

ABSTRACT

CADRAN, AMANDA. A Descriptive Case Study of the Ethics of Care Fostered by a Statewide Blended Teaching Model in Support of Site-Based Exceptional Children Teachers. (Under the direction of Kevin Oliver).

The term Exceptional Children refers to both the highest performing students in the most advanced classes as well as those with the most severe intellectual challenges and every level of functioning in between. In one southeastern state, Exceptional Children teachers work with high school Occupational Course of Study students. These students, who are assisted under the umbrella of special education, have mental, physical, or emotional disabilities that disqualify them from mainstreaming. Teachers of these students are expected to manage the behavioral, emotional, social, and physical needs of their students in addition to teaching the standard course of study in all content areas. This can pose serious challenges to teachers who are already burdened by high amounts of required paperwork, meetings, and other administrative tasks particular to working with special education students.

In order to meet the demands of their classroom responsibilities, a unique blended co-teaching program for high school students pairs a classroom Exceptional Children's teacher with a virtual instructor in as many as four content areas to provide instructional materials and individualized modifications for every student on a daily basis. This co-teaching relationship is meant to provide support for the classroom teacher, who is primarily responsible for the management of the classroom. This case study of blended program instructors aims to describe the potential of the co-teaching relationship and how it can provide support to the classroom teachers. It is based on Nel Noddings' Ethics of Care framework, which uses caring as an approach to focus on the moral responsibility we have to model caring actions, dialogue with

others, practice caring for and receiving care from others, and confirm the most ideal version of others and ourselves.

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A Descriptive Case Study of the Ethics of Care Fostered by a Statewide Blended Teaching
Model in Support of Site-Based Exceptional Children Teachers

by
Amanda Cadran

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APPROVED BY:

Kevin Oliver
Chair of Advisory Committee

Sharon Freeman

Heather Purichia

Paul Umbach

DEDICATION

This dissertation is dedicated to my husband, Chris Cadran, and my son Bryce, who give me the gifts of love and time to pursue my dreams. Without them, none of this is possible. This dissertation is also dedicated to family and friends who have supported me with countless words of hope and encouragement, especially my mother JoAnn Henry, who has supported every one of my pursuits in life. It is also dedicated to Ann and Bob Cadran, for their positive support and calming presence, and to my sister Katie, who lifted me up with support every time I needed it. For all mothers who are writing their papers at night, and finding stolen moments to get their work done, this degree is dedicated to you. Finally, this dissertation is dedicated to Dr. Kevin Oliver, whose patient and gentle guidance never wavered. There are no words other than thank you.

BIOGRAPHY

Amanda Cadran is a wife, mom, sister, student, and teacher. Hailing from the great state of New Jersey, Amanda now lives in North Carolina where she has taught everything from language Arts to technology since 2005. A self-proclaimed intellectual wanderer, Amanda's path toward her doctorate has been one of many twists and turns, but all with the same theme: Lifelong learning through communication and innovation.

A former English and journalism major turned political science and public policy graduate student at Lehigh University in Bethlehem, PA, Amanda started her post-graduate career as an assistant to Dr. Henry Kissinger, the former secretary of state and political advisor to many presidents. After putting in 80-hour weeks, Amanda left the urban jungle of New York City to work for a brief while on the road for the bluegrass band, Railroad Earth.

Coming back to the east coast after that life-changing experience, Amanda started teaching and has never left. In 2010, after five years in the classroom, Amanda started working for the Duke Talent Identification Program, which gave her insight into the world of online instruction. This experience opened her eyes to the potential of new learning models, and she decided that she had to know more about how online instruction and other technology tools help students communicate with each other and their teachers. That opportunity led Amanda to the Digital Learning & Teaching program at North Carolina State University, where Amanda was offered the opportunity to matriculate in 2012. Amanda lives in North Carolina with her husband, who is a middle school math teacher. Their son was born in May 2012.

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The basic premise of Nel Noddings' Ethics of Care framework is that we owe a moral obligation to care for others and to receive that care responsibly. To that end, it is only fitting that I have been fortunate to have received care beyond measure from so many people on this journey.

Most importantly, I would like to thank Kevin Oliver, my committee chair, advisor, and mentor for his fair, honest, and always sincere approach to advising. I would also like to thank Heather Purichia for showing me the value of insight and critical thinking. You have taught me so much about not settling for the easy answer, and I thank you for that. Sherry Booth, you took the time to get to know me, and in the end I discovered how much I can relate to your story. You are inspiring for all that you have accomplished. Paul Umbach, your ability to break down the nuanced world of survey methodology and make it approachable, as well as your insight into this project, was helpful in so many ways. Thank you for your honesty and positivity! Demetrius Richmond, your passion and enthusiasm for every graduate student at NCSU is a testimony to your own path of lifelong learning. Thank you for always having an ear and open heart for all of my ideas. To my friends and colleagues at St. Mary Magdalene School, where I have continued to teach during this entire process, you have no idea how much your support has meant to me.

Finally, it is important to thank everyone who was influential in making sure that my dissertation research was given the respect and time to be carried out successfully. All of the staff at the Virtual School, and the teacher participants, are deserving of my sincere thanks, as without them, it would not have been possible to get this study completed.

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CHAPTER 1: INTRODUCTION

We live in a time of radical changes in education. No longer burdened by location or access, many students have options for attaining their K-12 education that did not exist a decade ago. In terms of schooling for elementary, middle, and high school students, online coursework is still emerging as a trustworthy way to earn credit, and the amount of instructors working with K-12 students online in some capacity continues to grow. The first online courses date back to the 1990s, and have, since that time, gone from a novelty to a mainstream facet of higher education, with over 7 million college students enrolled in some type of online learning course, and 33 percent of all college courses being offered online (Allen & Seaman, 2014). As of the 2013-2014 school year, 25 states were running virtual schools, and almost 2 million K-12 students were enrolled in distance education courses within their districts as early as the 2009-2010 school year (Watson, 2013; Queen & Lewis, 2011). School leaders in many states are embracing the Partnership for 21st Century Skills (P21) framework and utilizing community resources to do so (Overview of State Leadership Initiative, n.d.) as they work to implement technology initiatives in their schools.

While the proportion of institutions reporting that online education is “not critical to their long-term strategy” dropped to a low of 9.7 percent in 2013, less than one third of chief academic officers report feeling entirely comfortable with the quality of technology-driven instruction, now and going forward (Allen & Seaman, 2014, p. 5). Clearly, while online instruction is here to stay, more work and scholarly research remains in order to ensure it is being done well. Blended models are one way districts and for-profit institutions are reshaping the field of teaching, and just as in traditional classrooms, instructional models that blend both traditional classroom strategies with online learning come in a variety of formats

The emergence of blended learning instructional models in K-12 settings has been slower than in its higher education counterparts, in part because the pace at which physical schools acquire technology infrastructure and implement technology-driven programs varies widely from state to state (Fletcher, 2012). Some see blended learning as a radical idea that is helping to cause seismic shifts in education with its dramatic changes to a typical school day. In fact it is the fastest-growing segment of online instruction in the K-12 market (Moskal, Dziuban, & Hartman, 2013; Watson, Murin, Vashaw, Gemin, & Rapp, 2011). What is consistent within all blended formats is the fact that some portion of course instruction is delivered via online instructional methods, with the remaining portion of class time being of the “bricks and mortar” variety (Staker & Horn, 2012; Picciano, Seaman, Shea, & Swan, 2012; Staker, 2011; Osguthorpe & Graham, 2003). In order to effectively plan and teach in a blended setting, teachers must understand the needs of their learners, as well as the content area being studied and how available technologies can work to each student’s benefit (Staker & Horn, 2012; Staker, 2011; Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C., 2011). This prevents confusion and lack of productive work which could result from an ill-planned blended program.

Current information suggests that a blended model more readily allows teachers to offer more personalized learning experiences which move at a more individualized pace, something teachers may not be able to do easily in traditional classrooms (Krueger, 2013; Staker & Horn, 2012; Staker, 2011), but that Nel Noddings insists is a starting point for equitable, caring education (2012). While blended learning began as credit or dropout recovery programs, it has slowly but steadily crept into the mainstream school setting as a way for teachers to meet student needs. This can be seen in the continuous addition of blended learning programs for learners of all ages.

