I arrived to school, I spoke to my principal about this student's needs, and she listened intently. She agreed the request for the air-conditioning to be installed was vital. I felt so happy to know I had advocated for my student, and it worked. Soon the week passed and the students arrived, but the air-conditioner, a simple window model, had not. After week one, I asked again and after week two, I asked again. My principal made repeated requests week after week. The fans we were using made it bearable for those of us who did not have CF, but for the student with CF, things were difficult. I made a home visit to the student's family who worked on a large chicken farm for one of the wealthier families in the county and lived in a rental house on the property without a phone. The parents were open and welcomed me into their home, but stated they were "afraid" to push for the air-conditioner. When I asked them why they were afraid to ask for what they needed, they said, "we need our jobs and if you make someone mad,

you might be asked to leave. We don't want to cause no trouble." After I left their home, I could feel the sadness and anger welling up inside me. I made up my mind I was going to send a request directly to the school board. I spoke to my principal, who was always a great support, and informed her of my plans. My principal did not forbid me to write the request but did give me this warning, "If you do this I will support you as long as you are here, but if you ever leave your job here, you may not be able to come back. These folks don't like being called out."

I submitted my request to the board, and we did get the air-conditioner for the student. However, I soon discovered there is a price to be paid for challenging the power structure. I was called to the school superintendent's office and given what my Big Mama would call, "a comeuppance" about how "things" are supposed to be handled. I was 22 years old and needed a job in the worst way, so I sat there and absorbed my reprimand. It has been thirty-six years since I sat in the superintendent's office that day and this same thought continues running through my head: I know in my heart if my student had been the child of a banker, a business owner, or the superintendent of schools, the trailer would have arrived on campus with an air-conditioner. This student was poor, as were the majority of his classmates, and those in power did not seem to "see" their needs as important. In fact, the infrastructure created by the wealthy and powerful provided a structure to keep the poor underserved and less educated.

City Bound

In the early 1990's I left rural Appalachia and began my teaching career in an urban school district in the south. The racial demographics in the school were approximately 49% Black and 51% White. The school did qualify as a Title I school because a large percentage of the Black students qualified for free and reduced lunch. Some of these students lived in the public housing authority apartments within the district's boundaries, but some of them lived in

the community at large. I applied to the school because it was highly regarded, and it was close to my new home. There were no openings for regular classroom teachers, so I took a position as a special education teacher. The principal explained the class I would be teaching had experienced three teachers in three years. The students had been labelled “incurable”. In my head, I was thinking of the many teachers who “saw” me with the same lens. I answered, “I’ll take the job.”

When I began to review the student’s records and Individual Education Plans, I noticed that in my class for students dealing with mild intellectual delays, all of the students were Black. During pre-planning, I met with regular classroom teachers to discuss placing my students in their classes for lunch. It is tremendously important for students to be a part of these types of activities with their classmates. I was told by every single teacher, “that class has not eaten in the lunchroom in several years. They eat their lunches in the classroom”. When I spoke to my principal, she confirmed what the teachers said. In her words, “the behavior of these students caused me to prohibit them from eating in the lunchroom”. The litany of offenses is too extensive to list here. However, I convinced the principal we would be ready to eat lunch with everyone else by the end of 3 weeks. Due to the constraints on the length of this paper, I cannot chronicle every incident in our classroom for weeks one through three. Suffice it to say students never called me by name in weeks one through four. I was only known as hey, “Miss White Lady” and no, we did not make it to the lunchroom by the end of week three. By week five, I was contemplating being the fourth teacher to quit. But a conversation with my erudite paraprofessional, Ms. Clayton, provided an “aha” moment. I was about to walk out the door, literally quitting in the middle of the day, and Ms. Clayton ran after me. She said, “Mary Elizabeth, you can’t leave me here with these kids!” I replied, “These kids are your people!” Ms. Clayton

stopped in her tracks, gave me a piercing look with her dark brown eyes and said, “Excuse me, you think because they are Black, and I am Black, those are my people? My mother is a retired principal and my father was a supervisor at the steel plant. I am college educated as is my husband. I have never seen this kind of behavior in my family or in any of my lived experiences. Mam, these are your people. Now, get your behind back in here and be their teacher.” I never looked back. I went into the classroom and introduced myself to the class. “My name is Ms. Kelly, and I am your teacher. I want to tell you about myself, how I grew up.” I shared my childhood with my students and from that day forward, we embarked on a journey to become a family. A set of kindred souls, who shared a common suffering that only those who experience real poverty can understand. No, I have not and never will understand what it is like to be Black. Never. The tie that bound us together that day was the common bond of poverty. Poverty creates a way of knowing built on a set of common experiences based upon social class like lack of quality health care, dental care, equitable access in the justice system, and equitable opportunities to learn.

As I finished the year in the special education classroom, I developed a reputation as a teacher who loved her students and worked for equity and justice for them. My principal and assistant principal asked me to return to the regular classroom and teach mathematics. I taught advanced algebra, algebra, and general mathematics. I soon discovered my general mathematics classes were filled with mostly Black students, with few exceptions. My advanced algebra class was primarily White with few exceptions. With the help of my principal and assistant principal, I began to request more Black students be placed in advanced mathematics, and I asked for more freedom to allow Black students to remain in the class even if their grade dipped below the required 77 grade point average. The rule of 77 required any student with an average lower than

77 to be removed from the advanced algebra class and be placed in algebra. My observations produced data demonstrating this rule almost exclusively affected our Black students, no matter their socio-economic status. In team meetings, I received resistance about the notion this rule disproportionately affected Black children. White teachers adamantly believed it was primarily due to the Black students' home environment and socioeconomic deprivation. (This anecdotal data would later become the focus of my doctoral work, White middle school teachers' perceptions of the factors causing the Black-White testing gap).

Of course, the effects of poverty on a students' ability to succeed in school are undeniable, and I knew my kinship with these students, who happened to be born Black, was because of my experiences growing up in poverty. Yet, I realized, for these students their race was a key factor in their circumstances. The struggle to understand the phenomenon I was experiencing with these students began. I wanted to understand the impact my experiences growing up poor and White and my early career teaching students who were poor and White had on my ability to be a successful teacher of Black students.

During this time, my school was participating in a program focusing on race and schooling funded by a well-known philanthropic group. It is during this time, I began to immerse myself in the literature focusing on race, racial identity, and schooling. Emory University's Division of Educational Studies asked my principal if they could send a few doctoral students into classrooms of White teachers who were perceived to work well with students of color. My principal recommended they observe in my classroom. In 1999, I was given the opportunity to attend Emory University, and I will use the remainder of my paper to describe my experiences in the Division of Educational Studies.

Emory University

From the very beginning, I was overwhelmed with fears about going to Emory University. When Dr. Jennifer Obidah suggested that I apply, I did so reluctantly, feeling certain that I would not be accepted. I felt that neither my years as a successful teacher of students from poor rural areas, nor my years as a teacher who was identified as an effective teacher of African American students would be sufficient to make up for my deficiencies as a student. Dr. Obidah became my great encourager, my warm demander. She came to the United States from Barbados, and her family settled in Bedford- Stuyvesant, New York. When I reflect upon our relationship, there are multiple reasons we were connected, but the primary reason I could accept her guidance was because Dr. Obidah, like me, fought her way out of poverty. With her guidance, and a great deal of preparation, I was accepted into the program. Soon after I entered Emory, Dr. Obidah left Emory for a position at UCLA. It was time for me to finish what I had started, minus the presence of my mentor.

My experiences at Emory made me stronger and more determined to complete my doctorate and prove that the granddaughter of sharecroppers could complete a rigorous program. In my time at Emory University, I had hopes of not being the only “Hillbilly” to complete the program. I longed to hear an accent like mine and prayed for the opportunity of a student or professor who could possibly share in my cultural way of knowing. Those opportunities did present themselves and several of my classmates were instrumental in helping me complete my doctorate. I can never express enough gratitude for the mentoring I received from Dr. Jackie Irvine, Dr. Jennifer Obidah, Dr. Eleanor Main, and others. Yet, their superior mentoring and genuine care for me did not assuage the loneliness I sometimes felt as the “other” during my time there.

Conclusion

The purpose for writing about my personal experiences is not to simply tell an engaging story. The purpose is to ask that we examine the notion we have come to accept that all Whites in the United States of America have universal privilege to superior schooling and that we must begin to focus on social class and the critical role it plays in schooling for all children. My personal story is not unique. Although I did not face discrimination because of the color of my skin, I was denied equality of instruction because expectations of my socioeconomic class were low. In the predominately White environment where I attended school, students like myself were labeled “at risk” because of our economic status and family circumstances. My treatment in school was not an exception but was typical of students from poor White families.

Secondly, we must seek to deepen our current teacher candidates’ understanding of the role socioeconomic status plays in the lives of the children they will teach. This is not a call for schools of education to diminish their focus on the role race and ethnicity plays in the perceptions White teachers often have about their students of color. The additional focus on the influence of social class and socioeconomics on a child’s development and education is just that, an additional factor. Yet, it is one we cannot ignore simply because we live in the United States and cling to the notion held by many that social class is not an inhibiting factor in social, educational, and economic mobility.

Moreover, not only should we focus on the teacher candidates we are preparing for our current schools, but we must also focus on the teachers we will train in the years to come. According to the United States Census Bureau (2012) “Half of all children in the U.S. will be non-white by 2020. The data suggests that, by 2044, the population will be non-white, with that number rising to 56.4 percent by 2060. The percentage of white Americans will drop from 62.2

percent now to 43.6 percent within 45 years. The Hispanic population will see the largest growth from now until 2060 and the Asian population is expected to double as well. The number of people who identify themselves as being two or more races is projected to triple, from 7.5 million to 26.7 million over the same period.” These are predictions and cannot guarantee what the population will look like, nor can these predictions address how socioeconomic and income equality will progress within racial groups. What we can assume is that the way we currently view race and social class will become more complex and will require we look at the intersection of these two factors through a larger and deeper set of lenses. I believe our children, and grandchildren, are counting on it.

Dr. Mary Elizabeth Kelly has 31 years of classroom experience in the public schools of Georgia, with 7 years in higher education. Her research interests include culturally responsive teaching and the use of critical reflection in teacher candidate training. Teaching assignments include courses in educational foundations and special education. In addition, she serves as clinical faculty for first year special education teacher candidates.

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**Rethinking the Roles of the University Supervisor and Cooperating Teacher:
Guiding Student Teacher Self-Reflection on Professional Practice to Improve Instruction**

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Abstract

This study investigated the effectiveness of the Guided Reflection Model as a structure for university supervisors and cooperating teachers to use collaboratively with student teachers to help them develop their ability to self-reflect on their professional practice, advocate for their professional development, and implement change in their professional practice. Ten cooperating teachers and ten supervisors received training on how to utilize the model and implement it for one semester with their ten student teachers. A survey was administered to the cooperating teachers and university supervisors at the conclusion of the semester to assess the effectiveness of the model. Findings demonstrated that the model was a helpful structure. Both cooperating teachers and university supervisors indicated that the model increased student teacher self-reflection on professional practice, developing a plan for improving instruction, and that the instruction was improved. While they desired to continue to use the model, they also indicated that additional follow-up training would be helpful to them. Recommendations include future study of the model on a larger scale.

Key words: Student teaching, Clinical Practice, Self-Reflection, Guided Reflection Model

Self-Reflection has been cited in the literature as one of the best means of professional development for teachers (AASPA 2002; Cogan, 1973; Costa & Garmston, 2002; Danielson, 1996, 2001, 2007; Gaudino, 2008; Glatthorn, 1990; Glickman, 2002; Goldhammer, 1969; NPBTS, 2008; Stronge, 2002). In addition to being both convenient and economical, self-reflection is more effective for improving teaching and learning than other forms of professional development such as in-services, conference, classes, workshop, and continuing education (AASPA 2002; Cogan, 1973; Costa & Garmston, 2002; Danielson, 1996, 2001, 2007; Gaudino, 2008; Glatthorn, 1990; Glickman, 2002; Goldhammer, 1969; NPBTS, 2008; Stronge, 2002). Reflection can be enhanced through conversation with a supervisor or colleagues who provide additional suggestions from their perspectives (AASPA 2002; Cogan, 1973; Costa & Garmston, 2002; Danielson, 1996, 2001, 2007; Gaudino, 2008; Glatthorn, 1990; Glickman, 2002; Goldhammer, 1969; NPBTS, 2008; Stronge, 2002).

University supervisors and cooperating teachers are in key positions to assist student teachers with developing their ability to self-reflect on their professional practice, advocate for their own professional development, and implement change in their professional practice. These are valuable skills and ones they can use throughout their teaching career.

As a Coordinator of Clinical Practice at a small university, I found that our university supervisors and cooperating teachers had varied approaches to helping student teachers develop their self-reflection skills and some did not address it at all. As most of the university supervisors were adjuncts only in the field, there was limited contact time with them together to deliver professional development. Consequently, it was not possible to utilize Cognitive Coaching (Costa & Garmston, 2002), which involves extensive training over an extended period of time.

A model was needed that would be a flexible ‘skeleton’ which university supervisors and cooperating teachers could use collaboratively to work with student teachers on developing their self-reflective skills. The model needed a structure that could be presented and demonstrated briefly in the short amount of time during meetings with both university supervisors and cooperating teachers collectively, yet one that would allow for their skill development as they worked with the student teachers and be adaptable to various student teacher needs in various placements. With this new model, prompts would not be close-ended looking for an answer to “did I do it right?”, but rather the university supervisors and cooperating teachers would know their implementation was effective based on subsequent evidence they observed from the student teacher’s performance. With these goals in mind, the Guided Reflection Model was developed and implemented (see Appendix A). Informal comments from cooperating teachers and supervisors who used the model were positive, however, a more formal field study was desired to garner both quantitative and qualitative data.

This study sought to field test the Guided Reflection Model with 10 cooperating teachers and 10 university supervisors working with 10 student teachers over the period of one semester.

The research questions were:

- Is the Guided Reflection Model an effective structure for cooperating teachers and university supervisors to use to improve student teacher performance?
- Can university supervisors implement and use the Guided Reflection Model given a small amount of professional development time spent together to learn how to use the model?
- Do cooperating teachers and university supervisors perceive that using the model helped them to develop their student teachers’ skills to self-reflect on their professional practice, advocate for their professional development, and implement change in their professional practice?

Review of Literature

Developing self-reflection in teacher candidates is not a new idea. The importance of formative development in clinical practice began as part of the Master of Arts Teaching program under the direction of Morris Cogan at Harvard University in the early 1950s. Cogan developed a Cycle of Supervision emphasizing the importance of the supervisor's training in the process, the development of a collaborative, trusting relationship between the supervisor and teacher, and the open conversation between the supervisor and teacher about the teacher's teaching and how to improve the teaching (Cogan, 1973). Goldhammer (1969) worked with Cogan at Harvard on the Cycle of Supervision and later at The University of Pittsburgh. He added to Cogan's model that the key to effective conversations is the training of the supervisor as well as the supervisor's dedication to using the process in the best possible way (Goldhammer, 1969).

Many authors since have concurred on the value of conferencing to engage the teacher in self-reflection and to establish collaboration between the supervisor and teacher that focuses on the teacher's growth (Costa & Garmston, 2002; Danielson, 1996, 2007; Danielson & McGreal, 2000; Ribas, 2002; Stronge & Tucker, 2003).

Glatthorn's (1990) significant contribution to the clinical supervision process was to focus on the benefits of a self-reflection and collaborative reflection that would allow each teacher to develop formatively. He believed that adult development is most successful when the adult is empowered to guide his or her own development.

Such efforts help teachers to improve professional practice (AASPA, 2002; Blasé & Kirby, 2001; Brandt, 1996; Costa & Garmston, 1993; Danielson, 1996, 2001, 2007; Danielson & McGreal, 2000; Dyer, 2001; NAESP, 2001; Ribas, 2005; Stronge, 2002; Stronge & Tucker, 2003; Sweeney, 2001; Wolf, 1996). This "new paradigm... emphasizes a trusting environment in

which growth and empowerment of the individual are the keys to...success” (Costa & Garmston, 1993, p. 5). Such an environment also promotes positive feelings which “contribute to a positive sense of self and enable teachers to function at their highest level” (Blasé & Kirby, 2001, p.6). In this type of environment teachers do not work in isolation, but rather they freely exchange perspectives on their teaching strategies (Danielson & McGreal, 2000; Glickman, 2002). When teachers collaborate in this way, they create a community of learners (Brandt, 1996).

Key to these conversations is the ability of the university supervisor to serve as a leader of cognitive discussion with the adult student teacher. This may be a new and different experience for many supervisors who, from their training and experience, developed expertise in guiding the growth of school-age children. In order to lead collaborative conversations with teachers about their professional practice, supervisors need training about how to work with teachers as adult learners (AASPA, 2002; Brandt, 1996; Costa & Garmston, 1993; Danielson & McGreal, 2000; Knowles, 1980; Ribas, 2005).

Cognitive Coaching, developed by Costa and Garmston (1993) offers an extensive model for changing the inner thought processes to improve overt teacher behaviors that, in turn, enhance student learning. Costa and Garmston describe coaching as being symbolized by a stage coach: Like a stagecoach, a cognitive coach should help to convey a person from where she or he is to where she or he wants to be. The conveyance is accomplished through carefully constructed conversation led by the coach. Skillful cognitive coaches apply specific strategies to enhance another person’s perceptions, decisions, and intellectual functions. The discussion provides a set of strategy and way of thinking that invites the individual to shape or reshape his or her thinking in order to solve problems. It enables the individual to modify his or her capacity

to modify him or herself. The coach is a mediator; one who figuratively stands between a person and his thinking to help him become more aware of his thoughts (Costa & Garmston, 2002).

While the model is effective with student teachers (Burnett, 2014), it has some significant drawbacks: Extensive training is needed to master; there is a steep and extended learning curve for implementation; multiple day sessions for training are needed; and travel is involved to reach the sessions. Therefore, it can be difficult to use in a university setting with university supervisors and cooperating teachers who have varied schedules, serve as part-time adjuncts, and do not come to any central location regularly (Gaudino, 2011).

