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‘Shadow Narratives’:
A Theoretical Model for Understanding
Pre-service Teacher’s False Expectations of Teaching

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Introduction

In perhaps the most well-known section of Plato’s (2009) *Republic*, Socrates asks Glaucon to imagine a group of prisoners shackled in a cave. Unable to turn around due to their restraints, the prisoners can only face away from the mouth of the cave and towards the wall in front of them. A small vase sits on top of a ledge behind them, and the light coming in from outside the cave casts a shadow of the vase on the wall, like a silhouette projected on a screen. The prisoners, who have always been in the cave and who have never had the freedom to turn around, are unaware of the vase sitting just behind them. Instead, they see only the shadow in front of them. Because the shadow is all they have ever seen, they believe it to be the sum-total of reality. For all they know, the shadow of a vase *is* a vase, and if a man were to walk by the mouth of the cave, the prisoners would mistake the shadow of a man for the man himself. That which they would call “reality” is no more than a two-dimensional, projected image of the real world.

A teacher’s job, Socrates continues, is to liberate the prisoners, to turn them around, and to bring them out of the cave and into the light so they can see the world in its three-dimensional, brightly colored splendor. This, however, is not an easy task:

> If [the student] is compelled to look straight at the light, will he not have a pain in his eyes which will make him turn away to take and take in the objects of vision which he can see, and which he will conceive to be in reality clearer than the things which are now being

> shown to him? …And suppose once more, that he is reluctantly dragged up a steep and rugged ascent, and held fast until he is forced into the presence of the sun himself, is he not likely to be pained and irritated? When he approaches the light his eyes will be dazzled, and he will not be able to see anything at all of what are now called realities. (Plato, 2009)

Though well-worn, Plato's metaphors of light and shadow illustrate perfectly the task facing teacher preparation programs today. Pre-service teachers often enter preparation programs with fixed and rigid expectations of teaching and the work of teachers (Chong & Low, 2009). These expectations have been shaped and molded by a number of factors, including candidates' personal histories, their own experiences in classrooms, the images of teachers they have seen in movies or read in books, and the larger cultural discourse surrounding education (Britzman, 2003; Weber & Mitchell, 1995). Unfortunately, these expectations often bear little resemblance to reality (Cole & Knowles, 1993; Delamarter, 2015a). They are projections on a wall, two-dimensional images, as far removed from the reality of teaching as a shadow is from a living, breathing, human being. If these false expectations go unchecked, teachers will begin their careers believing the shadows to be real, and they may experience "practice shock," the painful and disillusioning identity crisis that often accompanies the first few years of teaching (Meijer, De Graaf, & Meirink, 2011). As Plato noted, people unaccustomed to the light are often "pained and irritated" upon seeing it for the first time, and teachers whose expectations of teaching are misaligned with reality often experience cognitive dissonance and stress. Ultimately, they tend to leave the profession early (Chong, Low, & Goh, 2011).

The mandate for preparation programs is to create systems that will gradually expose students to the realities of teaching before they enter the field, thereby minimizing practice shock and transforming identity crisis from a place of disillusionment to an opportunity for growth. In

order to respond to students' expectations, however, it is first necessary to understand them. With this in mind, this article examines the nature of pre-service teachers' "shadow narratives," the two-dimensional images and representations of teaching that dominate our cultural discourse and which many pre-service teachers have mistaken for reality. The article ends with a brief summary of potential programmatic responses to candidates' shadow narratives and with suggestions for future research.

Before beginning, a brief note on vocabulary is warranted. I will use the term "candidates" to refer to pre-service teachers who are enrolled in teacher preparation programs, and I will use the term "students" to refer to K-12 students.

Shadow Narratives in General: Representation vs. Reality

Before we can help candidates confront and revise their shadow narratives, we must understand the forms these narratives take and the ways in which they are constructed. To do this, it is first necessary to understand shadow narratives in general. Shadow narratives share the following two factors: 1) they are based on illusion, not delusion; 2) they arise out of mediated experiences. These two factors merit further exploration.

Illusion vs. Delusion

The differences between illusions and delusions stem from their relationship with reality. A delusion exists only in the mind of the individual. While it may be real to that person, it has no basis in shared reality (Josselson, 2007). In contrast, an illusion is "an interpretation of something that exists and investment of meaning in something perceived" (p. 9). Whereas delusions are figments of the imagination, illusions have their basis in objective and observable reality. This relationship may be distant, but it exists, nonetheless. This is a crucial understanding, because shadow narratives are a form of illusion; they are not completely divorced from the "real world,"

and those who hold them are not delusional. Like shadows on the wall of a cave, shadow narratives are two-dimensional representations of a three-dimensional truth. They cannot be written off as imaginary. Neither, however, can they be uncritically accepted as accurate representations of reality. At best, they are distortions. They are related to the real, but they do not faithfully represent it.

In this sense, shadow narratives might best be understood according to Baudrilliard's (1995) theory of simulacra, which highlighted the disparity between images and the underlying realities they represent. All images, Baudrilliard posited, are distanced from the reality they represent. To use a simple example, a photograph of the Eifel Tower is not the tower itself. Generally, the viewer recognizes the image as a representation and does not mistake the photograph for the real thing. As images become less representational (e.g. an abstract painting or a child's drawing), the relationship between the image and the underlying reality becomes more difficult to recognize. All images distort reality to some degree, but some do it more than others.

In some cases, however, the viewer fails to recognize the image as representation and mistakes it for reality. This is a simulacrum: a self-representational image that no longer refers back to an external reality but becomes a reference point in and of itself. It supplants and replaces the reality it purports to represent. Because the viewer does not recognize the image as image, she does not recognize its constructed and representational nature, and she is disappointed when her first-hand experience does not live up to the standard set by the image. This is the great danger of simulacra; the impossible to achieve distortion is mistaken for a desired and achievable reality.

Mediated Experiences

Unfortunately, the images that shape candidates' shadow narratives are deeply embedded within our general cultural discourse. These "cultural texts" have shaped – and continue to shape - our collective understanding of teaching:

> From schoolyard rhymes to 'let's play school', there is a wealth of varied and sometimes contradictory images of teachers that continues to be passed on from one generation to the next…the socially constructed knowledge of teachers and teaching is not confined to school buildings, but spills out into television studies, movie theaters, homes and playgrounds, infiltrating all arenas of human activity. (Weber & Mitchell, 1995, p. 5).

The role of various media in helping transmit and construct these "contradictory images" is of particular interest for this article. To be clear, "media" does not necessarily refer solely to journalism or news agencies. Instead, "media' refers to the images and technologies that mediate our encounters with and shape our expectations of reality (de Zengotita, 2005). Latour (2007) notes that imagery in media often function as a "panorama," a way of "staging totality" that "design[s] a picture which has no gap in it, giving the spectator the powerful *impression* of being fully immersed in the real world" (p. 188, emphasis mine). The "panorama," or mediated experience, appears to represent the total reality. In actuality, however, a mediated experience will always be one step removed from the real world, and pre-service teachers whose identities and expectations are based on mediated experiences set themselves up for cognitive and emotional conflict (Beijard, Meijer, & Verloop, 2004; Friesen & Besley, 2013).

For pre-service teachers, one common source of mediated experiences is teacher movies. Much has been written on the disparities between film-based representations of teachers and the reality of the teaching profession (e.g. Dalton, 2010; Weber & Mitchell, 1995). Rhem (2015) noted

that teacher movies highlight the "contradictions and frustrations" (p. 10) between our idealized cultural understandings and our first-hand experiences with teaching. Likewise, Barlowe & Cook (2015) posited that "the classroom heroes featured in these films would probably fare poorly in the current public school environment…[because] the political culture apparently has little tolerance for the kind of teacher the popular culture venerates" (p. 26), and Delamarter (2015a) concluded that "though the representations of teaching found in these films may both express and reinforce our expectations, they are often at odds with the actual practice of teaching" (p. 4).

Nevertheless, despite the recognized disparities between representation and reality, teacher movies and other unrealistic media portrayals of teaching have the ability to shape and reinforce pre-service teachers' shadow narratives. Teacher movies are, by definition, mediated experiences, and even the most faithful mediated experience is unable to convey the "full symmetry of humanity and reality" (Borgmann, 2000, p. 220). Mediated experiences are, by both definition and nature, one step removed from direct encounters, and, at best, they only partially capture the totality of the real. Pre-service teachers whose expectations of teaching have been formed by mediated experiences will necessarily have expectations based on partial truths and incomplete information.

Furthermore, mediated experiences, particularly those that are image based, can be difficult to recognize. Unfortunately, mediated experiences are sometimes mistaken for direct encounters due to an assumed relationship between the image and reality:

> Simple as it is, the concept of pictures as representations is difficult to grasp because we are conditioned, virtually from childhood, to regard them as having a privileged relation to what they represent: a relation so intimate that we grasp it instinctively, with no sense of mediation or translation or decoding. (Heffernan, 2006, p. 12)

Because they are so difficult to recognize as representations, these images of teaching "infiltrate all arenas of human activity…and affect the professional self-identity of teachers" (Weber & Mitchell, 1995, p. 5). As a result, pre-service teachers enter preparation programs with well-constructed shadow narratives of how they will interact with their students, colleagues, and with the content itself. These are the stories of how they will *be* in the classroom, and, unfortunately, they're often grounded more in the world of illusion than the world of reality.

Shadow Narratives of Pre-Service Teachers: The Inspiration/Content Dichotomy Example

Pre-service teachers at my university are not immune to these illusions. On the contrary, when they apply for admission into our program, we ask them why they want to become teachers, and their responses usually follow one of three patterns:

- I believe in students, and I want them to believe in themselves;
- I want to make a difference in their lives;
- I love [subject matter], and I want them to love it, too.

To be clear, these are noble and admirable ambitions. But these three categorical responses grow out of the presupposition that the true aims of education are affective. That is, our candidates want to become teachers not in order to equip their students with certain skills or to teach them certain content but rather to empower them emotionally. To quote one undergraduate,

> I want my students to *feel* comfortable to ask questions when they don't understand something. I don't want my students to *feel* pressured or discouraged. My classroom will be a place where my future students will *feel* that they can do anything they put their mind to and be successful (emphasis mine).

The primacy she places on her affective impact is clear. She is more concerned about helping her students "feel" successful than she is about equipping them to *be* successful. She's constructed a

shadow narrative in which emotional or affective outcomes can and should be considered separately from intellectual or academic outcomes. This "inspiration/content dichotomy" divides teaching into two, mutually exclusive worlds: the realm of inspiration, in which curriculum and instruction focuses on students' psychological, emotional, and moral well-being; and the realm of content, in which students' academic development is given center stage (Delamarter, 2015a). Unfortunately, because these categories are mutually exclusive constructions, teachers must choose between effecting affective or intellectual change: they can choose to inspire – to speak to the emotional and subjective matters of the heart – or they can teach content – engage with the intellectual and objective matters of the mind. This is a binary proposition: it can be one or the other, but not both.

Unfortunately, this particular shadow narrative is hierarchical, as well. Affective outcomes take precedence over the intellectual, and a teacher is effective only to the extent that her students achieve some sort of intra or interpersonal breakthroughs. What students are able to *do* at the end of a lesson isn't nearly as important as how students will *feel* by the end. The true focus of the classroom should be catharsis, not content. Consequently, candidates begin using oppositional language to describe their imagined future classroom activities, creating both mutually exclusive and hierarchical divisions between affective and academic outcomes.

"Laura," a candidate in her first semester in my university's teacher preparation program, exemplifies this inspiration/content dichotomy. For her first assignment in a class on media representations of teachers, Laura was asked to write a brief reflection on the nature of "good" teaching. She responded: "Teachers aren't just producing people who can recite the 'Gettysburg Address' or spurt off the 12 times table, but they are shaping individuals who will impact society." Figure 1 illustrates the mutually exclusive and hierarchical nature of her construction.

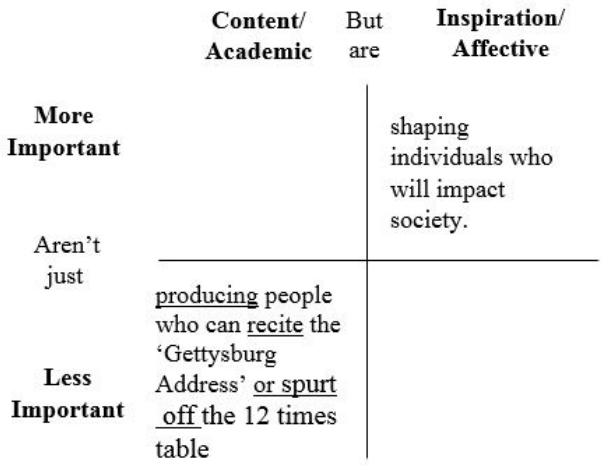

Figure 1: Mutually Exclusive and Hierarchical Categories in a Pre-Service Teacher's construction of "Good Teaching."

By dividing the sentence into contrasting clauses through the use of "but," this candidate has divided teaching into mutually exclusive categories: academic content (e.g. historical facts, math fluency) and inspiration (e.g. shaping future leaders to make a difference in society). These two goals are in syntactic opposition to each other. In addition, academic outcomes are devalued. The word "just" in this content should be read as "merely," implying that teachers who focus on promoting academic outcomes are settling for a lesser goal. In addition, she has reduced academic outcomes to surface level understanding. The end result of academic study is that students will be able to "recite" and "spurt off" information. In this model, personal transformation cannot be achieved through academic study.

Furthermore, the metaphors inherent in her instructional verbs reveal the depth of the dichotomy she's constructed. Teachers who focus on content are "producing" students with content knowledge and skills. To "produce" is "to make or manufacture (a product or commodity) from components or raw materials" (Produce, v3e, 2007). By extension, the content focused classroom is an assembly line, where depersonalized and labor-intensive instruction results in a

set of standardized and ready-made units/students who are equipped with standardized knowledge and skills.

Though other definitions of "produce" exist, the implication that teaching towards academic outcomes is akin to manufacturing a product is underscored by the contrasting metaphor used to describe teaching towards affective outcomes. Teachers focused on affective outcomes "shape" students, and while this verb carries with it overtones of refining raw academic materials (such as shaping clay into a vase), its primary function is to convey a moral imperative. To "shape" someone is to give them "a direction and character" (Shape, v12. 2007). Consequently, the end goal of education – impacting society – can only be accomplished by teachers who privilege moral formation over content delivery. While "producing" is standardized and depersonalized, "shaping" is individualized, and the teacher's activities result not in cookie-cutter cogs but rather in students with unique talents and gifts.

Metaphors are not merely a function of language. Instead, they form the backbone of our conceptual frameworks. They "structure what we perceive, how we get around in the world, and how we relate to other people. Our conceptual system thus plays a central role in defining our everyday realities" (Lakoff & Johnson, 2003, p. 3). Consequently, the metaphors candidates use to talk about teaching both create and reinforce their expectations of teaching, and, in the example above, the metaphors used draw mutually exclusive and hierarchical boundaries between the affective and academic realms.

The inspiration/content dichotomy, in which academic and affective outcomes are placed in opposition to one another, is highly prevalent in popular representations of teaching (e.g. Barlowe & Cook, 2015; Dalton, 2010) and is common among the pre-service teachers at my university. A wide-spread empirical base supporting the existence of the inspiration/content

dichotomy is still being established, however, and the degree to which it can be applied to pre-service teachers in other universities remains unknown. What is true of candidates at my university cannot necessarily be generalized to candidates elsewhere. Nevertheless, it serves well as an example of a type of shadow narrative that pre-service teachers might construct.

The Challenge for Teacher Preparation Programs

A crucial step in preparing pre-service teachers for the realities of teaching is to create opportunities for them to recognize shadows as shadows. Candidates must come to an awareness that their expectations are often based on two-dimensional understandings of a three-dimensional world, and one way to best understand this process is through the lens of transformative learning. Transformative learning is the process by which "problematic frames of reference," such as shadow narratives and other "sets of assumption and expectation," are transformed in order to make them "more inclusive, discriminating, open, reflective, and emotionally able to change" (Mezirow, 2008, p. 26). If candidates are to thrive both personally and professionally, their misaligned expectations of teaching – their shadow narratives – must be changed from a liabilities to assets. The disparity between expectations and reality must be transformed from the rocky ground of cognitive dissonance into fertile soil for future growth.

In order for this transformation to occur, candidates must "reflect critically on the source, nature, and consequences of relevant assumptions" and "take action on [their] transformed perspective[s]" (Mezirow, 2008, p. 27). The twin engines of "reflection" and "action" drive the transformation process, but these can only occur within an educational system that both encourages and facilitates such activities. Teacher preparation programs must acknowledge that candidates bring with them well-developed and pre-conceived schema and expectations of teaching (Delamarter, 2015b). Our candidates do not come to us as *tabula rasa.* Instead, their conceptions

of teaching have already been shaped and formed by their years as students, their unique personal histories, and the onslaught of images and representations to which they have been subjected since childhood.

With this in mind, preparation programs must also create reflective space for candidates to confront and revise their shadow narratives. Unfortunately, teacher preparation programs in general do not proactively and systematically support their candidates throughout the process of addressing their expectations of teaching (Mertz & McNeely, 1991; Sutherland & Markauskaite, 2012). However, a small but growing body of evidence suggests that targeted and specific reflective practices that take place early in a preparation program might enable pre-service teachers to examine their own expectations of teaching and construct new schema that better align with actual teaching practice. For example, I have previously highlighted how reflective activities within a course on teacher movies provided both a catalyst and structure for pre-service teachers to confront and revise their own beliefs about and expectations of teaching (Delamarter, 2015a). Similarly, Sutherland, Howard, and Markauskaite (2010) found that a course-based online discussion forum gave pre-service teachers the opportunity and means to "create and recreate" both their self-image as teachers and their relationship with the teaching community at large (p. 462). In both of these cases, the catalysts for candidate's growth were reflective, course-based activities that had been explicitly designed to facilitate the confrontation and revision of teaching expectations, and, in both cases, the reflective activities took place early in the preparation program's course sequence.