In recent years, online education has seen substantial growth in the K-12 sector, accompanied by the implementation of state-run online programs and fully-online schools. Blended instruction takes the “best elements of online and face-to-face learning” such as flexibility of scheduling, and packages them into what some researchers are saying is likely to “emerge as the predominant model of the future – and to become far more common than either one alone” (Watson, 2008,p. 4). While fully online models are a separate category, and may not ever be in as high demand in a K-12 setting, it is also true that rising costs associated with staffing and maintaining a physical building, and shrinking budgets call for a change to traditional means of information delivery and instructional strategies. In its many incarnations, the blended model has the potential to offer a highly specific type of teaching and learning experience that puts some of the power of learning in the hands of students, without sacrificing important academic and social interactions inherent in a traditional classroom.

Statement of the Problem

In North Carolina, some students with special needs are taught via a standardized curriculum referred to as the Occupational Course of Study (OCS), designed as a transition-focused curriculum to provide some self-selected high school students with school and work-based vocational training and community-inclusion experience (Lee, 2005). Factoring in their significant academic needs, OCS students face serious threats to their ability to graduate high school on time and find success in academic endeavors and beyond. Traditionally, these students are nearly 20 percent more likely to drop out of high school early, a fact that can pose significant threats to future success (Pyle & Wexler, 2012). Teachers of OCS students are asked to do increasingly more to merge their objectives with mainstream instructional goals while working with overloaded schedules and an abundance of administrative duties including Individualized

Education Plan (IEP) meetings and time-consuming documentation of interventions and student progress (Pyle & Wexler, 2012; Nichols & Sosnowsky, 2002; Gersten et al., 2001; Wisniewski & Gargiulo, 1997). It is important, given these issues, to look closely at how innovations in technology-supported pedagogy may help to address the unique needs of special education students and their teachers.

When students face the kind of academic challenges that prevent them from being mainstreamed, they may elect, through the recommendations of teachers and administration, to enter into the OCS program, or what is called a transition pathway to graduation. An OCS student is characterized by severe deficits in reading and math and possibly other areas (e.g. communication skills) and may also have physical disabilities of a visual, hearing, physical, emotional or medical nature. Oftentimes, an OCS student displays below average social skills or immaturity that may result from a lack of experience in making decisions, setting goals, and self-advocacy. Additionally, OCS students have issues making connections about how classroom learning could be used in future situations, and benefit from a more active learning environment (Lee, 2005). In terms of their schooling habits, OCS students may have a history of behavioral, attitudinal, or attendance issues. All of these characteristics lead to challenges for OCS students that other student populations may not face to such an extent, and challenges for OCS teachers who not only must cover content but also address varied social, emotional, and physical issues.

Darling-Hammond (2001), as well as Piotrowski and Plash (2006), suggest that 30–40 percent of special education teachers decide to leave the education field as a result of burnout; occupational stress is commonly listed as a key factor (in Shyman, 2011, p. 350; Stempien & Loeb, 2002; Mastropieri, 2001). That number by some estimates can be nearly 50%, which is up to double the attrition rate for teachers in the general education field (Mitchell & Arnold, 2004).

If there is a teacher population in need of new and innovative ways to help manage stress and lead to higher retention rates, it is teachers working with OCS students. The North Carolina Virtual Public School's blended OCS program may have a potential solution for what can otherwise be a daunting and exhausting teaching environment.

Intervention and Analytical Framework

The OCS curriculum is a program approved by the North Carolina state board of education for some students who have an Individualized Education Plan (IEP), which is a written statement prepared for children with disabilities to include measurable goals, statements of services, and informed consent information ("A Guide to the Individualized Education Program," n.d.). It is a modified standard course of study consisting of fifteen courses in English, mathematics, science, occupational preparation and social studies ("Occupational Course of Study," n.d.) and is intended to meet the needs of a small group of students with disabilities who need a modified curriculum that focuses on post-school employment and independent living.

Discussion of Related Terms

Depending on who is being asked, and which program is being studied, the terms learning disabled, special education, OCS, and exceptional children (EC) may mean different things, or they may be used to describe the same student population. A student may be enrolled in a special education program, be considered learning disabled and part of an exceptional children's program, and also designated as an OCS student. The OCS designation is a more narrowly-defined term, and so not all learning disabled or exceptional children are considered for the OCS program. The discrepancies on how these terms are used was found to be true across different counties in the state of North Carolina, where the term OCS means different things to different administrators in Charlotte-Mecklenburg County vs. Wake County.

For the purposes of this research, these terms have been clarified within the scope of the NCVPS OCS blended program. Some of these terms may be used to describe the same student, leading to possible confusion over academic designations. For the purposes of this study, all of the students in the intervention program at the Virtual Public School will be referred to as OCS students. Their classroom teachers will be referred to as EC teachers and the NCVPS content area teachers as virtual teachers.

Table 1. Discussion of Related Education Terms

Term	Meaning as it is known and understood by NCVPS	Inclusion class?	Involvement in NCVPS OCS program?
Learning Disabled	Federal definition: A neurological disorder that impairs a person's ability to read, write, spell, or do math, but is not tied to overall cognitive ability (Job, 2010).	Yes, if it is determined this is the least restrictive and most appropriate environment.	Yes, if an IEP team, parents, and the student determine this is the most appropriate option.
Special Education	Instruction that is specially designed to address the unique needs of a child that result from his or her disability, and ensure a child's access to the general education curriculum so that he or she can meet the educational standards that apply to all children within the jurisdiction of the school system. Special education can include instruction conducted in the classroom, in the home, in hospitals and institutions, and in other settings ("Q&A on IDEA 2004," 2009).	Yes, if it is determined this is the least restrictive and most appropriate environment.	Yes, if an IEP team, parents, and the student determine this is the most appropriate option.
OCS	A student whose mental, physical, or emotional disabilities mean that inclusion and mainstreaming is not an option. This is based on IEP data,	NO	YES

	teacher/school input, but most importantly, the wishes of the parent/guardian and student. An OCS designation is not determined by a type of disability or IQ. This student stays with an Exceptional Children teacher all day.		
Exceptional Children	‘Exceptional Children,’ in reference to the Future-Ready Core, refers to students with disabilities, an incredibly diverse population. They range from some of the highest performing students in the most advanced classes to those with the most severe intellectual challenges and every level of functioning in between (Future-Ready Core Implementation Handbook, 2009).	Yes, if it is determined this is the least restrictive and most appropriate environment.	Yes, if an IEP team, parents, and the student determine this is the most appropriate option.

OCS Students

Occupational course of study students can run into various hurdles during their school years; they may feel that school is not preparing them well for life outside the classroom, or that their teachers don’t understand them, or even that school itself is not worthwhile (Tandy & Meacham, 2009). Couple this with poor work habits that OCS students tend to have, and it is easy to understand why they have a lower school completion rate than the average population (Repetto, Cavanaugh, Wayer, & Liu, 2010; Tandy & Meacham, 2009). Online and blended formats can make it possible for their instructors to access enhanced and differentiated teaching materials and promote alternative pedagogy that may better support learning disabled students, such as online discussions that allow increased time for reflection.

Since 2008, OCS students in North Carolina can participate in unique blended courses covering portions of the OCS curriculum. These OCS courses may be referred to as “blended teaching,” since they involve an instructional collaboration between one EC teacher working in a

public school and one virtual teacher working for NCVPS in support of increased differentiation and diversity in teaching methods. The EC teacher is an expert at working with OCS students, and the virtual teacher is a specialist in a particular content area. The goal for the blended teaching model is to create an environment in which technology helps to enhance the engagement with and positive learning outcomes of the assigned curriculum. It is important to note that the OCS blended courses described in this study are optional, but available to any public school in the state. To participate, school officials must request participation from NCVPS administrators and EC teachers must participate in a training program from NCVPS.