Methodology

In the spring semester of 2016, the Guided Reflection Model was field tested in western Pennsylvania by 10 cooperating teachers and 10 university supervisors working with 10 student teachers for the time period of one semester. Prior to the start of the semester, cooperating teachers and supervisors attended a half-day of training about the model and how to use it for the post-conference. This included a teaching demonstration followed by enacting the model with a university supervisor, cooperating teacher, and student teacher. Then a second teaching demonstration and the cooperating teachers and university supervisors conducting mock-post conferences to discuss the teaching. Cooperating teachers and university supervisors had access to the trainer by email and phone conference for guidance throughout the semester. At the conclusion of the semester, a brief survey was administered to the cooperating teachers and university supervisors. The prompts supported the research question of this study were:

Please indicate your role: University Supervisor or Cooperating Teacher

1. The Guided Reflection Model was helped student teachers to self-reflect on their professional practice.

2. The Guided Reflection Model was helped student teachers to determine how to advocate for their professional development.
3. The Guided Reflection Model was helped student teachers to improve their professional practice.
4. In the space below, please provide any comments you have about the model.

Participants responded on a scale of 1 to 5 with the designations: 1/Strongly agree; 2/agree; 3/neutral; 4/disagree; 5/strongly disagree.

Findings

Ten cooperating teachers and nine university supervisors indicated that using the model helped student teachers to self-reflect on their professional practice, while one university supervisor indicated a neutral response (see Table 1).

Table 1: Question 1: The Guided Reflection Model was helped student teachers to self-reflect on their professional practice.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Cooperating Teacher	5	5	0	0	0
University Supervisor	3	6	1	0	0

Ten cooperating teachers and nine university supervisors indicated that using the model was helpful to student teachers developing their ideas for advocating for their professional development, while one university supervisor indicated a neutral response (see Table 2).

Table 2: Question 2: The Guided Reflection Model helped student teachers to determine how to advocate for their professional development.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Cooperating Teacher	7	3	0	0	0
University Supervisor	2	7	1	0	0

Ten cooperating teachers and nine university supervisors indicated that use of the model helped student teachers to improve their professional practice, while one university supervisor indicated a neutral response (see Table 3).

Table 3: Question 3: The Guided Reflection Model was helped student teachers to improve their professional practice.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Cooperating Teacher	7	3	0	0	0
University Supervisor	5	4	1	0	0

Discussion of Numerical Responses

There are some patterns in responses across the responses that are worthy of discussion. Overall, more cooperating teachers marked ‘strongly agree’ in response to all prompts as compared with university supervisors indicating that cooperating teachers saw greater value in the model. There is no indication from the comments as to why this is. However, it is noteworthy that cooperating teachers interacted daily throughout the entire semester with the student teacher, whereas, the university supervisors interacted with student teachers and cooperating teachers every few weeks typically for an hour or less.

The same number of cooperating teachers responded ‘strongly agree’ (seven) and ‘agree’ (three) regarding the helpfulness of the model for student teachers advocating for their professional development and improving their professional practice. In contrast, the university supervisors saw less benefit for the advocating (two indicated ‘strongly agree’, seven indicated ‘agree’, and one indicated ‘neutral’).

Discussion of Comments

Subjects provided substantially comments. Half commented about their satisfaction with the model and that they intend to continue using it. One cooperating teacher stated, “I always thought it would be helpful to have some sort of guide for having conversations with my student teachers” and “this model is exactly what I have wanted. I appreciate that it doesn’t tell me what to do, but rather leaves room for my creativity and desire to differentiate my response for my student teacher.” Several (two cooperating teachers and two university supervisors) indicated simply that they would like more training. Another cooperating teacher commented, “A half day training was helpful, but I would like another follow up session where coops and supervisors could share out their experiences with the conversations.” Several university supervisors commented that their student teachers felt that the conversations were very helpful. Two subjects, one cooperating teacher and one supervisor, commented that the flexibility of the model was both helpful and challenging. The supervisor stated, “Just as the model puts the student teacher in the driver’s seat, it also puts the cooperating teacher and supervisor in the driver’s seat to make of this model what they want” and “it could be a very ineffective skeleton, but with self-reflection and effort on the part of those leading the conversation, it is a great tool.

Recommendations and Conclusions

This was a limited, field-test study involving 10 cooperating teachers and 10 university supervisors. Based on the findings, it appears that the model holds hope for helping student teachers. Future research could expand the number of participant cooperating teachers and university supervisors, in a larger and more varied geographic area. It could also take into account the type and years of experience of both groups. Additionally, the research could include the student teacher responses and compare those with the cooperating teacher and

university supervisor. These steps could lead to results that are generalizable to a larger population.

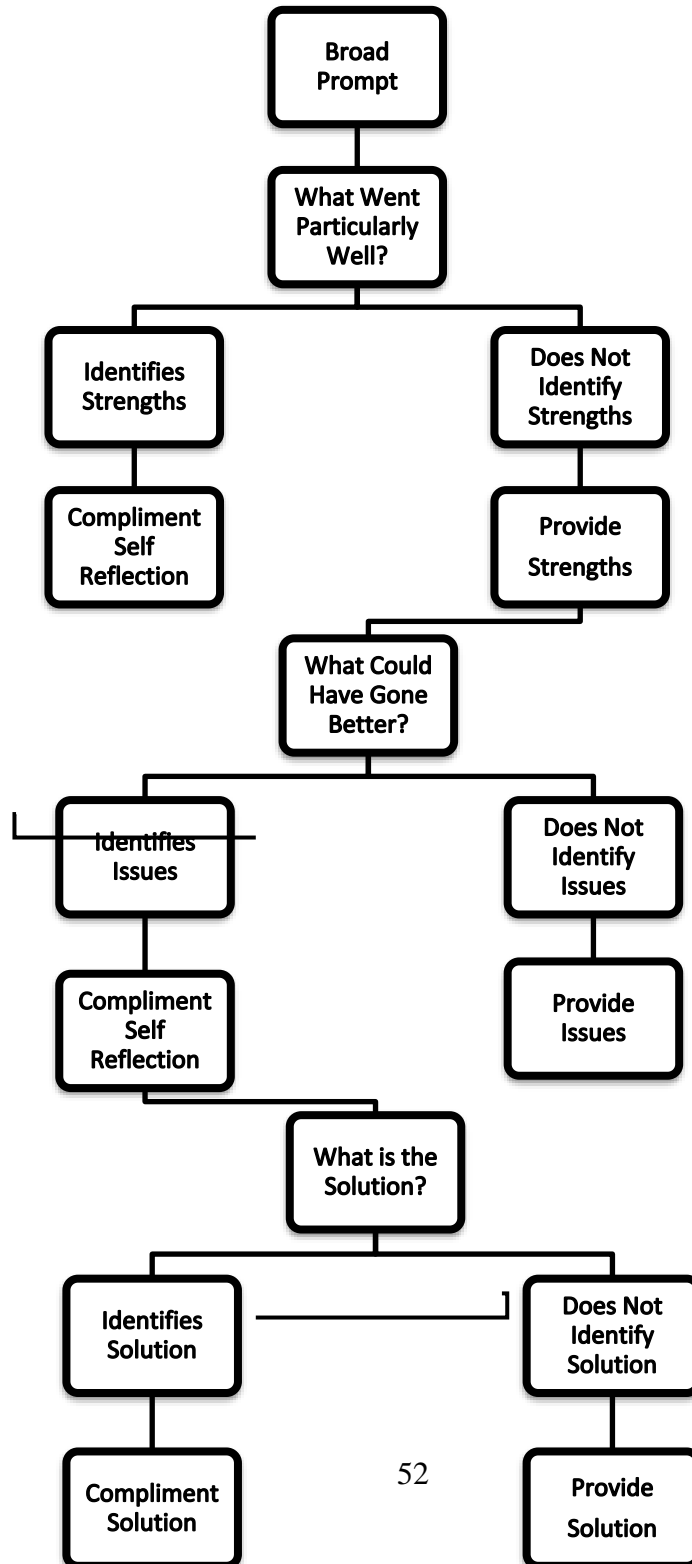
Qualitatively, it would be interesting to probe the perceptions of each group as to how and why they responded the way they did. Additionally, it would be interesting to garner the perceptions of the student teachers about the conversations. This could be done in focus groups with each cooperating teacher, university supervisor, and student teacher together interacting dynamically or through individual interviews. Advantages and disadvantages exist with each model and the researcher would need to prioritize the goals of the study to determine the best approach.

Finally, this field test was conducted by the creator of the model and author of this article. Although careful attention was given to controlling for any bias, future studies would hold more credibility if they were conducted by others.

The Guided Reflection Model appears to hold promise in assisting cooperating teachers, university supervisors, and student teachers with their discussions. Because of the skeletal nature of the model, training is necessary for its implementation. Perhaps it would be more important to probe how the initiative and willingness of each group (cooperating teachers and university supervisors) effects the implementation of the model and perception of the student teacher. Given these findings, expanding the scope of implementation of the model and future investigation may be warranted. At a time in the United States when there are concerns about respect and freedom, this affirms the value of trusting collaborative relationships between the student teacher, cooperating teacher, and university supervisor. Working together, we can create the opportunity for collaborative, respectful, and transformational dialogue to improve teaching and learning.

The Guided Reflection Model

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Impact of a Content Area Practicum Experience on Pre-Service Teacher Self Efficacy within Content Knowledge and Instructional Practices

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Background

A teacher's effectiveness hinges on an understanding of both content and the learning process. To be highly effective, a teacher needs to have a rich, coherent conceptual map of their discipline; an understanding of why a subject is important; and an understanding of how to communicate knowledge of that subject to others (Darling-Hammond & Baratz-Snowden, 2005). It is not enough for a teacher to know their content. An effective teacher can draw relevant connections and provide real world examples within their subject area. Thus, displaying a much deeper understanding of the discipline that they teach.

Prior research has explored whether teachers' knowledge and ability are associated with student learning in the classroom. In short, major studies have found that students learn more from mathematics teachers who majored (earned a four-year degree) in mathematics than from teachers who did not (Goldhaber & Brewer, 1997). Similarly, students learned at higher levels from mathematics and science teachers (with a major) who studied teaching methods in the subject they teach than from those who did not (Monk, 1994). It is a long-held stance that content knowledge is a dispositional pillar with respect to teaching effectiveness. From foundational studies such as (Shulman, 1987) to (Hill, Rowan and Ball, 2005) and a plethora of others, findings have shown repeatedly that when a teacher possesses high/higher levels of content knowledge it positively influences student achievement. Foundational knowledge of the

subject matter also leads to higher levels of teaching efficacy (Lee & Tsai, 2010) and pedagogical content knowledge (Park & Oliver, 2008) each of which can again positively affect student achievement in various disciplines. The importance of a strong background in content knowledge is undeniable, however, respective influences and possible interventions are broad and numerous and can be difficult to evaluate.

These and similar findings exhibit the crucial need for our secondary (grades 6-12) educators to have a robust background in the areas they teach. Adequate content preparation, with appropriate pedagogy courses along with rich experiences to improve communication skills are all necessary components of a quality teacher preparation program. Unfortunately, many current teacher preparation programs cannot squeeze all the best practices within their curriculum provided credit hour restraints and regulations associated with certification at the state level. This can severely limit the creativity of our traditional teacher preparation pathways to meet the quality demands of our 21st century educators.

Context

The push for advanced content knowledge for secondary educators is rapidly increasing. This is especially true for middle school teachers in grades 6-9. A current trend in high schools has nearly 2.7 million students taking Advanced Placement (AP) courses annually (College Board, 2017). This is done in part because it is a success measure for the U.S News and World Report, Newsweek and the College Board school rankings. The merits of this policy and measure are debatable. Nonetheless, this current trend tends to shift higher level courses and content down to lower grades and middle schools. In some districts Biology and or Earth Science can be completed by 8th grade and in many states, elementary and middle grade teachers are required to teach out of content area licensure. This adds an additional strain for middle

school principals who generally have a larger percentage of out-of-field teachers compared to high schools. Table 1 depicts the percentage of middle grades teachers that have a major or content area certification for the four major disciplines in middle schools.

Table 1: Percentage of Middle Grades Educators with a Content Major or Certification

Subject	% w/ Major	% Certified
English	47.7	57.9
Math	30.8	54.4
Science	45.5	58.1
Social Science	51.7	60.6

(Baldi, et. al., 2015)

As shown in Table 1, just about every subject area has less than 50% of its teachers with a college degree concentration in the field in which they teach. Math is especially low at 30%. It is also alarming is that roughly only 60% of teachers are certified in each of the respective content areas? Many states allow teachers to simply add on certification areas by passing an exam. At first glance and interpretation one could easily presume that many middle grades educators lack traditional content area preparation in the fields in which they currently teach.

However, middle grades have always been an under-defined field. Licensing and certification options focusing exclusively on middle grades are rare, less than 20 percent of core middle grades teachers have separate and specific middle grades only teaching license (McEwin and Greene, 2011). Additionally, middle grades teachers are also the most likely to enter the field through alternative licensing programs (Feistritzer, 2011). Other oddities within this field include the fact that many elementary certifications go through grade 6, and many of the middle grades focused teacher preparation programs allow teachers certify in two areas and the background of these teachers would not qualify under a single content major. This approach is generally utilized to help the marketability of graduates by enabling them to fill more than one

void for a school. Provided the growing specialization of content in middle grades, the need for focused content preparation can easily be extracted. Colleges and universities generally serve a mission to meet the workforce demands of society. This expectation is equally true for teacher preparation programs. Teacher preparation programs face a conundrum; enhance the marketability of its graduates or develop the best prepared teachers regarding current job demands.

Perspective

Teacher preparation programs vary widely across the nation regarding requirements for core (first two years of study), content (area of specialization or major) and pedagogy (teaching focused) coursework. In relative examples among reviewed colleges and universities a typical middle grades teacher preparation program consists of up 60 hours of core requirements, 30-35 credit hours of pedagogy, and approximately 18-21 hours of content courses if a program has two subject areas of certification and approximately 40 hours of content if there is a single content area focus. In either case, a potential teacher may just have to take three courses in their content certification area(s) that are at the junior or senior level. In addition, once certified, many teachers can take a standardized test (PRAXIS 2, etc.) in an area which they would like to “add-on” to their initial certification. Once they pass that exam, they would be eligible to teach in a subject area in which they have little formal preparation, as many states exempt a credit hour requirement for additional certifications via exam. Many educators and researchers are critical of K-12 standardized tests and their ability to adequately measure student knowledge. Ironically, the same types of tests are used to gauge the level of content knowledge of teachers as an indicator of their aptitude to teach that discipline. Interestingly, this trend does not reflect research findings that reiterate that effective teachers need to have a solid background in the

content areas in which they teach. Despite this conflict, many teacher preparation programs or state certification criteria do not reflect this need for content expertise as most face teacher shortages.

Formal college coursework is not the only manner for a teacher candidate to acquire content knowledge within their certification areas. Contrary to this common approach, cognitive research has shown that more information is retained when it is applied during the learning process. This can be achieved through many approaches such as modeling, teaching and active dialogue. In short, active learning that has the student participate rather than be an observer needs to occur within the content courses in which they enroll. Increased content retention is especially important given the small number of courses that are required in many educator preparation programs. If many of us reflect on our college courses, most would recall the lack of active participation in a lot of them. Teachers cannot afford to “forget” what they learned in science, math, English or history if they are teaching those subjects. Additionally, the lack of higher order understanding of the content could diminish a teacher’s ability to communicate, draw relevant connections and provide real world examples.

This need for teacher content knowledge and related pedagogical skills forms the basis of much of the ongoing professional development educators must take to maintain their certifications and grow professionally. Not surprisingly, professional development offerings are often very different compared to formal college coursework. Teacher professional development can consist of workshops, field-based training, hands on learning opportunities, and the chance to try and evaluate techniques and or equipment. Often these opportunities have a much narrower focus and time commitment compared to college coursework, and assessment is often alternatively based and not representative of standardized multiple-choice exams. For seasoned

educators many of the professional development opportunities offer a low risk way to expand their knowledge and abilities. Effective educator professional development has been shown to enhance inquiry-based teaching practice and foster an investigative classroom culture (Supovitz & Turner, 2000) and in some instances subsequent student achievement (Huffman, Thomas & Lawrenz, 2008). It is surprising that pre-service teacher education does not readily incorporate many of the strategies utilized within in-service teacher training.

This disparity forms the central focus of this study. Related research questions include:

- Would pre-service educators benefit from a content focused learning opportunity that is representative of a Research Experience for Teachers (RET)?
- Could these experiences provide new and beginning teachers with greater sense efficacy and an improved initial foundation from which to teach content effectively?

RET's

The National Science Foundation initiative “Research Experiences for Teachers” (RETs) and related practices that have been assessed previously in the literature. A commonality present in these experiences is that teachers will have an active role in the conduction of discipline-based research. These experiences have been found to increase positive and accurate statements concerning implementing research-based science practices i.e., “Inquiry Based Learning” (Grove, Dixon & Pop, 2009) along with increasing teachers content knowledge and field/laboratory skills (Dresner and Worley, 2006). Additionally, similar research internships were consistently viewed by students as important contributors to their later success in college degree attainment (Maton & Hrabowski, 2004). This is especially true with regards to traditionally underserved populations of students; who in subsequent interviews, indicated that these experiences have contributed to their desire to pursue careers within a specified discipline (Maton & Hrabowski, 2004). Finally, another project reviewed 53 studies of research

apprenticeship experiences for secondary students, undergraduates and teachers and determined that these experiences had a significant positive influence on ideas about inquiry, understandings of content, efficacy (Soldner, et al., 2012). Overall, the use of participatory research experiences demonstrates true promise in engaging pre-service teachers to attain a better conceptual understanding of their disciplines.

Intervention

As secondary education is evolving, the demand for content expertise for today's educators is dramatically increasing. Along with being experts in pedagogy, teachers are expected to have extensive knowledge in their respective content areas. Additionally, theoretical best practices call for educators to draw real world parallels between content, practice and student lives. At issue here is that much of today's college content interaction resides in coursework. A true real life "experience" with science, history, math or English is lacking in much of the traditional college curriculum. Teacher preparation programs need to provide a way for candidates to apply their content knowledge from coursework apart from traditional classroom settings. Experiencing content application in a single setting (teaching internships) doesn't fully allow candidates to experience the nuances within careers and the content associated with their relative content areas. The goal of this intervention is to provide relative field experiences within careers associated in chosen content areas. An anticipated outcome is an increased self-efficacy related to application and communication of pertinent content knowledge.