These types of reflective activities serve two purposes: they provide pre-service teachers with the analytical tools to identify and revise their expectations, and they normalize the identity negotiation process, in which the self is not static but is instead in a state of constant creation. The

generative aspect of these reflective activities cannot be overemphasized. It is not enough for programs simply to deconstruct candidate's shadow narratives; instead, programs must be actively and strategically engaged in helping candidates build something new.

Conclusions and Suggestions for Future Research

A great deal about pre-service teachers' shadow narratives remains unknown. While the inspiration/content dichotomy has been well-established in certain representations of teaching, like teacher movies, the extent to which pre-service teachers divide their conceptions and expectations of teaching into the mutually exclusive and hierarchical categories described in this article has not been well-established. Though ample anecdotal evidence supporting the inspiration/content dichotomy among pre-service teachers exists, the empirical basis for this theoretical construct is still under development, and future research should focus on establishing reliable instruments for identifying and codifying pre-service teachers' shadow narratives.

Furthermore, though some evidence suggests that course-based reflective activities might facilitate the process of confronting and revising expectations, few details are known. Though pre-service teacher reflection is a widely studied topic, the relationship between pre-service teachers' expectations of teaching and program-based reflective interventions remains relatively unexplored.

Nevertheless, as a theoretical model for understanding pre-service teachers' false expectations of teaching, "shadow narratives" highlights both their constructed and two-dimensional nature. Like the shadows in Plato's cave, pre-service teachers' expectations of teaching are distorted representations that are mistaken for three-dimensional reality. And, as with Plato's cave-dwellers, pre-service teachers experience shock and discomfort when first confronted with the realities of the outside world. It is the role of teacher preparation programs to smooth this

transition, to gently and gradually ease our candidates into the light, to build around them the systems and structures that will help them acclimatize, adapt, and, ultimately, to live and thrive in the “real” world.

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Do Student Teachers Add Value to Their Placement Schools?

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Abstract

In this study 14 student teachers were placed at the same elementary school. They were supervised and evaluated normally and at the end of their placement a focus group was held in an effort to establish if and to what degree they impacted the effectiveness of teaching and learning in the classroom. First, teachers were asked to make comments on student effect and their answers were divided into three categories negative, neutral, and positive. Then they were asked to rate their particular student on a scale of 0-10. A rating of five was considered neutral or no effect. Above five indicated a positive contribution and below five would indicate negative effect. All student teachers in the study scored five or above with most scoring at level eight.

The mean score of 7.7 put the overall effectiveness at 57%. In the rest of the study comparisons are made to the salaries of professionals and para-professionals in order to determine what possible monetary value traditional student teaching might bring to K-12 education in the U.S.

"A billion here a billion there, pretty soon you're talking real money." Attributed to Senator Everett Dirksen.

Background for the Study

Disclaimer

The study described in this paper is worthwhile mainly because it addresses a very important issue. It is more speculative than conclusive. The math used in the study is not so much statistical as it is propositional. The study was developed in reaction to an interesting circumstance, namely the placement of fourteen students in one small elementary school. This opened the door to an opportunity for a qualitative look at their impact on that school. Therefore, the study can be viewed as simply setting the stage for a broader and more carefully designed research project on the question of value added by student teachers. Hopefully, this study will raise some tantalizing possibilities for researchers.

How Many Student Teachers in the US?

The estimates of Teacher Preparation Program (TPP) graduates, student interns, and new teachers hired in a given year in the US vary wildly. The high estimate for new teacher hires seems to come from the National Center for Education Statistics (NCES). Their definition of a new hire is as follows: "A teacher who moves from teaching in one sector to the other sector is considered a new teacher hire, but a teacher who moves from one school to another school in the same sector is not considered a new teacher hire. It is important to note that these projections measure the total number of teacher hires, including those hired to replace teachers retiring or leaving the teaching profession permanently or temporarily". IHS Global Insight projects that by 2021 the number of "new hires" will increase to 384,000 in public schools and 87,000 in private schools for a total of 471,000 (Hussar & Bailey, 2013). Tim Walker in an NEA article sets the number at 200,000 in 2007/2008 and makes the case for a decline due to layoffs since that time (Walker, 2014).

Phillip Elliot reports what is probably the low estimate in an Associated Press article where he states, “Some 239,000 teachers are trained each year and 98,000 are hired” (Elliot, 2013). This quote appears in a number of publications and is a bit of a rallying cry for conservatives who are suspicious of traditional TPPs. Elliot seems to attribute these numbers to the Fordham Institute inspired National Center for Teacher Quality (NCTQ) Teacher Prep Review of 2013. The NCTQ 2013 Review, for its part, seems to put the number closer to 171,000 new hires in public and private schools using 2012 Title II figures (NCTQ, 2013). Their 2011 report entitled *Student Teaching in the United States* puts the numbers at 186,000 traditional graduates and 77,000 hired to teach (NCTQ 2011).

In light of these numbers and for the purposes of this study, we assume that the number of new teachers who come through traditional programs which include some kind of student teaching field experience of 10 weeks or more is somewhere between 100,000 and 200,000. For the sake of argument we use the figure 150,000 student teachers per year nationally. This figure, though a very rough estimate, will be important to the basic premise of this study.

CAEP Standard 2: Clinical Partnerships and Practice

When the Council for Accreditation of Educator Preparation (CAEP) standards were ratified in 2013, Standard 2 was intended to increase and improve collaboration between TPPs and their p-12 partners when constructing arrangements, designing programs, selecting and preparing clinical educators, approving candidates, and measuring performance. The point is that for CAEP accredited schools the student teaching or field experience is significant enough to be one of the five standards developed for approval of TPPs.

The Question of "Value Added"

It seems that in everything professionals do these days, from creating a resume, to applying for a grant, to proposing a new program of some sort, the question is "how will this add value to the profession?" In the education world, which is characterized by high expectations and limited resources, this question becomes paramount. Many states have developed value added assessments for programs and personnel in education. This is certainly the case in the state of Tennessee in which this study took place, hence the title of the original study, *Do (Bryan College) Student Teachers Add Value to Their Placement Schools?* The point of this article is to describe that modest study and in so doing raise the question of generalization or replication of the study in other localities.

Participants

In this study, fourteen student teachers from Bryan College were assigned to Spring City Elementary School in Rhea County Tennessee for the second part of their fifteen week student teaching placement from February through April of 2012. Twelve of the student teachers were elementary licensure candidates. The other two were ESH licensure and Music licensure. The average GPA for this group of student teachers was 3.53; the lowest GPA being 2.95 and the highest GPA being 3.95.

All student teachers participated in an interview process during their sophomore year in order to be admitted to the TPP. The interview process included nine questions plus two ratings on communication and overall impression. Students were rated by four interviewers on a scale of zero to four. Each of the questions corresponded to some aspect of each of the ten Interstate New Teacher Assessment and Support Consortium (INTASC) standards. The average interview score for these fourteen student teachers was 3.4.

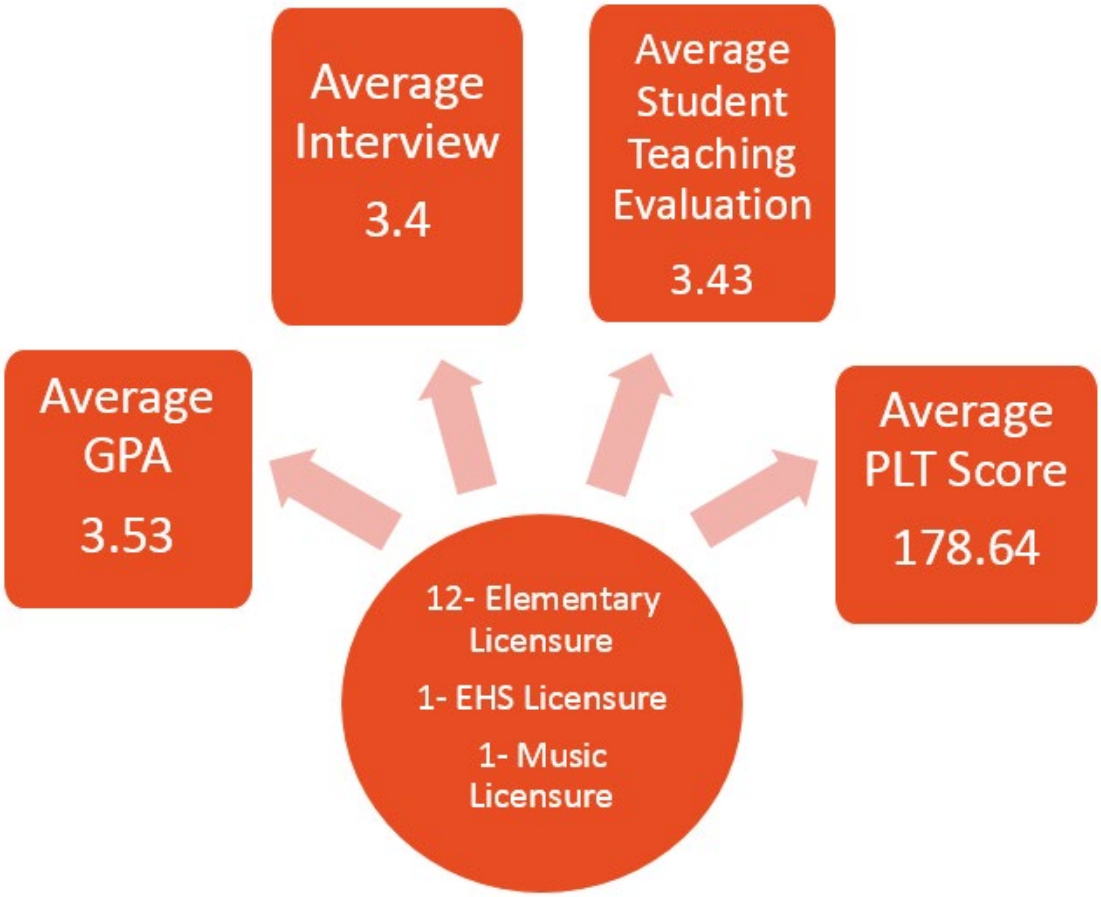
These student teachers also had three summative evaluations completed during their student teaching, two generated by the cooperating teachers and the other generated by the observing supervisor. Student teachers were rated on a scale of zero to four with zero identified as "unsatisfactory" and 4 identified as "advanced." These summative evaluations also evaluated students based on the ten INTASC standards. The average summative evaluation by the teachers was 3.39. While the average summative evaluation by the observing supervisors was 3.43.

Of the fourteen student teachers, three did not take the Tennessee required Praxis tests. However, of those three, two are licensed in other states and one teaches in a private school. The other eleven passed the required Praxis II exams and became licensed in Tennessee. The only test required of all majors regardless of license is the PLT. The average PLT score, for the 11 who took the test, was 178.64. The range of scores for this test is 100-200. According to ETS, the average performance range for the 2011-2012 year was 166-180.

These students were also surveyed two years after graduation. Six of the fourteen that participated in this study responded to the survey. Eighteen survey questions, based on the ten INTASC standards, asked graduates of the TPP to rate how well the TPP had prepared them for various responsibilities and teaching attributes associated with the INTASC standards. The graduates were given a four point scale ranging from "minimal" to "advanced." In their responses, graduates gave no "minimal" scores to any question and "adequate" scores only appeared nine times. The rest of their responses were either "proficient" or "advanced."

Based on the academic profile of these students, they would be identified as high average. This may affect the ability to generalize this study to other populations.

Figure 1: Student Teacher Profile



School Profile

Spring City Elementary is a public school in Rhea County Tennessee with 687 students in grades PK-5. This school was built in 1985 to consolidate all elementary and middle school students in Spring City. Prior to that there was an elementary school at Grandview, a Kindergarten school with one first grade class at St. Clair ,and a first grade center that housed three first grades. In August of 2003, Spring City Middle School was established to alleviate the overcrowded conditions at Spring City Elementary. Spring City Middle School contains grades six, seven and eight.

The mission of Spring City Elementary School is to ensure that all students achieve their optimal learning in a safe environment. The faculty and staff provide opportunities for meeting

the intellectual, social, emotional, physical, and technological needs of a diverse population of students. 74.4% of students at Spring City Elementary received free and reduced lunch in 2013. The school has a school-wide Title I Program. This means that SCES receives federal funds to be used in providing a quality educational program with special emphasis on the areas of reading and math. All students in the school share equally in the services, equipment, and materials provided by Title I.

Focus Group: The Effect of Student Teachers on Learning in Elementary Classrooms

After the close of the school year a focus group was held on May 29, 2012. All fourteen of the cooperating teachers were able to attend the focus group which was recorded with their permission. They were led in a discussion of the positives and negatives of their experience with student teachers.

Figure 2: Comment Categories

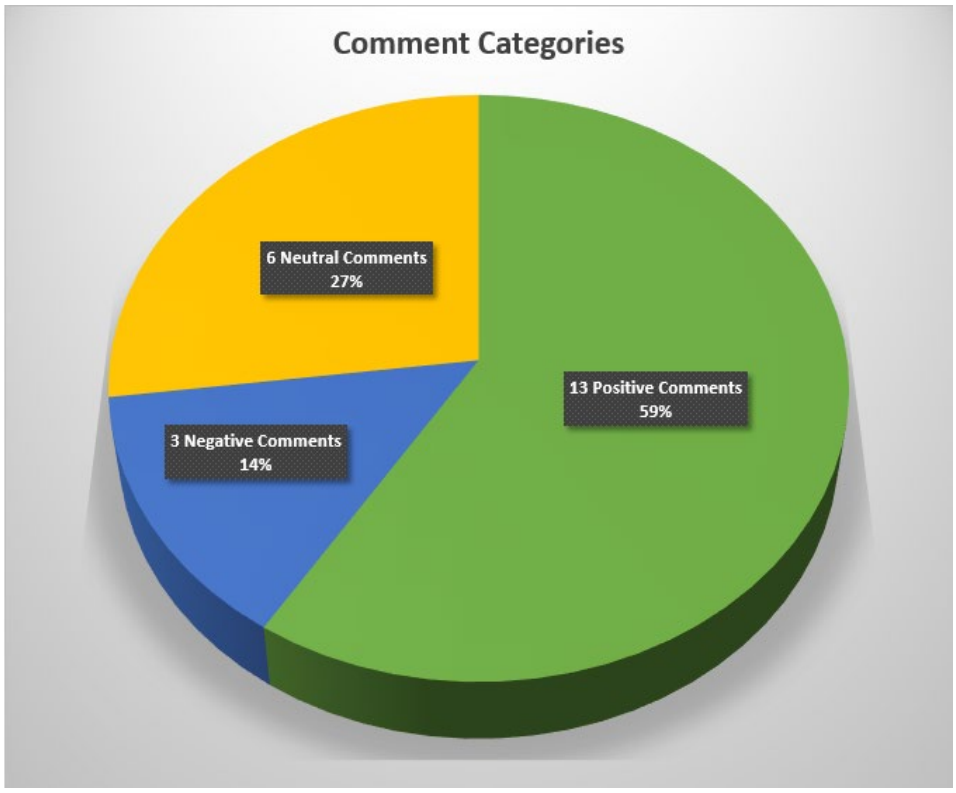


Figure 3: Comments from Cooperating Teachers

Negative:

1. Mine was a little different. When she came in she told me that she didn't really want to teach. She brought a book to read, brought a novel one day…totally wouldn't take initiative.
2. I didn't feel that I had a clear avenue…she wouldn't say' "Did that go well?" so I didn't feel like I had an avenue to say.
3. The only problem he had was getting the kids to be quiet enough, because they're so excited to be in the gym. There were several times when he would give directions and they were not listening. Then they would come over and ask me what to do.

Neutral :

1. She had problems with a couple of kids but it was the same kids we all have trouble with at the beginning of the year.
2. Mine learned that he had to be flexible in the gym, because you never know what's going to be going on in the gym.
3. At the beginning I think I made him nervous. After a few weeks he was really good. (classroom management)
4. I think (Name) was really in culture shock…once she got to know the kids, I think management came much easier for her.
5. In classroom management she said, "I'm very soft spoken, I know." But she advanced in that.
6. We had one boy who we hadn't had any problems with that started acting out when the student teacher came in (context- when to bring a new personality into the classroom).

Positive:

1. Mine was excellent…able to build off what I'd done…very comfortable in the classroom…able to pick up on what we were doing… started walking around the room right away… got herself involved.
2. I didn't need to guide her. She already knew what was expected…she immediately began learning 100 students' names right away. That was very important to her. She wanted to bond with the students and get right in there from day one.
3. Mine was really good at the diversity of my different students…willing to help where needed…
4. Mine was a little more timid at the beginning, but she really excelled for a week when I was out with the flu…when I came back I could tell that she had really settled in.
5. Mine did a very good job. She was excellent. I had no complaints…was walking around, knew everybody's name, took initiative to do things.
6. This group just seemed to have leadership more than what we've had in the past. They all came in and said what can I do?
7. I think reflection was an issue (Name) would ask me; "How do you think that went? What could I have done differently?" That's how we teach reflection in our profession. She was very willing to accept instruction.
8. With my student teacher one thing that impressed me was her ability to adjust…she came in and she was just fluid…she did really well at that.
9. My student would bring it up first…sometimes before I could say anything she would say; "you know, I think next time I'm going to do it this way." That impressed me that she was already thinking that way.
10. You didn't have to "hold her hand", that was nice.
11. Mine was very open to that. (critique) She'd say, "Well that didn't go very well." She was open to the students.
12. I think as a group they were just really good.
13. It's partly personality. We would split up tasks. She'd be walking around or I'd be walking around. I wasn't afraid of what she was telling them. I had a lot of confidence in her and so we just worked very well together…it was a great experience for my kids.