The state of North Carolina does not keep demographics on students enrolled in the OCS program, and does not know what percentage of students with IEPs are currently enrolled. Prior to the OCS program adopting a modified form of the NC Standard Course of Study, the Exceptional Children's division guessed that 2% of eligible students with IEPs chose to enroll in the OCS program (Colwell, 2014). That number may be somewhat higher now, but there is no data to confirm this, and the state of North Carolina's Exceptional Services division has no plans to start collecting statistical data on OCS students. The state, however, assumes the percentage of students with IEPs enrolled in the OCS program to be very low. With 13,000 enrollments, and a maximum of four enrollments per students, the lowest number of all OCS students in the state would be 3,250. Additional data from NCVPS internal documentation (2014) shows that the total number of OCS students was 5,156 in Fall 2013 and 5,494 in Spring 2014. The table below shows additional demographic information about NCVPS OCS students.

Table 2. NCVPS OCS Student Demographics

Hispanic	Non-Hispanic
10%	90%

Male	Female
67%	33%

Grade Level	% of Enrollments (6% of enrollments not reporting)
8 th grade or younger	< 1
9	35
10	35
11	17
12	6

NCVPS OCS Teaching Model

The NCVPS OCS program involves one EC teacher and a virtual NCVPS teacher. Each EC teacher may be paired with up to four NCVPS virtual teachers depending on how many content area courses the school has signed up for in a semester partnership. With this being said, the EC teacher maintains a separate teaching relationship with each teacher based on the content area. The figure below demonstrates this teaching relationship.

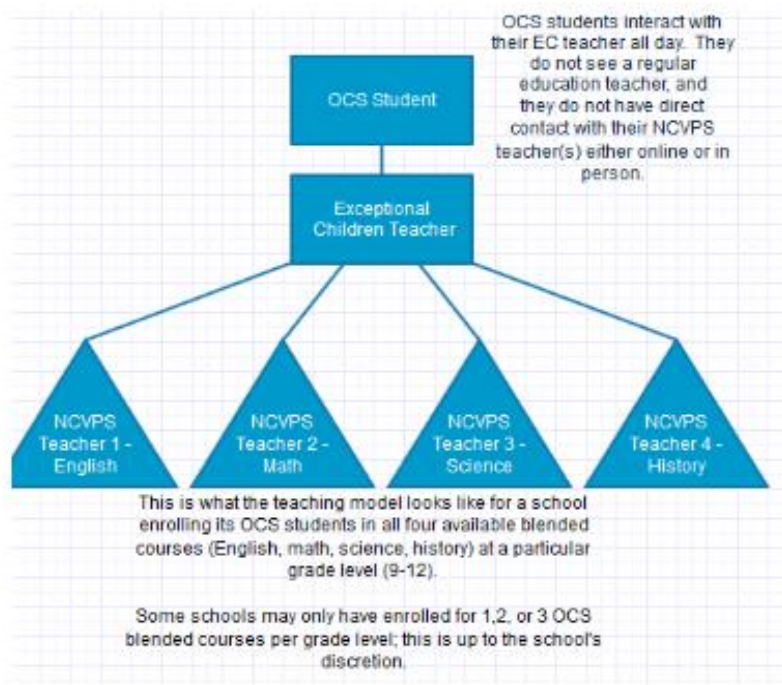


Figure 1. NCVPS OCS Blended Program Teaching Model

The EC and virtual teacher work together, with the EC teacher working face-to-face with OCS students in a classroom setting and the virtual teacher providing resources, online content, and help to individualize and differentiate instruction for every student based on personal needs (Lourcey, 2014; About Us, 2013; History, 2013). In terms of course content, all content is originally developed by NCVPS instructional designers and curriculum developers, but it is the EC teacher who determines what is used, as demonstrated in the graphic below. The virtual teacher may suggest the use of physical manipulatives or Web 2.0 tools such as Padlet for students to create and share their own content. The virtual teacher may also provide instructional videos, practice materials, or interactive lab sessions (Lourcey, 2014) and can communicate with students on a message board in the course's learning management system (LMS), Blackboard, increasing the ability to teach and interact on a personal level. The goal, according to NCVPS, is

to take the Essential Standards created by the Department of Public Instruction and “make them come to life” for each student through options for enhanced instruction made possible by the online teacher (Lourcey, 2014, video file).

Both instructors work together on a daily basis through phone calls, web-based documentation, or e-mail. This communication is meant to follow-up on student progress, submitted work, and planning through the course of a semester. In this blended teaching model,

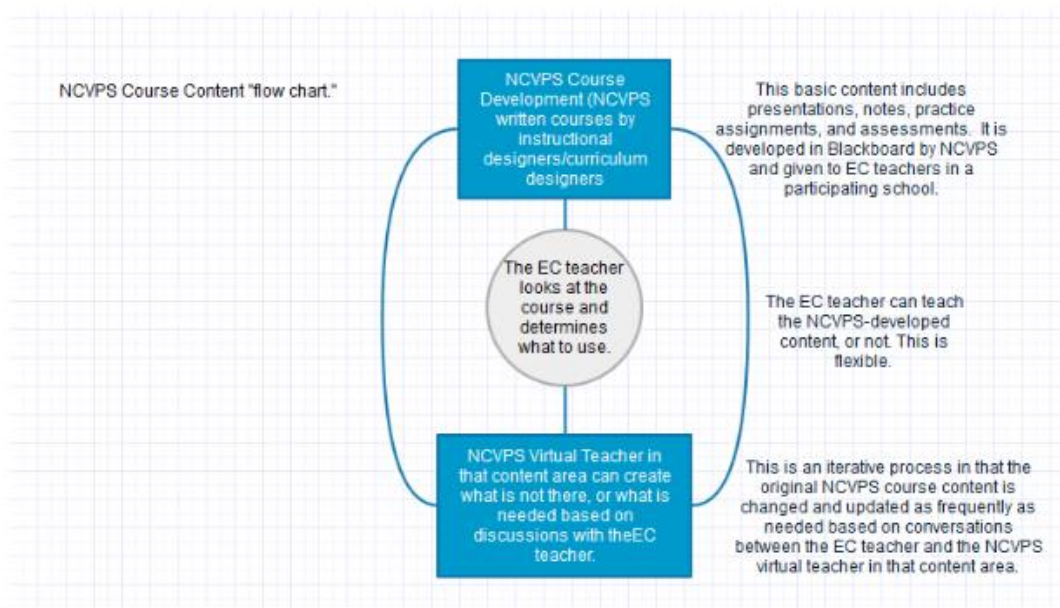


Figure 2. NCVPS Course Content Flow Chart

the EC teacher has the primary responsibility for day-to-day classroom instruction, which differs from a true co-teaching model, in which both the EC and virtual teacher share that responsibility. Nevertheless, some assignments will be submitted to and graded by the virtual teacher, and some will be graded by the EC teacher, based on a shared grading procedure decided on by both instructors at the start of the semester. Both teachers have access to the same gradebook for the

course through the LMS, but the EC teacher is responsible for the official gradebook for each student, as well as ensuring grades are turned in based on the school’s official calendar. This corresponds with Noddings’ views that quality education should include giving students (and here, teachers) the chance to “formulate questions, gather information, discuss alternatives, and make decisions” (2012, p. 123). This type of collaboration is clearly supported by the NCVPS OCS model.