The Content Area Practicum Experience (CAPE) places middle grades teacher candidates in organizations related to the subject areas they plan to teach. The conceptual framework behind this program is rooted within Dewey's Constructivist Learning Theory. Within this

framework learning is perceived as an active, not a passive, process, and knowledge is constructed, not acquired. Teacher candidates interacted and engaged with professional scientists, historians, mathematicians/statisticians and or writers/communication specialists. Participants were placed in nine respective local organizations. Here they interned for 40 hours over the course of a semester. Teacher candidates worked in partnership with applicable organizational employees and were assigned appropriate tasks related to the content background of the placement. Candidate expectations for each type of placement is described below:

- Science Teacher Candidates expected to work with naturalists, rangers or environmental specialists and learn about the various aspects of the organization that entail scientific research or conservation.
- Math Teacher Candidates expected to work with statisticians, budget/finance or engineers and learn about the daily applications of mathematics in the organization.
- English Teacher Candidates expected to work with communication and marketing personnel and develop press releases, grant/technical writing or web page content.
- Social Science Candidates expected to work with curators, social researchers and exhibit managers to research, communicate and assist in historical data collection

In addition to the internship, teacher candidates were required to create a standards-based lesson/activity that coincides with the mission of the organization of placement. Lesson planning allowed the teacher candidates to make connections between content in the real world and requirements in the traditional K-12 classroom. These lessons were compiled and refined for future use in the K-12 classroom by the participants or interested parties.

Participants

Over the course of one semester approximately 22 undergraduate students majoring in middle grades teacher education were placed within 9 respective organizations. These students self-selected (volunteered) to participate in the CAPE initiative and subsequent evaluation and research establishing a convenience sample of teacher candidates. Participants were comprised

of 14 females and 8 males of which 18 were white/Caucasian, 3 were black and 1 was of Hispanic descent. A majority (16) of the students were considered traditional (under age 22) college students while the remainder (6) would be considered non-traditional. Lastly, there were 10 students placed within a science-based organization, 6 that focused on history, 4 in English/language arts and 2 in mathematics.

Measures

This study utilized a single subject research design, which is typically utilized to assess changes in behavior of an individual or small group over time. The goal of this type of research is to generally show the effects of an intervention or treatment on a predetermined population. To measure the impact of the intervention (participation in CAPE internship) a mixed methods approach was utilized to determine influence on pre-service teacher self-efficacy. Quantitatively, participants were pre and post tested utilizing a modified version of the Teachers' Self Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001). Specifically, modification was conducted using a specific subset of items within the instrument geared towards "Instruction" that assessed perceived efficacy in content knowledge and pedagogy. The subset of questions focused has been rigorously vetted previously in the literature and demonstrates validity and reliability of outcomes. Findings from the pre and post assessment of the questionnaire were investigated for participant and group growth in sense of efficacy. Qualitatively, in a posttest only format, the teacher candidates participated in focus groups and were asked three general open-ended questions and asked to reflect as to whether they felt the program had any substantial influence on areas of teaching self-efficacy within instructional practices.

Findings

Table 2 provides results from the pre and post self-efficacy survey with item means. The instrument is a 9-point scale that has educators rate their confidence and ability on various tasks associated with classroom instruction.

Table 2: Findings of Content Area Practicum Experience Efficacy Survey

Item	Pretest Mean	Posttest Mean
How much can you do to help your students think critically?	6.4	7.1
How much can you do to motivate students who show low interest in school work?	5.4	6.6
To what extent can you provide an alternative explanation or an example when students are confused?	3.8	7.8
To what extent can you craft good questions for your students?	6.5	8.0
How well can you implement alternative strategies in your classroom?	3.3	8.3
How much can you do to foster student creativity?	5.1	7.9
How well can you respond to difficult questions from your students?	7.7	8.1

*Paired T-Test calculation of ($p = 0.0076$) was found to be statistically significant

Additionally, qualitative responses were collected on the utility of the program via structured focus groups. First, table 3 depicts a set of agree or disagree questions and responses are depicted as percentage of group ($n=22$).

Table 3: Tabulated Responses of Program Utility from Participant Focus Groups

Item	% Disagree	% Agree
Experience a positive influence on pedagogy for critical thinking	0.18	0.82
Experience a positive influence on pedagogy to motivate learners with relevant activities	0.14	0.86
Provide students with alternative explanations within applicable content	0.23	0.77
Be comfortable teaching applicable content in traditional classroom	0.09	0.91
Provide real-world examples for applicable content in traditional classroom	0.18	0.82
Apply content knowledge learned in traditional college coursework within a real-world setting	0.14	0.86
Gain new content knowledge that would not traditionally be covered in college coursework	0.09	0.91

Lastly, focus group participants were asked to provide further insight as to what they felt were positives vs. areas in which improvements could be made with respect to participation in the CAPE intervention. Several quotes from respective teacher candidates are provided below.

Positive Reflections:

- “Able to see several areas of research that are up and coming (i.e. storm water pollution, going green, and invasive species)”
- “I feel that this experience has made this semester in our science class go much smoother for me than if I had not had that experience.”
- “As a future teacher I was able to be in a more hands on environment along with students allowing all of us to feel and experience what we were learning”
- “The practical use of content knowledge was one of the greatest assets of the experience.”

Reflections for Improvement:

- “No interaction with middle grade students.”
- “The workers were super friendly but hardly had anything planned out exactly, so we never really knew what to expect.”
- “One thing that could have been improved was the length of the program. It was only 5 weeks long.”

Analysis

Initial analysis of the findings show that the intervention of a content focused field experience had a positive influence on pre-service teacher self-efficacy with respect to pedagogy and content knowledge. On a quantitative level, growth was observed on every item from the pre to post examination of participant perspectives of confidence in respective teaching task. A paired T-Test was utilized to compare the participant responses prior to and after the “CAPE” intervention and the calculation of ($p = 0.0076$) was found to be statistically significant. This evidence supports the hypothesis that participation in the intervention has a positive influence on

pre-service teacher self-efficacy. Notably, two items demonstrated large gains from pre to post assessment, and both were associated with teacher ability to provide alternative explanations or learning strategies with respect to specific content. In addition, qualitative responses from focus groups were enumerated to determine overall trends. Outcomes show that every aspect of the experience appeared to have a significant majority of the pre-service teachers agree that the CAPE experience benefited their content knowledge application within pedagogy and overall general efficacy in educational settings. Open ended responses generally backed previous findings that demonstrated utility of the intervention and its impact on various elements of teaching efficacy. Negative perceptions of the intervention mainly arose with the lack of interaction with K-12 students for many of the internships and lack of uniform structure in some of the organization experiences. Pre-Service teacher-based interventions like the “Content Area Practicum Experience” need to undergo a much more robust evaluation and study to determine true statistical impact. However, initial pilot findings show that teachers of advanced subject area content, especially teachers in middle grades in this instance, appreciate working in informal and discipline specific environments to expand their content knowledge and pedagogical skills. This especially holds true with respect to their confidence in their ability to provide real world examples and connections.

Discussion

The impact and importance of teacher self-efficacy is undeniable, and most practitioners and researchers involved in educator preparation would agree that it is a critical disposition to be able to install within future teachers. Research that supports to utility of a greater sense of self efficacy is wide ranging and vigorous. In general, teachers with higher levels of efficacy have a greater impact on student achievement and motivation (Mojavezi, 2012). A recent study in The

Elementary School Journal found that teacher self-efficacy had a greater effect on the reading outcomes of 5th-grade students than years of teacher experience or teacher educational attainment (Guo, 2012). In addition, a greater sense of teacher self-efficacy shows positive links with students' academic adjustment, patterns of teacher behavior and practices related to classroom quality, and factors underlying teachers' psychological well-being, including personal accomplishment, job satisfaction, and commitment to the profession (Zee, 2016). Many more studies exist to "prove" the value of teacher self-efficacy. Researchers have measured self-efficacy and have investigated its impact on many educational variables. However, there are far fewer studies that investigate manners in which to foster or grow teachers sense of self-efficacy. If this disposition is of critical importance shouldn't the educator preparation community seek ways in which to instill and or grow self-efficacy in teachers? There is a plethora of professional development for teachers focused on fostering student self-efficacy but a dearth of initiatives that is primarily geared towards teachers. This discrepancy exists because self-efficacy is complex and is a junction of several dispositional, attitudinal and cognitive factors. In short, it is messy and consists of a combination of content knowledge, pedagogical skills, professional dispositions and personal attitudes. Developing a strong sense of efficacy is a long-term process and maybe too arduous to be targeted within ongoing teacher professional development. Another question to ponder would be "Is self-efficacy (especially within teachers) something a person is born with or can it be developed?" Attributes associated with leadership are related to efficacy. It is a measure of self-confidence and there has long been a debate as to if leaders (and associated confidence) are born that way or can that trait be nurtured or instilled. As with most things in human nature the answer is most likely "both" and this has meaningful implications as to how educator preparation. This and similar studies can provide insight in how to nurture elements

self-efficacy within teacher preparation and professional development to achieve meaningful growth and progress. However, educator preparation programs may need to consider measuring initial self-efficacy within the admissions process as a predictor of future success and determine if a candidate's level is too low to overcome or if additional training is required to address present deficiencies. The assessment of self-efficacy could serve as an indicator of confidence and leadership abilities required to be an effective teacher. Those students that score low could be counseled and interviewed to either present the professional growth needed to be effective or counseled out of teaching if they feel that the tasks are too daunting.

Provided the complexity of teacher self-efficacy findings from this study can play a small role in influencing the preparation of teachers. It is encouraging when interventions and reform initiatives can possibly impact or influence educational outcomes like self-efficacy. In the case of this work, it is especially important with the respect of an intervention's impact on a teachers' confidence and ability to differentiate and foster inquiry and creativity within respective disciplines. Limitations to this work obviously exist. The sample size of 22 pre-service teachers is small limits any broad generalizations of findings. A lack of a comparison group also limits the ability to better attribute gains in self-efficacy to the implementation of the intervention. Lastly, the self-efficacy instrument itself and the way it is constructed (9-point scale) can provided an easier path to determine significant changes to mean scores compared to instruments that possess a much narrower scale. However, promise arises from findings of this study as we consistently seek ways to improve teacher preparation.

Educator training is a field that is consistently targeted for change and reform. Currently, 20% of all new teachers as come from an alternative pathway (lateral entry, Teach for America, etc.) to teacher preparation (US Department of Education, 2013). At the same time there has

been an increase in scrutiny and accountability for traditional preparation programs (Cochran-Smith, et al., 2016). One of the primary reform charges brought upon the Council for the Accreditation of Educator Preparation (CAEP) is the greater emphasis on earlier field experiences and more overall hours in the K-12 classroom for programs seeking accreditation (CAEP, 2016). Irrespective of the disparity of requirements between traditional and non-traditional educator preparation programs many reforms and changes fail to adequately address content knowledge for middle grades educators and issues that impact teacher self-efficacy. Much of the preparation in either pathway is focused on teaching or pedagogy and content knowledge is assumed to be acquired elsewhere but applied within teaching. However, teacher self-efficacy is dependent on both. Simply put, a person will generally have higher levels of teaching confidence if they also have a strong sense of their content area acumen. Therefore, interventions such as “CAPE” that are utilized within a preparation pathway can serve a vital role in the overall and well-rounded training of a teacher. This may be especially true with respect to middle grades educators where content knowledge obligations are increasing and there are many instances of under-defined or non-uniform requirements within preparation pathways.

Future Directions

There are several aspects to consider with respect to findings from this study. In short, most recommendations involve implementing more creative models of intervention within teacher preparation and professional development. First, further investigation into the expansion of models like CAPE and RET’s would be beneficial. Again, most of these programs are offered to practicing teachers and often pre-service teachers are not eligible. Now, most college students can partake in research-based experiences or internships but those mainly focus solely on the discipline. The link to teaching is missing and often possible connections between content and

pedagogy don't happen. The unique aspect of CAPE is that it takes an intervention geared towards practicing teachers like RET's where experiences within the content field are inherently linked back to classroom practices and provides a similar opportunity to students prior to entering the profession. It would be interesting to see replication and scale up studies to not only measure impact on teacher self-efficacy but possibly impact of effectiveness on beginning teachers as measured by student test scores and administrator evaluations.

With respect to content knowledge and specifically middle grades educator preparation there are other reforms that would be interesting to investigate. Another area in which CAEP is seeking improvement is the collaboration between colleges/departments of Education and their counterparts in Arts and Sciences. Obviously, this initiative stems from past findings that much of the past collaboration has been less than adequate. With teacher self-efficacy being a crossroads of sorts between content and pedagogy and the need for both serves as an impetus as to how both are achieved in educator preparation. It would be unique to investigate the impact of having content area courses (sciences and humanities) go beyond labs or discussion sections and maybe require development of teaching materials and or outreach in informal settings. These labs could be co-taught or facilitated by education faculty with input from the arts and science faculty. It would be the real-time application of what is being learned in that course. A program would need to create teacher designated sections of these labs, but it would not be an impossible task. It would be interesting to see if students that participated in such courses had greater level of self-efficacy or performed better with respect to evaluations or future student performance.

If we truly desire to have teachers that are both experts in content knowledge and teaching skills, then field experiences and teacher training need to also reflect and foster this emphasis. All too often, teacher internships are short lived and focus on mostly pedagogy.

Content knowledge is usually assessed in the form of standardized assessments and is rarely measured in practice. Teacher Education needs to move to blend both content and pedagogy in their classes and internships. A dichotomy is forming between the alternative certification routes which are generally viewed as heavy in content preparation and traditional routes that are viewed as emphasizing pedagogy. The Content Area Practicum Experience and or similar interventions could be an effective way to foster the relationship between both content knowledge and pedagogy.

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The Journey from “Not Again” To “This Was Great!”

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As part of a teacher preparation program, teacher candidates are required to go out into the field to experience a real classroom. Many times college professors would create assignments for the students to complete on their field experience. University faculty encourage K-12 teachers to engage the candidates in as many teaching behaviors as possible through those assignments, but K-12 teachers who are overburdened with preparing for several classes, accountability pressures from standardized tests, and lack of resources often see the teacher candidates as one more responsibility which could be pushed to the bottom of their “to do” list. The following is a story of how one teacher candidate and one mentor teacher navigated the field experience, which culminated in a meaningful and successful experience for both.

The Introduction

Greg, Mentor Teacher: I received an email from the university stating there would be another practicum student beginning next week. I promptly tossed it in the trash and didn’t give it another thought. The next week I was paged to the front desk five minutes before class was to begin. I rushed down to the office to meet the new practicum student. I glanced at him, noticed the Partridge Family bus colored mad bomber hat on the head of an eager-looking college student, extended my hand for less than a cursory greeting, turned around and headed back to my classroom. I thought to myself, here is just another kid that was going to come and sit in the back of my class and check off his required observation hours and soon be gone.

Jake, Teacher Candidate: Here I go, starting another new semester for a practicum in a new school. The first step after finding out who my cooperating teachers were going to be was to email them about my schedule to see when I would be able to come to their class. This semester I was to be splitting my time between a science classroom and a math classroom and as a science major, I clearly was looking forward to the science placement the most. However, when I emailed the teachers, I heard back from the math teacher who enthusiastically replied within the hour but didn't hear back from the science teacher at all. Naturally, I decided to get going with the math teacher.

The first day had arrived and I woke up at 6:45am to get ready and go through what I considered to be an adult routine. I was going to work with students today and maybe I could even teach! Unfortunately, I didn't give myself as much time to get ready as I thought and arrived at school only 5 minutes before school began. I was prepared to rush to the classroom, however the office secretary paged my two teachers. My math teacher was excited and friendly, and told me to come on back to her room. The science teacher, Greg, shook my hand. I said to him, "I will be in your room this time tomorrow", to which he replied sarcastically, "me too". Great, what was this guy's deal?

The First Day in Science Class

Greg: I didn't see the practicum student again for a few days as he was doing his observations in the 6th grade math classroom. Then, he finally showed up at my door and informed me it was my turn. Yep, good, come in, sit down, whatever. His name was Jake and as I introduced him to the class the students immediately called him "Jake from State Farm". So, apparently the kids saw something that wasn't in their repertoire of normal behavior regarding visitors to the class.

Jake: I woke up anxious. I was going to the science class with Mr. Moen. At this point, I was assuming I would be sitting in the class watching him the whole time. When I arrived at school, I found his classroom and walked in none too early. I really need to improve my timing. The introduction to the class was brief. The most notable part being that all the students called me Jake from State Farm. I hate that nickname. Throughout the period Mr. Moen taught and asked me a few questions. I took notes on the culture of the classroom which was an assignment for one of my university courses. Whatever. Busy work. The most unique thing I picked up on the culture was that all the students call their teachers by their first names. It was Greg, not Mr. Moen. So this was going to be my practicum. Sitting and watching for a month. Forty hours of my life. My lucky hat had failed me.

Something's Unique

Greg: The next time we started talking it was soon evident that Jake had an approach to his practicum experience that was unique. He was anxious and eager and was viewing his practicum as an opportunity to actually engage in classroom work as a teacher, not as an observer. So, I had him sit and watch, allowing him to get to know the kids a little and batting him a question or two during my teaching lessons, letting him get his feet wet as to how we operated. Our conversations turned to what more could he do. It was in those conversations that I had sort of an epiphany, recognizing instead of tolerating practicum students, why not put them to the test? If you want to teach, why not try it on for size and see how it works for you? So, we began small, but quickly. We talked about the content of the unit and Jake was given small activities or problems to present to the class. He did well, the kids responded favorably to him being up front so we progressed to the next level.

Jake: I didn't see too much improvement over the next couple of days because I was splitting my time between the math and science classrooms, until one day Greg randomly asked if I would work a problem on the board with the students. Yes! Yes! Yes! Is what I said inside my head. In reality I like to think I was more slightly more smooth and calm when I responded to Greg. The problem was a simple Punnett square in a genetics unit. So, I taught it, and the students responded well to me. I thought, I can do this! Apparently Greg was pleased with me too as I was able to keep running problems with the students.