Survey

Teachers were also asked to fill out a one question survey in which they ranked the effect of student teachers on learning in the elementary classroom. The question involved rating each student teacher on a continuum with a scale of 0–10**.**

A score of 0 would indicate that the presence of a student teacher **diminishes learning** in the classroom. A score of 5 would indicate a **neutral effect**. While a score of 10 would indicate that the presence of a student teacher **enhances learning** for the students in the classroom.

Figure 4: Results of the survey

The number of respondents	**14**
The range of student scores	**5–10**
The mean score	**7.7**
The median score	**8**
The mode of the scores	**8**

Findings

Since a score of 5 indicates a neutral influence, the scale can be viewed by raw score percentage of effectiveness in enhancing student learning. 5=0%, 6=20%, 7=40% 8=60%, 9=80%, and 10=100% effective. All student teachers were at least a neutral influence, but the majority was positive. The median and mode scores of the student teachers in the study were 8 on the scale and the mean was 7.7 indicating, as a group, they were roughly 54-60% effective in enhancing student learning according to their cooperating teachers. Therefore the divisor chosen for the effectiveness factor was 57% above neutral.

Teacher preparation programs have, for some time, speculated on what the financial contribution of sending free workers into the classroom might be. While there is no good way to calculate actual financial value added, we might suggest two possibilities based on this study. One is a high estimate and the other low.

High Estimate

The average novice (10th percentile) teacher salary in Rhea County Tennessee is $35,000.00. Student teaching (fifteen weeks) takes up approximately 40% of the school year. This is equal to $14,000.00 in teacher salary. At 57% effectiveness this equals $7,980.00 in added value for each student teacher.

Low Estimate

If we use the same reasoning, but assume the wages of a paraprofessional (since student teachers have not completed the bachelor's degree or licensure) at $9.50 per hour the salary for 15 weeks is $5,700. At 57% effectiveness this is a contribution of $3,249.00 per student teacher. Though these two figures are quite disparate, the conclusion of the study is that there is a significant value added to student learning when a student teacher is present in the elementary classroom.

A modest way to state this might be to use an average of these figures: Value added equals $5614.50 per student teacher. This means, if we have 150,000 traditional student teachers nation-wide, they are quite possibly creating a value added of $842,175,000.00. A less conservative estimate would calculate this value at over a billion dollars.

Figure 5: Calculation of Value Added

	Novice Teacher	Para-Professional
Salary	$35,000.00 per year in TN.*	$9.50 per hour $380.00 per week
15 weeks 40% of school year (typical student teaching placement)	$14,000.00	$5700.00
57% Effectiveness according to survey	$7980.00 possible value added	$3249.00 possible value added
Average of the Two Possible Numbers. ⇨	$5614.50 Value Added per Student	
Assuming 150,00 Student Teachers Nation-wide Valued at $5614.50 Each ⇨	$842,175,000.00 Value Added to American Schools by Student Teachers Yearly.	

*Starting teacher salaries by state can be found at:
http://www.nea.org/home/2012-2013-average-starting-teacher-salary.html

Implications of this Study

The main implication is that even though student teachers are mainly there to complete their teacher training, value is added when student teachers are placed in a school. It may not be the same value as fully prepared teachers, and is not true in all cases, but conservatively speaking it is more than half the value of having a second professional in the room. When extrapolated to include all US student teachers, the value added can be significant.

CAEP has made the clinical practices and partnerships a high priority in its standards. They, correctly, assume that the more collaborative the relationship between TPPs and partner schools the better the outcome for teaching candidates and, more importantly, their future students. If it is true that each year student teachers add close to a billion dollars in value to American PK-12 education, schools everywhere should welcome the collaboration with TPPs and reap some of that benefit. Student teaching coordinators should not have to go "hat in hand" to local schools asking for placements as a favor or a sacrifice by those schools. If this study has any validity, a placement is more like a $6,000 gift. If the collaborative relationship is stronger, realizing the value of the gift has greater potential. In the case of this study, the large concentration of Bryan College student teachers in one school was requested by the principal.

There are ample anecdotal reports of schools deciding not to take student teachers particularly in light of the pressures of current curriculum shifts and the high stakes assessment. It should be noted that the placement in this study was in the spring semester when testing actually occurs and the pressure to prepare for testing is greatest. Even in that high stakes environment, the argument for value added seems to be verified.

Questions for Further Review

It is obvious that a larger and more intentional study could reveal several things:

- Can this study design be improved and then generalized to a larger and more diverse group of student teachers in multiple locations?
    - There is a need for refinement of all demographics related to this and any similar studies that would address the value added question.
- What would such a study reveal about whether student teachers are more or less than 57% effective?
- What key factors enhance success for student teachers relative to preparation of both candidates and, more importantly, cooperating teachers by the TPP?
- Is it possible to compare the performance of several comparable schools which do and do not host student teachers?

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Collaborating With University Faculty and District Partners to Provide Meaningful Field Experiences for Pre-service Teachers

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The most effective teacher preparation programs require candidates to spend extensive time in the field practicing skills related to coursework (Darling-Hammond, 2010). When a candidate is provided opportunities to work alongside expert teachers to put coursework into practice, the candidate receives support and guidance along the way making he/she better equipped to problem solve, engage and impact student achievement. Effective teachers are the most influential factor on student achievement; students exposed to an ineffective teacher for three or more years, will never catch up academically (Darling-Hammond, 2010; Madda, Skinner & Schultz, 2012). Teacher candidates need to be exposed to effective teachers in the field in order to gain the knowledge and skills necessary to impact student achievement.

Given a young workforce, the turnover in education and the increasing diversity of classrooms, the effectiveness of teacher preparation is at the forefront of debate. With the focus turning to performance in the field, arguments are made as to the value of university-based teacher preparation programs. Much of the discussion has led to an increase in practice-based, practice-focused, or practice-centered teacher education; commonly referred to as practicums, in-service, field experiences and/or clinical experiences as a means of increasing teacher readiness and in turn student achievement (Zeichner, 2012).

University teacher preparation programs have long been the authoritative source of knowledge regarding pedagogy. The hierarchy that exists between universities, practitioners and

community members puts relationships at risk. Those invested in the needs of pre-service teachers should develop collaborative partnerships (Zeichner, 2010). Over the past decade, PK-12 settings have recognized the increased need for collaboration through their use of communities of practice, professional learning communities and through an increase in team planning. Sleeter (2014) highlights the gaps within the university system in her call for more collaboration on research agendas that link teacher education to student achievement. For example at many universities, practitioners, or recently retired practitioners, supervise clinical experiences. Although this supports the relationship and connection between practitioner and the university, these individuals have no authority to participate in decisions that impact program development or change (Bullough, Draper, Smith, & Burrell, 2004; Zeichner, 2012; Zeichner, 2010). Closing this gap and validating relationships amongst stakeholders has the power to shift research to build a knowledge base for teacher preparation. The purpose of this article is to describe programmatic changes that have led to increased time in the field, more support for candidates and a decrease in concerns at clinical practice (or student teaching).

One University's Collaboration with District Partners

In Fall 2012, 11% (of 157) clinical practice candidates were in jeopardy of unsuccessfully completing clinical practice. Reasons stemmed from a lack of experience in classroom settings and included inabilities to find rhythm in the school day and an overall lack of understanding of what teaching entailed. These factors impacted classroom management, instructional strategies and relationships with students. In Spring 2013, 10% (of 192) candidates were in jeopardy, and in Fall 2013, the candidates in jeopardy jumped to 14% (of 142). Given the size of the program, the respective percentages represented 18-20 candidates per semester. Districts were voicing concerns, placements were becoming difficult, and candidates needed a more successful end to their

program. After multiple meetings and exchanges of ideas, the university began to work internally to revamp the current program and collaborate with districts to find common solutions that could benefit all:

1. Retrieved information from twelve metropolitan partner districts
2. Aligned data and concerns with research based practices
3. Increased time in the field and blocked courses
4. Hired instructional coaches to bridge theory and practice in the field
5. Created and aligned performance based assessments to each course
6. Piloted and implemented a collaborative model at clinical practice

The new model focused on the collaborative relationship between teacher candidates, district partners and faculty, which led to increased time in the field, coaching prior to clinical practice and the use of co-teaching strategies.

Increased time in the field and blocked courses

As a result of the data, this led to collaboration within the teacher education department to determine better ways to meet the needs of candidates. Faculty met to discuss course expectations, field expectations and how to support increased time in the field. A scope and sequence was developed in order for experiences to build in time and complexity. Given that placing candidates in the field is a joint effort between the university, district partnerships and partner schools, faculty needed to be open to the needs of the school as well.

One concern from school partners, with the previous model, surrounded the "drop in" lessons where candidates came in one day a week for a few hours over the course of several weeks. Candidates never saw the transition of lessons from day-to-day. Furthermore, often the time available was a Friday afternoon and the experience was primarily observation based with no university support in the field. This experience did not prepare candidates for teaching diverse

learners in a PK-12 classroom, nor did it provide the school with the support and consistency needed. As a result, the university began to look at block scheduling. This allowed for a day-to-day experience tied to multiple course sections. It resulted in more collaboration and co-teaching opportunities for faculty, candidates and district partners. Local districts continue to support the efforts by matching master teachers to the expectations outlined for the field experience. The collaboration between the school district partners and the university continually informs and improves practice, allowing for rigorous and cumulative experiences for candidates (Appendix A).

Much work was put into developing strong partnerships with area school districts, and it was clear that their input in this change process was critical to sustaining partnerships and improving the program. The university is fortunate to be a part of a group of human resource representatives from twelve area school districts, along with two educational service units. This was an ideal platform to discuss the necessary changes in field experiences and to elicit support and partnership in the process. Once the partnership was formed at this level, the university was able to work with specific building administrators and teachers to form strong partnerships and high-quality placements for teacher candidates.

Hired instructional coaches to bridge theory and practice in the field

Another discussion throughout the process, focused around allowing more time for coached field experiences early in the program. In education, coaching is used to help educators make informed decisions. These decisions are tied to classroom practice and promote continuous self-assessment. A cycle of observation, action and reflection can improve instruction when individualized, collaborative and frequent feedback is utilized (Vartuli, Bolz and Wilson 2014). This is why coaching is an increasing part of the development of new teachers and the professional

development of veteran teachers. If a teacher develops the skills to be a reflective, data-driven, action-oriented educator, the practice becomes part of who they are instead of what they do.

With the increased time in the field, came a need for increased support for candidates and classroom teachers. According to the National Commission on Teaching and America's Future (1996), "…learning cannot occur in college classrooms divorced from schools" (p. 31). To support the need for guided and supervised field experiences, four instructional coaches were hired to work alongside faculty. The coaches attended classes with candidates, modeled co-teaching and supported candidate development of continuous self-assessment. The instructional coach serves as a mentor and support for pre-service teachers to help build a bridge between the theory taught at the university and the application of these practices in the field. The role of the instructional coach allows pre-service candidates to apply their learning while receiving feedback in a supportive, non-evaluative manner. In addition to supporting pre-service teachers in the field, the instructional coach also serves as a resource for P – 12 partner schools. The coach works collaboratively with the building administration as well as mentor teachers to ensure that university expectations are implemented and questions or concerns are addressed in a timely manner.

Created and aligned performance based assessments to each course

Another important conversation surrounded the need for field experiences to be tied to course grades to ensure teacher candidates are held accountable and meet high expectations for professionalism. Throughout the program, candidates are provided multiple, supported opportunities to connect theory to practice. These field experiences provide time for candidates to apply their learning within a classroom setting. These experiences are tied to 30% of the course grade and ensure the complexities of teaching at one level are met before continuing to the next. Each candidate spends a minimum of 146-coached hours in the field prior to beginning clinical

practice. The performance assessment at each level has been scaled back from the one used at clinical practice so the language and expectations stay consistent and candidates developmentally improve within the field. If candidates are consistently meeting the target behaviors throughout the field-based practicums, the goal is decreased concerns during clinical practice and higher candidate performance in the field.

Piloted and implemented a collaborative model at clinical practice

The collaboration between school district partners and the university continues to inform and improve practice, allowing for rigorous and cumulative experiences for candidates and continues to support the shared belief that every child deserves a great teacher. After much discussion and a pilot in two school districts, clinical practice moved to a collaborative model this year. This was a direct outcome and response to district concern, input and collaboration. Collaborative frameworks support the development of a common language. Team teaching, cooperative teaching, and co-teaching are among the most successful collaborative models (Austin, 2001; Fennick & Liddy, 2001; Friend, Reising & Cook, 1993; McKenzie, 2009; Rice & Zigmond, 2000; Fisch & Bennett, 2013). In recent years, there has been a shift in the use of co-teaching during clinical experiences, especially during clinical practice. Co-teaching is defined as two or more teachers working together in the same classroom, sharing responsibility for student learning (Friend, Cook, Hurley-Champerlain & Shamberger 2010; Badiali & Titus, 2010). There are seven strategies: one teach, one observe; one teach, one assist; parallel teaching; station teaching; differentiated teaching; alternative teaching, and team teaching. The strategies frame the expectations and yield conversations about common practice. For decades clinical practice, has taken a "sink or swim" approach where the pre-service teacher observes for a few weeks, then takes over the classroom. This 16-week, all-day experience immerses teacher candidates in the

PK-12 environment. In the collaborative model, the cooperating teacher and the teacher candidate are both actively engaged in the planning, instruction and assessment for the classroom through the use of co-teaching strategies. This allows for increased collaboration and reflection on teaching and learning. Parity is encouraged from the start of the experience as candidates are seen as equals to the cooperating teacher in the eyes of students.

As the candidates gain experience, he/she takes the lead in planning, instruction and assessment. The cooperating teacher might take on the role of "one teach, one observe" to provide feedback on classroom management and instructional strategies, or take on another role within the co-teaching strategies. This shift in roles allows time for independent practice and "solo" teaching for candidates, allowing the cooperating teacher to remain present, provide constructive feedback and ensure student needs are met.

Unique to the experience is the Team Development Workshop. The intent of the workshop is to foster professional relationships and develop common understandings of the co-teaching model between cooperating teachers, university supervisors and teacher candidates. It also allows time for the team to begin collaboratively planning for the semester.

Impact

Without collaboration between the university and school practitioners, the practice of allowing candidates to learn and apply instructional strategies in classrooms lacks the necessary elements of a teacher inquiry community. The ambiguity in current practice leads to decreased student achievement and a lack of retention. A focused approach nurtures the development of a professional vision (Zeichner, 2012). Candidates have more successful experiences when both the university supervisor and the cooperating teacher share a similar perspective and send a similar message regarding performance (Fernandez and Erblilgin, 2009). Unfortunately, the relationship

between PK-12 practitioner and pre-service teacher is often conceptualized based on the practitioner's own experiences. Increasing conversations and valuing district input leads to a growth model. Without collaboration to identify needs, clarify expectations and support all aspects of a field experience, the chasm between universities and PK-12 practitioners will continue to widen. The creation of a professional vision with a common language will bridge multiple contexts and communities.

Semester	**% in Jeopardy**	**Total number of Candidates**
Fall 2012	11%	157
Spring 2013	10%	192
Fall 2013	14%	142
Fall 2014	4%	159
Spring 2015	4%	128

Conclusion

As numbers increase in enrollment, the challenge of supporting candidates while in the field and continuing to grow and maintain partnerships with schools that support the increased enrollment numbers poses a new challenge. The commitment and collaboration of partnership schools is a vital asset of our teacher preparation program. Without this, the programmatic changes that led to increased time in the field, more support for candidates and a decrease in concerns at clinical practice would not have been possible.

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Teacher Preparation Goes to CLASS

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Abstract

Significant research and literature has explored how teacher-student interactions can measured with in-service teachers. However, limited work exists in this area with respect to pre-service teacher preparation programs. This paper describes how one particular research-based model of teaching quality, the Classroom Assessment Scoring System – Secondary (CLASS-S), was introduced in a pre-service teacher program designed to prepare secondary mathematics and science teacher candidates. We describe how the multi-dimensional structure of the CLASS-S model has been used to inform, evaluate, and support teacher candidates' pedagogical growth throughout the field-based portions of their teacher preparation program. Descriptions of key program assessments and the observation protocol anchored to the CLASS-S model are also included. To conclude, recommendations are provided that relate to introducing pre-service teacher candidates to a research-based observation protocol and ways other teacher preparation programs can integrate similar protocols within field experiences.

Introduction

Over the past decade, educational researchers and policymakers have placed a greater emphasis on improving the quality of teacher-student interactions in pre-kindergarten through grade 12 classrooms using research-based measures of instructional quality (Allen, Pianta, Gregory, Mikami, & Lun, 2011). A recent multi-state study (see Goldring et al., 2015) suggests many districts and states are relying more than ever on rubric-aligned teacher observation measures, using the associated teacher observational data in favor of student test scores to drive human capital decisions. Related to this increased emphasis on teachers' performance in the classroom, the Bill and Melinda Gates Foundation recently sponsored the Measures of Effective Teaching (MET) Project, a three-year partnership between academics, teachers, and educational organizations committed to investigating better ways to identify and promote high quality teaching with direct ties to student achievement (Bill and Melinda Gates Foundation, 2013). The MET Project explored and thoroughly vetted several different models of teaching quality, including the Classroom Assessment Scoring System (CLASS) model (Pianta, Hamre, & Mintz, 2012). Although the MET Project and subset of related measures are well-positioned to add significant value to the field of in-service teacher evaluation, limited research exists on how these models of teaching can be leveraged to support teacher preparation programs and pre-service teachers. In this paper we describe how one model of teaching quality outlined in the MET Project, CLASS, is strategically embedded within the University of Colorado Colorado Springs Teach Program (UCCSTeach Program) in order to better guide and measure pre-service teacher performance in the classroom. The paper begins with a brief overview of the UCCSTeach program, provides an outline of the CLASS-S model, and then specifically describes how the model is used to inform, evaluate and support pre-service teacher candidates through key program assessments. It should

be noted that we are not necessarily advocating for all teacher preparation programs to "go to CLASS;" however, we are using this paper as an opportunity to discuss how this particular model has increased our program's ability to improve the quality of teacher candidates we produce.