NCVPS does not keep a lot of records on its teachers. However, the following information is true of its program:

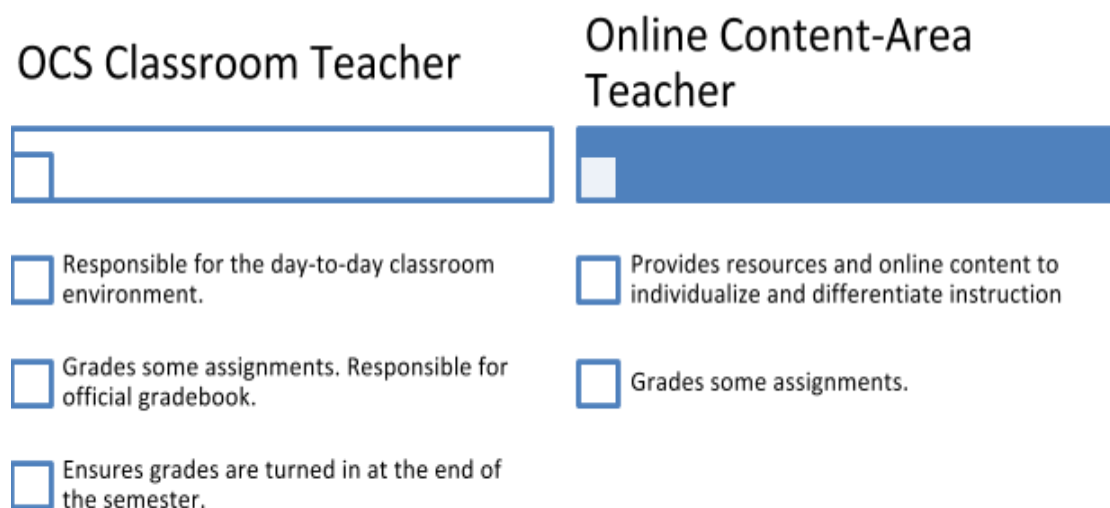


Figure 3. Defined Responsibilities of EC and Virtual Teachers

- Total EC teacher/NCVPS partnerships as of fall 2013: 950 (“NCVPS 2013 Annual Report,” 2014). This is up from 660 partnerships in the spring of 2013.
- Total school partnerships: 2612 (NCVPS, 2014).
- Total EC face-to-face teachers involved in the NCVPS OCS program: 481
- Total NCVPS teachers currently working with partnered schools: 269

NCVPS OCS Program Training

The NCVPS OCS blended program has two paths toward training for its teachers. Starting in Fall 2014, each EC teacher working with NCVPS in the OCS program will need to go through an approximate two hour online training. This is an updated training for all teachers; prior to Fall 2014, EC teachers were asked to complete online training through a variety of instructional videos at their discretion. Teachers can decide when they want to complete the training, but they must all complete this training prior to the start of the first semester they are partnering with NCVPS in the OCS Blended Learning program. This is a one-time training and will not need to be completed each semester thereafter (“OCS Blended Learning,” 2011). The new, more structured training may have been added in response to what some of the virtual NCVPS teachers mentioned in this proposal’s pilot study; that the EC teachers were not always prepared for a co-teaching environment because they did not understand the concepts of the OCS program; its potential benefits and how to work within it.

The NCVPS virtual teacher also participates in training, specifically 18 weeks of unpaid training. Nine weeks of this training is an online course, and nine weeks is a practicum. Potential virtual NCVPS teachers will learn NCVPS policies, procedures, expectations, using a Learning Management System (LMS), instructional design principles including Universal Design components and the revised Bloom’s Taxonomy (“Teach and Coach for NCVPS,” 2011). Potential virtual NCVPS instructors will also learn best practices related to communication, assessments, and differentiated instruction that they can put into practice when working with their EC classroom counterpart. All coursework is designed to simulate what a student sees when participating in a blended OCS Course (through the LMS), and the training includes weekly synchronous sessions. Once coursework is finished, the potential instructor is now called a

Teacher in Training, and is assigned a mentor, who through a weekly evaluation, monitors progress in the practicum phase. More responsibilities are scaffolded into the practicum experience as the nine weeks progress, culminating in a post assessment, which requires a Teacher in Training to demonstrate mastery in order to receive a mentor recommendation and enter the official NCVPS teaching pool.

Purpose of the Study

The purpose of this study is to measure the attitudes of both EC and virtual teachers working together to serve OCS students through NCVPS OCS blended courses and determine or clarify our understanding of what variables are involved in producing an environment of care. Understandably, EC teachers who work with OCS students may have a focus that is less consumed with “narrow achievement goals [and the] mad desire to be number one,” than their non-EC colleagues, but they are still required to teach a modified standard course of study and they still want their students to succeed (Noddings, 1988, p. 226). Since the challenges of responding to unique learners while still having to cover the same material as general education teachers is a source of tension, programs such as the NCVPS blended model that may support teacher-teacher care in relieving this tension merit a closer look. This case study will explore the extent to which the program is supporting different elements of care (modeling, dialogue, practice, and confirmation) for both the EC and virtual teachers. This information will be gathered through a survey as part of a case study research design, which will be more fully explained in Chapter 3.

Preliminary/Pilot Testing

A qualitative pilot research study, considered Phase 1 of this research design, was conducted with NCVPS virtual teachers in the Spring of 2014. It examined the experiences of

virtual teachers working with OCS students in a blended setting. Using a phenomenological research design, the comments of three NCVPS virtual teachers were analyzed for connections that could pinpoint the essence of their shared teaching experience, and point to potential reasons for the program's success. Coding revealed findings that revealed a connection to the Ethics of Care framework and its fundamental components of modeling, dialogue, practice, and confirmation. Specifically, as Noddings specifies about the Ethics of Caring approach, initial findings indicated that the NCVPS OCS program gave teachers the ability to “relieve a burden, activate a dream, share a joy, or clear up a confusion” with their co-teacher(s) (2012, p. 72). Flexibility, classroom/virtual teacher relationships, support structures, and the teacher's prior experience were key indicators of teacher-indicated caring. Using the findings from Phase 1, a case study research design has been selected as Phase 2 of this study, to more completely describe caring as it exists between virtual and EC teachers participating in the NCVPS OCS blended teaching program.

Research Questions

Research questions help to identify the structure of research being conducted. In this study, the research questions are aimed at identifying and classifying examples of care both received and given by teachers working with the NCVPS OCS blended program. Specifically, this study will answer the following questions and sub-questions:

1. How frequently are specified elements of care practiced by virtual and EC teachers participating in the NCVPS OCS program, and is care mutually beneficial or performed by one group more than another?
2. Can examples of constructs of care be found in the NCVPS OCS program, and what do they look like in this context?

- a. Can examples of the modeling construct of care be found in the NCVPS OCS program and what does modeling look like in this context?
 - b. Can examples of the dialogue construct of care be found in the NCVPS OCS program and what does modeling look like in this context?
 - c. Can examples of the practice construct of care be found in the NCVPS OCS program and what does modeling look like in this context?
 - d. Can examples of the confirmation construct of care be found in the NCVPS OCS program and what does modeling look like in this context?
3. What forms of support do these examples of care represent?

Rather than suggest causality, these questions are designed to describe the care experienced by teachers in the NCVPS OCS model through one specific lens; the ethics of care framework. This is one way to look at the OCS model as it is structured to see if there is any evidence that the program supports the four elements of care. Studies show that creative, enthusiastic, and well-trained teachers are successful, but what kind of care do NCVPS OCS teachers (both EC and virtual) report from their experiences in the program?

Overview of Methodological Approach

This study will look at the specific context of teachers working together in the NCVPS blended learning program for OCS students through the use of a descriptive case study that utilizes survey design as the primary means of data collection. Surveys are “one of the most commonly used methods in the social sciences to understand the way societies work and to test theories of behavior” which is appropriate for co-teachers in the NCVPS OCS program (Groves, et al, 2013, p. 3). Prominent reasons for early surveys were to help understand social problems

(Thorndike, 1939); this research design follows that early aim and seeks understanding of teachers working together to advance the education of OCS students.

Research on blended programs fits well with a survey design because in order to develop practices or policies, and to understand teacher experiences when working together to serve OCS students in a blended teaching environment, they must be able to answer the same series of questions about it. The goal in this study is to better understand how the NCVPS OCS program may be structured to provide better supports or opportunities for “care” as that connects to the Ethics of Care, this study’s primary theoretical framework. This framework, which will be explained in more detail in later chapters, is mentioned below.