And It Builds

Greg: I teach seventh grade life science periods 1 and 2 so we worked out a gig where Jake would watch the first hour, taking notes on what I did and how I did them and then second hour would be his to run. It was very successful as Jake somewhat parroted what I did the first hour but it gave him important face-to-face time in front of the class. The expectation was just that: get some time actually teaching knowing you are going to flop, fail, and die at times, but so what? Be up front and teach. During those times, I was there for quick bailouts for Jake and sometimes it resulted in a co-teaching experience. We had only a short bit of time to debrief after second hour but we increased our communication by email, discussing what worked and what didn't and how to improve in those areas.

Jake: There were even a few days when Greg let me teach all of second hour after watching him teach the lesson the first hour. However, this only made me want to teach more. I had lessons I needed to do for my university courses and I needed to plan them myself. Upon asking Greg when might be a good time for me to plan my own lesson and teach it, he told me I could start the next unit, evolution, which was one of my favorites. There was little time for communication, so I borrowed a textbook and planned my first lesson on my own.

Finally Teaching!

Greg: Jake was getting really comfortable in front of the kids so I decided that he could open a new unit and teach for 4 days, two hours per day with his stuff. He had three days to get ready.

One of my admonishments to him prior to starting the unit went something like this:

“Jake, I’ve purchased the groceries, I’ve made the meal, set the table and served the meal to you and you ate it. What you’re going to do next week is a big jump. I’ve set the tone, helped establish the culture, enacted discipline expectations, and you reaped the benefits of it. That will change on Monday. It’s yours. Go.”

Monday came and Jake was very excited and got the class going while I sat back and watched.

About 50 minutes into class it was obvious he had run out of material and had 20 minutes remaining. He turned and gave me that look we all know as educators, “help me”! Nope, sorry.

It is your deal Jake. Needless to say, we didn’t have to talk about that before he left for the day.

He knew what he needed to do for tomorrow. The rest of the week went very well, especially in the area of over-planning and having more material than could possibly be covered in one class period. I made a few suggestions there but overall Jake did a good job teaching kids he had only been around for three weeks or so.

Jake: I needed to plan a vocabulary lesson for one of my university courses so I thought I would start with that on my first day of planning and teaching. I even made up my own game for the lesson. I know teachers who “steal” material from each other instead of doing it themselves, but I thought I am young and creative and I can make up my own game! Bad idea. The next day in class, I was ready to go. I had my notes. I was writing all over the white board and thought to myself, “I’m teaching!” I thought I was doing all right at first because the students seemed to be learning the vocabulary words and grasp the concepts I was trying to teach. It was now time for my game. Unfortunately, I did not have the answers to all the questions and was still planning

some aspects of it on the fly because I had never tested the game before. I am dying. Then, out of the corner of my eye, I see a student fall and a table break. Oh no! There goes my teaching opportunities! Thankfully, the bell rang right on cue with my suffering. Now I have two minutes to think of how to improve the game before the next group of students came.

Second hour did go much more smoothly, but that first hour was brutal. I knew after that period I needed more material to teach and I need to forget any ideas of grandeur that went with making up my own activities. I need to teach, and I need to survive. The rest of the week, I taught and I thrived.

Evidence of Success!

Greg: Jake and his university professor came back after a few weeks away to check in and see the kids. Jake and his professor sat in on my first hour and watched me teach a lesson where the kids were explaining the emergency management contingency plans they made in the event of a severe influenza epidemic in our county. On the way to my second hour class, which was in another room, I told Jake he was teaching the class. He had no prep, no warning, and about 2 minutes to get himself together. As we walked into the room, he was greeted with cheers, applause and a standing ovation from the kids. He then proceeded to do a great job working through the lesson he had just seen moments earlier. He had guts, courage, and willingness to place himself into potentially difficult situations to make himself better.

Jake: It wasn't until I went in for a fun visit a few weeks later after my practicum had ended that I saw proof that I made a connection with the kids and reinforced my thought that I had a fulfilling practicum experience. I was expecting to go into the class just to say hi and see everyone and keep the relationship alive with Greg, but of course, he took the opportunity to give me another chance at teaching. I was to parrot what I observed first hour with the second hour

class. I had a two-minute warning. Oh, and I did I mention that my professor showed up to see what this practicum was all about. No pressure.

I walked tall into the second hour classroom which was across the hall from the first hour class. All of the students were ready and in their seats. When they saw me, they stood up and cheered. I do not know what I was thinking; I just remember being embarrassed by the massive smile plastered across my face. “Thank you everyone! Now, we have a lot to do today. Greg filled me in on everything, so need you to take out your notebook and we are going to start talking about emergency plans.” What followed was one of the best performances I had in my practicum. I was a teacher.

What Made The Difference?

As the Director of Clinical Experiences, I watched and listened to both the mentor teacher, Greg, and the teacher candidate, Jake reflect on their experience. I wondered why this time was so unique. Greg had practicum students before. Jake had been in other classrooms before. Why did Jake finally get the experience that helped him feel like a teacher? Here is what Greg told me when I asked him why he gave Jake much needed teaching experience:

“I believe it was sort of an alignment of the stars so to speak. My approach to practicum students changed after meeting Jake. I have always felt teacher candidates needed more time in front of the class but I never really put that expectation forth to the university students. Additionally, Jake came in with a different attitude than other practicum students. He was more like “I want to be a teacher” than, “I need to observe and get my hours.” So, I rolled on Jake’s attitude. Also the two hour block with 7th grade life science back to back where Jake could observe one and teach the next was very beneficial.”

Greg also mentioned to me that my communication with him during Jake’s practicum experience was invaluable. As Director of Clinical Experiences, I did not communicate directly with a cooperating teacher simply due to the sheer numbers—200 practicum students and 132 cooperating teachers. When Greg emailed me to tell me about Jake, I simply responded as I

would to any email from a teacher. It was also fortunate that I also had Jake in one of the courses I was teaching—although it was not the one with the required practicum hours. Greg kept me up to date on Jake’s progress and I could check in with Jake after class to see how it was going from his perspective. This entire experience, in Greg’s words, was “the culmination of the three of us doing the little extras required to give the practicum student a richer, more practical, real-life teaching scenario.”

For Future University Faculty, Mentor Teachers, and Teacher Candidates

Greg, Jake, and I would like to share some recommendations for those in similar situations. For the university/college faculty we recommend communicating a sense of urgency to their teacher candidates. Faculty may forget how intimidating it can be for a college student to enter unfamiliar territory and try to show initiative. Teach them how. Have them practice with one another what they will say and how they will behave before going out into the field. We also urge faculty to create in their teacher candidates a desire “try it on for size” and be as much of a teacher as they can be while in the classroom. Try to replace, for some candidates, the college mindset of the practicum as just an assignment to complete. Lastly, university/college faculty may consider how to develop relationships with teachers who are willing to mentor teacher candidates. Communicating with them on a regular basis throughout the field experience will go a long way toward achieving the desired behaviors.

To mentoring faculty, we say be willing to work with the teacher candidates, not just point them to a seat in the back of the room marking off the required hours. Encourage them to interact with students in the classroom and provide them with the opportunities to teach. Mentoring faculty may want to start with a prescribed protocol such as working with a small portion of a lesson, moving to a single lesson, then to a series of lessons. Remember to coach the

teacher candidate with supportive and helpful behaviors. One of the most impressionable and effecting coaching techniques Greg shared with Jake was the idea of “act as if...” He would say to Jake, “act as if you're a professional educator”. To himself he would say, “act as if you're doing a formal evaluation on the supervising teacher while he/she is teaching”. Those 3 little words, set both their minds to do what was most effective for learning. Lastly, we encourage mentoring faculty to honestly critique the teacher candidate’s performance so he or she can grow into the role of a teacher.

To the teacher candidates we say to go into the practicum experiences with the intention of acting like a teacher, not just an observer. You have seen teachers for the past 15 years so you know what it is like in a classroom. Now is the time to start practicing the profession, acting as the professional you want to become. Exhibit a sense of urgency to learn when you arrive in your practicum setting. Be on time, be ready to go with your lessons, and be willing to accept the critiques of the classroom teacher. Don’t be afraid to fail. You will. It’s okay. We all have. The lesson we learn from those failures are what make us who we are as veteran teachers.

Field experiences for teacher candidates are required in teacher preparation programs. The quality of those field experiences depends a great deal on the mentoring teacher. However, it is not the sole responsibility of the mentoring teacher. The teacher candidates and the university/college faculty also play a part in determining the quality of the experiences. When all three partners work together, as demonstrated in Greg and Jake’s story, amazing learning takes place.

<p>Dr. Wahl was Director of Clinical Experiences for 5 years at Bemidji State University. During those 5 years, she collaborated with K-12 schools in northern Minnesota placing teacher candidates for all their field experiences including student teaching. Prior to her work at Bemidji State, Dr. Wahl was a public school administrator and teacher.</p>
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Student Teaching Assessment:
An Analysis of University Supervisor and Cooperating Teacher
Perceptions of Pre-Service Teaching Performance

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Abstract

University supervisors and cooperating teachers are key in the development of student teachers. Their role in teaching, observing, assessing, providing feedback, leading, modeling, advising, supervising and guiding can be key to the transition from student to professional. One area that brings the university supervisor (US) and cooperating teacher (CT) together is the role of assessment. In the present study, 121 observations of student teachers were conducted by university supervisors and cooperating teachers utilizing the same observation assessment instrument. That instrument assesses ten areas of teaching that are generally aligned with Danielson's Framework and represent best teaching practices. Across the ten criteria the results indicated that there was, overall, a small difference in means between the assessment ratings of the US and the CT. All of the ratings means fell within the proficient to distinguished range with the US rating slightly higher than the CT on each of the ten areas. The authors discuss the areas of similarity and the areas of significant difference in terms of the roles of the assessors.

Mentoring and supervising student teachers is a role that comes at a critical transition time in student development. The university supervisor and cooperating teacher have distinct but overlapping roles in that development. Portelance, Caron, and Martineau (2016) state, “although their roles are distinct, they are complementary in that the combination of their respective specific characteristics allows for consistency in student training. Portelance & Gervais (2009) laid the groundwork for a typology of roles including informer, teacher, model, adviser, appraiser, and thought stimulator. The present study specifically analyzes the appraiser role of the university supervisor and cooperating teacher and their concurrent observations of the student teacher utilizing a validated observation instrument. The role of appraiser is critical in that many of the other roles may be an extension or may build upon the assessment or appraiser role. Based upon the observation assessment both cooperating teacher and university supervisor, individually, separately and collaboratively may be inclined to use the results as a teaching opportunity, an occasion to model specific skills, and/or stimulate thought through discussion of the observation.

As a supervisor, the relationship in the beginning is critical to the overall success of the placement. It is important that the student teacher and supervisor develop a relationship of trust and respect. The supervisor needs to establish a level of rapport that when constructive criticism is given to the student teacher he/she will be able to reflect on the suggestions and work to make changes to better enhance his/her teaching. Student teachers come to the student teaching placement with different perceptions, qualifications, life experiences, and attitudes. Just as we view k-12 students as unique in ability, understanding that the student teacher comes to us with their own unique set of strengths, weaknesses, and abilities informs our work as supervisors and

cooperating teachers. We often forget that what we learned about good teaching in the K-12 classroom very much can apply at the collegiate level.

Teaching is complex; it's not all about the content of the subject. While content knowledge is important, it is only one of the complexities of teaching. Teaching is physically, mentally, and emotionally demanding. Teachers are very active, moving about in the classroom and school all day. In our combined years of supervising student teachers, we have observed a sequence of professional discovery that occurs throughout the initial and subsequent student teaching placement. One of the first comments that student teachers make early in their experience is how physically exhausted they are at the end of the day. Soon to follow are comments on how emotionally drained they are at the end of the day. Addressing the many needs of the students they are teaching becomes more taxing than most would have thought. The more invested the student teacher becomes in the well-being of the student the more emotionally demanding. Next, the student teacher shares comments about the cognitive demands of teaching. As Danielson (2007, p2) indicates, "A teacher makes hundreds of nontrivial decisions daily, from designing lessons, to responding to students' questions, to meeting with parents. In other words, teaching is a thinking person's job; it is not simply a matter of following a script or carrying out other people's instructional designs." The student teacher moves through a sequence that has them discovering that the many facets of teaching include being physically, emotionally, and cognitively invested. It's what makes the art of teaching so complex on so many levels. As veteran teachers, this process reaffirms the complexities of teaching.

School districts adopt curriculums to implement the best possible instruction and assessment. They spend thousands of dollars looking for the best framework for teaching. Why do they do this? They know a solid framework produces results. Similarly, adopting a

framework for effective teaching assures that high levels of competence and excellence are achieved. Holding student teachers to the highest standards and requiring excellence is what an effective student teacher supervisor should evaluate throughout the student teaching placement.

Many professions have procedures that certify novice and advanced practitioners. These procedures give the public an assurance that those in the profession hold themselves and their colleagues to elevated standards of practice. A framework for teaching is valuable to both the novice teacher and the veteran teacher. It can be the guide for the novice teacher and can enhance the skills of the teacher who has been teaching for years. A framework for teaching is not only useful to the practicing educator but serves an even larger purpose. The framework is useful to the larger community, in that it conveys that educators, like doctors, accountants, nurses, architects, and other professionals are in fact members of a professional community (Danielson, 2007).

In 2013, the vast majority of states adopted the Common Core State Standards (CCSS). Charlotte Danielson released the new edition of the Framework for Teaching Evaluation Instrument to directly respond to the new initiative. The CCSS, when fully implemented in districts and classrooms would notably have a profound impact on education in America. The CCSS main focal point was to deal with what students should learn in the K-12 classroom to be better prepared for careers and college. The CCSS, would most impact the areas of curriculum and assessment. In 2013, policymakers and educators worked to revise curricula in the classroom and overall district assessments (Danielson, 2013).

From 2013 until the present, districts spent time evaluating instructional materials that would support the new CCSS. For districts to meet the needs of the students, new forms of curriculum, instruction, and assessment were required. In many cases, the instructional materials

used up to this point would no longer adequately address the academic needs of the students. School districts rolled out new curriculums, aligned with the common core state standards (CCSS). With the implementation of new curriculums, teachers would also need to obtain new instructional skills in order to best implement the new curricula in the classroom. All instruction and assessments would be aligned with the CCSS.

The implementation of CCSS instruction would clearly impact the teaching and learning process. A more in-depth conceptual understanding serving as a basis for higher forms of learning such as argumentation, logical reasoning and reflection would become a focus of teaching for the first time. This new teaching had not been a high priority in most school districts or teacher preparation programs. In many of the classrooms, students were now being required to take an active role in their own learning, and were encouraged to challenge the thinking and ideas of their classmates (Danielson, 2013)

Danielson's Framework for Teaching would align well with much of the philosophy of the CCSS. The centerpiece of the framework is student engagement or intellectually active. Instruction should not only be "hands-on" "but minds-on." The framework of Danielson's design allows teachers to create a community of learners where students assume a large part of the responsibility for the success of the lesson. Students monitor their own learning and serve as a resource to their classmates.

The applications of Danielson's Framework to the profession of teaching are too numerous to enumerate here. For the purposes of this study, the role of the framework is to highlight its relationship to the evaluation instrument developed at Lock Haven University for evaluating performance of student teachers. The instrument aligns well with the criteria outlined in the framework as seen in Table 1.

Table 1. Alignment of the Lock Haven University Student Teacher Evaluation Instrument and Charlotte Danielson’s Framework Domains of Teaching.

Lock Haven University Student Teacher Evaluation	Charlotte Danielson’s Framework (4 Domains of Teaching)
Content Knowledge	Planning and Preparation; Instruction;
Pedagogy- Instructional Planning Skills	Planning and Preparation; Instruction;
Pedagogy- Adapting Instruction	Planning and Preparation; Instruction;
Pedagogy- Multiple Instructional Strategies	Planning and Preparation; Instruction;
Pedagogy- Assessment of Student Learning	Planning and Preparation; Instruction;
Professionalism- Communication	Instruction;
Professionalism- Professional Commitment and Responsibility	Instruction; Professional Responsibilities
Professionalism- Reflective Practice	Professional Responsibilities
Environments- Classroom Motivation and Classroom Management	Instruction; Classroom Environments
Environments- Fosters relationships with school colleagues, parents, etc.	Professional Responsibilities

Method: The current study explores the relationship between ratings of the performance of student teachers by their university supervisor (US) and by the on-site cooperating teacher (CT) utilizing a validated student teacher assessment instrument. Between the Fall 2013 and Fall 2017 semesters, 121 observational assessments of student teachers by their US and CT in grades Pre-K through 8 were completed. The large majority of these ratings were done of student teachers participating in Pre-K – 4th grade during 7 week student teaching placement experiences.

The Lock Haven University Student Teacher Observation Form (LHU-STOF) is utilized in the study and serves as the instrument utilized each year by the nationally accredited teacher education program at Lock Haven University. The evaluation criteria in this assessment is aligned with the Danielson framework for teaching (Danielson, 2013). The LHU-STOF has been validated by the Lock Haven University Council on Teacher Education and is formally reviewed on a periodic basis.

The Lock Haven University Student Teacher Observation Form asks the rater to assess performance in four areas including: Content Knowledge; Pedagogy; Professionalism; and Environments. Content Knowledge is a stand-alone category for assessment. Pedagogy is comprised of four components; Instructional Planning Skills, Adapting Instruction for Individual Needs, Multiple Instructional Strategies and Assessment of Student Learning. Professionalism includes: Communication Skills; Professional Commitment and Responsibility; and Reflective Practice. The performance area Environments includes; Classroom Motivation and Management Skills, and Fosters Relationships with School Colleagues, Parents, etc.

The rating scale is 4= Distinguished; 3= Proficient; 2= Basic; 0= Unsatisfactory; and, NA= Not Applicable. The rater is provided with a two part comments section labeled Recommendations and Commendations. In total, then, there are 10 areas that receive a numerical rating and these areas are supplemented by the open-ended comments section.

Student teachers at Lock Haven University participate in two placements of seven weeks each. Those placements are in two different grade levels. For students with dual majors of special education and early or middle childhood education, one placement is reserved for special education and one for a regular education placement setting. For the study, observations were conducted by the University supervisor at the placement site. Lock Haven University supervisors are not required to and, generally speaking, do not announce visits to observe student teachers. While observations of the student teacher may well exceed one lesson, the *rated observation* using the LHU-STOF is a rating of the implementation of one classroom lesson generally of 30 to 90 minutes in duration. Each of the observations in this study fell within these parameters.