UCCSTeach Program Background

The UCCSTeach Program is an inquiry-based teacher licensure program for students seeking teaching licensure in secondary mathematics or science content areas. The program is modeled after the UTeach Program which originally began at the University of Texas at Austin in 1997 and has since been replicated across 21 states and 44 different universities. UCCSTeach pre-service teacher candidates earn a BA or BS degree in one of six STEM areas (Biochemistry, Biology, Chemistry, Engineering Education, Mathematics, or Physics) while simultaneously completing the 32-credit hour UCCSTeach Program course sequence (see Table 1).

Table 1. UCCSTeach Program Course Sequence

UCCSTeach Course Name	Credits	Required Field Hours (Description)
Step I: Inquiry Approaches to Teaching	1	15 (observing & teaching)
Step II: Inquiry-Based Lesson Design	1	20 (observing & teaching)
Knowing and Learning	3	10 (tutoring)
Classroom Interactions	3	50 (observing & teaching)
Functions and Modeling (**Math only)	3	None
Perspectives on Science and Math	3	None
Research Methods (**Science Only)	3	None
Project-Based Instruction	3	75 (observing & teaching)
Reading in the Content Areas	3	None
Apprentice Teaching	12	640 (student teaching)
	32	**810**

The UCCSTeach Program offers intensive field experiences for pre-service teacher candidates to gain relevant experiences working with K-12 students. Over the course of the UCCSTeach Program, teacher candidates complete a minimum of 810 field contact hours at various field sites. An underlying philosophy of the UTeach program, and subsequently in the

UCCSTeach program, is to provide teacher candidates with in-depth, individualized, and on-going coaching that is paired with a sequential set of five field experiences.

The first two courses in the program, Step I: Inquiry Approaches to Teaching and Step II: Inquiry-Based Lesson Design, introduce UCCSTeach teacher candidates to effective math and science teaching through inquiry-based lesson design. This early immersion into the exciting and challenging world of teaching helps pre-service teacher candidates determine if the teaching profession is a good fit for them. Both Step courses are co-taught by experienced "Master Teachers" (at the university level, a Master Teacher also carries the title of Senior Instructor). Master Teachers have extensive K-12 teaching experience themselves and know firsthand the challenges of teaching math and science in public schools. The introductory Step I course places UCCSTeach teacher candidates in a local elementary school setting where they initially observe, and then eventually co-teach three inquiry-based math or science lessons. Since most first-semester UCCSTeach teacher candidates have limited teaching experience in a K-12 setting, teacher candidates begin their Step I fieldwork in an elementary classroom even though they are seeking secondary teaching certification. The UTeach model recommends starting teacher candidates off in an elementary setting, despite their ultimate intention to become a secondary level teacher, because elementary classrooms tend to provide more lenient students, less severe classroom management issues, and more limited focus on specific content objectives (compared to a high school math or science course). The Step II experience is similar to Step I, but places teacher candidates in a middle school classroom. In Step I and Step II, teacher candidates are introduced to a 5E lesson template, based on the popular 5E model developed by Bybee and colleagues (Bybee et al., 2006), to design their inquiry-based instruction. Each lesson plan includes the following parts: Engage, Explore, Explain, Elaborate, and Evaluate, which

collectively require teachers to take a constructivist, student-centered approach to learning and planning (Tanner, 2010). This 5E template is used throughout the entire program to guide teacher candidates' lesson designs.

Following the introductory Step I and II courses, UCCSTeach teacher candidates complete two more increasingly rigorous field-based courses, Classroom Interactions (CI) and Project-Based Instruction (PBI). CI and PBI place teacher candidates in middle or high school settings. The final semester of the UCCSTeach Program includes a 12-credit Apprentice Teaching experience (what many other teacher preparation programs refer to as Student Teaching). Apprentice Teaching reinforces and expands upon the instructional strategies teacher candidates have developed through their UCCSTeach coursework and field experiences. The semester-long experience is comprised of (1) a full-time classroom experience in a local public secondary school with an assigned mentor teacher in a similar content area and (2) a weekly seminar that brings teacher candidates together with UCCSTeach Master Teachers to reflect on experiences, develop a professional portfolio, work on solutions to problems they encounter in the field, and take a leadership role by conducting Professional Learning Community (PLC) discussions with their pre-service peers. Seminar topics focus on classroom management and time management strategies, parent-teacher communication strategies, best practices related to technology and online learning environments, school culture, effective middle school and high school dynamics, legal and logistical issues in teaching, the final electronic portfolio, state certification examinations, and job search support. In addition to the field-based courses in the UCCSTeach Program, teacher candidates also complete Knowing and Learning, Functions and Modeling (math majors only), Science Research Methods (science majors only), Perspectives on Mathematics and Science, and Reading in the Content Areas. These complementary, non-field-

based courses are designed to equip UCCSTeach teacher candidates with the requisite pedagogical content knowledge to be successful STEM teachers at the secondary level.

CLASS-S™ Model Overview

Several versions of the CLASS model have been developed and validated, but for the purposes of this paper we focus on the CLASS-Secondary model (CLASS-S), designed to capture teacher-student interactions at the middle and high school grade levels. The original CLASS model, and subsequent CLASS-S iteration, is predicated upon many years of developmental theory and research which suggests that the quality of teacher-student interactions serve as the primary mechanism for student learning (Bronfenbrenner & Morris, 1998). CLASS-S is unique from previous versions of the model because it is grounded specifically in the literature that supports the development of adolescents in grades 6-12. Several large scale studies using the CLASS-S model have predicted relationships between students' social development and academic outcomes (Allen et al., 2011; Allen et al., 2013; Kane et al., 2012) and have used confirmatory factor analysis to validate the CLASS-S structure (Hafen et al., 2015). The CLASS-S structure is characterized by three broad domains of teacher-student interactions: (1) Emotional Support, (2) Classroom Organization, and (3) Instructional Support. Each domain includes three to five sub-dimensions. The complete CLASS-S model, with the 11 sub-dimensions, is outlined in Table 2.

Table 2. Overview of the CLASS-S Domains and Dimensions

	CLASS-S Domains		
	Emotional Support	**Classroom Organization**	**Instructional Support**
CLASS-S Dimensions	*Positive Climate*	*Behavior Management*	*Instructional Learning Formats*
	Teacher Sensitivity	*Productivity*	*Content Understanding*
	Regard for Adolescent Perspectives	*Negative Climate (Absence)*	*Analysis and Inquiry*
			Quality of Feedback
			Instructional Dialogue

CLASS-S dimensions are further explained by indicators and behavioral markers. See Table 3 for the Positive Climate dimension, which is broken down further to the indicator and behavioral marker levels. Indicators and behavioral markers were developed to provide a clearer picture of how teacher-student interactions can be quantitatively scored from 1 to 7 across three quality levels: low quality = 1 or 2; middle quality = 3, 4 or 5; and high quality = 6 or 7. Both tables were retrieved from the CLASS-S manual (Pianta, Hamre & Mintz, 2012).

Table 3. Positive Climate dimension including a sample indicator and behavioral markers

Dimension		**Positive Climate**		
	Positive Climate reflects the emotional connection and relationships among teachers, students, and the warmth, respect, and enjoyment communicated by verbal and non-verbal interactions.			
		Low (1,2)	Middle (3,4,5)	High (6,7)
Indicator	Relationships	The teacher and students appear distant from and disinterested in one another.	The teacher and some students appear generally supportive and interested in one another, but these interactions are muted or not representative of the majority of students in the class	There are many indications that the teacher and students enjoy warm and supportive relationships with one another.
Behavioral Markers	· Physical proximity · Peer interactions · Shared positive affect · Social conversations			

The CLASS-S dimension latent organizational structure is based upon extensive research related to positive student learning and social emotional outcomes. Within the Emotional Support domain, sub dimensions and behavioral markers have demonstrated direct linkages to positive student attitudes and motivation (Gilman & Anderman, 2006; Skinner & Belmont, 1993) and higher quality teacher-student relationships (Crosnoe, Kirkpatrick-Johnson, & Elder, 2004; Hattie, 2012) . Classroom Organization is a broad domain related to the organizational structure of a classroom, analysis of student behavior, and attention to time spent on task (Emmer & Stough, 2001). Literature associated with the Classroom Organization sub dimensions and behavioral markers suggests that when teachers exhibit proactive behavior management strategies and

strategically design instruction, they see an increase in student engagement and learning (Sugai & Horner, 2002; Wong, 2007). The final domain of CLASS-S, Instructional Support, draws heavily from cognitive and language development research (Pianta, Hamre, & Mintz, 2012). Sub dimensions within the Instructional Support domain suggest that the quality of teacher-student interactions increases when teachers offer instruction through a variety of modalities and tap into students' natural curiosity and affinity to engage in inquiry-based learning (Marx et al., 2004). Research in these sub-dimensions also suggests the quality of teacher-student interactions improves when teachers ask higher order questions (Manouchehri & Lapp, 2003; Martino & Maher, 1999; Winne, 1979) and provide their students with high quality feedback (Marzano, Pickering & Pollock, 2001; Smith & Higgins, 2006). For a more complete overview of the CLASS-S model and research studies connected to specific behavioral markers and dimensions, see Hafen et al. 2015.

Introducing UCCSTeach Pre-Service Teacher Candidates to CLASS-S

Pre-service teacher candidates described in this paper were previously enrolled or are currently completing the UCCSTeach Program as described above. Teacher candidates work through a three-part process in which they are introduced to the CLASS-S model is embedded throughout the program in informative, evaluative, and supportive contexts.

CLASS-S Model as Informative

Because the complete CLASS-S model is extensive, teacher candidates learn about the CLASS-S model during the first three field-based courses in the program: Step I, Step II and Classroom Interactions. The basic language and structure of the CLASS-S model is briefly introduced to teacher candidates during their introductory Step I and Step II courses. Conversations in Step I and Step II are limited to the CLASS-S domain level (e.g., how to provide

Emotional Support, develop Classroom Organization, and include Instructional Support). Although UCCSTeach teacher candidates are observed during Step I and Step II, their interactions are not formally coded and quantified using the full CLASS-S protocol. Rather, written feedback is provided to teacher candidates through a simplified CLASS-S rubric to explain relative strengths and weaknesses. For example, a UCCSTeach supervisor may suggest that a pre-service teacher use physical proximity to better connect with their students, which can help create a more positive climate and provide more emotional support.

Upon completion of the one-credit Step I and Step II courses, teacher candidates engage in an extensive exploration of the entire CLASS-S model during Classroom Interactions, the third of five field-based courses required in the UCCSTeach Program. Classroom Interactions is a semester-long, three credit course with approximately 30 class meetings (the class meets for 75 minutes, two times per week, for 15 weeks). The primary goal of Classroom Interactions is to leverage the CLASS-S model to build a research-based "super teacher" and therefore it is in this course where the model is covered in the most detail. During the first six meetings of Classroom Interactions, teacher candidates learn about the CLASS-S domains, dimensions and behavioral markers. Teacher candidates are required to purchase the CLASS-S dimensions guide. This guide serves as their textbook for the course, but also as a blueprint for what a super teacher looks like. Unlike Step I and Step II, Classroom Interactions requires teacher candidates to explore the CLASS-S dimensions and behavioral markers in more detail. For example, the first week of Classroom Interactions orients teacher candidates to the Emotional Support dimensions and behavioral markers (e.g., Positive Climate can be measured by the behavioral markers of physical proximity, peer-to-peer interactions, shared positive affect, and social conversations). Associated class activities include discussions about why these dimensions and behavioral markers work to

strengthen the classroom environment, and in turn, support teacher candidates' learning. In-class activities include opportunities for teacher candidates to engage in small group reciprocal teaching, case studies of common high school scenarios, or video-based analysis of teacher-student interactions using online sites such as Teaching Channel.

Throughout the Classroom Interactions semester teacher candidates also complete observation hours in a high school math or science classroom. Teacher candidates are paired with an in-service high school teacher (mentor teacher) in the class they will practice teach in, watching for specific "super teacher" qualities as well as aspects of teacher-student interactions that align with the CLASS-S model and language. Each teacher candidate is required to observe a minimum of six hours over the first month of the semester and answer three separate question sets related to the interactions they observe. Question set one relates to the Emotional Support domain, set two to the Classroom Organization domain, and question set three to the Instructional Support domain. The on-site observations conducted by teacher candidates serve as an excellent way to synthesize their understanding of the CLASS-S model by allowing them to see the dimensions and specific behavioral markers "in action." The observation hours help teacher candidates synthesize the CLASS-S terminology and provide an opportunity to revisit particular behavioral markers to gain more clarity or confidence. The field-based observation assignment also challenges teacher candidates to start to identify which specific dimensions super teaching (i.e., the CLASS-S model) they want to develop within themselves.

CLASS-S Model as Evaluative

The CLASS-S model is used to evaluate teacher candidates' pedagogical growth several times throughout the UCCSTeach program (see Table 4 for details). In this section, we describe our program-specific observation form predicated upon the CLASS-S model. We also describe the

training protocol UCCSTeach supervisors have completed to ensure the on-site observations conducted are reliable and valid.

Table 4. Teacher-Candidate Observations Conducted During the UCCSTeach Program

	Introductory Courses		**Intermediate Courses**		**Capstone Course**
	Step I	**Step II**	**Classroom Interactions**	**Project-Based Instruction**	**Apprentice Teaching**
# of Observations	3	3	3	5	6
Grade Level	K-5	6-8	9-12	6-12	6-12
CLASS-S Feedback Provided to Teacher Candidates	Domain-level feedback only (interactions are not numerically scored)		Full CLASS-S Observation Form used to quantitatively score teacher candidates' interactions with students. Feedback includes dimension sub-scores (see Appendix A for a completed observation form).		

During their initial teaching experiences in Step I and Step II, teacher candidates are formally observed three times in each course. The observations are not quantitatively scored using the full CLASS-S model; however, feedback is provided to give teacher candidates an idea of their instructional performance. For example, a UCCSTeach supervisor may recommend to a Step II teacher candidate that they use a timer to increase their productivity. In Classroom Interactions, Project-Based Instruction, and Apprentice Teaching, all UCCSTeach teacher candidates are observed using the complete CLASS-S model. To evaluate *in-service* teachers, evaluators using the CLASS-S model assign whole number integer scores of 1-7 for the teacher-student interactions within each dimension, with 1 or 2 representing low quality, 3, 4, or 5 representing average quality, and 6 or 7 assigned to high quality interactions. We have made a slight modification to the CLASS-S model for *pre-service* teacher candidates, adding half-point values within the low, average and high quality ranges (see Table 5). This half-point structure aligns nicely with the university letter grade system and provides teacher candidates with the opportunity to improve in smaller increments.

Table 5. CLASS Codes with Half-Point Increments Aligned to University Grading Scale

Low Quality	Average Quality	High Quality
3.0 = C-	5.0 = B	7.0 = A+
2.5 = D+	4.5 = B-	6.5 = A
2.0 = D	4.0 = C+	6.0 = A-
1.5 = D-	3.5 = C	5.5 = B+
1.0 = F		
N/A = Not observed during interactions		

We have also added in two additional components to the UCCSTeach pre-service teacher observation form: Professionalism and Lesson Plan. These components were added because they are not captured with the CLASS-S model designed for in-service teachers, but are critically important for pre-service teacher candidates. In Appendix A, we include an example of a completed observation form from a UCCSTeach teacher candidate, with identifying information redacted. When assessing and assigning points to observations of teacher candidates, CLASS-S evaluators use a color-coded points system, in addition to narrative comments about the teacher-student interactions observed. At the most broad level, candidates receive color codes (red – low quality; yellow – average quality; green – high quality; or gray – not observed during the interactions) for each of the behavioral markers within the CLASS-S model as shown in Appendix A. Behavioral marker scores are then averaged to calculate a dimension score of 1 to 7 for each dimension. For example, in this case the teacher candidate received an overall score of 6.5 for the Instructional Learning Formats dimension. The teacher candidate provided clear learning targets, previewed an activity with students using an advanced organizer, effectively summarized the components of the lesson, and presented information in a clear, well-organized fashion so received a behavioral marker score of 7 (high quality). However, the teacher candidate did not maintain active student engagement throughout the entirety of the lesson, so they received a score of 5 for this behavioral marker (average quality). This same scoring system is used to evaluate each

behavioral marker in the model, with evaluators using the CLASS-S manual to assign the numerical values.

All UCCSTeach evaluators using the CLASS-S observation form have completed various levels of training related to the model. One UCCSTeach Master Science Teacher and one UCCSTeach mathematics education faculty member have completed the intensive two-day "certification" training and validation testing offered through the CLASS parent company, Teachstone. CLASS certification training consists of 16 contact hours (plus an additional 3-4 hours of pre-training activities). The first day of the training is designed to orient trainees to the CLASS model and provide information on how to effectively use the CLASS dimensions to evaluate classroom interactions. Day two affords trainees the opportunity to gain authentic observational experience by coding and discussing video-based interactions from actual secondary classrooms. Upon completion of the two-day training, participants are required to complete an extensive online reliability exam within eight weeks, involving the coding of online segments of classroom interactions randomly chosen from the CLASS video library. In order to pass the exam, participants must receive an 80% or higher score compared to a set of master codes established. Two other UCCSTeach Master Teachers have completed CLASS-S training through an externally-funded grant obtained by the University of Colorado (CU) system. Through this grant, 30 university supervisors participated in several CLASS-S training sessions. The training offered through the grant was facilitated by Teachstone, the parent company responsible for the CLASS-S reliability trainings described above. However, because this project involved pre-service teachers and university supervisors, additional training objectives were included, specifically targeting supervisors' ability to provide targeted feedback to teacher candidates after viewing videotaped interactions. Therefore, the two UCCSTeach Master Teachers who participated in the grant learned

not just about the CLASS-S observation protocol, but also how to provide effective feedback to teacher candidates in order to help them improve their instructional practice.