The Ethics of Care

Care for others is a key feature of education, a profession designed to promote the well-being of productive citizens. Of course, care is a subjective term and can mean many things, and be reached in many ways. As a theoretical framework, the Ethics of Care is one that would ask educators to contemplate much more deeply how and for what reasons they care about their profession, and in terms of this study, each other (Noddings, 1988). Additionally, for a teacher participating in work that is connected to an ethic of caring, there is a conscious decision made to think of and respond to others, if not for the long-term then, temporarily, as individual needs are “pushed aside,” when they are caught up in an “internal ‘I-must’ ” that pushes OCS teachers to work together (Noddings, 2012, p. 72). This is called engrossment, or attention, and is above all else, receptive. From Noddings’ viewpoint, this should be a major component of all educational programs, but is often lacking (2012).

What then, is education really aimed at achieving? Philosophers have answered this question in many ways, often disagreeing with the meaning of learning, a critical word used to

discuss what teachers actually do. Is learning meant to be for predetermined skills and objectives, and correct answers to questions? Or, is it, as Dewey and Noddings would argue, that “students should be involved in the construction of their own learning objectives?” (2012, p. 53). Another important component of education is the idea of privilege, and who is able to access knowledge in order to learn. In order to fully care, a teacher must be able to “learn to abandon conventional critical thinking and engage in interpersonal reasoning” which is characterized by “an attitude of solicitude or care” without aiming to defeat the other or keep a certain train of thought (Noddings, 2012, p. 243). This ideal, while perhaps noble, is not universal, and so, the question “what is education really aimed at achieving” continues to be explored.

The debate plays out in classrooms, the media, and the halls of power in this country, without clear answers. The Ethics of Care model seeks to understand more about how care is personified and demonstrated within the constructs of an educational setting. It is especially relevant for teachers working with students that are struggling academically, emotionally, or socially. An Ethics of Care approach as viewed through the perspectives of OCS blended learning co-teachers can help make meaning of the ways that care is shown through four main components: Modeling, dialogue, practice, and confirmation. Taken together, these four pieces of the Ethics of Care framework can attest to the status of teaching relationships between those in the OCS blended teaching program, and how its organization and structure may afford instructors a teaching environment focused on caring acts.

This study will undertake a close look at how teachers are working together in this setting using Nel Noddings’ Ethics of Caring framework. In the Ethics of Care model, the components of modeling, dialogue, practice, and confirmation are used as a framework to help teachers engage with their students in more meaningful and fruitful ways. The model, originally designed

for student-teacher relationships, will be employed here to focus on the relationships and experiences in the OCS co-teacher dynamic. It is a flexible model that aims only to move relationships in a positive direction and relies on both formal and informal means of communication to gather information (Noddings, 2012). Even though the relationship between teachers and their students is important, that is not the focus of this study, and data from students will not be included here. Instead, it is the teachers' measured interactions of working with their co-teachers that is important to note for this case study. Although not initially intended by the model, I will apply the Ethics of Care model in order to analyze the OCS blended teaching model at NCVPS and determine to what extent it supports a similar system of engagement for the face-to-face teacher working with the virtual teacher. This is possible because Noddings claims that "there is a form of caring natural and accessible to all human beings" (2013, p. 28) not just something that happens between teachers and students.

Caring, according to Noddings, is a result of time spent together promoting the elements of modeling, dialogue, practice, and confirmation (1988), something I believe is given to EC teachers through the NCVPS blended teaching model. As they make sense of the instructional process together in a blended teaching environment, teachers working in this OCS program share the challenges and pivotal moments of realization in their craft together. This can be explained when it is studied descriptively to ascertain specific characteristics related to perceived levels of care between co-teachers at NCVPS. A survey instrument will be the main data collection source for this study, which builds from previous pilot testing (Phase 1).

This research will describe NCVPS co-teachers' attitudes regarding their participation in the blended learning program. Analysis will point back toward an Ethics of Caring approach that calls on educators to put caring at the forefront of everything they do, but in a deliberate,

measurable way. According to the framework, when caring is made a part of all interactions, the result is better thinkers, and more success within the classroom (Noddings, 1988). This study will take the Ethics of Care framework and put that lens over teacher responses to find out if the same is true.

Definition of Terms

Individualized education plan (IEP): A written statement for each child with a disability that is developed, reviewed, and revised in a meeting and that must include measurements of present academic achievement, measurable goals, statements of services, and informed consent information (“A Guide to the Individualized Education Program,” n.d.).

Occupational course of study: A program approved by the state board of education for students who have an IEP. The Occupational Course of Study is intended to meet the needs of a small group of students with disabilities who need a modified curriculum that focuses on post-school employment and independent living. The vast majority of students with disabilities will complete the Future-Ready Core Course of Study with the use of accommodations, modifications, supplemental aids and services as needed. The OCS is a modified standard course of study consisting of fifteen courses in English, mathematics, science, occupational preparation and social studies (“Occupational Course of Study,” n.d.).

Blended learning (hybrid) instruction: A blended learning course has between 30 and 80 percent of the course content delivered online, with some allowances for the student to determine the time and place instruction will happen (Allen & Seaman, 2014).

Blended teaching instruction: A blended teaching course provides instruction from more than one teacher. There may be a classroom face-to-face teacher, and an online teacher working together to provide instruction.

Online course instruction: An online course is defined as one in which at least 80 percent of the course content is delivered online (Allen & Seaman, 2014).

Face-to-face instruction: This type of instruction includes courses in which zero to 29 percent of the content is delivered online; this category includes both traditional and web facilitated courses (Allen & Seaman, 2014).

Organization of the Study

This chapter presents a background and rationale for attempting to examine teacher attitudes and opinions about working together to serve OCS students in a blended teaching environment in a descriptive case study research design. Chapter Two provides a review of literature that examines multiple facets of the educational system in place at NCVPS, where teachers work together to serve OCS students in a blended teaching environment. Details about the study's theoretical framework will be immersed throughout the chapter along with connections to the literature as it relates to the research on teacher experiences, technology in education, blended learning in education, and the status of OCS students in education. Chapter Three discusses study methodology in detail; specifically data collection from the teacher participants and plans for analysis. It also scrutinizes the limitations and constraints that may affect findings and implications. Chapter Four will present the findings and how they relate to the Ethics of Care framework. Chapter Five will first and foremost, discuss the factors found in this blended teaching program that contributed to each element of care

CHAPTER 2: REVIEW OF THE LITERATURE

Introduction

Teacher experiences and interactions can go a long way in determining student success. This is especially true when the students in question are at higher risk of dropping out of high school (Repetto, Cavanaugh, & Wayer; Liu, 2010). As the numbers of K-12 students taking online courses increase, and the providers of such courses continue to proliferate, it is important to understand the scope of blended programs as bounded by the broader field of instructional technology. It is also important to understand barriers instructors may face when implementing blended programs, challenges students with disabilities may face in blended settings, and research that explores innovations in working with OCS students that may inform how to better structure blended learning environments for both OCS teachers and students.

Finally, it is important to understand the Ethics of Care as the analytical framework used in this research study. One way to determine if the interactions between teachers in a blended teaching format are well-supported, intentional, and useful is to analyze those characteristics from the point of view of an Ethics of Care approach, which posits that people must spend more time together in order to see the benefits of an educational relationship built on trust; something that a blended model may offer to instructors in ways previously not realized (Noddings, 1988). Studying teachers from an Ethics of Care viewpoint is also “reasonable and important” because of the tendency of educational goals to be built on “principles, reasoning, and judgement” which is in contrast to the way that many people approach moral problems (Noddings, 2013, p. 28). This review of literature will explore four major blended models in terms of their relationship and connection to an Ethics of Care approach, illustrating how blended teaching may be supportive of the elements of care recommended by the approach.