Each student teacher at LHU completes two student teaching placements of 7 weeks. The cooperating teacher role includes the on-site supervision of the student teacher throughout the seven-week period from the beginning to the end of the school day. The cooperating teacher has great latitude in his or her work with the student teacher, providing work assignments that range from co-teaching a lesson to taking full responsibility for lessons taught. For this study, observations of the cooperating teacher represent the teacher's assessment of the lesson taught that was also being formally observed by the university supervisor. This assured that in addition to observing the same student, they were also observing the same lesson implementation. This observation method assured that the instrument was utilized to observe the same student in the same time frame by two separate observers.

The 121 observations utilized include only those forms that were fully completed by both the university supervisor and cooperating teacher for the same observation period and student teacher. Incomplete forms and observations completed by only the cooperating teacher or university supervisor were discarded to assure a clean data set.

Results

One hundred twenty one observations by university supervisors and cooperating teachers yielded data that appears in Table 1. Note that the means for each area appear to be very similar, indicating that the observations of the university supervisor and cooperating teacher are quite comparable overall. For example a mean across the population sample of 121 cooperating teacher observations of 3.52 is very close to the overall mean of 3.72 for 121 university supervisor observations in the criteria *Instructional Planning*. Both fall clearly within the range of 3.5 to 4.0 or on the high end between proficient and distinguished.

Two areas were rated most closely by university supervisors and cooperating teachers. Those areas were: 1) Content Knowledge (.07 difference in means); and, 2) Pedagogy- Adapting Instruction to Meet Individual Needs (.11 difference in means). The largest difference between means were found for the two criteria rated under Environments. Specifically those areas were: Environments: Classroom Motivation and Classroom Management, and; Environments: Fosters relationships with school colleagues, parents, etc. The difference of means for Environments: Classroom Motivation and Classroom Management was .26 (University Supervisor M=3.60 and Cooperating Teacher M=3.35). Mean differences for all other criteria fell between .15 and .23 (see Table 2).

All ratings means for cooperating teachers fell between 3.35 and 3.75, solidly within the proficient-distinguished range. All rating means for university supervisors fell between 3.43 and 3.95, also within the proficient to distinguished range of performance. Because of this, the differences between means of the cooperating teachers and university supervisors were also relatively close and fell within that range. The p values indicated that although the differences represented proficient to distinguished ratings the ratings differences were not due to chance and were statistically significant. The differences of means p values were significant in seven of ten categories (at a confidence interval of .95 percent) and the p values appear in Table 2.

Table 2 LHU-STOF Means, Raw difference of Means, t values, and p values.

	US Means*	CT Means	Diff. of Means	t	p**
Knowledge of Content	3.75	3.64	.11	1.89	0.060
Pedagogy					
Instructional Planning Skills	3.73	3.52	.21	2.75	0.007
Pedagogy					
Adapting Instruction	3.43	3.36	.07	0.74	0.460
Pedagogy					
Multiple Instructional Strategies	3.58	3.41	.17	1.96	0.051
Pedagogy					

Assessment of Student Learning	3.60	3.45	.15	2.10	0.036
Professionalism					
Communication Skills	3.80	3.57	.23	3.85	0.0002
Professionalism					
Professional commitment & Responsibility	3.95	3.75	.20	3.85	0.0002
Professionalism					
Reflective Practice	3.84	3.65	.19	3.19	0.0016
Environments					
Classroom Motivation & Classroom Management	3.60	3.35	.26	3.21	0.0015
Environments					
Fosters Relationships with School Colleagues, Parents, etc.	3.89	3.64	.25	4.34	0.0001

*Headings are: University Supervisor Means, Cooperating Teacher Means, Difference of Means-Raw, t values, and p values **p values to level of 95% confidence

Conclusion and Discussion

In this study the researchers wanted to assess the difference between ratings of university supervisors and cooperating teachers utilizing a validated rating scale in a university teacher education program. Importantly, the scale utilized uses fairly common criteria for best teaching practices that are aligned with the Charlotte Danielson framework.

A finding of this study is that rankings on the LHU-STOF of student teachers were very similar overall with scores generally falling within the proficient to distinguished range and all means for both rater categories falling within those ranges. The overall means for university supervisors ranged between 3.43 to 3.95 across the 10 criteria and the overall means for cooperating teachers ranged from 3.35 to 3.75. The difference in raw means shows just how similar perceptions of performance were with a range of difference between .07 and .26 on a 4 point scale. The population sample size was large enough to show significant differences in the ratings (differences not due to chance) in spite of the rather small degree of variation in scores. The p values indicated significance with a 95% confidence level for 7 of 10 criteria, including

three areas that were extremely significant, that is the difference of means, although small, was the greatest in the study. Those areas were Professionalism- Communication; Professionalism- Professional Commitment and Responsibility; and Environments- Fosters relationships with school colleagues, parents, etc. This is very interesting because these are the three criteria that would lend themselves well to a rating of overall placement performance instrument in addition to or rather than an observation instrument focused upon the performance during one day and one lesson. The differences may well be related somehow to the assessment method rather than an actual perceptual difference between the two professionals providing the rating but this is supposition and not a direct finding based upon the data. A review of the appropriateness of removing these criteria from the current instrument and placing them on a separate instrument focused upon an extended period assessment is a potential consideration for future study.

The three criteria that were most closely rated as perceived by the University supervisor and cooperating teacher were Content Knowledge, Pedagogy-Adapting Instruction for individual needs, and Pedagogy-Using Multiple Instructional Strategies. The differences in ratings were not statistically significant in these categories. Reasons for the closeness in ratings might include the fact that the student teachers are most often in a situation where they are implementing a school district prescribed curriculum and lesson plan during the observation. Also, these criteria tend to be well defined in terms of description and expectation which may impact the result of similar rankings by the cooperating teacher and university supervisor.

Interestingly, the university supervisors rated the student teachers just slightly higher than the cooperating teachers on each the 10 criteria. The present study does not account for the reasons for those differences. The possibilities may be related to the differences in role, for example, : the university supervisor's ongoing interest in undergraduate student development and

view of the student over a longer period of time; the cooperating teacher working daily with the student teacher during the placement and the possibility of the observation being impacted by the overall performance during the placement; the cooperating teachers' work in an environment where evaluation of seasoned, experienced teachers is the norm; and the opposite experience for university supervisors who are generally dealing only with pre-service placement and teaching performance. Any of these or none of these may account for the differences in ratings perceptions which are noted in the study.

We were excited to find the close values in observational data. One professional's assessment confirmed by another professional provides the student teacher with consistent feedback. The differing roles of the cooperating teacher and university supervisor are nonetheless aligned in a manner that provides opportunities for the student to receive critical feedback during their transition period that directly informs their teaching practice. Use of this feedback during conferences, teaching, modeling, and other discussion opportunities may provide invaluable benefit the transition to professional life.

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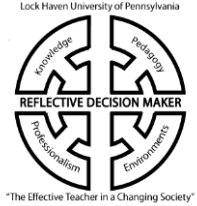
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Appendices

LHUP Student Teaching Observation Form



Student Teacher:
Cooperating Teacher:
School:
Time:

Date:
Grade:
Content:
Observation #:

NA= Not Applicable, 0 = Unsatisfactory; 2 = Basic; 3 = Proficient; 4 = Distinguished

NA 0 2 3 4

Knowledge

Knowledge of Subject Matter

Pedagogy
 Instructional Planning Skills
 Adapting Instruction for Individual Needs
 Multiple Instructional Strategies
 Assessment of Student Learning

Professionalism

Communication Skills
 Professional Commitment and Responsibility
 Reflection

Environments

Classroom Motivation and Management Skills
 Fosters Relationships with School Colleagues, Parents, etc.

Commendations:

Recommendations:

Supervisor

Student Teacher

Cooperating Teacher

In the Trenches with the edTPA:

A Mathematics Teacher Educator's Journey towards Implementation

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Abstract

In 2015, Connecticut piloted the implementation of the edTeacher Performance Assessment (edTPA; AACTE, 2014) for initial teacher education programs preparing candidates for certification. Connecticut is unique in that the Beginning Educator Support and Training (BEST) portfolio, the forerunner of the edTPA, was implemented for many years in the state. This paper explores how one mathematics teacher educator prepared for the implementation of the edTPA and concludes with materials created to provide candidates with lesson planning support. It will also discuss how curriculum revisions were made as a result of the pilot experience and make recommendations for programs implementing standardized teacher performance assessments.

Key Words: edTPA, academic language, lesson planning

The Accountability Movement in Teacher Education

Teacher education continues to be a profession under siege. The federal government has proposed a series of program accountability measures for teacher education that if enacted would change the landscape of the profession (Kumashiro, 2015). These new accountability measures would focus on four areas; program completers' impact on student learning, employment outcomes, survey data, and accreditation results. The involvement of the federal government is related to recent calls for reform in teacher education.

In 2010, the National Research Council released its report on teacher preparation programs (TPP). The report noted the wide variety of teacher preparation programs and the lack of a national outcome driven accountability system. They also noted problems with current teacher certification exams of poor quality with low cut off scores resulting in new teachers lacking the appropriate knowledge and skills (National Research Council, 2010). Critics of traditional teacher education programs also argued that beginning teachers were woefully underprepared and therefore radically new models were needed to address today's diverse classrooms (Bullough, 2014).

Many teacher educators contend that the edTeacher Performance Assessment (edTPA) is a strategic move by the profession to answer critics such as NCTQ with a performance-based assessment to gauge readiness to teach (O'Callaghan, 2014). The edTPA was designed by the Stanford Center for Assessment, Learning, and Equity (SCALE) (AACTE, 2014). The edTPA requires candidates to design a learning segment, videotape their performance, analyze student artifacts, and reflect on student learning.

Attempts to measure teacher candidates' performances in the field are not new to teacher education. The Performance Assessment for California Teachers (PACT), which assesses

candidates' abilities to design a learning segment, analyze student learning, and reflect on their teaching performance was a forerunner of the edTPA (Pecheone & Chung, 2006). The state of Connecticut for several years also required second year teachers to complete the Beginning Educator Support and Training (BEST) portfolio, which contained similar components to the edTPA (Darling-Hammond, Newton & Wei, 2013; O'Callaghan, 2014). Nationally, many classroom teachers have achieved National Board Certification, which also requires the construction of a portfolio, video component, and reflection on action and is the model for the edTPA (Darling-Hammond, Amrein-Beardsley, Haertel & Rothstein, 2011). In states that have already piloted the edTPA, such as Ohio, teacher candidates reported that they learned from completing the edTPA (Darling-Hammond & Hyler, 2013). Scholars cite the research on candidates' scores on standardized teacher performance assessments and the National Board Certification exam as positively associated with impact on student learning, one of the federal government's proposed accountability measures (Ledwell & Oyler, 2016). The edTPA's stated design is to address the complex range of skills and higher standards now required for all beginning teachers (SCALE, 2013).

In response to the proposed federal government mandates and changes in accreditation standards, Connecticut decided to pilot the edTPA to gauge whether it should be required for initial certification. The following section explores how one mathematics teacher educator embraced this challenge and delved into the world of teacher performance assessment.

A Mathematics Teacher Educator's Journey

A year ago I hadn't even heard of the edTPA. As the Secondary Education Mathematics liaison, I was informed that our elementary education program candidates were participating in a pilot in Spring 2016 and I was asked if I would be willing to help our secondary math

candidates participate as well. I agreed, completely naïve about the impact this decision would have on the following year of my academic life.

I began thinking about how to best prepare my candidates during the secondary math methods course that I teach (during their professional semester prior to student teaching). I started by reading the edTPA Secondary Mathematics Handbook. As I read the details, I noticed the similarities with the BEST portfolio I completed when I began teaching high school in 1999. Both the BEST portfolio and the edTPA required writing lesson plans, videotaping lessons, and reflecting. With these similarities and my experience with the BEST portfolio, I naively thought that preparing my candidates to complete an edTPA would be easy.

I decided that the best way to prepare my candidates for the pilot was to give them two “mini-edTPA” assignments that I linked to their existing field experience for the professional semester. The assignment was assigned once for the middle school level and once for the high school level. Each time, the candidates were asked to write a single lesson plan (not a 3-5 lesson learning segment) that was executed and videotaped during their field work. They also completed portions of Planning Task 1 and portions of Instruction Task 2 of the edTPA. They were scored based on edTPA Rubrics 1-3, 6, 7, and 10. I didn’t require the candidates to write an assessment for this lesson because I didn’t think they’d get the opportunity to execute it, which is why I didn’t score them based on Rubric 5. You might be wondering why I didn’t score them on Rubrics 4, 8 and 9. The honest answer is I didn’t feel like I completely understood how to interpret these rubrics. What exactly are these “language demands” and what are examples of support for them? What is meant by representations, and is it fair to expect that my candidates would need to use them in this single lesson that they are executing? Not being able to answer these questions for myself was unsettling. How would I support these candidates with

their edTPA in the spring if I didn't completely understand it myself? This led to the only obvious solution I could find. I would go through the training to become an edTPA scorer.

Most of my "free time" in February and part of March 2016 was spent going through the qualification process. This was harder than expected. I'm a former high school teacher and current college professor. I've used rubrics. I've created rubrics. But, suddenly I had to interpret someone else's rubrics with a degree of accuracy that required a lot of focus and concentration. Was the evidence presented to me a Level 3 or a Level 4? The difference was subtle and requires a deep understanding of the language of the rubric. Luckily, Pearson provided a "Thinking Behind the Rubrics" which was especially helpful to answer such questions. I qualified to score portfolios in March and scored portfolios that semester.

Meanwhile I was supervising several of the candidates working through the edTPA pilot during their student teaching. My students reported that they felt the "mini edTPA" assignments were a huge help in preparing for the pilot. They felt their peers in other subject areas (who were not participating in an official pilot, but were still completing an edTPA) were struggling in comparison. At this point I was feeling pretty good about my understanding of the edTPA and I was happy to hear my candidates were feeling fairly prepared. Yet the students were complaining about the lesson plan template we were using. To be fair, the likely main reason they were complaining was because it was new to them. They spent their entire academic career using a different template but then WCSU adopted a new one for Spring 2016 in an attempt to help with the edTPA. However their complaining led me to carefully evaluate the lesson plan template we adopted. My students were right. It could definitely use improvements. I searched online for existing templates, but I wasn't happy with them. This, again, led to the only obvious solution I could find. I would need to create my own lesson plan template.

Creating the lesson plan template wasn't as easy as I thought it would be either. (Are you seeing a trend here?) I had to make sure that anyone using the template would know how to use it. I had to make sure that if someone completed the lesson plan template it would have most everything necessary to complete the commentary prompts and satisfy the various demands of each rubric. There had to be a whole section on academic language demands and how to support them (no more ignoring this part like I did in the fall).

After creating the lesson plan template and tweaking it based on feedback from my candidates, my template (Appendix A) was adopted by the university. There were members of the faculty, however, that felt they needed some training on how to use it. The training is summarized in Appendix B.

By now the Spring 2016 semester was over and I turned to thinking about how to improve everything for the following year. I would need to adjust the "mini edTPA" assignments to include those pesky elements like academic language demands. As I thought about teaching these elements I realized that I wanted to create a sample edTPA as a model for my students. And, I didn't want to just create an edTPA, but I wanted to create one that would score 4's or 5's on every rubric. I, again, naively thought this wouldn't be very difficult. After all, at this point I completely understood the edTPA rubrics and how to interpret them. So, I started writing lessons.

I used my newly created and adopted lesson plan template to write the lessons. I focused my lessons around the fictional personal assets of the class. Honestly, this was new to me. I decided that my class would be especially interested in social media, such as Twitter and Facebook. (This didn't seem like a stretch for a fictional group of high school students.) I used the fact that the number of registered Facebook users increased almost exponentially when it

first launched in 2004. This exponential model (and a similar one for Twitter users) was a central theme throughout the learning segment. I was proud of my lesson plans. They were student-centered and incorporated lots of problem solving requiring perseverance (Common Core State Math Practice Standard 1, NCTM Standard 2). There were a variety of hands-on, interactive activities and opportunities for peer teaching. Despite all of this, I found myself frequently revising and tweaking my lessons and the instructional materials in order to accommodate all of the requirements necessary to score a 4 or a 5 on each rubric. For example, for Rubric 4, I had to make sure that my language supports address vocabulary and or symbols, my language function (explain) and at least one more language demand. This didn't come naturally to me. It required going back to what I thought were pretty great lessons and revising. The big take-away with this process is that frequently reviewing all of the rubrics during the planning process is crucial. This includes reviewing the rubrics for Tasks 2 and 3 during the planning process. After all, the lessons being planned in Task 1 will be implemented and if, for example, the plan doesn't incorporate representations, then when the lesson is implemented and videotaped, there won't be evidence to earn a passing score on Rubric 9. Likewise, the assessment being analyzed in Task 3 is being created in conjunction with the lessons created for Task 1. If, for example, the assessment doesn't give the students an opportunity to use the language function and one additional language demand, then a passing score on Rubric 14 can't be earned.

Writing a sample edTPA was a valuable and humbling experience that I know will help me to help my candidates to successfully complete their own edTPA. The good news is that my newly-adopted lesson plan template was effective. I was able to cut and paste most of the Planning Commentary responses directly from my plan into my sample edTPA.

Impact and Future Directions

In spring 2016, the Connecticut legislature passed a bill that required all educator preparation programs (EPPs) to seek CAEP accreditation. In order to prepare for this new accreditation pathway, EPPs will need to develop valid and reliable assessments to use across initial licensure programs. Therefore at our institution, the decision was made to implement the edTPA across all initial programs to meet CAEP standards as it meets validity/reliability criteria. In 2015-2016, a state-wide pilot of the edTPA was launched by the Connecticut State Department of Education and our EPP participated.

Seven Educator Preparation Programs (EPPS) participated in the pilot, including four state universities. Findings were that EPP faculty and administrators opined that the edTPA was an effective performance based measurement of teaching. However it should be noted that since this was a voluntary pilot, participant EPPs may have already been open to the edTPA. Some concerns raised by the EPPs were the additional cost of the assessment for candidates and the ensuing time constraints during student teaching (Venkateswaran, Feldman, & Bentz, (2016).