CLASS-S data has been collected for all formal observations completed over the past four years of the UCCSTeach teacher candidates (See table 6 below).

Table 6. Means and Standard Deviations for Teacher Candidates on CLASS-S Dimensions

CLASS-S Dimension	***M***	***SD***	**University Letter Grade Correlation**
Positive Climate	6.49	.64	A
Teacher Sensitivity	5.75	.92	B+ to A-
Regard for Adolescent Perspectives	5.45	.90	B+
Behavior Management	6.02	.94	A-
Productivity	5.76	.87	B+ to A-
Instructional Learning Formats	5.62	.91	B+
Content Understanding	5.66	.86	B+
Analysis and Inquiry	5.64	.83	B+
Quality of Feedback	5.17	.92	B
Instructional Dialogue	5.50	.95	B+
Note: Each CLASS domain contains between 1-7 points. The Negative Climate Dimension was not scored for teacher candidates. *N* = 72 Observations			

Teacher candidates' strongest dimensions, on average, have been Positive Climate (*M = 6.49*; *SD = .64*) and Behavior Management (*M = 6.02; SD = .94*). Interactions have been weakest within the dimensions of Quality of Feedback (*M = 5.17; SD = .92*) and Instructional Dialogue (*M = 5.50; SD = .95*). Coincidentally, these relative strengths and weaknesses are consistent with research from in-service teachers' performance as rated by the CLASS-S model (see Pianta, Hamre & Mintz, 2012). Within our program, teacher candidates' relatively low score on Quality of Feedback is also consistent with our preliminary data collected from the Educator Teacher Performance Assessment (EdTPA).

UCCSTeach teacher candidates also complete a self-reflective video analysis project at the conclusion of the Classroom Interactions course. This assessment serves as the culminating project

for the course and constitutes 20% of teacher candidates' final semester grade (See Appendix B for full details on the final video analysis paper). Teacher candidates must videotape one of their teaching demonstrations during the semester and then use the CLASS-S model to code their interactions. Teacher candidates are responsible for writing a 12-16 page reflection paper defending their rationale for the CLASS-S codes selected using the Dimensions Guide. Each teacher candidate concludes their paper by selecting two CLASS-S dimensions they would like to improve upon, then provides a specific action plan for how they will modify their instructional practice in future teaching opportunities by citing specific behavioral markers within the CLASS-S dimensions guide. Teacher candidates have often commented that this video reflection assignment has been one of the most valuable tools for them, allowing them to view their own teaching from a more objective standpoint. This is consistent with previous research suggesting that self-analysis and reflection serve as a critical component in pre-service teacher growth (Feiman-Nemser, 2001; Stockero, 2008) and contributes to gains in teacher candidates' pedagogical content knowledge (Gao, Chee, Wang, Wong, & Choy, 2011).

CLASS-S Model as Supportive

The final step in our three-phase implementation process is to support teacher candidates using the CLASS-S model. Teacher candidates revisit the model in their fourth field-based course (Project-Based Instruction; PBI) and final field experience (Apprentice Teaching; AT) and are much more comfortable and confident with the CLASS-S language at this point. Both PBI and AT allow teacher candidates to focus on CLASS-S dimensions that were particularly weak from Classroom Interactions. Furthermore, UCCSTeach supervisors and mentor teachers working with teacher candidates in upper-division UCCSTeach Program courses (e.g., Project-Based Instruction and Apprentice Teaching) re-visit the CLASS-S model and use its common language to provide

more targeted, actionable feedback to teacher candidates to help identify areas for improvement. Teacher candidate weaknesses identified by the CLASS-S model naturally lend themselves to improvement plans, which are leveraged primarily in the final semester of the UCCSTeach Program, Apprentice Teaching, to support teacher candidates' growth. Along with the advantages afforded by feedback and support provided by *external* observers (e.g., Master Teachers and mentor teachers), we believe the real value of the CLASS-S model in terms of supporting our teacher candidates is through their own *internal* self-reflections. The CLASS-S model provides teacher candidates with a common framework and reinforces their own understanding of the teaching-learning process, a powerful tool in improving their own pedagogical ability (Rodman, 2010). Moreover, it supports their ability to better "notice" salient features of classroom interactions that are key to good teaching (van Es & Sherin, 2002).

We are confident the CLASS-S language coupled with self-reflection also makes our teacher candidates more confident to complete one of their major capstone assignments for the program: the Educator Teacher Performance Assessment (edTPA). The edTPA includes a requirement for candidates to submit and reflect on a video segment of their teaching. For candidates who have never watched their own teaching via video, this can be a daunting task. However, as noted earlier in this paper, UCCSTeach teacher candidates have already videoed their teaching, and have completed a video analysis project which required them to use the CLASS-S model to code their own performance. Since the video self-reflection required for edTPA is similar in structure to the assignment for Classroom Interactions, teacher candidates are already familiar with the process and are more comfortable with this aspect of the assessment.

Conclusion

To conclude, we provide a set of four basic recommendations to other pre-service teacher programs wishing to anchor their field-based courses to a research-based evaluation model similar to CLASS-S. First, we recommend following the same informative, evaluative, and supportive framework to introduce teacher candidates to a model over several different courses. This serves as a helpful way to orient teacher candidates to the complexities of teaching over time, but also provides a common framework and language that can be revisited across different courses with an end goal of improving instructional practices. Second, we recommend choosing one course in particular to engage in a thorough investigation of the model. In our program we have identified Classroom Interactions as the logical course for this extensive exploration. Relatedly, we recommend spending a significant amount of time at the beginning of the semester for teacher candidates to engage in an extensive exploration and discussion of the selected model. This allows teacher candidates to become more knowledgeable of and comfortable with the specific observation protocol that will be used to evaluate their field-based teaching. Third, ensure all course instructors and program supervisors associated with the teacher preparation program are comfortable with the model, observational procedures and if possible have received formalized reliability training on the model. Consistent, reproducible, and accurate training is not possible without effective training for evaluators (Johnson, Penny & Gordon, 2009). Fourth, and perhaps most importantly, we encourage teacher preparation programs to consistently integrate the model throughout the entirety of the program. Revisiting the model throughout the program is consistent with literature suggesting pre-service teacher candidates should establish a "clear vision of good teaching practice that permeates all coursework and clinical experiences, creating a coherent set of learning experiences" (Darling-Hammond, 2014, p. 548). This re-visitation also provides

teachers candidates with an opportunity to focus on specific CLASS-S dimensions with which they struggled in previous courses.

Despite the title of this article, we are not advocating all teacher preparation programs adopt the CLASS-S model exclusively. This is simply one of many models. However, we believe all teacher preparation programs, regardless of content area or level, would benefit from adopting a research-based framework of teaching quality and anchoring it to field experiences and key assessments, using the associated data to drive continuous program improvement. The UCCSTeach program utilizes an inquiry-based approach to teaching, but the CLASS-S model, and other similar models, look at teacher (in-service or pre-service) interactions with students. By engaging in an informative, evaluative and supportive process tied to a research-based framework or model, we are confident teacher candidates are better prepared to respond to the real-world challenges associated with teaching and can have targeted discussions about salient classroom interactions.

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Appendix A. UCCSTeach Teacher Candidate Observation Form (Completed)

UCCS Teach Student(s): _____

Classroom Teacher: _____ **UCCSTeach Observer:** _____

UCCSTeach Course: Classroom Interactions

Date: 10/08/15 **Grade Level(s):** 10, 11, 12 **Subject:** Consumer Math

Lesson Title: Adding Signed numbers

Scoring overview: Teacher-student interactions for the observation will be rated across 13 different areas (professionalism and lesson plan) + the 10 CLASS-S dimensions. Each section is scored on a point scale of 1-7 which corresponds to the following letter grades.

High Quality		Average Quality		Low Quality		N/A
A+	7	B	5	C-	3	Gray = not applicable for observation
A	6.5	B-	4.5	D+	2.5	
A-	6	C+	4	D	2	
B+	5.5	C	3.5	D-	1.5	
				F	1.0	

Professionalism & Lesson Plan:

	What to watch for:	Score
Professionalism	- Organized and prepared to teach (7) - Punctual and prompt (7) - Abides by building sign in/sign out policies (7) - Dresses appropriately and professionally (7) - Exhibits professional behavior with students, cooperating teacher, and supervisor (7) - Returns borrowed equipment and leaves room in good condition (7) - Coordinates with team during the lesson (7) - Seeks feedback from cooperating teacher (7)	**7**
Lesson Plan	- Lesson plan follows 5E model and is inquiry-based (7) - Activities aligned with CO state standards (7) - Student understanding or achievement is assessed during the lesson as well as at the end (7) - Free from content errors, did not promote misconceptions (7) - Lesson plan sent to UCCSTeach supervisor and cooperating teacher prior to teach(7)	**7**

CLASS-S Scores

Domain	Dimension	Behavioral Markers	Comments	Score
Emotional Support	Positive Climate	- Positive relationships (7) - Positive affect (7) - Positive communication (7) - Respect (7)	Again I felt students responded to you positively today. It seemed more difficult than last week and it was mostly because we are in the week before fall break. I was in several classrooms today and they were all a little crazy. Despite the difficulty you maintained a calm demeanor and a positive climate.	**7**
	Teacher Sensitivity	- Awareness (7) - Responsiveness to academic and social/emotional needs (6) - Effectiveness in addressing problems (5) - Student comfort (7)	You exhibit great situational awareness as you monitor student work. Students were immediately comfortable with you and receptive to your instruction. Students were comfortable again today and willing to answer questions. There were a few times students' weren't paying attention and you needed to get their attention. This was in no way major but in the long term can become major.	**6.5**
	Regard for Adolescent Perspectives	- Flexibility and adolescent focus (7) - Connections to current life (7) - Support for autonomy and leadership - Meaningful peer interactions (6)	You made a strong connection to students' lives when you presented the car program. There was more time for meaningful peer interactions today compared to your last teach. The game was a nice addition and frankly a lesson saver today.	**7**
Classroom Organization	Behavior Management	- Clear expectations (5) - Proximity (7) - Effective redirection of misbehavior (5) - Student behavior (7)	There was more off task behavior today than last week. You never lost control and did a fairly good job of pulling them back, but just remember to	**6**

			ask for students' attention and wait for it.	
	Productivity	- Maximizing learning time (7) - Routines (7) - Transitions (6) - Preparation (7)	You made good use of the learning time and were well prepared prior to the lesson. You showed up early to get everything in order, which paid big dividends during instruction. Transitions were much better today and more seamless. The lesson flow and pace were very good.	**7**
Instructional Support	Instructional Learning Formats	- Clear learning targets/organization (7) - Variety of modalities, strategies, & materials (6) - Active facilitation (7) - Effective engagement (5)	I believe for today in this class you did about as well as you could do in this area. Adding the game was definitely an improvement for this lesson. Without it the lesson wouldn't have been nearly as effective.	**6.5**
	Content Understanding	- Depth of understanding (7) - Communication of concepts and procedures (7) - Background knowledge and misconceptions (7)	Again right on in this dimension.	**7**
	Analysis and Inquiry	- Facilitation of higher-order thinking (5) - Opportunities for novel application (6) - Metacognition (5)	There was more real application in this lesson. Not a lot of higher order thinking demanded but not the right day for it either. I don't think a hard push would have worked out well. For the next lesson try to challenge students to think about their thinking or reasoning. For instance today, after making the point of multiple negatives you could have asked the question, "When would knowing this fact come in handy?" Hopefully the students would have answered, "when checking	**5.5**

			the reasonableness of your solution."	
	Quality of Feedback	- Feedback loops (2) - Scaffolding (5) - Building on student responses (2) - Encouragement and affirmation (6)	This is an area where you could improve, although it is difficult with these kids. In your next lesson try to find an activity that promotes student response and practice leading discussion based on student responses.	**4**
	Instructional Dialogue	- Cumulative content-driven exchanges (5) - Distributed talk (5) - Facilitation strategies (6)	Facilitation of discussion was improved today. You tried to get students to respond even when they didn't want to.	**5.5**

Additional observation comments, if applicable:

You did a good job again today, _____. This was a difficult teaching day today for the entire school. Believe it or not I visited five other classes today and yours was the most productive environment I saw. I've made these suggestions above as well but nice additions to the next lesson would be as follows:

- Develop a discussion activity that will promote a lot of student response.
- Practice leading the discussion further based upon student answers. This facilitates a dynamic teaching and learning environment that puts a high value on student voice generating self-efficacy which should improve your Quality of Feedback and Instructional Dialogue dimensions.
- Consider ways to get students to be reflective or metacognitive of their own learning.

Appendix B. UTED 3020 - Classroom Interactions Final Video Analysis Overview

Part 1 - Project Overview: The culminating project for this course is a video analysis of the classroom interactions from your own teaching practice (on-site teaching demo #3). This project is worth 100 points and constitutes 20% of your final course grade. For this project, you are to take a critical perspective on your own teaching actions, analyze your instructional practice within each dimension of the CLASS-S model, and make specific recommendations for improvement based on your analysis. You will need to complete the following steps to receive credit for this project:

1. Videotape your third and final teaching demonstration (note: check with your mentor teacher to make sure you abide by district videotape guidelines)

- The UCCSTeach office has flip cameras available for you to borrow. Please check with the office a few days in advance to reserve your camera.
- We recommend having a classmate from Classroom Interactions or friend from the UCCSTeach Program come videotape your lesson (a friend WITHOUT fingerprint clearance should NOT be in the school!) Having a friend perform the videotaping significantly improves the quality of the video footage (compared to using a tripod).

2. Code your interactions using the CLASS-S coding sheet from class

- CLASS-S codes are assigned for each dimension, using the same scoring system that was used in your teach #1 and teach #2 interactions. Provide a rationale for *why* you assigned the CLASS codes (1-7) that you did. Note, you are not graded based on the quality of the CLASS-S codes (don't just give yourself all 7's), but rather your ability to effectively **analyze** the classroom interactions from the lesson and provide a **rationale** for the CLASS codes assigned.

3. Select between **2-4** CLASS-S dimensions you would like to work on in future teaching opportunities, based upon the interactions you coded.

- Provide specific recommendations for how to tweak your teaching practice in order to improve the quality of the interactions within the dimensions selected. Specific course readings, videos (e.g., Teaching Channel or other) must be cited.

Part 2 - CLASS Coding: Each teacher candidate is required to score his or her interactions for the ten CLASS-S dimensions (*note: Negative Climate is not scored*). Each dimension should be scored on a point scale of 1-7 which corresponds to the following University letter grades as shown in your syllabus. Use your CLASS-S dimensions guide to help you assign the point values for each dimension.

We recommend watching your video tape at LEAST three times.

1. The first time watch/code the interactions within the Emotional Support Domain

    - Positive Climate
    - Teacher Sensitivity
    - Regard for Adolescent Perspectives

2. The second time watch/code the interactions within the Classroom Organization Domain

    - Behavior Management
    - Productivity

3. The third time watch/code the interactions within the Instructional Support Domain

    - Instructional Learning Formats
    - Content Understanding
    - Analysis and Inquiry
    - Instructional Dialogue
    - Quality of Feedback

Classroom Interactions Video Analysis Project Rubric: Points Possible = 100

Section	Below Average (0-14 points)	Satisfactory (15-19 points)	Proficient (20-23 points)	Exemplary (24-25 points)
CLASS-S: Emotional Support Domain Analysis	Section is not in the 3-4 page range. There are many spelling or grammatical errors. The CLASS-S dimension codes are not clearly or thoroughly explained. No CLASS-S behavioral markers are referenced.	Section is in the 3-4 page range. There are several spelling or grammatical errors. More than half of the CLASS-S dimension codes are not clearly or thoroughly explained. Many of the behavioral markers are not referenced.	Section is in the 3-4 page range. There are a minimal number of spelling or grammatical errors. Some, but not all CLASS-S dimension codes are clearly and thoroughly explained. Some, but not all, CLASS-S behavioral markers are referenced.	Section is in the 3-4 page range. It is free of spelling and grammatical errors. The rationale for the CLASS codes is clearly and thoroughly explained for each dimension. Specific classroom interactions from the video are clearly highlighted and explained. **Specific behavioral markers from the CLASS-S dimensions guide are referenced and cited to provide a clear justification for the numerical score assigned.**
Section	**Below Average (0-9 points)**	**Satisfactory (10-12 points)**	**Proficient (13-14 points)**	**Exemplary (15 points)**
CLASS-S: Classroom Organization Domain Analysis	Section is not in the 2-3 page range. There are many spelling or grammatical errors. The CLASS-S dimension codes are not clearly or thoroughly explained. No CLASS-S behavioral markers are referenced.	Section is in the 2-3 page range. There are several spelling or grammatical errors. More than half of the CLASS-S dimension codes are not clearly or thoroughly explained. Many of the behavioral markers are not referenced.	Section is in the 2-3 page range. There are a minimal number of spelling or grammatical errors. Some, but not all CLASS-S dimension codes are clearly and thoroughly explained. Some, but not all, CLASS-S behavioral markers are referenced.	Section is in the 2-3 page range. It is free of spelling and grammatical errors. The rationales for the CLASS-S codes are clearly and thoroughly explained for each dimension. Specific classroom interactions from the video are clearly highlighted and explained. **Specific indicators from the CLASS-S dimensions guide are referenced and cited to provide a clear justification for the numerical score assigned.**
Section	**Below Average (0-20 points)**	**Satisfactory (21-26 points)**	**Proficient (27-32 points)**	**Exemplary (33-35 points)**
CLASS-S: Instructional Support Domain Analysis	Section is not in the 5-6 page range. There are many spelling or grammatical errors. The	Section is in the 5-6 page range. There are several spelling or grammatical errors. More than half of the CLASS-	Section is in the 5-6 page range. There are a minimal number of spelling or grammatical errors. Some, but	Section is in the 5-6 page range. It is free of spelling and grammatical errors. The rationales for the CLASS-S codes are clearly and thoroughly explained

	CLASS-S dimension codes are not clearly or thoroughly explained. No CLASS-S behavioral markers are referenced.	S dimension codes are not clearly or thoroughly explained. Many of the behavioral markers are not referenced.	not all CLASS-S dimension codes are clearly and thoroughly explained. Some, but not all, CLASS-S behavioral markers are referenced.	for each dimension. Specific classroom interactions from the video are clearly highlighted and explained. **Specific behavioral markers from the CLASS-S dimensions guide are referenced and cited to provide a clear justification for the numerical score assigned.**
Section	**Below Average (0-14 points)**	**Satisfactory (15-19 points)**	**Proficient (20-23 points)**	**Exemplary (24-25 points)**
Recommend-ations for improvement	Section is not in the 3-4 page range. There are many spelling or grammatical errors. Specific recommendations for how to improve the quality of classroom interactions are not included.	Section is in the 3-4 page range. There are several spelling or grammatical errors. Two CLASS-S dimensions are identified as areas to improve upon. Specific recommendations for how to improve the quality of classroom interactions included for both dimensions, however, specific course readings, videos, or in-class activities are NOT referenced.	Section is in the 3-4 page range. There are a minimal number of spelling or grammatical errors. Three CLASS-S dimensions are identified as areas of identified as areas to improve upon. Specific recommendations for how to improve the quality of classroom interactions are included for all three dimensions, however, specific course readings, videos, or in-class activities are NOT referenced.	Section is in the 3-4 page range. It is free of spelling and grammatical errors. Three CLASS-S dimensions are identified as areas to improve upon. Specific recommendations for how to tweak the lesson and improve the quality of classroom interactions are included for all three dimensions selected. **Specific course readings, videos (e.g., Teaching Channel) or in-class activities are referenced and cited.**

How Can We Help?