The Status of Technology in Education

Part of the rationale for this study sits with the lack of information about how blended teaching may help to meet the needs of teachers working with OCS students, and on a broader scale, how blended learning is still a field which requires more scholarly research to effectively understand and implement (Graham, Henrie, & Gibbons in Picciano, Dziuban, & Graham, (Eds.), 2014, p. 29; Picciano, Seaman, Shea, & Swan, 2012; Yeh, 2010). Since the mid-20th Century, American education has focused on the “acquisition of information and skills” as an objectives-based system, while the culture of testing and evaluation which programs such as No Child Left Behind can be said to have left students with varying educational needs at a disadvantage (Madaus, Banerjee, McKeown, and Gelbar, 2011). Currently, policies for technology integration include the International Society for Technology in Education (ISTE) standards, which help teachers to “evaluat[e] the skills and knowledge educators need to teach, work and learn in an increasingly connected global and digital society,” as well as the National Education Technology Plan (NETP), which “addresses the five essential components of learning powered by technology: Learning, assessment, teaching, infrastructure, and productivity” (ISTE, 2012, Office of Educational Technology, 2013). In the last decade or so, many new technologies have emerged and become a routine part of education, but their application may not always be thought of as something that would be beneficial for OCS students. What was once unique (e.g. e-mail or Internet-based learning) is now commonplace, and the field has changed so quickly, yet it is unclear how today’s teachers are making use of these tools for working with OCS students, and whether teachers perceive these tools as helpful.

Likewise, and most importantly in this research design, while blended learning shows promise to aid student learning through results of early studies, in-depth research has yet to

determine why or how this happens (Graham, Henrie, & Gibbons in Picciano, Dziuban, & Graham, (Eds.), 2014, p. 29; Picciano, Seaman, Shea, & Swan, 2012; Yeh, 2010). The literature itself supports further inquiry into blended learning and in this case, blended teaching models.

According to Betrus in his 2012 analysis of 35 undergraduate pre-service technology education courses, in just a decade, half of the technology tools previously taught (i.e. Internet/World Wide Web), have been replaced by innovations such as Web 2.0 tools, SMART Board technologies, and social networking platforms like wikis and blogs. Since “Web 2.0 tools offer ways to personalize classes and demonstrate instructional presence,” they can impact student learning by providing active and collaborative settings for students to meet online (Tunks, 2012, p. 1). It can be suggested that these new technologies offer new ways of learning: The opportunity to learn independently, question and answer periods, and informal as well as formal assessments (Kalina & Powell, 2009). Web 2.0 and related technologies can easily provide these opportunities. These pedagogical shifts also point to emerging trends for working with OCS students, which will be described in more detail later in this chapter. In order to fully understand the implications of today’s educational climate and how technology (specifically blended programs) plays a role in the experiences of today’s teachers, it is important to first examine the field of blended learning and teaching programs, and how they may apply to OCS students.

Blended Learning and its Role in Education

As in any dynamic and living field such as education, the components and methods of instruction are ever-changing. Blended programs are no different, and within one school, multiple models of blended learning may be in place to reach students most effectively (Staker & Horn, 2012; Staker, 2011; Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C., 2011;

Osguthorpe & Graham, 2003). Even in one year's time, what is considered a fundamental model of a blended program may change and be replaced, thus proving the idea that education involving technology is constantly in a state of flux. What remains true for all varieties of blended learning to be discussed in this analysis is that at their core, they all share the same feature; an "objectives-driven" educational program in which some content or instruction is delivered online at the student's own pace, and part of the education is delivered through a supervised educational setting in a traditional (i.e., classroom) environment (Staker & Horn, 2012; Picciano, Seaman, Shea, & Swan, 2012; Staker, 2011). The nuances in the aforementioned definition are important to note because there are many variations of this model which might not be considered "blended" at first glance, but simply technology-rich learning environments. What is most important is that the online portion of the program is centered on specific goals which the student can, at least partially, decide when or how to digest, as well as the supervision in a physical setting by someone other than a parent (Quillen, 2012). This teaching model can provide instructors with a multitude of options not readily available in a traditional setting alone.

Housed within this definition are a variety of ways in which schools can choose to offer a blended model. The current four most commonly used models for blended programs; rotation, flex, self-blend, and enriched virtual, each have a different focus for how, when, and where teachers provide instructional materials (Staker & Horn, 2012; Staker, 2011). The differences between these models may be subtle, but when making decisions about how to meet instructional goals, it is important to consider what students need to learn the content material, and how best to get the material to them. Making the decision to use a blended model is of course, the most important and first step in this process, and is one that must be made carefully, with

considerations for some of the challenges or barriers that may exist. The following section provides a closer look at the four most widely used blended learning models.

Blended Learning Models

Before turning to specific blended models, it is important to consider a portion of blended learning's accepted definition that says blended learning involves instructors allowing some student control of "time, place, path, and/or pace" (Staker & Horn, 2012, p. 3). Or, it could be argued that the online portion of a blended program puts students in the driver's seat by offering more choices for when and where to access materials, encouraging more active participation, improved achievement, and thinking skills. This may be true even with what some say is still a young learning platform that has yet to fully move beyond the "physical or surface-level characteristics" to examine more fully the pedagogical or psychological characteristics that could help define relationships between instructors and learners in blended learning formats (Graham, Henrie, & Gibbons in Picciano, Dziuban, & Graham, (Eds.), 2014, p. 29; Picciano, Seaman, Shea, & Swan, 2012; Yeh, 2010, p. 1630). In order to most fully immerse instructors and students in learning with the potential to transform dynamics in and out of the classroom, schools must decide which blended learning model works best for all stakeholders. The four most commonly utilized models are explained here.

Rotation

A rotation blended model takes a variety of instructional methods, such as group work, traditional assignments, or traditional classroom instruction, and factors in online instruction as one of those methods. Teachers create a schedule based on their needs and rotate students through these various activities on either a fixed schedule, or on a schedule of their choosing (Staker & Horn, 2012). The various ways to coordinate a rotation model for blended learning

include a flipped classroom model, which places content and learning in the hands of students to digest outside of the classroom, at a time and place of their choosing. In this type of model, the face-to-face teacher is typically in charge of the online learning as well (Staker, 2011), rather than a teacher who is only working with the online component.

With the teachers more in control of scheduling in a rotation blended learning model, they can more readily “focus on student interactions on concept extension and thinking skill development,” such as is the case with Rocketship Education, a nonprofit charter management organization based in California (Stoker, 2012, p. 132). Students attending one of Rocketship’s schools meet 75 percent of the time face-to-face and 25 percent online. Included in their daily rotation of content area subjects is a learning lab, which is focused on individual needs and other skills practice. The schools in Rocketship’s organization are performing at nearly 30 percentage points above the state and district averages, and by various measures, are ranking first and second in their district for performance with at least 70 percent of low-income students.

Flex

In a flex model, teachers are available and present to provide various levels of instruction and support, but not on a specific schedule like the rotation model. Students drive their learning through various types of activities, which are personalized for their needs. In some cases, the traditional aspects of instruction are monitored by a teacher who sees students daily for small group, individual teaching, or other learning activities (Staker & Horn, 2012; Staker, 2011). In other flex model situations, teachers or other trained adults provide lab space, breakout rooms, or other face-to-face options for learning based on individualized student needs. In most cases, “the online platform delivers most of the curricula” (Staker, 2011), with the in-person teaching meant to assist and provide support.

Acton Academy in Austin, Texas is one example of a blended learning school with a focus on the flex model, and students there “choose from a menu of online and other options for learning” and the school’s model focuses on “Socratic discussions and small-group experiences within a mix of grade levels and abilities” (Staker, 2011, pp. 15-16). Rather than in-person lectures, students are actively working to fulfill the school’s that each of its students finds a calling that can help better the world.

Self-Blend

Students working in a self-blend setting take some of their coursework in a traditional school setting, but also take some part of their coursework entirely online. This may be one or more courses, and the online coursework may be completed either in a physical building, or elsewhere (Staker & Horn, 2012; Staker, 2011). The two programs may or may not be linked through the same school, and the student chooses which courses to take online based on personal criteria.

The Kentucky Department of Education’s blended program has an average 75 percent completion rate for its blended learning courses, which students from either public, private, or homeschooling settings can enroll in at their discretion. Teachers report that “the program provided a positive way of giving intervention and extra support to low performing students, allowed students to take responsibility for their own learning, prepared students for college experiences, and addressed the need for different learning styles” (Staker, 2011, p. 102). They also note increases in student and parent satisfaction.