In September 2015, an administrative report on the first full year of national implementation of the edTPA was released (SCALE, 2015). The report analyzed 18,436 submissions and reported a national mean score of 44.3. Candidates were strongest on planning and instruction tasks. Data indicated that the most challenging area was responding to students' learning differences and adjusting instruction accordingly. The recommendation of the national administrative report was to provide candidates with formative experiences so that the instructional cycle of planning, teaching, and assessing would be internalized before student teaching.

Analysis of our EPP pilot data reflected that our candidates performed similarly to their peers across the nation. The majority of candidates struggled with Task 3 Assessment and with academic language. In order to remediate these areas, our initial program faculty engaged in a curriculum mapping exercise to embed Tasks 1, 2, and 3 throughout the program leading to student teaching in the senior year. Faculty were also trained to use the new lesson plan template (Appendix A) and to facilitate candidates' focus on academic language in their learning segments.

One of the advantages of using the edTPA is that all program faculty are able to discuss a common set of tasks and skills across handbooks. Beginning in Fall 2016, the faculty will implement the new lesson plan template designed for the edTPA and instruct candidates in the embedded edTPA tasks from our new curriculum map. This will enable the faculty to collect data on candidates' performance on the edTPA after these curricular changes and to monitor progress. As illustrated in this journey into the trenches of the Math edTPA, faculty engagement and reflection on its use, provide a way to collaborate with colleagues across initial licensure programs that has not been possible before in teacher education. Future data analysis will determine whether our curriculum revisions impacted candidates' performances on planning, implementation, and assessment.

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Appendix A. Secondary Mathematics Lesson Plan Template

Name		Grade Level(s)	
Date(s) taught		Course/Subject	
Lesson Title (and #)		Period length	

CONTENT FOCUS

Central focus	
Standard(s)	
Learning goal(s)/ Objective(s)	
“Why” statement	
Content-Specific Components (math example)	Conceptual Understanding: Procedural Fluency: Math reasoning and/or problem solving: Representations Used:

ACADEMIC LANGUAGE DEMANDS

Language Function	
Language Function Task	
Vocabulary and/or Symbols	
Vocabulary/Symbols Support	
Additional Language Demand	
Support for additional language demand	

STUDENTS' BACKGROUNDS

Prior knowledge/ Skill	
Prior Academic Language	
Students' personal, cultural and/or community assets	

MATERIALS

Required Lesson Materials	
Resources	

LESSON SEQUENCE

Setting	Time (min)	Lesson Component
		Before the Lesson Begins: Hook/Launch: 1. 2. Closure:

ANTICIPATING ADJUSTMENTS

Back-up Plan	
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ASSESSMENT

Evidence of Student Learning	
Content-Specific Assessment	

DIFFERENTIATION

Students with IEPs/504 Plans	
Classification/Need	Support/Accommodation/Modification
Language Needs	Support/Accommodation/Modification
English Language Learners	
Other Needs	Support/Accommodation/Modification
Students needing challenge/enrichment	
Common errors, misunderstandings	
Support to respond to above	

RESEARCH

Principles from research/theory to justify learning tasks	
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Appendix B. How to Complete the Lesson Plan Template

The lesson plan template in Appendix A was created in alignment with the Secondary Mathematics edTPA, but could easily be altered to most subjects/levels by modifying the “content-specific” components. To begin, notice that the template is written using size 11 Arial font since this is the requirement for the edTPA commentary responses. This allows for easy cut-and-paste from the lesson plan into the commentary responses.

Completing the Content Focus Section

The user should refer to the definition of central focus in the edTPA handbook. The central focus will remain the same throughout the learning segment. The user then needs to align the content of the lesson to applicable standards and identify 1 or 2 goals for the students. Completing the “why statement” gives the user the opportunity to consider connections to prior/future learning. The user should also state how the relevance of the lesson topic will be communicated to the students. Note that Rubric 3 of the edTPA assesses how well the “candidate justifies why learning tasks (or their adaptations) are appropriate using examples of students’ prior academic learning.” Thus, this portion of the lesson plan template is forcing the user to justify why their lesson tasks are relevant.

The content-specific portion would vary depending on the needs of the user. For the Secondary Mathematics lesson plan template provided in Appendix A, the user would need to explicitly describe how the lesson provided opportunities for students to develop conceptual understanding, procedural fluency, and math reasoning and/or problem solving. Also, the user must consider what representations will be used in the lesson plan to help students in these three areas. This portion of the lesson plan aligns directly with Rubrics 1 and 9. The user should carefully read the different levels of the rubric. For example, if the user wants to score a Level 4,

the lesson plans provided must “support learning of facts and procedures with clear and consistent connections to concepts and mathematical reasoning and/or problem solving”. The word consistent is emphasized to point out that for example, connecting to math reasoning and/or problem solving only once throughout the learning segment may only score at the Level 3. Thus, to score above a Level 3, the user should consider completing this portion of the lesson plan consistently for every lesson in the learning segment, if possible. Further, when implementing the lessons from the learning segment (Task 2), this portion of the lesson plan template may help the user with Rubric 8. Thinking about and planning the connections among mathematical concepts, procedures and math reasoning and/or problem solving should help the user to elicit student responses about these same ideas.

Completing the Academic Language Demands Section

The Academic Language section aligns with Rubrics 4 and 14. The language function is described and examples are given in the edTPA Handbook. The language function task is the task within the lesson that allows students to practice the selected language function. The user should also describe how to support students with this task. The support should be specific to the task, and not just generic support like monitoring the students. The user should carefully consider what they are expecting the students to do and think about how best to support them. It may be helpful to think about academic language demands in a parallel way as one would support an English language learner. The user next must consider what key vocabulary (and for math what symbols) are needed in the lesson and how the user will support the students to learn them. The support described should be specific and go beyond just defining the terms. To score above a Level 3 on Rubric 4, the user must include support for at least one additional language

demand over the course of the learning segment. Thus, this portion of the lesson plan template may not complete for every lesson.

Completing the Students' Backgrounds Section

This portion of the lesson plan template is also aligned with Rubric 3. In the “why statement” the user has already considered the students’ prior knowledge with respect to the relevance of the lesson topic, but in this section, the user should explicitly describe the prior knowledge/skills of the students. This may mean referring to assessment data from previous lessons. In order to score above Level 3 on Rubric 3, the user is asked to consider the students’ personal, cultural or community assets and how they connect to the lesson topic.

Completing the Lesson Sequence and Anticipating Adjustments Sections

This portion is the “meat” of the lesson. The user is asked to consider the setting (whole-class, pairs, individual, etc.) and the duration of every lesson component including the hook/launch/initiation and the closure. After the lesson components are complete, the user is asked to be proactive and consider what might not go as planned.

Completing the Assessment, Differentiation and Research Sections

To complete this section, the user is asked to consider the evidence of student learning. This portion is content-specific and aligned to Rubric 5. Carefully reading the different levels of Rubric 5 can guide the user with the assessments used across the learning segment.

The differentiation section must include the focus students from the Context for Learning. Any accommodations required by an IEP or 504 must be listed here. The user should consider how any planned supports tie to the central focus. To score above a Level 2, the supports must be “tied to the learning objective and the central focus”. This means support must go beyond generic support and must be connected to learning objective.

Finally, the research section is provided to help the user consider connecting their lesson's learning tasks to research and/or theory. This is aligned to Rubric 3.

**The Influence of a Pre-Service Co-Teaching Model on
Student Academic Performance in the Elementary Classroom**

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Abstract

This potential for clinical experience and the need for active mentorship of pre-service teachers comes at a time when teachers are increasingly reluctant to assume responsibility for pre-service teachers, in part due to the use of value-added evaluation models that seek to connect teacher performance to student performance (Goodnough, Osmond, Dibbon, Glassman, & Stevens, 2009; Zeichner, 2002).

In light of these concerns, it would seem that teacher preparation programs need to assure cooperating teachers (CTs) that mentoring pre-service teachers does not have an adverse effect on student academic performance; ideally, such arrangements might even have a positive effect. This mixed-methods study uses a causal-comparative research design, focus groups, and surveys to collect and analyze both quantitative and qualitative data to ascertain how an implemented pre-service co-teaching model might influence student academic performance. Results revealed the potential effects and benefits of such a model. Study limitations and implications for future implementation and evaluation are discussed.

Keywords: classroom, cooperating teachers, co-teaching, elementary students, pre-service teachers, student teachers, teacher education

Introduction

“It is impossible to teach people how to teach powerfully by asking them to imagine what they have never seen or to suggest they do the opposite of what they have observed in the classroom” (Darling-Hammond, 2010, p. 216). This statement by Linda Darling-Hammond underscores the importance of research which suggests that pre-service clinical experiences—what they observe in the actual classroom—hold promise as the place to connect educational theory and practice (Levine, 2011). However, as suggested by Bacharach, Heck, and Dahlberg (2010), teacher educators must move beyond the traditional pre-service teaching model to accomplish this. Moving beyond the traditional pre-service teaching model requires intentional and active mentorship from the Cooperating Teacher (CT) who works with the pre-service teacher (Korthagen, Loughran, & Russell, 2006). This active mentorship serves to facilitate integration between knowing about teaching and actually teaching (Bashan & Holsblat, 2012).

Background

The potential for pre-service teaching to improve student learning in actual K-12 classrooms (Koppich & Esch, 2012) has been a focus in teacher preparation programs for the past several years (Hollins, 2011). Recent research has suggested that a link between mentoring pre-service teachers and increased student academic achievement in the classroom may exist (Bacharach et al., 2010; Busman, McCrea, Vlietstra, & Adkins, 2017). In addition to the potential impact on student performance, other studies have indicated that the value of collaborative relationships in the clinical experience is worthy of further investigation (Kim & Danforth, 2012) and that these collaborative relationships can be superior to hierarchical relationships in promoting the development of nurturing characteristics found to be effective in

mentoring pre-service teachers into effective classroom practices (Valencia, Martin, Place, & Grossman, 2013).

When co-teaching, teachers share resources and assume joint accountability, although each individual's level of participation may vary (Cook, 2004). As a collaborative model, co-teaching seems to hold promise as a research-based instructional strategy that answers the question of how to introduce the intensive guidance and mentoring needed to close the gap between learning about effective teaching and actually doing effective teaching. To be successful, the development of a co-teaching model for pre-service teaching requires a re-examination of the roles of CTs, university supervisors, pre-service teachers, and school principals—all of whom play a key role in a successful co-teaching clinical experience.

Traditionally, CTs have perceived their role to be of a practical and technical nature, with a primary focus on effective classroom management with less emphasis on nurturing pre-service teachers in the nuances of effective instruction (Rajuana, Beijaardb, & Verloop, 2007). To facilitate the shift from this traditional practical and technical expectation requires hands-on support from the participating university's teacher education program (Kahn, 2001). University supervisors are positioned well to provide this required university support (Levine, 2011). They can actively support the norms of collaboration and collective responsibility, which include developing and communicating clear expectations for all stakeholders (Graham, 2006) and communicating with CTs regarding effective supervision practices (Harwood, Collins, & Sudzina, 2000).

Principals must also work closely with the CTs and the university supervisor(s) to ensure that the school climate actively supports a CT/pre-service teacher co-teaching relationship.

Without active support from principals, a pre-service co-teaching model will not be sustainable (Roth & Tobin, 2002).

Finally, pre-service teachers are expected to work collaboratively and approximate a full partnership with the CT in order to ground their theoretical knowledge in actual classroom practice. Since the engagement of K-12 students is highest when students are actively participating with a teacher (Magliaro & Borko, 1986), this actual classroom participation as a “new teacher” can be a powerful means of fostering student learning and effective teaching (Fernandez, 2002).

Theoretical Framework for the Study

The notion of pre-service co-teaching, as theorized by Roth and Tobin (2002), informed our study. Their work provided a critical and foundational framework for viewing the pre-service teacher as the “new teacher,” rather than the “student teacher” or “prospective teacher.” Pre-service co-teaching that uses the mindset of “new teacher” brings legitimacy to pre-service teaching, whereas traditional student/pre-service teachers are often regarded as novice, or even deficient, teachers whose presence might threaten a high-quality learning environment (Roth & Tobin, 2002).

Methodology

Research Design

We conducted a mixed-methods study, utilizing causal-comparative research design for one portion to investigate the relationship between independent and dependent variables after our intervention (Cook & Campbell, 1979). Focus groups and surveys also were used to collect descriptive data regarding the principal’s, CTs’, and pre-service teachers’ satisfaction with the pre-service co-teaching model and their overall experience.

Research Questions and Hypotheses

This study was conducted to answer the following question: Does the implementation of the co-teaching model within a pre-service teaching experience increase first- through third-grade students' achievements on math, reading, and language tests? In addition, we attempted to compare results from our co-teaching program intervention with a traditional teaching method. The primary purpose of this study was to evaluate whether pre-service co-teaching is an effective instructional model; therefore, the following hypotheses were tested:

- H1: There is no difference in the math achievement of first- through third-grade students in co-taught or traditionally taught general education classrooms.
- H2: There is no difference in the reading achievement of first- through third-grade students in co-taught or traditionally taught general education classrooms.
- H3: There is no difference in the language achievement of first- through third-grade students in co-taught or traditionally taught general education classrooms.

Another purpose of the study was to assess the school principal's, CTs, and pre-service teachers' satisfaction with the co-teaching model by asking them to describe their experiences and to list major benefits and challenges of co-teaching.

Participants

This study was conducted by three faculty members from a college of education at a university in Western Michigan and implemented in an area elementary school. The co-teaching program was implemented in all classrooms of first through third grades during the fall and winter semesters of the 2015-2016 academic year. Three first-grade classes, three second-grade classes, and three third-grade classes received services through co-teaching.

To select the pre-service teachers, we contacted potential participants from the pool of elementary pre-service teachers studying at the university. Pre-service teachers for the co-teaching program were self-selected by indicating their initial interest in participating. Those who wished to be considered were interviewed by the director of teacher education and the university supervisor. Interview questions were designed to assess each candidate's overall fit with the co-teaching model. All 10 candidates who were interviewed met the criteria and were selected for participation.

Co-teaching Model

During the first semester the pre-service teachers spent five mornings per week in a classroom placement while enrolled in additional university coursework in the afternoons and evenings. Classroom placement time increased for the second semester with pre-service teachers spending five full days per week in the same classroom while enrolled in additional university coursework in the evenings. While in the classroom, the pre-service teachers collaborated with the CTs during lesson planning and in selecting the co-teaching model that would work best for their proposed lesson on that day. Professional development for CTs and pre-service teachers was provided at the school site at the beginning of the fall semester and again at the beginning of the winter semester. These meetings featured discussions of the six co-teaching models described by Cook (2004): (a) one teach, one observe; (b) station teaching; (c) parallel teaching; (d) alternative teaching; (e) teaming; and (f) one teach, one assist.

Throughout the semester, the university field supervisor conducted observations every three weeks at specific times to collect data on the pre-service teachers' lessons as they used a co-teaching model. Following each of these observations, the university program coordinator

met with the pre-service teachers. They discussed teaching-related issues, focusing on what teaching model(s) worked and what could have been improved.

Data Collection and Analyses

Prior to conducting the research, we obtained university IRB approval, which allowed program implementation and data collection in the targeted school. We also obtained permission from the assistant superintendent of the school district involved to conduct the proposed research and to review students' achievement scores on the 2015 and 2014 Northwest Evaluation Association (NWEA) assessment measure for academic progress.

Data for two different groups of students from the participating school were collected for the causal-comparative portion of our study. School district officials made available de-identified scores for the elementary students involved in the experimental co-teaching program classrooms and de-identified scores for the comparison group. The experimental group included students in first through third grade during academic year 2015-2016 who received instruction through the co-teaching program. The comparison group included first- through third-grade students from the 2014-2015 academic year, all of whom received traditional classroom instruction. Data consisted of students' NWEA mathematics, reading, and language scores, with the exception that language scores were not available for first-grade students in both groups. The school conducts the NWEA educational assessment twice a year, with the first administration in the fall (at the beginning of the academic year) and the second in the winter of the same academic year. Therefore, data used in this study included students' results in mathematics, reading, and language from both the fall and winter semesters of the two academic years.

All quantitative data were analyzed using the statistical application SPSS 23 for Windows with the significance level of 0.05. Two types of comparison analyses were run. First, pre-test

and post-test repeated measures were run to determine any substantial increases in student scores. The second test was a split-plot ANOVA to compare students' scores from the two groups. Since students' tests are different from one grade to another, all of the analyses were conducted between groups within the same grade level.

Results

Pre-Test and Post-Test Repeated Measure

For each grade level in the experimental group, we examined students' test scores to determine growth in their performance between the first and second administration of the NWEA. A paired samples t-test was conducted to assess improvement in students' NWEA scores. The analysis showed significant increases in students' test scores from fall to winter in each subject area for every grade level. For example, the first-grade paired samples t-test showed that there was a statistically significant increase in math scores from fall ($M=160.3$) to winter ($M=171.31$, $t(63)=14.38$, $P < .000$). (See Tables 1, 2, and 3 for summaries of the paired samples t-tests for each grade level in the subject areas.)

Split-Plot ANOVA: Mixed Between-Within Subject

In an effort to determine the effect of co-teaching on students' NWEA scores, the 2015-2016 students' test scores were compared with the 2014-2015 students' test scores. A mixed-design analysis of variance was conducted to compare NWEA scores for the two groups for each grade level.

For example, a mixed between-within analysis of variance was conducted to compare first-grade students' scores on NWEA's math test at time 1 (prior to intervention) and time 2 (following the intervention). (See means and standard deviations in Table 4.) There was not a significant difference between the pre-test and post-test Wilks' Lambda [$= 0.985$, $F(1,118) =$

1.84, $P = 0.177$, multivariate partial eta squared (η^2) = 0.015], which indicates a small side effect. Ignoring whether students were in a co-teaching or traditional classroom, there was an overall statistical nonsignificant difference in students' performance. However, a significant main effect of the co-teaching model existed [$F(1,118) = 62.505$, $P = 0.000$, (η^2) = 0.436]. This indicates that students who received services through the co-teaching classrooms showed a higher performance compared with students in traditional classrooms.

This analysis was repeated for all grade levels and subject areas (Table 4). Analyses revealed that whether students were in a co-teaching or traditional classroom, there was overall a statistical non-significant difference in students' performance on NWEA math and reading assessments for both first and second grades. For third grade, however, data showed a significant difference in students' performance in all subject areas: math, reading, and language. (See Table 5 for the within-subject design analysis of variance.) Analyses also revealed that students in first through third grades who received services through co-teaching classrooms showed a higher performance compared with students in traditional classrooms. (See Table 6).