1st-Year Teacher Candidates' Experiences in Classrooms

Brian Rose

University of Northern Colorado

Much focus is placed upon the academic achievement of first-generation college students pursuing their tertiary education. This research delves heavily into the specific experiences of the students as they enter and complete their first year of university study. As a way of explaining some of the successes and struggles of the students during the first year of college attendance, the research has identified numerous descriptors that help shed light on the possible reasons for these successes and struggles. For instance, first-generation college students are more likely than their peers to hail from minority backgrounds (Bui, 2002; Lee, Sax, Kim, & Hagedorn, 2004), to come from households with fewer financial resources (Choy, 2001), to have lower grade point averages in high school (Lee et al, 2004), to participate in fewer advanced placement courses or otherwise academically rigorous coursework in high school (Cushman, 2007), to score lower on standardized exams (Warburton, Bugarin, & Nunez, 2001).

As a result of some of these circumstances, first-generation college students experience differential university attendance in terms of the specific universities in which they enroll, the quality of university programming (Pascarella, Pierson, Wolniak, & Terenzini, 2004; Swail, 2002), and the level of financial assistance they require (Ruiz, Sharkness, Kelley, DeAngleo, & Pryor, 2010). Further, first-generation college students do not always enter university programs with the same level academic preparedness as their peers (Pascarella et al, 2004). As many of these students are from minority backgrounds, their K-12 schooling experiences are not necessarily focused upon

preparing them for the rigors of university study (Atherton, 2012). In addition, first-generation college students are significantly less knowledgeable when it comes a particular institutional processes related to university study (Carter, Locks, & Winkle-Wagner, 2013; Pascarella et al, 2004). Among their struggles include less familiarity with application and entrance requirements as well as the availability and processes through which financial aid can be acquired.

First-generation college students often have difficulty transitioning from high school to university study (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). While this difficulty may be a result of lack of academic preparation or a possible insufficiency of the resources to which they have access, there are other factors that contribute to their challenges. For instance, as most of the students come from minority backgrounds research suggests that they enter institutions that do not have sufficient supports in place for students of color (Hurtado, Carter, & Spuler, 1996). This lack of support can lead to negative experiences on campus, resulting in lower academic achievement and more difficult adjustment to the rigors of university life (Pascarella et al, 2004). Of course, many of the experiences of first-generation college students are not unique to them. Truly, all students must contend with the transition from high school to university. However, given the differential resources students bring to bear upon this transition, first-generation college students historically have a much more difficult time adjusting then their peers.

While much of the research on first-generation college students paints quite a dire picture of their tertiary educational prospects, research suggests that institutional programming, relationships with instructors and mentors, and a variety of extracurricular activities and involvement can affect the academic, personal, and professional experiences these students have while pursuing their academic programs of study (Padgett, Johnson, & Pascarella, 2012; Pascarella et al, 2004). For some students, participating in cultural events on campus, joining student

organizations, or attending athletic events might provide the required support to succeed in university study. However, for students enrolled in teacher education programs, field experiences are one such programmatic opportunity that can provide an inordinate amount of support toward both educational achievement and professional attainment. Accordingly, the purpose of this paper is to identify the specific successes and struggles first-year teacher candidates face when entering field experiences. More specifically, these data highlight the need for teacher educators to pay particular attention to the nature of the field experiences into which they place teacher candidates.

The Summit Program

The Summit Teacher Preparation Program is a scholarship program located in a mid-sized university in the western states of the U.S. It's mission is to recruit, support, and mentor undergraduate students pursuing a degree in education as well as an endorsement in English as a Second Language (ESL). The program currently serves a little more than 60 students, across all levels of undergraduate university study. Nearly 60% of the students in the Summit program are the first in their families to attend college, which is a considerably higher percentage than the university in which the program operates. In contrast with the university, with 25% of enrolled students hailing from minority backgrounds, 60% of Summit students are from minority backgrounds.

Each year a new cohort of students enters the program, receiving a yearly scholarship. The acceptance criteria of the program require students to have and maintain a 2.75 GPA, enroll in a full-time course of study, and maintain progress toward earning a teaching degree with an endorsement in English as a Second Language. The program has been very successful in both retaining and graduating its students. Its graduation rate is 62% and overall retention rate is 75%.

Compared to the university as a whole with a 1st year retention rate of 65%, the program outperforms the rest of the campus.

Four main components define the organization of the Summit program. Each of these components is specifically designed to support the varying, yet fairly specific needs of first-generation college students and, indeed, any student who seeks teacher licensure and an ESL endorsement. These components are a living community, a learning community, a mentorship program, and a leadership program. These four components are the driving force behind the Summit program's success in retaining its students, graduating its students, and preparing its students for their future professional careers. The mentorship program, requiring first-year students to visit in-service teachers' classrooms four times during the academic year, is the focus of this paper.

Theoretical Framework

Two theoretical frameworks undergird the development of this program. First, Bourdieusian constructs of capital, habitus, and field define the specific knowledge, skills, and dispositions those who participate in the Summit have and develop. Second, the program design hinges upon the sociocultural theoretical construct of mediation in that the structure of the program itself and the specific activities students engage in while participating in it lead to personal and professional development.

Capital, Field, and Habitus

The concept of *capital* was first devised by Bourdieu (1986) in an attempt to understand the unequal scholastic achievement of children originating from the different social classes by relating academic success, i.e. the specific profits which children from the different classes and

class fractions can obtain in the academic market, to the distribution of cultural capital between the classes and class fractions. (p. 243)

Capital, as seen here, can be thought of as the total accumulation of resources afforded a member of a particular culture, acquired over time through socialization into a particular community. Capital can come in the form of knowledge of one or multiple languages, competence in working with computers, or the facility to navigate the various institutional structures present in universities. Expanding the possibilities of capital, Bourdieu continues, "Social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (p. 248). In other words, the amount of capital one possesses is based not only upon the size of the network one can muster in his or her support but also upon the amount of capital, whether economic, cultural, or symbolic, of the members of that network. Central to the notion of capital is the fact that "all forms of capital are convertible into 'symbolic capital', once they are (mis)recognized as and have the effects of forms of power" (Chouliaraki & Fairclough, 1999, p. 101). Symbolic Capital is meaningful, then, in that it requires an assignment of legitimacy and must be valued by the field in which one resides in order for it to truly exist.

Bourdieu (1986) emphasizes the fact the capital, in multiple forms, is acquired. There is a time investment that is inherent in the accrual of capital, and in some cases, it is this very investment of time that signifies the value of particular forms of Capital. Of course, we can only accumulate Capital when exposed to the opportunity to do so. Accordingly, Capital is dependent upon context, and individuals can only acquire or appropriate the capital made available to them (Kamberelis, 2001). The construct of *field* represents these contexts. Chouliaraki and Fairclough (1999) offer more specificity.

> A *field* for Bourdieu is a network of positions defined by a particular distribution of capital…which endows that field with its own specific practical logic; the way people who occupy these positions act within the space…depends upon the quantity and composition of the capital they are endowed with – composition in the sense of in what proportion different types of capital are combined (p. 101).

Within any particular context, or field, people can apply, combine, and acquire capital, and shift the boundaries of the field. The ways in which people are able to navigate the various fields within which they reside is named *habitus.* Habitus is an internalized set of "perceptual structures and embodied dispositions, which organize the way in which individuals see the world and act in it" (King, 2000, p. 423).

Mediation

Vygotsky viewed learning and development as socially mediated activity (see Vygotsky, 1978; 1986). Through this lens, learning and development are situated within specific social contexts. Wertsch (1998) expands on this notion and posits that mediated action "provides a kind of natural link between action, including mental action, and the cultural, institutional, and historical contexts in which such action occurs" (p. 24). He continues by stating that the specific tools mediating action and development "are inherently situated culturally, institutionally, and historically" (p. 24). More clearly, Vygotskian notions of mediation explore humans' use of tools and other culturally situated mechanisms as they are brought to bear on learning and development. For instance, a person's use of language allows him or her to negotiate for meaning of something that would otherwise be unattainable. Humans use language to "seek clarification, confirmation, and repetition of…utterances they do not understand" (Pica, 1994, p.56). Similarly, larger institutional factors as well as specific institutional structures serve to mediate human activity.

Whether they are the expertise of those working in academic support positions or the presence of cultural units on campus, institutional structures and their specific makeup are powerful meditating forces.

In the case of this study, the Summit program itself serves as meditational means for its students, and its first-generation college students in particular, as they navigate their academic and professional lives. As the program is situated within the University itself, it is indeed able to mediate a mental, personal, and professional development of its members. This development represents the habitus as well as results in an increase in capital with which its students pursue varying directions within the field of education and, more specifically, in their work in teaching English-language learners in U.S. schools.

Participants and Data Sources

In all, eleven teacher candidates participated in this study. All participants were in their first year as Summit students and first-year college students, six of whom were also first-generation. As a requirement of their scholarship, each student was placed with in-service teachers at a variety of grade levels, visiting the classrooms twice each semester. The students also submitted written reflection from each classroom visit, responding to the following questions: "What were your impressions of your teacher?" "What were your impressions of the class?" "What did you learn that you didn't expect?" "Do you still want to teach?" and "What questions will you ask your mentor teacher next time?" The data taken from the written reflections were analyzed qualitatively (Strauss & Corbin, 1998). Analysis occurred in iterative cycles, through which patterns in the data emerged. Specifically, coding focused upon the specific classroom details mentioned in the reflections as well as the ways in which the candidates discussed their observations. The results are discussed below.

Results

The teacher candidates discussed many topics in their written reflections. Specifically, the candidates focused upon field experiences generally, confirmation of their choice to become teachers, the attributes of a teacher, mentoring from the teacher they visited, curriculum, instructional practices, and language proficiency and use in the classroom. Each of these is discussed in more detail below.

Field Experiences

Some of the candidates expressed their feelings regarding the field experience. One student said,

> For starters, I would like to take the time to express how appreciative I am of the mentorship program that Summit has offered me this year. It is not everyday that you hear that a freshman education major is working hands on in a live classroom.

Another student wrote, "I am very blessed to have the opportunity to go into a classroom and learn from a very good teacher." Overall, the students appreciated the opportunity to spend time in classroom with licensed teachers.

Typically, teacher candidates' field experiences begin sometime later in their course of study, often in the third year of their preparation program. This particular feeling was not singular, as another student also mentioned surprise at such an early entrance into the field. The student wrote, "I never thought my involvement in school volunteering was going to be started this fall semester. It ratifies [*sic*] me that you never stop learning."

Beyond the novelty of such an early field experience, the candidates also included their opinions of how enlightening the experience was in showing them a different side of education, with one student writing,

> I really enjoyed this experience because I love seeing a classroom from a different point of view. This time instead of being the student I was the observer. I was almost like the students, but I was learning differently than they were. This experience made me much more excited become a teacher future years, and if you want to work harder to be the best teacher that I can be.

Confirmation of choice

The field experience requirement of the Summit program also helped the teacher candidates confirm their choice to become teachers. One student wrote, “Being around the kids brings me so much joy, and I love being a classroom with them.” Another wrote, “Overall, I'm still satisfied with my decision to become a teacher, and I'm beyond satisfied with my decision to teach the elementary level.” And another, “I think this experience made me want to become a teacher even more, or at least just made me want to get into my own classroom and sooner.”

For one student, the experience seemed to open a new aspect of teaching she/he hadn’t explored previously. Appropriately, the candidate offered, “I discovered that I love being in the classroom.”

Attributes of a teacher

Another topic of interest for the teacher candidates was that of the attributes of teachers. The reflections gave the candidates an opportunity to define, at least in some way, what a teacher should be. “[Mentor teacher] continues to show her passion and her love for her students more and more each day. She inspires me to be a teacher like that one day.” In this case the teacher candidate defines a teacher as someone who is passionate and loves the students in class. Another student agreed, “[Mentor teacher] told me that some of the students are at a second grade reading level, and it made me realize how much they need a teacher that actually cares, so I can't wait to be in

the schools teaching." Another candidate defined a teacher who gives her/his time outside of the classroom to students. "She has given up her lunchtime to assist her students in furthering the practice and education. It was so encouraging to see how many students would come into her classroom for the extra practice because of their desire to learn."

Mentoring

The mentoring aspect of the Summit program was more difficult for the teacher candidates to navigate. Some candidates were able to meet with their mentor teachers outside of instructional time while others were less fortunate. These two reflections highlight this tension. One student wrote, "This gave me the perfect opportunity to debrief with [mentor teacher]. I told her about my experience of my goals for higher education, and she shared her pre-and post UNC experience with me." Another lamented, "This visit was still not as enjoyable as I would've hoped I wish that my mentor had some extra time to talk one on one but she is just too busy with her kids."

Curriculum and instructional practices

Perhaps not surprisingly, the teacher candidates had fairly strong opinions regarding the curriculum and instructional practices they observed in the classrooms they visited. One student found it difficult to understand the why the teacher implemented the specific instructional decisions that he/she did.

> That is so hard for me grasp. Why do they have to teach it this way if the kids are obviously not gaining anything for it and have stopped trying because it is boring for them? I feel like state standards in teaching are hard because as a teacher I don't want to just teach to attest that the kids will take, but I actually want to help them grow and develop both intellectually and socially.

Another candidate discussed grouping strategies used by the teacher, relating them to the candidate's own experiences.

> One thing that I've noticed a lot in classrooms from my high school that most people I would think would disagree with is that when pairing up partners for an assignment they should be able to pick who they work with.

Yet another candidate questioned the specific content the teacher presented, "The material that she teaches is still simple and below grade level appears to be challenging the students more than just sentence structure."

Discipline was also a topic a few candidates raised. One commented on the way in which the teacher managed behavior in the classroom.

> The only thing I really didn't like was the way she pointed out a certain student in front of everyone when he misbehaved. I feel like punishing a student by calling them out doesn't really solve anything it just gives them more attention.

Another candidate mentioned, "Putting times on the board and making her students wait after class to me seems a little childish."

Despite the positions regarding curriculum and instruction taken by the candidates in these reflections, they nevertheless reflect the fact that the field experience offered the candidates an opportunity to engage with the work of actual teachers. These opportunities, at very least, are at the heart of the purposes field experiences must fulfill.

Language use in the classroom.

The teacher candidates participating in this study discussed their views on language use in the classroom from two different perspectives – 1) their own language proficiencies, and 2) the languages spoken by the students in the classrooms they visited. Of course, the candidates viewed

their ability to speak another language as a definite advantage when working with children who speak a language other than English. One candidate remarked, "(It) definitely benefited my experience that I speak Spanish because although the students did not speak to me in their native language, I do understand what they were saying when I was walking around helping them." Another candidate spoke of this advantage from a more instructional point of view, "It was easy to answer the questions of the Spanish speakers because I could explain some things in Spanish if they did not fully understand in English."

Seeing an individual's language proficiency as a benefit was not a universal perspective held across the teacher candidates. Some of the candidates felt that the children's use of languages that the candidates did not speak was a hindrance to instructional support. One candidate was anxious from the start about the experience "I was a little less hesitant about working with her students, but I was still nervous, mainly because I only know English." Other candidates felt that the students should have used English only in their presence since they knew no other languages. For instance, one candidate wrote, "…[the students] still continue to speak in their native language, knowing I only spoke English. It was a little frustrating…," while another candidate stated, "The students knew I did not speak Spanish or any other language, so they would speak in a different language, making it difficult for me to communicate with them."

Discussion

These data suggest that teacher candidates entering early field experiences as first year college students do appreciate field experiences early in their program. They also have variable success in cultivating mentor relationships. However, the teacher candidates begin to develop a set of teacher attributes they can use to help situate their own experience and development toward becoming a licensed teacher. Early field experiences, all field experiences for that matter, provide

candidates opportunities to observe classroom practices and curriculum. That being said, these observations, in this case, are not supported by coursework focusing on the empirical and theoretical foundations of various instructional practices. Hence, teacher candidates in experiences such as the one presented in this study may tend to view in-service teacher decisions from a more naïve position than teacher educators may like. More interesting, however, are the candidates' views on language use in schools. In fact, the data show candidates holding conflicting views on language use in schools. On one hand, being proficient in a language other than English is seen as a benefit and useful in the classroom. On the other hand, someone else's use of another language is seen as a liability. These findings are more striking given the teacher candidates participating in this study are seeking teacher licensure and an ESL endorsement.