The opportunity to choose a self-blend model gives students the chance to act as their own agents of learning. This is reflected in national policy reports, including the *Project Tomorrow Speak Up* report which found that “technology is empowering students to take

responsibility for their own learning and giving them opportunities to create more personalized learning experiences” (in Hoskins, 2011, p. 58). By learning from and with multiple teachers, in some cases who may not be working out of the same school, students can and should see “admirable patterns of intellectual activity, but also desirable ways of interacting with people” in situations when teachers must interact to discuss a student’s progress (Noddings, 1988, p. 223). The student could learn from that experience as he encounters multiple educators with a variety of backgrounds and experiences from which to draw upon in the classroom.

Enriched Virtual

In an enriched virtual model, students occasionally, but not frequently (i.e., every weekday) attend a traditional classroom for learning for each course, which also delivers its content and instruction online. The entire school in an enriched virtual model is involved, unlike a self-blend in which only some courses include online instruction (Staker & Horn, 2012).

At Albuquerque’s eCADEMY, students meet with instructors at the beginning of their semester, but do not have to be physically on campus after that initial meeting if they are continuing to keep at least a passing, or C, average in their coursework. In this case, that first meeting may be the only time the students meet their instructors face-to-face. The school is an offshoot of a long-running program designed to meet the needs of students at high risk for dropping out of high school, and provides an alternative to traditional credit-recovery options.

The school’s ability to give students time to work while attending could be one of the reasons why “during the spring 2010 pilot testing period, eCADEMY had a 70 percent retention rate. This compares to the 50 percent retention rate before the school moved to a hybrid model. That summer, eCADEMY enrolled over 500 students and reported a 90 percent pass rate among these students” (Staker, 2011, p. 63). Additionally, correspondence and communication with

parents rose at a rate of nearly 40% over traditional programs in the same district, which is attributed to a discipline policy favoring a team approach with parents. This approach seems to favor enabling the dialogue component of an Ethics of Care ideal. The entire school is involved in this blended learning model, which means that communication must be strong to connect the various pieces of each student's individual education plan.

Blended Teaching within a Blended Learning Environment

There is another, less utilized blended option that schools can choose for their students-- blended teaching. Blended teaching is a relatively new term that describes a blended learning setting in which there is more than one teacher delivering instruction. How to manage the co-teaching aspect of blended teaching is up to individual schools and programs, but studies into the effectiveness of this learning environment indicate a positive effect on student attitudes, participation, and motivation (Pellerin & Montes, 2012). A blended "co-teaching" environment provides a team teaching approach and students are able to interact with more than one instructor from within the same course.

The blended teaching model used in the OCS courses taught through the NCVPS does not exactly replicate any of the models above. The OCS students are in a physical classroom with their OCS teacher every day, much more than in an enriched virtual model. Unlike a self-blend model, students do not decide for themselves to enroll in an OCS blended course (Staker & Horn, 2012). Flex models tend to put the emphasis on the online content for instructional purposes, but NCVPS clearly promotes the classroom teacher as the agent of learning in the OCS classroom; the virtual content teacher provides assistance and resources (Staker, 2011; Lourcey, 2014; About Us, 2013). Lastly, the rotation model, which most closely resembles the OCS blended teaching program, also puts teachers in control of their students' schedules, and what

information or activities are posted online. However, in a typical rotation model, there is only one teacher, not the co-teaching situation that NCVPS has created (Staker & Horn, 2012). At NCVPS, not only do students see their classroom teacher just as often as in a traditional school setting, but the teacher is also paired with another highly trained content area teacher who provides the online connection to the course (i.e., the “blend” in the blended learning setup). The unique blended teaching model at NCVPS makes it ideal for studying the interactions of the teachers working together to plan and carry out the OCS curriculum.

There are those in the field of education who see blended learning as the new normal and feel that the tendency to want to over-interpret the current models and distinguish a definition is not as important as understanding what makes blended programs so effective. Much work remains to be done to determine the causal factors for results that indicate blended instruction produces better academic returns than face-to-face instruction or purely online coursework (Halverson, Graham, Spring, Drysdale, & Henrie, 2014; Means et al, 2009 in Graham, 2013). This is also true of the need for in-depth research into the role of instructors in this type of educational environment. One of the strongest indicators for success in a blended program is presence and support, which includes instructional design, facilitation of discourse, direct instruction, affective communication, and open communication (Halverson, Graham, Spring, Drysdale, & Henrie, 2014; Means et al, 2009 in Graham, 2013). These same areas can also pose challenges for teachers working in a blended setting, which will be explored in a later section.

Barriers to Teaching in a Blended Environment

Regardless of student population and need, “teaching blended courses can be highly complex and have different teaching patterns, which, in turn, impacts successful implementation” for a blended course (Ocak, 2011, p. 689). Instructors must be a strong and

consistent presence in both the physical and online learning settings to offer not only instruction, but support, while also receiving similar support from their administrators (Littrell, Billingsley, & Cross, 1994). In order to make this happen, teachers in blended learning settings must face potential barriers related to instructional design, communication, and firstly, an understanding of what blended learning is, and how to combine pedagogy with technology.

Understanding of Blended Learning Models

Teachers working in a blended environment must understand that simply putting academic resources online, while also seeing a face-to-face class, is not necessarily blended learning. There are specific pedagogical considerations to consider, such as choosing the proper blended model. If they have not had the proper amount of training with blended learning, teachers may assume they are providing the right level of support for their students, when more or different supports are needed (Graham, 2006; Oliver & Trigwell, 2005; Singh, 2003; Driscoll, 2002). This is true not only in K-12 blended settings, but has been shown in higher education and corporate settings where blended learning has been utilized.

Instructional Design

Using a blended model will require some use of technology to share resources and activities with students for the online portion of their work. The decision to utilize a Learning Management System (LMS) such as Blackboard, Moodle, or Sakai, is one that needs to be made with various levels of stakeholders present to determine what works for teacher and student needs. Alternatively, a web-based option such as Google Classroom may provide the right amount of security and accessibility for students needing to engage with instructional materials away from the physical classroom.

The instructional design element needs to be carefully thought out so that the web-based instruction is easy to access, and provides the right framework for teachers (Graham, 2006; Garrison & Kanuka, 2004). Can the LMS accept online homework submissions? It is accessible from any Internet-based computer? These are some of the technical questions. In terms of instructional content and design, the school and its stakeholders need to understand what the purpose of learning is for the students. What type of instructional experience are they looking to provide? Starting with student outcomes first, instructors and course designers must decide which goals are most important (Biggs & Tang, 2003), perhaps utilizing a framework or taxonomy which can help associate verbs with indented student outcomes. Additionally, course instructors and designers must create a pathway for learning through the online portion of the course that is easy to navigate and clearly worded, with accessibility for all (Biggs, 2002). Creating all of this can be a challenge if the designers or course creators are not familiar with web-based instructional design fundamentals.

Communication

A blended setting, whether for one course, or an entire school, requires good communication from the school and its teachers. Teachers must be able to field questions from students and parents, and provide clear communication that leaves nothing to question (Heinze and Procter, 2004). Ideally, this kind of asynchronous communication, when coupled with the face-to-face portions of the class, will provide the kind of insightful and deep learning as has been documented by Garrison and Anderson (2003), Hiltz (1997), Marjanovic (1999), Rimmershaw (1999), and Williams (2002), among others. In order to do this, teachers must be willing to take the time to answer student questions and concerns, which may be more individual communication than they are used to doing.

These are some of the barriers or challenges inherent in a blended design. Specific considerations arise when working with students facing learning difficulties, as will be explained in more detail below, as well as literature regarding OCS students.