Focus Groups

Two focus groups were conducted to assess CTs' and pre-service teachers' opinions about the co-teaching model. The focus groups each included 10 participants, all of whom were asked to describe their overall experiences with the co-teaching intervention.

CTs reported that the co-teaching program enabled them to teach students at their instructional level. The CTs were able to split the students to have more groups in the classroom, and the pre-service teachers helped them reach each student. CTs and pre-service teachers also confirmed that there were benefits as they worked together collaboratively in a nontraditional classroom setting. To illustrate, one CT mentioned, "Both of us took the

ownership to meet the student need.” Another benefit was related to classroom discipline and management. According to the CTs, the pre-service teachers helped them better manage students’ engagement and behavior. “We do lesson planning together as well we manage the classroom together,” a CT said. From the CTs’ perspective, the co-teaching program also allowed pre-service teachers the opportunity to build relationships with the elementary students, positively preparing the teachers for their future careers. CTs noted that pre-service teachers had the opportunity to communicate with students’ parents and learn to recognize issues related to the students.

Similarly, the focus group with the pre-service teachers themselves revealed that the co-teaching program helped them communicate with the CTs and learn from their experiences. They supported the CTs in the classroom and helped the elementary students in the learning process. Both the CTs and the pre-service teachers recommended continuing the co-teaching program in the school for the next academic year.

Surveys

All participating CTs and pre-service teachers completed their assigned surveys. The results revealed that 90% of the CT participants had not had any experience working as coteachers in the past. These survey results aligned with what the participants shared during the focus groups. About 90% of the participants mentioned that CTs and pre-service teachers worked collaboratively with all students in the cotaught classroom. Also, 85% of the participants reported that the CTs and the pre-service teachers worked together to handle discipline and grading for all students in the cotaught classroom.

Although this research was not intended to assess which of the Cook (2004) co-teaching models was most effective, we did investigate how often these models were used per day.

Results showed differences between the CTs and pre-service teachers in describing the times these models were used, except for the co-teaching model “one teach, one assist.”

As in the focus groups, the CTs and the pre-service teachers listed benefits of the co-teaching intervention on the surveys they completed. According to the CTs, co-teaching enhanced the process of teaching and learning and allowed them to implement several teaching strategies in the classroom. In addition, co-teaching made teaching in general more enjoyable because of the positive relationships they were able to establish among CTs, pre-service teachers, and students.

CTs and pre-service teachers, however, also listed some minor challenges they faced during the implementation of the co-teaching program. These challenges were related to time and schedule. For example, the CTs indicated they would like to have more time to plan and share thoughts and coordinate with their pre-service teachers. Some CTs reported that they would like to have a better understanding of the co-teaching models and the college of education’s expectations during the next academic year if the program were to be continued.

In the surveys, the majority of CTs reported that co-teaching benefited their students because the pre-service teachers helped them to better meet the children’s needs. One CT mentioned that, “... having two teachers is better than just one; we were able to provide academic, emotional, and behavioral support for my students.” The classroom teachers also indicated that they felt positive about supporting the pre-service teachers and helping them to gain needed experience for their future careers. Finally, the CTs felt that the co-teaching program was a great experience because it prepared children to listen and learn from two teachers, which enhanced the children’s communication skills.

The CTs' opinions aligned with the pre-service teachers' survey opinions about opportunities for additional co-teaching experiences. The pre-service teachers reported that they would like to have a year-long co-teaching cohort plan in the same classroom because they would be able to create better relationships with the CTs and the children. On the other hand, some pre-service teachers suggested that they would prefer to visit another classroom in a different setting so they could learn more strategies and teaching styles.

Principal's Opinion

According to the school principal, the biggest benefit of co-teaching was the "greater opportunity to differentiate." To clarify this, the principal wrote that having an additional qualified instructor in the classroom helped meet student needs on a regular/more frequent basis. The principal explained that meeting student needs was accomplished by dividing the classrooms into small groups and/or through teachers working together strategically to monitor students at work. Another great benefit to co-teaching was constant collaboration. Having two perspectives and different ideas allowed for improved planning and reflection. A final benefit of co-teaching mentioned by the principal related to the effect co-teaching had on classroom management and on building various efficiencies as a result of having two adults available to provide supervision and assistance. The principal, however, indicated that pairings between CTs and pre-service teachers could be a challenge. The co-teaching program was new in the school, so building procedures and expectations for everyone involved was essential.

Discussion

The findings suggest that the CTs involved in this study should not be concerned that test scores might fall due to the implementation of a pre-service co-teaching program. Overall, the analysis

showed significant increases in students' test scores from fall to winter in each subject area for every grade level.

The results are not clear regarding whether the implementation of the pre-service co-teaching model actually increases first- through third-grade students' achievements on math, reading, and language tests? For both first and second grades analyses revealed that overall there was a statistical non-significant difference in students' performance on NWEA math and reading assessments. The exception was third grade where the data did indeed show a significant difference in students' performance in all subject areas in the pre-service co-teaching classroom (See Table 5 for the within-subject design analysis of variance). The third grade results are encouraging regarding the possible effects of co-teaching and warrant closer analysis before any conclusions might be drawn. Moreover, analyses also revealed that students in first through third grades who received services through co-teaching classrooms showed a higher performance compared with students in traditional classrooms. This higher academic performance also supports continued study of pre-service teaching as an approach to increasing classroom achievement.

However, continuation of the study must address the challenges that surfaced in the year one implementation. While teachers who participated in this project indicated that they were satisfied with the pre-service co-teaching model and, in fact, have continued to participate, this has required considerable planning and logistical effort. Great care was taken to ensure that the CTs and pre-service teachers were well prepared to work within this model and were well matched for their partnerships. Additional observations were added to ensure fidelity to the co-teaching model and that partnerships were running smoothly. This model is not one that can be easily implemented without the full support of CTs, pre-service teachers, and building

administrators. In particular, administrative support was critical, and the building principal was involved every step of the way. He offered input into the initial design of the project, the selection and support of CTs, and approaches to data collection and feedback.

While the outcomes and implications of this study suggested the potential benefits of utilizing a co-teaching model during the pre-service teaching semester, the study had limitations. First, none of the participants were randomly assigned to groups. The CTs and pre-service teachers voluntarily participated and thus may have held positive views about the potential of co-teaching models. These positive views, in turn, may have influenced their instruction in the classrooms. Second, we were unable to match the co-taught classrooms to current traditional classrooms. We could only match them to classrooms from the previous academic year.

Ideally, to truly test the effects of co-teaching, an experimental or quasi-experimental design would need to be implemented. An ideal design would include current comparison/experimental classrooms so as to control for current events, curricula, and the professional development experiences of the teachers.

Conclusion

A mixed-methods study was utilized to assess whether pre-service co-teaching models influence teaching and learning compared with traditional classroom instruction models. Results revealed potential effects of co-teaching models on students' achievement and showed several benefits of utilizing co-teaching models in classrooms. The results provided sufficient motivation for the principal to agree to participate in co-teaching again during the 2016-17 school year. Several factors influenced the decision to continue with pre-service co-teaching: quality of pre-service teachers involved, positive feedback from the CTs, student data that

showed a positive effect, greater potential for small-group work, and enhancements in the classroom culture.

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Table 1

Summary of Paired Samples T-Test for First-Grade Students in Experimental Group

Subject	N	Fall Mean	Winter Mean	Mean Diff	SD Mean Diff	t-value	df	Sig-(2-tailed)
Math	64	160.13	171.31	11.188	6.220	14.38	63	.000
Reading	64	157.64	168.06	10.422	6.389	13.050	63	.000

Table 2

Summary of Paired Samples T-Test for Second-Grade Students in Experimental Group

Subject	N	Fall Mean	Winter Mean	Mean Diff	SD Mean Diff	t-value	df	Sig-(2-tailed)
Math	54	176.15	186.65	10.500	6.031	12.795	53	.000
Reading	54	170.54	184.17	13.630	9.016	11.108	53	.000
Language	54	173.67	185.50	11.833	7.978	10.899	53	.000

Table 3

Summary of Paired Samples T-Test for Third-Grade Students in Experimental Group

Subject	N	Fall Mean	Winter Mean	Mean Diff	SD Mean Diff	t-value	df	Sig-(2-tailed)
Math	78	187.51	193.40	5.885	5.641	9.214	77	.000
Reading	78	187.04	193.94	6.897	8.781	6.937	77	.000
Language	78	187.67	193.87	6.205	7.671	7.144	77	.000

Table 4

Summary of Mixed Between-Within Subjects for All Grade Levels

Grade Level/Subject	Groups	Fall Mean	Winter Mean	Fall SD	Winter SD	<i>n</i>
First-Grade Math	Comparison	140.11	149.45	12.028	13.890	56
	Experimental	160.12	171.31	15.922	16.990	64
First-Grade Reading	Comparison	141.16	149.02	10.226	11.455	56
	Experimental	157.64	168.06	11.461	13.364	64
Second-Grade Math	Comparison	164.70	173.92	10.320	11.327	37
	Experimental	176.15	186.65	11.299	8.666	54
Second-Grade Reading	Comparison	159.35	159.35	10.374	10.020	37
	Experimental	170.54	170.54	13.321	11.971	54
Third-Grade Math	Comparison	171.94	182.67	11.396	9.602	67
	Experimental	187.51	193.40	11.745	11.243	78
Third-Grade Reading	Comparison	168.85	181.30	15.867	15.826	67
	Experimental	187.04	193.94	17.062	13.866	78
Third-Grade Language	Comparison	171.61	183.18	14.478	14.769	67
	Experimental	187.67	193.87	13.728	13.150	78

Table 5

Summary of Within-Subjects Performance for All Grade Levels

Grade Level	Effect Pre-Post Test	Wilks' Lambda	<i>F</i>	<i>df</i>	Error <i>df</i>	<i>P</i>	Partial Eta Squared
First	Math	0.985	1.841	1	118.00	0.177	0.015
First	Reading	0.969	3.772	1	118.0	0.055	0.031
Second	Math	0.990	0.922	1	89.00	0.339	0.01
Second	Reading	0.923	7.381	1	89.00	0.008	0.077
Third	Math	0.853	24.612	1	143.00	0.000	0.147
Third	Reading	0.915	13.296	1	143.00	0.000	0.085
Third	Language	0.898	16.225	1	143.00	0.000	0.102

Table 6

Summary of Between-Subjects Performance for All Grade Levels

Grade Level	Subject	<i>df</i>	<i>F</i>	<i>P</i>	Partial Eta Squared
First	Math	1	62.505	0.000	0.346
First	Reading	1	75.583	0.000	0.390
Second	Math	1	32.715	0.000	0.269
Second	Reading	1	33.851	0.000	0.276
Third	Math	1	54.752	0.000	0.277
Third	Reading	1	38.024	0.000	0.210
Third	Language	1	35.806	0.000	0.200

History Starts Now: Building a 21st Century Clinical Partnership

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Abstract

As educators, we continually reflect in an effort to enhance our instructional strategies and practices. We collectively discuss approaches for reform. Opportunities for reflection and reform are endless. However, the opportunity to build a college from the ground up, to imagine the kind of world that we want to create in terms of a college of education, is exceedingly rare. This article discusses that type of opportunistic journey – the journey of a new college collaborating, from the very beginning of the creation stages, with a large urban school district to imagine a new school of education and next generation school-university partnership. Beginning with a school district advisory board, the college collaboratively created a program to prepare next generation teachers for the next generation of P-12 students. This partnership continues today, collaboratively reflecting, designing, and refining its procedures and practices to best prepare the next generation for exemplary teaching and learning.

World

Lyrics and Music by John Ondrasik

Got a package full of wishes
A time machine, a magic wand
A globe made out of gold.
No instructions or commandments
Laws of gravity or
Indecisions to uphold.
Printed on the box I see
Acme's build a world to be
Take a chance, grab a piece
Help me to believe it.
What kind of world do you want?
Think anything
Let's start at the start
Build a masterpiece
Be careful what you wish for
History starts now....

The song *World* (Ondrasik, 2006), written and performed by John Ondrasik of the group Five for Fighting, was released in 2006. It was as if the song had been written for the birth of a new college's educator preparation program. How often does a college have the opportunity to build something from scratch, with few limitations being imposed and a world class school district with which to partner? As a college that was newly established in 2005, we were in the unique position of building an educator preparation program from the ground up. Because of program approval requirements in the state, the college could not begin its educator preparation programs until the college received its initial regional accreditation. This provided the college with the unique opportunity of extended time to reflect on all facets of the programs. The natural P-12 partner was the school district in the county housing the college, which was, and is, the second largest county in the state. The school district is currently the largest public school district in the state, with approximately 180,000 students and over 23,000 employees; the average

educator in this school district holds a master's degree or higher advanced degree and has an average of 13 years of teaching experience. The school district has been recognized by multiple entities for its commitment to quality education and fiscally responsible operations. Clearly, a school district of this size and commitment to educational excellence provides the opportunity for a rich array of experiences for teacher candidates.

What Kind of World Do You Want? Think Anything.

The college held its first partnership meeting with the school district in May 2007. An advisory board emerged from that meeting that would inform all of the decisions that were made in the building of the educator preparation programs. This advisory board was comprised of classroom educators, school administrators, area superintendents, curriculum directors, and other central office personnel. The first meeting started with a simple question: what are the areas in which new educators are coming to you well prepared, and what are the areas in which they are struggling as new educators? Over the next two and a half hours, a rich conversation occurred, during which advisory board members were able to paint a clear picture of the typical new educators being hired by the school district. The dialog then shifted to brainstorming the desired new educator, and these constructs were categorized as knowledge, skills, and dispositions desirable for new educators. Other points of discussion that were not specific to individual educators were also identified:

- Field experiences must provide carefully sequenced experiences beginning at the sophomore level. No random observations—what is the purpose of the observation or hands-on opportunity to work with learners? What skill is being observed or developed during the experience? Need more time!
- Concept of coaching in skill development—observing a master teacher and then debriefing on the process.
- Collaboration with classroom educators who bring second language skills to the instructional process.
- Use of cohort groups for candidates in programs.

- Endorsement possibilities: ESOL, Gifted

These conversations continued over the next two years, as the team established connections between best practices as identified in the research literature (Alexander, 2003; Darling-Hammond, & Bransford, 2005; Noddings, 2005; Schwartz, Bransford, & Sears, 2005; Stiggins & Chappuis, 2006) and the reality being experienced in the school district. The joint team of college faculty and advisory board members developed a working document that identified the science and art of teaching for the new educator preparation unit. Additionally, the team continued to refine the knowledge, skills, and dispositions that would inform the outcomes for the unit. These outcomes were further grouped into five domains that would frame the development of candidates.

The development of these domains was also influenced by school district research identifying teaching strategies essential for implementation by classroom educators. These strategies, including assessment, non-verbal representation, modeling and practice, vocabulary, summarizing, collaboration, student goal setting, literacy, problem solving, questioning, background knowledge, comparison and contrast, and technology, are pervasive in the district classrooms (Marzano, & Kendall, 1998; Marzano, Pickering, & Pollock, 2001). These Quality Plus Teaching Strategies (QPTS), key elements that drive teaching and assessment at the school district were reviewed, aligned, and integrated into the work being done by the college on the conceptual framework. During this two-year period, the Advisory Board team members would come together every two months to review the work that had been completed by the college faculty and would then brainstorm on the next steps. The resulting domains and outcomes are still in place, with minor revisions in 2015 to reflect updates to the InTASC Model Core Teaching Standards (Council of Chief State School Officers, 2013).

Let's Start at the Start. Build a Masterpiece.

As the college and school district collaboration continued, curriculum teams composed of college faculty, school district educators, instructional coaches, and curriculum directors were identified to develop the curriculum, as well as plan for assessment, for seven programs: early childhood education, special education, and five programs with a major in the discipline that lead to 6-12 Certification: biology, English, history, mathematics, and political science. The early childhood and special education programs were designed with an embedded endorsement for English Language Learners (referred to as ESOL by state program approval) awarded to candidates upon graduation, based on a desire on the part of the school district to hire educators who would be job-ready to work with English Language Learners.

The result of the ongoing collaboration between the college and school district was an integrated, interdisciplinary educator preparation curriculum enhanced by embedded, developmental field experiences. The field and clinical experiences were characterized by gradually increasing levels of engagement and responsibility in the classroom for teacher candidates, thus fostering opportunities for teacher candidates to engage in collaboration (Arthaud, T., Aram, R., Breck, S., Doelling, J., & Bushrow, K., 2007). College faculty would model collaboration with mentor teachers as they worked together to guide candidate development during field and clinical experiences (Santamaria & Thousand, 2004). A commitment to culturally relevant pedagogy was identified as being essential throughout these classroom and field experiences (Lenski, Crumpler, Stallworth & Crawford, 2005; Richards, Brown, & Forde, 2007; Santamaria, 2009).

It was agreed that candidates would have field experiences embedded in each course after admission to educator preparation at the junior and senior level, with the exception of content

courses. The development of field and clinical experiences was centered on the premise that if candidates could be exposed to schools that are successful, regardless of the location or demographics, candidates would graduate prepared and motivated to work in a variety of school settings, thus improving educational equity across schools. In addition to meeting the required grade bands stipulated at the state level, candidates would all have at least one semester in a non-Title I school, two semesters in Title I schools, with students being allowed to choose the location for clinical experience. This broad exposure to schools in this large school district has resulted in candidates who actively seek teaching positions in Title I schools.

Field experience expectations of candidates are developmental in nature. During the first semester of field experience, candidates observe students and educators in a variety of settings throughout the school, collect field observations, assist in the classroom, facilitate small group instruction, and complete an ecological study of the school and an in-depth profile of a student. During the second and third semesters, candidates are expected to participate more actively in planning, delivering, and assessing the effectiveness of instruction in the core academic areas, and in adapting instruction to meet individual student needs. Effective fall 2017, candidates complete a yearlong experience in the same classroom, and as such, the third semester placement is the beginning of that yearlong placement for clinical experience. Field experiences provide each candidate with numerous opportunities for reflection; they conference with their college supervisor to share their perspectives, debrief, and discuss their experiences. The use of educational technology is embedded in all teacher education courses and in individual course assignments. Exploring and using technologies available in the schools is a key experience for candidates in the field. Often, teacher candidates model the implementation of instructional technology learned in the college coursework in their field placement classrooms.