While the first-generation college students in the Summit program navigated the field of elementary education in a cursory manner, they no doubt developed appropriate capital for use in their academic and professional careers. Through their experiences in negotiating their individual classroom visitation schedules, participating in a variety of classroom practices, observing the classroom in general, interacting with students, and reflecting on their overall experiences, the first-generation college students engaged in the practices and knowledge base of the field they hoped to enter after graduation. These experiences provide the basis for further development of both academic and professional acumen.

Conclusion

Early field experiences offer teacher candidates an opportunity to engage in important discussions regarding what it is to be a teacher. Whether they engage in work surrounding curriculum and instructional practices or the value of language use in the classroom, teacher candidates can certainly benefit from entering the field as early as possible. However, field

experiences are not always conducive to teacher learning (Zeichner, 1996). Of course, teacher educators need to consider a number of factors when planning field experiences for teacher candidates. Early field experiences, when carefully structured, effectively mentored, and coordinated with coursework are effective in developing future teachers (Darling-Hammond, Hammerness, Grossman, Rust, & Shulman, 2005; Zeichner & Conklin, 2005). More specifically, teacher candidates need to be placed in classrooms that are conducive to their professional pursuits. Further, the mentorship expectations for the cooperating teachers need to be clearly understood by both the cooperating teacher and the teacher candidate. Also, teacher educators need to facilitate specific connections between fieldwork and coursework.

In conducting field experiences, teacher educators need to carefully outline the responsibilities of teacher candidates. Observational prompts and reflective assignments are very useful (Anderson, Barksdale, & Hite, 2005), but they need to be focused enough to both confirm and deny teacher candidates' assumptions about what they experience in the field. This is not to say that teacher candidates, at any level, are erroneous in their analysis of their experiences. Rather, as field experiences offer "both dissonance between connections to prior beliefs and understandings and current clinical experience to better meet the needs of their students in the future" (Eisenhardt, Besnoy, & Steele, 2012, p. 7), teacher educators need to ensure that proper mechanisms are in place that challenge, extend, and deepen the conclusions candidates draw from their observations and participation in the field.

Teacher educators and the programs within which they work need to provide the necessary support for all teacher candidates, including those how are or are not first-generation-college students. Through early entrance into the *field*, teacher education programs can offer candidates opportunities to develop a greater amount of *capital* relating to the field into which they plan to

enter. Moreover, the greater support we can provide candidates while they are in early field experiences, the more successful they can be in subsequent experiences, both pre- and in-service. Of all things, this should be our goal.

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Comparing Parallel Traditional and Apprenticeship Models of Special Education Teacher Preparation

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Abstract

There was a unique opportunity to conduct an evaluation of two teacher training programs from the same university using the same curriculum being delivered in varying ways. Participants from both the university's main-campus and off-campus programs were asked to participate in a survey-questionnaire and focus group discussions. Overall findings indicate that teacher candidates from both campuses believed they received a quality education and were happy (overall) with their program experience, felt prepared to work with students with special needs, and perceived their training (curriculum) to be what is needed to be an effective special educator. An area of concern that appeared from participants at both campuses were feelings of preparedness to work with students with behavioral concerns. Finally, understanding what it means to be an effective special educator was correlated with 10 factors. These factors speak to the complexity of developing an effective teacher training program and are discussed.

Introduction

Annual attrition rates of special education teachers varies and has been estimated to be as much as 22% (Aud et al., 2011), compared to 16% of all other teachers. Smith and Ingersoll (2004) found that first-year special education teachers were 2.5 times more likely to leave the profession as compared with teachers in general education settings. Similar findings have been identified by others (Boe, 2006; McClesky, Tyler, & Flippin, 2004). To add to the complexity of this issue, there are a greater number of teachers leaving the profession each year (Goldring, Taie, & Riddles, 2014). The latest data collected from the Teacher Attrition and Mobility report indicates the two largest groups who left the classroom in 2012-2013 were those who retired, followed by those who taught for ≤ 3 years. It is interesting to note that many of those who left the K-12 classroom remained in education (29.3%).

Short-term experiences, such as student teaching, do not adequately prepare teacher candidates (TCs) for working in schools and those with minimal training leave the field sooner than their counterparts who enrolled in formalized teacher preparation (Boe, Cook, & Sunderland, 2006; McKinney, Haberman, Stafford-Johnson, & Robinson, 2008). In 2010, the National Council for the Accreditation of Teacher Education (now the Council for the Accreditation of Educator Preparation) called for a revamping of teacher training programs to implement more of a clinical approach to teacher education that results in preparation programs, school districts and states working more collaboratively to offer frequent and strategic classroom experiences for preservice teachers. One design principle encourages clinical preparation to be integrated throughout every facet of the program, weaving content and pedagogy throughout the clinical experience and course work.

Coaching and mentoring supports are critical to teacher training (Lipton, Wellman, & Humbard, 2001). Studies have shown that having specific and constructive feedback is crucial to effective development in teacher preparation (Trautwein & Ammerman, 2010; Valencia, Martin, Place, & Grossman, 2009). Coaching and mentoring supports are common to traditional and alternative teacher training programs, as well as to school district induction programs. A review of the literature conducted by the National Center to Inform Policy and Practice in Special Education Professional Development (NCIPP) identified the power of coaching and mentoring to supporting beginning special education teachers and revealed that beginning teachers working with this unique population need supports in the areas of inclusion, collaboration, and interactions with adults; often have pedagogical concerns; and need support in managing and organizing paperwork (Billingsley, Griffin, Smith, Kamman, & Isreal, 2009).

We must do something more to prepare future graduates of teacher preparation programs to work in a variety of school environments, while supporting TCs in purposeful and organized formats that aid in connecting pedagogy with practice on a more systematic basis so as to train competent professionals who enter the teaching workforce with established technical knowledge, skills and dispositions that support successful beginning experiences. Implementing this type of intensified program design requires consistent, strategic and immediate support and feedback from seasoned professionals who have unique insight and are adaptive experts who have developed efficiency and innovation in their teaching (Darling-Hammond, Newton, & Wei, 2010; Hammerness, et al., 2005).

There was a unique opportunity to conduct an analysis of two special education bachelor degree teacher training programs from the same university in one western state. The "main-campus" program implements a traditional teacher training model in that TCs begin working in

classrooms their junior year and are assigned university consultants who observe them throughout their final three semesters, culminating with a semester of student teaching in special education. Classes are offered in semester formats, allowing TCs to take several classes at the same time they complete field experiences working in special education classrooms. The "off-campus" program uses the same curricular requirements as the main-campus program (Liberal Arts core, special education major courses, teacher licensure requirements, and additional supporting credits), but requires TCs to complete a four-year apprenticeship (field) experience allowing them to work in general and special education classrooms with students with special needs. TCs are provided mentors all four years of their program. Candidates enrolled in this off-campus program also culminate with student teaching in special education. TCs take one class at a time for a concentrated block of time (e.g., five weeks) and take the same number of classes within the term (e.g., 16 credits). Both the main-campus and off-campus programs satisfy state quantity (minimum of 800 hours) and quality (elementary and secondary field experiences) requirements for licensure as Special Education K-12 Generalists.

This study focused on two primary questions: 1) When controlling for curriculum, classroom field experiences and mentor support, what similarities and differences are noted in teacher candidates' perceptions of preparedness from both programs? 2) To what extent, if any, does additional time in the classroom and increased mentor interactions have in perceptions of preparedness of special education teacher candidates?

Methodology

The purpose of this study was to evaluate one university's teacher training program implemented at two separate locations, both using the same curriculum, and use the results to inform and describe how both programs are similar and unique in how they prepare special

education teachers. In addition, results of the study will be used to begin to explain the impact, if any, of apprenticeship experiences within special education teacher training, an area severely lacking in the literature. It is believed that no one program approach or model is sufficient to prepare all TCs to work with students with special needs, and thus different programs are necessary to meet a variety of audiences. Given that, what are the 'non-negotiables' that are necessary to any teacher training program?

The coordinators for both programs conducted the research for this study and aspects of developmental evaluation were used in its design. There are several approaches available when conducting formal program evaluations (Mertens, 2005). Some require outside evaluators (Donaldson, 2003; Stufflebeam, 1994), while others permit employed personnel directly involved with the program to be engaged in the design and implementation of the evaluation; this is referred by Patton (2011) as Developmental Evaluation. Developmental Evaluation supports a fluid process aimed at searching for ways to be responsive to an ever-changing set of conditions (Mertens, 2005; Patton, 2011). This format permits evaluators to become part of the design team to aid in monitoring the evaluation process and its outcomes. The process is evolutionary, responding to changing environments, allowing for constant feedback and thus, change (Patton, 2011).

By allowing those directly involved in the design and implementation of the research to inform changes to improve it, the researchers gathered information from two groups of TCs at the same point in time within their program. The intent of the study was to collect data from one set of participants at the same point in time to begin to understand what improvements may be made to the field experiences and apprenticeship portions of the programs, and the impact, if any, of an apprenticeship model to the development of TCs working with students with special needs. Due

to an initially low response rate, it was determined to continue the study by collecting data from a second group of TCs when they arrived at the same point in time within their program (special education methods courses and practicum experiences). Thus data was collected during the spring semesters of 2012 and 2013.

This research is significant in that both programs are less than one decade old and understanding the benefits of each model must be acknowledged. In addition, teacher training programs involving multi-year apprenticeship experiences are not reported in the literature. Understanding the effects of such experiences is important, given the NCATE Blue Ribbon Panel Report (2010) charging pre-service teacher training programs look at clinical-approaches to such training. The assumptions within this report are that a clinical model approach has the potential to impact these programs to a greater extent than other approaches. Results of this study may begin to inform future program development and teacher training research.

Research questions are as follows:

1. When controlling for curriculum, what similarities and differences are noted in TCs from both the main-campus and off-campus programs in their perceptions of preparedness?
2. Can differences noted, if any, be attributed to length of time in the classroom?
3. How do TCs from both programs describe their field experiences?
4. What other factors might be affecting similarities and differences noted?

To collect information for this study, we conducted a mixed-method design by first administering a survey-questionnaire asking TCs questions related to their overall experiences in working with students with special needs, their mentors, classroom teachers and course instructors (Appendix A). To aid in better describing the two groups, we asked TCs to describe demographic

information such as gender, age, marital status, and to describe the students with whom they work (Table 1). Next, TCs were asked to use a Likert scale to answer a series of questions relating to their overall program experiences (e.g., My field experiences/ apprenticeships have helped me understand what it takes to be an effective special education teacher; I believe the amount of time I spent in field experiences/apprenticeships was sufficient to prepare me to be a successful special education teacher). Content validity of the survey questions was established by the researchers due to their expertise in the content area of field experiences combined with knowledge of the bachelor program. This is not uncommon when conducting preliminary research for establishing understandings and potential barriers of current practice (Stetler, Legro, Wallace, Bowman, Guihan, Hagedorn…Smith, 2006). Reliabilities were established in the design of the instrument. First, survey response options were consistent for participants (i.e., always, almost always, sometimes, almost never, never). Next, the format of the survey design was separated into sections having similar response formats. These two design aspects aided in decreasing non-response or incorrect response issues from participants, thus increasing reliability of the instrument (Kent, 2001).

To support the analysis of this mixed-method design, frequencies, means and standard deviations, Independent T-tests, and a multivariate analysis of variance (MANOVA) were run to identify statistically significant differences between the two groups of teacher candidates in their overall perceptions of program preparedness. Correlations were calculated to determine factors that may be statistically significant to candidates' experiences and includes aspects such as perceptions of support during field experiences, support from classroom and university teachers with assignments, support from program supervisors/mentors, and information learned from methods courses. Next, effect size was determined so as to identify any practical significance with

the above correlations. Finally, focus group interviews and qualitative information from the questionnaire portion of the survey were transcribed and analyzed using NVivo (QSR International, 2014), a software program designed to support researchers in organizing and analyzing qualitative and mixed methods data looking for trends.

Toward the end of the term we conducted focus groups on both campuses asking TCs to describe their program experiences. To solicit participation, announcements were made in methods courses informing TCs of the focus groups. In addition, emails were sent by both program coordinators and the Graduate Research Assistant hired to conduct the focus groups. TCs who participated in the focus groups were asked questions based on their thoughts. Time to participate in the focus group took approximately 2 hours and information shared was recorded. Candidates' names were kept confidential. Teacher candidates were asked that they respect the confidentiality of those participating in the research by maintaining confidentiality. Information collected from the focus groups was transcribed and data were analyzed using NVivo. All information collected, including recordings, were kept with the project director under supervision, locked in the filing cabinet in the program office. Information was shared with participants regarding the summarized data upon request. All recordings will be erased three years after the study is completed.

Results

Results are presented as they relate to the research questions posed.

1. *When controlling for curriculum, what similarities and differences are noted in TCs from both the main-campus and off-campus programs in their perceptions of preparedness?*

Although TCs seemed to feel prepared for their teaching assignments, participants in both groups expressed some uncertainty regarding job placement in urban areas. Most of the comments

regarding this theme came from the main campus focus groups. While the off campus participants in general expressed more concerns, this did not seem to be an issue unique to those off campus. Both groups indicated that they felt ready to teach. "*I think when you say are you prepared, there is always the fear of not knowing or of the unknown. I feel prepared to teach, but not prepared for paper work. You know, I have seen it. I have done it*…" Another participant shared, "*There are some days when I feel completely prepared, and there are some days when I feel like I'm not prepared at all. Mostly, I'm just really, really nervous to be in the actual field, like I'm really excited, but I'm really nervous*…"

Site differences were not mentioned as an interview question, but two comments from the off campus participants focused on perceived method differences between the campus programs as well as the uniqueness of a particular cohort. Participants from both campuses felt supported in a variety of areas (e.g., cooperating teachers, classmates, mentors, faculty and administrative supports within the department) and also shared challenges as well. One candidate's comments regarding her cooperating teacher indicate, "*I think teachers who sign up to have practicum students...they have good intentions, and they want to help us learn…they wanted me to be a good teacher*..." Another candidate commented on her classmates, "*I have been very blessed to have my study buddy. She knows when I don't get things*." *"[My mentor] never walked away without giving me something to work on. He always did it in a way that wasn't like, you suck…*" Another participant shared disappointment with regards to the feedback provided, "*Not so much information on assignments. I just feel like I want more detailed feedback pertaining to me, my work out in the field*." Finally, a teacher candidate commented on the experiences with faculty, "*…they teach to mastery, and they're really good at scaffolding. I mean, they're teachers. They*

know what they're doing, and they know the proper technique and what works, and they were able to use that with us."

2. *Can differences noted, if any, be attributed to length of time in the classroom?*

In both the survey and focus group interviews, we asked TCs to offer suggestions for improvement for the field/apprenticeship experiences. Themes identified from those attending both campuses revealed that TCs wanted more, in-depth experiences that were better tailored to their assigned classroom; and recommended increased communication and collaboration between the university and school districts that would better support homework, coursework expectation, and scheduling. TCs attending the main-campus program asked for additional field experiences, while those attending off campus suggested having more diversity within the experiences in working at various levels (e.g., elementary, middle, high school, and transition).

3. *How do TCs from both programs describe their field experiences?*

The demographic section of the survey sought to explore the teacher candidates' classroom experiences (preschool, elementary, middle school, high school, itinerant, resource room, home intervention, transition, and other). TCs were allowed to identify more than one classroom experience. As shown in Table 2, the most reported classroom experience of TCs from the main campus were in special education classrooms in elementary (93%) followed by resource room experience (69%), middle school (52%), high school (45%), transition (10%), other (7%), and home intervention (3%). The classroom experiences of TCs from off campus were slightly different; they reported the highest in elementary classroom experience (86%), the second was middle school experience (50%), high school (32%), resource room (23%), and home intervention and other (5%). In addition, TCs from the off-campus program worked with students with special needs in both general and special education classroom environments.

Next, two types of qualitative analyses were conducted. Open-ended questions were posed at the end of the survey-questionnaire and focus groups were conducted during both data collection periods of the study. Four open-ended questions were asked surrounding field /apprenticeship experiences and for TCs to offer suggestions for program improvements. Each question was coded into thematic elements and sorted according to those themes. Based on the four questions posed, the following themes are presented in Table 3.

TCs from both campuses spoke to the wealth of learning that was achieved from the field/apprenticeship experiences. The relationships that were built with their mentors, cooperating teachers, faculty members and the students with whom they worked were identified as positive themes. One TC's comment reflected these sentiments when they wrote, "*I am able to apply what I'm learning in my college classes to my job, I think it makes me an asset to the school in which I work."* Another TC shared, "*I absolutely love working with the students and getting out into the field. Things get bogged down in the classroom sometimes and you forget what this major is all about so the field experiences really reminded me that I love special education*."

4. What other factors might be affecting similarities and differences noted?

A MANOVA was used to detect differences in Likert-style questions between responses of participants from both campuses. This type of test was used because one independent variable with two groups (the different campuses) were used to compare differences of 13 dependent variables. This analysis is statistically more sophisticated than multiple t-tests or multiple ANOVAs, as it increases the ability to detect group differences while avoiding the possibility of increasing type I error rates (Stevens, 2007). In the Multivariate test, the results indicate whether or not there is a statistical difference between the groups based on campus. Wilks' Lambda is a test statistic specifically designed to determine whether there are differences between the means

of the different campuses based on a combination of the thirteen dependent variables. In this case, Wilks' lambda indicated that the responses of the campus were not dependent on location ($p = .361$). A one-way MANOVA revealed no significant main effect for campus, Wilks' $\lambda = .696$, $F(13, 34) = 1.141$, $p = .361$, partial eta squared = .304. Power to detect the effect was .541. Both groups have positive experiences working with students with special needs, feel supported from classroom teachers and their mentors, feel they are gaining needed experiences, and overall are gaining understanding of what it means to be a special education teacher. Finally, correlations were conducted for the purposes of testing for the statistical relationship among the variables surveyed. We computed correlations to examine the relationships among the teacher training characteristics and TCs' experiences and perceptions (see Table 4).

Significant findings revealed that TCs whose field experiences helped them to understand how to be an effective special education teacher had positive experiences working with children with disabilities ($r=.331$, $p<.05$); were given appropriate support from cooperating teachers ($r=.6$, $p<.001$), mentors ($r=.415$, $p<.01$), and course instructors ($r=.36$, $p<.01$); spent a sufficient amount of time in field experiences ($r=.682$, $p<.001$); received help from their cooperating teacher(s) to meet assignment requirements ($r=.462$, $p<.001$); felt that their field experiences reinforced concepts from the methods classes ($r=.432$, $p<.01$); believe that they will be prepared to teach students with disabilities ($r=.474$, $p<.001$); and expect to remain teachers for at least 11 years ($r=.362$, $p<.01$). Likewise, after program completion TCs who believed that they will be prepared to teach children with disabilities showed similar correlations.

Within the focus groups, TCs were asked to identify strengths and areas of improvement for the overall program. Again, themes emerged from both campuses and unique aspects were identified. TCs identified seeing a connection between their coursework and classroom

experiences and it is in this connection that they believe their learning was heightened. Both groups identified caring and qualified faculty as strengths of both campuses and identified the ability to collaborate with their classmates as a strength of the program as well. Those from off campus shared that their relationship with their mentor over the four years of the program was a strength. Suggestions for program improvement identified themes of improved advising, configuration and timing of class offerings, additional support and practice in writing Individualized Education Programs (IEPs), and for additional instructional strategies in working with diverse populations.

Discussion

The existence of two parallel special education teacher preparation programs provided the opportunity to evaluate program differences when curriculum design was the same but programs varied only in implementation of field experiences. Participants from both the university's main-campus and off-campus programs participated in a survey-questionnaire as well as focus group discussions.

As would be anticipated with parallel programs, TCs in both programs had many similar thoughts about the programs and felt they received a quality education and were happy with their program experiences. They felt the programs prepared them to work with students who have special needs and the curriculum was effective in special education teacher preparation. Further, TCs from both programs stated that quality, constructive feedback from consultants/mentors was an important component of their overall development. This feeling of support and belief that the programs the TCs completed were quality programs led them to feel confident that they would remain in the field as special educators for 5 years or more. This is significant since a larger percentage (40%) of new special education teachers leave the field after 3 or fewer years (Council

for Exceptional Children, 2000; Goldring, Raie, & Riddles, 2014). An area of common concern for TCs from both programs related to student behavior. TCs did not feel as prepared to work with students who demonstrated severe behavioral needs. This is a common issue for new teachers and one that does not seem to be mediated by either teacher preparation program model. Obviously, this is a concern since discipline/behavior issues are one of the reasons teachers site as why they leave the teaching profession (Cancio, Albrecht, & Johns, 2013; National Education Association, 2008). TCs from both groups had similar recommendations for program improvement. TCs reported a concern with the faculty, in particular adjunct faculty and field experience mentors/consultants, and their knowledge of current practice in the field. The TCs recommended training for consultants/mentors to ensure they are current in field-specific practices (e.g., current IEP development and implementation practices connected with federal and state requirements). This is an important feature for future program coordinators to consider, as often times, consultants and mentors are those who have years of experience in leadership roles within education, but may have been out of the field for a period of time and may not be as versed on current topics (e.g., Response to Intervention, teacher evaluation requirements).

TCs also recommended continued training for faculty (in particular – adjunct faculty) to ensure they are current in field-specific practices (e.g., IEP development and implementation). While the School within the university does provide professional develop opportunities for faculty, including adjunct faculty, this is an area of needed improvement.

Finally, TCs from both groups recommended additional training in the area of behavior. As indicated above, exploring ways we can better prepare graduates to work with students with behavioral issues is important. We know from the research that there is a connection between academics and behavior (PBIS, 2011). We need to explore how we can better incorporate

research-based behavioral interventions within the curriculum, as well as offer support to consultants and mentors, and when appropriate, classroom teachers.

Our study identified one area where TCs reported a difference between the two programs. Results show that TCs feel the apprenticeship model seems to allow for the development of deeper relationships between the TCs and their mentors. This is interesting because the issue of type and intensity content and field experiences TCs receive in teacher preparation programs has been suggested (Brownell, Sindelar, Kiely, & Danielson, 2010; Brownell, Billingsley, McLeskey, & Sindelar, 2012). The NCATE Blue Ribbon Panel Report (2010) assumes that a clinical model to teacher training has a greater impact to teacher training than compared to other approaches. Brownell (2007) advocates for more strategic and purposeful connections between teacher training and beginning teacher induction programs. The results of this study indicate that if special education teacher training programs are to instill a more medical model approach to working with area school districts, universities need to provide focused and structured experiences that promote success earlier in teacher candidates' program, whose connections will continue into their first year of teaching.

When correlational analyses were conducted, it was determined that one survey item in particular (*My field experiences/apprenticeships have helped me understand what it takes to be an effective special education teacher*) was correlated with 10 areas, the most frequently correlated item. If we want to have teacher candidates who truly understand what it means to be an effective special education teacher, there are 10 factors that will influence candidates' program experiences significantly (Figure 1). These factors speak to the complexity of developing effective special education teacher training programs, regardless of the model or approach. Researching these 10

factors individually may begin to aid programs in tailoring teacher training programs that meet unique audiences, thus addressing teacher effectiveness and retention.

Limitations and Future Research

There were three major limitations associated with this study. First, the participants in this study were obtained from a convenience sample and were not randomly selected. Teacher candidates majoring in special education from one university in a Western state were asked to participate in this study. As a result, the TCs who were surveyed and interviewed likely were not representative of all TCs for teacher preparation programs for whom these results could be potentially informative. The generalizability of future research could be improved by randomly selecting teacher candidates from a larger, more diverse sampling of teacher preparation programs or by using stratified sampling procedures to ensure that the sample is representative of some larger population.

Second, the sample of TCs in this study was rather homogenous and, as a result, may not be representative of TCs from varied ethnic and cultural backgrounds. Conducting future research on a more diverse group of TCs may increase the likelihood of a heterogeneous sample that might produce results that are representative of TCs with across varied geographic locations and ethnic and cultural backgrounds. The third limitation was the sample of TCs were from a program offering a single curriculum. The results of this study may not generalize to TCs who complete special education teacher preparation programs that implement a different curriculum.

While this study provides valuable insight into impact of traditional and "apprenticeship-type" of special education teacher preparation programs on their TCs, future research is needed to better understand this impact. Future research should implement experimental or quasi-experimental research designs to increase the ability of the findings to be generalized to other

teacher preparation programs. In addition, future research should examine the impact of "apprenticeship-type" of teacher preparation programs for elementary and secondary education on the development of TC's in these areas of study. Investigating a diverse set of programs may help determine whether the findings from this study are unique to the particular focus of the special education teacher preparation program involved.

Conclusion

These results indicate that special education teacher candidates who graduate with an elevated understanding of what it means to be an effective special education teacher experienced positive interactions working with students with special needs, felt supported by their cooperating teacher(s) when working in classrooms, had university support personnel (mentors and instructors) who understood the connection between coursework and practice, and had field experiences that supported and connected information learned from coursework. Universities need to consider establishing purposeful partnerships with school districts that provide specific training to classroom teachers regarding their university program and how classroom teachers can best support the teacher candidates with whom they have agreed to work. In conjunction, universities must learn from classroom teachers and school districts of the potential gaps in which their first year teachers arrive. Universities working with those who support beginning special education teachers their first year in the field after graduating can learn of the potential gaps within their own program. School districts are the receiving new teachers from a variety of teacher preparation programs; thus, gaining the general overview of the technical knowledge, skills and dispositions in which most beginning special educators bring to the school districts, along with identified gaps, will aid universities in better preparing a stronger workforce of special educators to work with a unique group of students. Working in conjunction with school districts to support this intellectual

capital is key to developing competent and confident skilled educators who are not only successful their first year of teaching, but who go on to thrive and lead within the profession.

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Table 1: Demographics by Campus

	Main Campus		Off Campus	
	%	N=(29)	%	N=(22)
School Year				
1. Sophomore	0%		9%	2
2. Junior	21%	6	59%	13
3. Senior	23%	13	32%	7
Gender*				
1. Male	17%	5	5%	1
2. Female	79%	2	95%	21
Age				
1. 18-24	69%	20	27%	6
2. 25-34	31%	9	27%	6
3. 35-44	0%		27%	6
4. 45-64	0%		18%	4
Ethnicity				
1. White	100%	29	9%	2
2. Hispanic	0%	0	91%	20
Marital Status				
1. Married	17%	5	45%	10
2. Single	83%	24	45%	10
3. Divorced	0%		4%	2
4. Widowed	0%		0%	
Parenthood				
1. Yes	3%	1	55%	12
2. No	97%	28	45%	10

*= One or more skipped the item.

Table 2: Classroom Experience by Campus *

	Main Campus		Off Campus	
	%	N=(29)	%	N=(22)
Preschool	0%		23%	5
Elementary	93%	27	86%	19
Middle School	52%	15	50%	11
High School	45%	13	32%	7
Itinerate	0%		0%	
Resource Room	69%	20	23%	5
Home Intervention	3%	1	5%	1
Transition	10%	3	0%	
Others**	7%	2	5%	1

* TC could identify more than one classroom experience.
** Others (full Inclusion, significant Support Needs, elementary placement was a mix of elementary and middle school kids).

Table 3 - Open-ended Questions with Emerging Themes

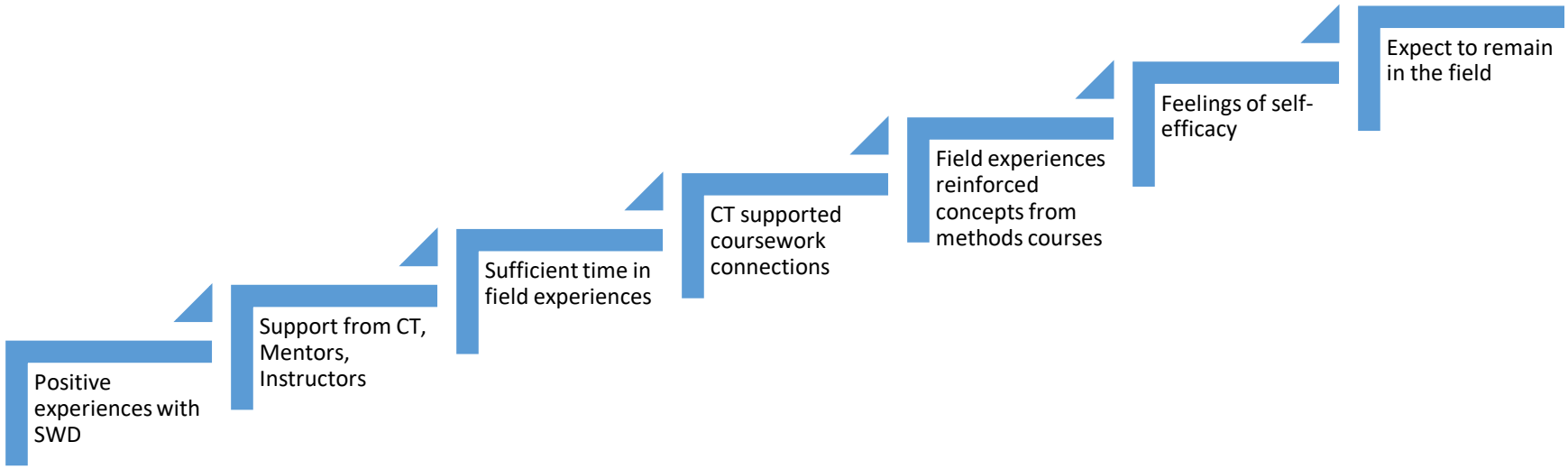
Question	Main Campus	Both Campuses	Off Campus
What I like best about my field experiences/apprenticeships are…	Growth, Implementing Ideas, Preparation for teaching, Realistic Expectations	Academic/Participatory Learning, Building Relationships, Diversity of Experiences, Information, Mentoring, Student Interaction	School Satisfaction, Working with Others, Working with Teachers
My recommendations for improving the field experiences/apprenticeships for future Special Education Majors are...	Lesson Plans, Observations, Portfolio, Support	Academic/Participatory Learning, Assignments, Collaboration, Communication, Expectations, Homework, Placement, Scheduling	Diversity, Feedback, Mentors, PTEP, Syllabus, Teachers
What are the strengths about your entire program (classes and field experiences/apprenticeships)?	Assessment, Collaboration, Placement, Preparation	Academic/Participatory Learning, Classes, Faculty, Field Experiences, Hours, Scheduling	Cohort groups, Mentors, Other TCs, Past experiences, Support, Teachers
My recommendations for improving the program for future Special Education majors are...	Academic/ Participatory Learning, Blocks, CPI Training, Field Experiences, Perfection, Placements, Portfolio, Reading, Sub Lessons	Advising, Classes, IEP, Scheduling, Skills and Strategies	Assignments, Books, Communication, Daycare, Faculty, General Teaching, Endorsement, Mentors, Prerequisites, PTEP, Teaching Assistants, Technology, Transfer Issues, Work, Workshops

Table 4: Correlation Between Teaching Training Characteristics and TCs Experiences and Perceptions

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	
Positive experiences	-	-0.34*	.331*	.325*	.563***	.359**		.373**	.145	.444***	-031	.451**	.182	.158
Negative experiences	-	.07	-.025	-.006	-.072	-.165	.122	-.067	.15	-.118	.172	.186		
Understanding			-	.6***	.462***	.415**		.36**	.432**	.682***	.073	.474**	.343*	.362**
Field experience support				-	.778***	.346*	.228	.502***	.643***	.075	.509***	.202	.281*	
Assignment assistance					-	.424**	.268	.516***	.642***	.103	.555***	.205	.296*	
Mentor					-	.39**	.268	.295*	.327*	.299*	.085	.225		
Instructor							-	.368**	.36**	.128	.163	.165	.142	
Methods class								-	.464***	.356*	.408**	.422**	.484***	
Amount of time									-	.048	.657	.304	.267	
Licensure										-	-.034	.21	.3*	
Prepared											-	.412**	.352*	
Remain 5 years												-	.708***	
Remain 11 years													-	

Note. *p<.05, **p<.01, ***p<.001

Figure 1: The Importance of *Effective* and *Strategic* Field Experiences in Supporting the Development of Special Education Teachers



Appendix A

Student Perceptions of Special Education Program

Please complete the following survey-questionnaire as it relates to your experiences while attending the (university). Please complete this survey-questionnaire separate from your classmates. When completed, send your information, along with the signed consent form, back to me in the self-addressed stamped envelope provided. Thank you in advance for your participation in this study.

Part 1 – Demographic Information

1. Year in school: ____Sophomore ____Junior ____Senior

2. Campus Attending: ____Main Campus ____Extended/Off Campus

3. Gender: _____Female _____Male

4. Age: ____18-24 years ____25-34 years ____35-44 years
____45-64 years ____65-74 years ____75 years or older

5. Marital Status: ____Married ____Single ____Widowed ____Divorced

6. Children: ____Yes ____No

7. Ethnicity:

____American Indian or Alaska Native ____Black or African American

____Asian or Pacific Islander ____Hispanic or Latino

____White ____Other (Please specify_____)

8. Please check the category that best describes your classroom experiences since enrolling in this program. *Check all that apply.*

_____Preschool _____Itinerant

_____Elementary _____Resource Room

_____Middle School _____Home Intervention

_____High School _____Transition

_____Other (please indicate):_____

9. Numbers of students with whom you are currently assigned/work with on a weekly basis: _____

10. I work with students without special needs. ____Yes ____No

Part 2 – Survey

Please answer the questions as they relate to you using the following Likert Scale:

7	6	5	4	3	2	1
Always	Almost Always		Sometimes		Almost Never	Never

1.	I have had positive experiences working with children and youth with disabilities.	7	6	5	4	3	2	1
2.	I have had negative experiences working with children and youth with disabilities.	7	6	5	4	3	2	1
3.	My field experiences/apprenticeships have helped me understand what it takes to be an effective special education teacher.	7	6	5	4	3	2	1
4.	I have been provided appropriate support during my field experiences/ apprenticeships from classroom teachers.	7	6	5	4	3	2	1
5.	My classroom teacher(s) helped me meet requirements of assignments from my special education methods courses.	7	6	5	4	3	2	1
6.	I have been provided appropriate support during my field experiences/ apprenticeships from my university consultant/program mentor.	7	6	5	4	3	2	1
7.	I have been provided appropriate support during my field experiences/ apprenticeships from university faculty.	7	6	5	4	3	2	1
8.	My field experiences/apprenticeships have been effective in reinforcing concepts taught in my methods classes.	7	6	5	4	3	2	1

9. I believe the amount of time I spent in field experiences/apprenticeships was sufficient to prepare me to be a successful special education teacher.	7	6	5	4	3	2	1
10. The Special Education program provided the training I needed to successfully pass the state Special Education Generalist licensure test.	7	6	5	4	3	2	1
11. When I complete my program, I believe I will be prepared to teach children and youth with disabilities.	7	6	5	4	3	2	1
12. I expect to remain in teaching for at least 5 to 10 years.	7	6	5	4	3	2	1
13. I expect to remain in teaching for at least 11 to 20 years.	7	6	5	4	3	2	1

Part 3 – Open-ended Questions

Using one to three sentences, please answer the following.

14. What I like best about my field experiences/apprenticeships is…

_____
_____
_____
_____

15. My recommendations for improving the field experiences/apprenticeships for future Special Education majors are…

_____
_____
_____
_____

16. What I like best about my program is…

_____
_____
_____
_____

17. My recommendations for improving the program for future Special Education majors are…

_____
_____
_____
_____

Thank you for completing this survey.