Field experience sites for each course are selected collaboratively with the school district based on the needs of the course in terms of grade level placement and diversity of experience necessary. Collaborating principals agree to place groups of candidates taking a particular course with effective educators at the appropriate grade levels. This is possible because of the relatively large size of the schools in the school district. Placement of groups of candidates taking a particular course at the same school facilitates frequent on-site visits by college faculty, and allows close coordination of field experience assignments with in-class content and discussions.

The faculty who teach field-based courses meet with the mentor teachers at the school sites at the beginning of each semester to review the Field and Clinical Experiences Handbook and discuss the expectations for and the evaluation of the candidates who will be completing field or clinical experiences at that location. Faculty supervisors visit all candidates' classrooms regularly to provide feedback and support for candidates.

Looking back some ten years later, two key elements: that of having a school district with which to collaborate every step of the way, and quite simply put, the luxury of time, allowed the educator preparation unit and its programs to be a true collaboration of a school district and a college.

Help Me to Believe It

An important component of the partnership was the development of a human capital pipeline. The concept was simple: the college would recruit highly qualified high school students or graduates for its educator preparation programs. These district graduates would attend the college and complete an educator preparation program that was rich in field experiences and that taught the teacher candidates the school district "way." The school district would then hire the college's graduates as new teachers. The Human Capital Pipeline was implemented as the

college began accepting students into its programs. The dean of the college and the executive director of human resources presented the partnership model between the college and school district at a fall school board meeting (Author1 & Author2, 2010). Since the unit's inception in January 2010, the college has graduated just over 700 educators, 70% of whom have been hired by the school district.

The human capital pipeline not only supports recruitment and preparation of diverse candidates, but also provides mentoring critical to the induction of beginning teachers. Faculty supervisors working in the schools with current college candidates maintain a connection with graduates teaching in the district. While the primary role of faculty supervisors is to provide the oversight of pre-service teachers, these faculty also provide induction support for beginning teachers in collaboration with local teachers and administrators. The presence of college faculty in the schools facilitates a partnership that extends beyond the specifics of field experiences and provides an opportunity for collaboration among the college faculty and the P-12 teaching faculty, fostering the further development of the human capital in both entities.

From the first year that the college opened, P-12 campus visits were encouraged. The local school district regularly brought high school students, and on occasion, middle school students. Early in the college's existence, a forward-thinking principal of an elementary school approached the college about bringing fourth and fifth graders, along with their parents/guardians. The school was in a high-poverty area, and the principal's vision was to get students in his school to begin thinking about college at an early age. This concept of the visit was met with great enthusiasm from the college, and an interactive experience was planned for the P-12 students and their families. In addition to providing students and families with the typical information regarding college admission and costs, P-12 students engaged in an activity where

they problem-solved as to where dining facilities and residence halls should be built. Since the majority of the families did not have family members that had ever attended college, the experience was eye opening for the children as well as adults. P-12 students also had the opportunity to visit a college library that was equipped with technology and to engage in science experiments. The college provided interpreters for the visitors so that all questions regarding the college could be addressed. Following this visit, the college began regularly scheduling elementary schools for campus tours, although the typical tour only includes a few parents as chaperones.

The role of the partnership continued to expand to other activities such as supporting school-based curriculum nights and spring fairs. In 2011, the college and school district partnered together on the district-level regional science, engineering fair and innovation fair, with the college hosting the event for elementary, middle, and high school students as they competed with peers across the school district. This large district fair had outgrown its previous location, and at that time, the college had space on campus for the event. College faculty served as judges for the fair, and teacher candidates provided support as greeters and escorts for students. This solution was a win-win for all—the school district had a no-cost venue for its event while the still relatively new college had the opportunity to expose community members to the campus. By the following year, the fair had outgrown the campus, but the college continues to support the regional science, engineering, and innovation fair by providing faculty and students to support the event.

Other partnership activities between the college and the school district have evolved, including a STEM grant at the state level that provides support to in-practice teachers to extend their teaching strategies in the STEM areas. This grant initially started at one elementary school

and expanded to other elementary schools in the same cluster. Faculty and students in the Information Technology major began an evening and weekend technology-tutoring program for P-12 students and parents at one of the middle school. In support of an entrepreneurship pathway that was implemented at two of the high schools, the Business Administration program at the college developed an entrepreneur internship so that college students majoring in Business Administration could be embedded in the high school to work with P-12 students pursuing the entrepreneur pathway.

Teaching as a Profession Pathway

In this state, high school students select a pathway during high school that allows them to specialize in a particular area of interest. High School students that are interested in pursuing teaching can select the Teaching as a Profession (TAP) pathway, which involves the completion of three courses, one of which is an internship course. Those students completing the pathway and passing the pathway assessment can apply to receive experiential credit for an introductory education course in colleges and universities in the state. Currently, 11 of the high schools in the partner school district have active TAP programs. College faculty participate in the TAP programs by teaching guest sessions at the high school programs. The college and school district collaborate to bring TAP students to campus each year for a future educator day. TAP students have the opportunity to work with college faculty in small interactive sessions and to visit the rest of the campus. The school district and college work together to encourage students to choose the college so that they can become part of the pipeline of district students who complete their programs at the college and then return to the school district to teach.

Other TAP collaborations between the school district and the college that are in the planning stages include high school students and teacher candidates jointly volunteering at a

local Junior Achievement center and hosting community events for the high school. In addition, faculty have engaged with their peers from other institutions to explore additional ways to strengthen TAP experience for high school students.

Co-Teaching Collaborative

The Co-Teaching Collaborative occurred because of state funding made available to P-20 partnership groups throughout the state. The P-20 Collaborative in the region that included the college and school district selected co-teaching for their project as a result of discussions about the impact of year-long clinical experience on P-12 classrooms. Given the high-stakes environment in which all educators are working, it was time for the traditional model of clinical experience to be revisited. The co-teaching approach allows the classroom teacher to remain involved in planning and instruction while providing the teacher candidate with a robust clinical experience (Bacharach, Heck, & Dahlberg, 2010; Bacharach & Heck, 2012). Partners in the P-20 Collaborative agreed that co-teaching would provide an effective means of hosting a student teacher for the entire academic year. Collaborative members chose the St. Cloud model (<https://www.stcloudstate.edu/soe/coteaching/>) of co-teaching as it expanded the traditional approach to co-teaching to include clinical experience. A train-the-trainer model was utilized whereby two colleges and the school district were able to send college faculty and a district teacher to the initial training. Subsequently, the team worked together to design and deliver training for additional college and P-12 educators. Having a P-12 teacher on the design team provided rich input as to how district teachers would perceive the implementation of the co-teaching model and was a key participant in the design of the redelivery training. The school district supported her attendance at the co-teaching training, the redelivery training, and a state conference presentation of the grant work by providing a substitute teacher for her classroom on

those days. While a primary intent of the grant funding for this project was to provide professional learning for college field supervisors and P-12 mentor teachers, the project also fostered conversations between the school district and college partners regarding year-long clinical experiences.

Literacy Embedded Experiences

Our teacher preparation programs in early childhood and special education contain a series of three literacy courses, each containing a clinical experience. These courses were designed to meet the standards of the International Reading Association and the state Reading Endorsement and include Approaches to Teaching Reading, Literacy Assessment and Instruction, and Approaches to Teaching Writing. In the initial years of the program, these courses were taught in a traditional college classroom setting once per week, and teacher candidates were placed in elementary schools an additional day per week for literacy field experiences linked to the individual literacy course. Faculty teaching the courses also supervised teacher candidates in their field experiences three times over the course of each semester. While this was a strong model, disconnects were seen between content taught in the class and actual student ability to translate theory into practice. This model left much to be desired in the way of providing prompt, meaningful, and actionable feedback to the teacher candidate. In contrast, the model of instructional coaching is more closely linked to the practice we desire for our teacher candidates to emulate (Coleman, Lewis, Schoeller & Smith, 2012; Coleman & Schoeller, 2011; Killion & Harrison, 2006; Pearson & Gallagher, 1983). Literacy faculty identified the need for implementing teaching strategies that draw upon the research on instructional coaching and the ability to sit side by side with teacher candidates, providing immediate modeling, support and

guided reflection as they implement newly learned instructional strategies with elementary school students.

In an effort to further strengthen the clinical experiences of teacher candidates while increasing service opportunities for teacher candidates and faculty, literacy faculty crafted a more specific partnership with local Title I schools to embed literacy courses in the elementary schools. The partnership between literacy faculty and P-12 faculty is based on several core values and goals. These include the role of the college professor as an instructional coach within the field experience; the provision of literacy support for struggling learners in the partner schools; and the availability of professional learning for in-service educators in the partner schools. This partnership results in shared knowledge between the college and P-12 partner schools and advocates for exemplary literacy instruction by pre-service and in-service educators, as well as literacy achievement and college experiences for P-12 learners who struggle academically.

Teacher candidates frequently report that they learn best when they are in the field with their professors and express a desire for more frequent feedback in the form of instructional coaching (Author3, 2014). In the college instructor as instructional coach model, professors provide the course content to teacher candidates in a literacy clinic setting within the normal school day. While having college courses embedded in the local schools is not an entirely unique practice, a less common element of our model is that we bring elementary students struggling with literacy skills and in-service educators desiring professional learning into our college classrooms. In this model, teacher candidates immediately put into practice literacy assessments and instructional strategies while being afforded instructional coaching by the professor. Elementary students, many of whom are potentially first-generation college students, are

provided with literacy tutoring and gain the experience of participating in a college classroom, thus making college enrollment a realistic possibility in their eyes. In-service educators, some of whom are alumni of our college, are provided with professional learning, while simultaneously developing professional relationships with teacher candidates.

Elementary students, identified in the Response to Intervention (RTI) process, are matched one--to-one with teacher candidates. Each class session is centered on strategies and procedures of literacy assessment that enable teacher candidates and in-service educators to understand intimately the areas of interest, strength and weakness of their students and to advocate for and provide appropriate, engaging, and rigorous literacy instruction. Using a gradual release of responsibility model (Pearson & Gallagher, 1983), faculty model and scaffold assessment and instruction for teacher candidates and in-service educators through large-group workshop model mini-lessons, small guided groups, and individual student conferences. As the teacher candidates engage in new learning with the elementary students, faculty work side-by-side in a coaching role, continuing to model strategies for authentic assessment, conferring, and instructional design. In-service educators are invited to participate in the class sessions and to collaboratively design and implement instruction with pre-service teachers. Drawing on research on effective professional development schools, this field experience partnership provides opportunities for collaborative learning for teacher candidates, in service educators, elementary students, and the college professors who teach and research the effectiveness of this practice (Barth, Catoe, Powell, Brigman & Field, 2009; Bennett & Kirkland, 2008; Castle, Fox, & Fuhrman, 2009; Gilles, Wilson, & Elias, 2009; Tichenor, Lovell, Haugaard, & Hutchison, 2008).

In the spring semester of 2016, our partnership between the school system and the college expanded by beginning a partnership between two Title I elementary schools and one of the

literacy faculty members, based on a desire to utilize a stronger instructional model and to strengthen school partnerships. Literacy faculty collaborated with elementary school principals to develop a model for providing embedded instruction for the teacher candidates while simultaneously supporting second and third grade students identified as needing additional support in reading instruction. Each cohort of teacher candidates enrolled in Literacy Assessment and Instruction content was assigned to one of the two partner schools, and a schedule was developed in which the college content was taught in the morning, and teacher candidates completed the day in a second or third grade classroom. During the morning, course content was taught for approximately 90 minutes, followed by a 45-minute block during which teacher candidates worked with the elementary students to whom they were assigned for the semester, using a case study approach. Teacher candidates were tasked with conducting literacy assessments and instructional strategies learned with their case study students. The college professor implemented an instructional coaching approach, continually rotating between observing, modeling, coaching and co-teaching; guided by her formative assessment of the teacher candidates. Anecdotal notes were taken by the professor and following the time with the elementary students, the professor and teacher candidates engaged in both written and verbal reflection of the work with students. Finally, each class session ended with approximately ninety minutes of additional content instruction, group discussion and plans for the following week. In this model, both college professor and teacher candidates support the elementary students in their literacy learning, and engaged in a cycle of assessing, designing instruction based on data, and implementing instruction.

In addition to supporting teacher candidates and elementary students in need of additional literacy instruction, this model afforded opportunities for supporting alumni teaching in the

school and any additional faculty identified by the principals as in need of content knowledge or instructional coaching. By continually keeping school staff informed of the weekly class content, the professor was able to provide the school faculty with continual opportunities for professional learning. Table 1 provides an outline of a typical day in the literacy embedded partnership.

Positive feedback from teacher candidates, school administrators, literacy faculty and elementary students served in the literacy partnership led to the expansion of the embedded literacy coursework in fall of 2016. In addition to Literacy Assessment and Instruction, Approaches to Teaching Reading was also delivered in the elementary schools. In this course, teacher candidates and college faculty follow a similar course design, bringing kindergarten and first grade students into the classroom to experience literacy mini-lessons and guided reading instruction. In spring of 2017, the third course, Approaches to Teaching Writing was added to the embedded experience. In this course, teacher candidates work with fourth and fifth grade students in writing workshop. Teacher candidates teach writing mini-lessons and confer with elementary students in writing conferences. Table 2 outlines the progression of courses in the literacy partnership.

The impact of the partnership has been beneficial to the college as well as the school district. Principals consistently cite improved teacher retention, hiring alumni of the partnership to teach in their schools, and increased engagement and literacy achievement of the P-5 students served through the partnership as benefits to the school (Author3, Author4, Author5, & Author2, 2016). Additionally, college faculty have served the school through provision of professional learning for educators and instructional coaches, volunteering for school cluster book drives, providing support for alumni currently teaching in the partner schools and tutoring case study students. One of the most exciting effects of the partnership is the impact of "being in college"

on the P-5 students. These potential next generation college students view college as being attainable because they have already been in college; they have received certificates of completion, and they've been given college t-shirts in thanks for their help in their "college friends" doing their college course work. The embedded literacy partnership has been mutually beneficial. Teacher candidates are provided with opportunities to become a part of the school community in intentional and meaningful ways, and they are invited to attend professional learning opportunities at the local schools in addition to attending district literacy conferences free of charge.

Special Education Paraprofessional Program

The Special Education Paraprofessional Program is a partnership with the school district whereby paraprofessionals who are employed by the school district can complete a baccalaureate degree in Special Education while remaining employed by the school district. This program originated from a broader partnership in which the college dean and the administrator of Human Resources for the school district were both serving on the advisory board for the local technical college. Students at the technical college were completing an associate's degree in early care and learning, and the advisory board consulted on the development of new specializations for the associate's degree. It was noted by the technical college that the addition of a three-course specialization in Special Education would be very useful for technical college graduates seeking employment as paraprofessionals in the school district. The college dean and district HR administrator began brainstorming on ways that paraprofessionals might professionalize their certificates and become certified educators, and the Special Education Paraprofessional Program was born. Paraprofessionals who enroll in this college program take their classes at night and on the weekends. The school district covers the cost of substitutes so that the paraprofessionals can

be absent from their jobs in order to complete the grade bands of field experiences required by the state. Additionally, the cost for substitutes during the intensive clinical experience time in their final semester is covered by the school district. Paraprofessionals completing this program do not have to quit their jobs to student teach and are assured of a certified teaching position if they complete the program. The paraprofessional program has the same course outcomes, requirements, and assessments as the day program for special education majors. This variation on the Human Capital Pipeline provides an innovative means of increasing the educator work force for the school district. This unique facet of the partnership has gained interest from other school districts and colleges in the state.

History Informing the Future

Although the educator preparation unit has been delivering its program for less than ten years, much has been learned in that time, and significant changes have occurred, not the least of which is the transition to yearlong clinical experience. We are in the process of completing the first year of having a yearlong clinical experience, and undoubtedly, there will be conversations to be had once the data from this year is analyzed, along with the input mentor teachers and college supervisors. The key factor to our ongoing success is the never-ending process of dialog in our partnership.

In the almost eleven years of our partnership, we have journeyed together to collaboratively imagine the world we want and create a partnership that will best support our next generation educators and students. We have read, researched, practiced, and reflected to build on our experiences and to model the scaffolded instruction following the gradual release of responsibility model (Pearson & Gallagher, 1983) that we imagine our next generation educators

using. This journey continues today, and will in the years to come, as we work together to build our 21st Century masterpiece.

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Table 1
Daily Schedule for Literacy Embedded Partnership

Time	Reading Assessment and Instruction Course	Elementary Classroom/School
7:30-8:00	Quick Write on Readings, purpose set for the day	
8:00-9:00		Co-teaching small group reading
9:00-10:00	Miscue Analysis of Fountas and Pinnell (2011) Informal Reading Inventory	
10:00-10:45		Conduct IRI with case study student; professor coaches as GGC students teach/assess
10:45-12:00	Debrief work with case study students; Peer work to analyze running record; Determination of Independent, Instructional and Frustration reading levels; identification of specific reading goals and instructional strategies	
12:00-12:30		Lunch with professor; individual conferences as needed
12:30-2:30	Professor observing individual lessons with case study students.	
2:30-3:30		Classroom Support and/or Professor supports alumni teaching
		On Occasion: Professor provides PD in faculty or grade level meetings; Professor and/or students attend/facilitate parent nights

Table 2
Growth of Embedded Courses in Literacy Partnership

Semester	Courses Offered	Partner Schools
Spring 2016	READ 3600: Literacy Assessment and Instruction	2 Title I Schools A and B 2 course sections
Fall 2016	READ 3200: Approaches to Teaching Reading READ 3600: Literacy Assessment and Instruction	Title 1 Schools A, B, C and D 4 course sections
Spring 2017	READ 3600: Literacy Assessment and Instruction READ 3800: Approaches to Teaching Writing	Title I Schools A, B, C Non-Title 1 Schools E and F 5 course sections
Fall 2017	READ 3200: Approaches to Teaching Reading READ 3600: Literacy Assessment and Instruction	Title I schools A, B, C 10 course sections
Spring 2018	READ 3600: Literacy Assessment and Instruction READ 3800: Approaches to Teaching Writing	Title I School A Non-Title I Schools D, E, F and G 6 course sections