Barriers to Teaching in an OCS Blended Environment

Working in an online or blended model requires specific skills in pedagogy and communication (DiPietro, Ferdig, Black, & Preston, 2008; Mortera-Gutiérrez, 2006; Grisham-Brown, Hemmeter, & Pretti-Frontczak, 2005; Bersin, 2004). Due to its unique nature, it is even more important to understand what challenges teachers working in the NCVPS blended teaching program need to overcome for a successful partnership. NCVPS is unlike a traditional co-teaching situation in that both teachers are not equal partners in providing classroom instruction (Lourcey, 2014), and it also doesn't directly mirror the most widely used blended models. There are specific issues that teachers working with OCS students in its blended program face. These barriers could result in strained co-teacher relationships, and turn into a loss of productivity. Specifically, the issues of time and classroom teacher readiness are potential challenges for teachers participating in the OCS blended program.

Time

When both teachers in a blended teaching model are working with multiple classes and students, as is the case with the NCVPS OCS blended model, there is an inordinate amount of time needed to meet the requirements for daily and weekly communication that could be difficult to manage. Having the ability to access shared documents online can help; however, the purpose of the NCVPS model is to provide each student with individualized attention (Lourcey, 2014). The amount of time required to plan, communicate student concerns, develop resources, and then share them amongst the classroom and virtual teacher, could be exhaustive. Teachers must find

common meeting times for their weekly planning, and make sure they are consistently meeting to keep dialogue open and on pace with current classroom demands. One weekly planning time may seem small, but special education teachers who work with general education teachers are more likely to report burnout and exhaustion than those who do not co-teach in this way. This often comes from the demands on that specific type of teaching relationship (Embich, 2001). While the NCVPS model offers some affordances in that the classroom teacher is clearly established as the primary decision-maker in the classroom, there is still a lot of communication that must take place in order for the model to be fully employed.

Additionally, NCVPS virtual teachers may be working with several schools in one semester, which means their attention is divided between multiple schools, each with its own OCS classroom teachers and students. The classroom teacher is utilizing resources from NCVPS in one content area, but still has the rest of the curriculum to plan and carry out. Teachers of all grade levels never feel they have enough time, with special education teachers particularly feeling the strain (Tochon & Munby, 1993; Fimian & Santoro, 1983). In this case, with a teaching model that specifically points to personalized learning methods as part of its core functionality, both the classroom and virtual teachers could easily find it difficult to maintain high standards of communication and planning together given the demands of their students and the program model itself.

Classroom Teacher Readiness and Willingness

Regardless of experience, OCS classroom teachers may find the idea of partnering with an NCVPS instructor to be off-putting. Resistance may arise from many factors; lack of time as mentioned above, lack of initial information about the NCVPS model and potential benefits, or a lack of confidence about one's own teaching methods. Even with the provisions of best practices,

training, and supports that NCVPS offers participating schools in the OCS blended program, classroom teachers may feel they are not helpful in actual practice (Boardman, Argüelles, Vaughn, Hughes, & Klingner, 2005; Austin, 2001). Classroom teachers may also feel as though they are losing some autonomy in the process of sharing or accepting resources with the NCVPS virtual teacher, and may need additional time to accept the changes that come with blended teaching (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). Without two willing partners in the blended teaching model, even the best ideas for differentiation may not be put into practice by the classroom teacher, whose ultimate responsibility is to drive instruction (Lourcey, 2014). Understanding the benefits of the blended teaching model and what benefits have been seen through prior work could help to negate some of these effects, but in the end, both teachers must accept their teaching designations. If this does not happen, the instructional environment will not reach its potential, which could hurt OCS students who are already struggling academically.

Barriers for OCS Students in a Blended Environment

As already mentioned, OCS students face many issues in their academic endeavors, and while Heinze and Procter (2004) argued that “blended learning is a valuable tool for student support and is suitable for different types of learners,” it is still important to ensure that instructional content and teaching methods are geared toward their needs (in Ocak, 2011, p. 689). Research indicates that OCS students are less likely to graduate than their non-OCS peers, and often struggle with additional issues, be they emotional, physical, or mental disabilities (Pyle & Wexler, 2012; Lee, 2005). OCS students, who already struggle to meet academic requirements, will face additional hurdles when technology and time management issues arise. (Burdette, Greer, & Woods, 2013). Schools should consider these barriers specific to a blended

environment while planning for OCS courses to help create the right environment for student success on an individualized level.

Technology

It is easy to overgeneralize the extent to which students of any age are comfortable with technology. The term “digital native” is often used to refer to students who have grown up with technology widely available to them, but this does not guarantee a student possesses the skills for a successful online learning experience (Madaus, Banerjee, McKeown, & Gelbar, 2011).

Because blended learning affords students a greater ability to plan and carry out learning objectives at the time and place of their choosing, OCS students are more responsible for learning on their own, whether with parental assistance or not, and need to be able to navigate websites and learning management systems to obtain, complete, and submit work appropriately.

Additionally, a program must ensure technical assistance and other supports, including paraprofessionals, to OCS students who have “sensory, cognitive, and/or physical impairments and it is incumbent upon those in charge to see this is carried out” (Muller, 2010, p. 13). Students must have a working grasp of various word processing programs, and a general concept of how computers operate for this type of work in order to be successful, and that is not always inherent, even if a student is comfortable with other types or uses of technology. Moreover, special education students with visual impairments may face challenges related to inaccessibility of class assignments, materials, live chats, and discussion boards in the school’s online learning management system and scanned images of documents on websites and in library databases that cannot be read by a screen reader, which would limit their ability to work productively (Burdette, Greer, & Woods, 2013). A situation such as this would require the need for student advocates who know and understand disability laws, which is something that may not be practical.

Time Management

Blended learning requires students to monitor their own learning to some extent, and OCS students may be required to control their own learning and turn in work at times when a teacher is not present. In order to accomplish this successfully, OCS students must exhibit self-regulatory skills that most will probably lack (Madaus, Banerjee, McKeown, & Gelbar, 2011). Supports in place at home and through their school, as well as during any face-to-face instructional time can help, but students will still need to take a proactive stance. It is important that students in OCS blended learning classes be able to successfully complete their assignments even if they do not have an adult present at home during normal work hours to help monitor completion of activities (Muller, 2010). This puts the onus on instructional designers and course developers to put supports in place in each blended learning course, to best support OCS students' self-regulatory skills.

Teaching Strategies for OCS Students

Occupational Course of Study students, a subset of the K-12 student population in North Carolina, whose academic disabilities are often severe and compounded by physical, emotional, or medical disabilities, may have specific challenges related to classroom learning (Lee, 2005). Additionally, OCS students have issues making connections about how classroom learning could be used in future situations, and benefit from a more active learning environment (Lee, 2005). In terms of their schooling habits, OCS students may have a history of behavioral, attitudinal, or attendance issues. All of these characteristics lead to challenges for OCS students that other student populations may not face to such an extent.

In the case of OCS students, certain research-based teaching strategies can be beneficial if based on the specific needs of students with learning difficulties. Teachers working with OCS

students must take into account the specific needs of the learners under their charge, and there are many strategies that have been proven through research to aid this process. These strategies include: 1) direct instruction, 2) curriculum-based measurement, 3) classroom tutoring, 4) collaboration and co-teaching, and 5) teaching using natural environments. Each of these strategies has been shown through rigorous studies to work well for OCS student and can support blended programs. Technology supports can provide additional resources.

Explicit/Direct Instruction

Direct instruction (DI) is one of the most proven effective strategies for teaching students with learning difficulties (Marchand-Martella et al., 2004; Watkins & Slocum, 2004; Forness, Kavale, Blum, & Lloyd; 1997). This teaching model focuses on learning in small, clearly articulated phases with a goal of providing instruction that is not confusing or easy to misinterpret. Developed as a specific program in the 1960s, studies have shown that when applied in a consistent manner, DI results in positive effects for students on “basic, cognitive, and affective measures” (DI vs. di: The Term "Direct Instruction," 2014). This includes the landmark government study, Project Follow Through, considered one of the biggest and farthest reaching empirical educational research studies in history, in which nine strategies for reaching at-risk students were evaluated over nearly a decade. In that study, which followed 200,000 elementary aged students, DI resulted in higher academic progress, as well as increased self-esteem and self-confidence (Gersten & Keating, 1987). The program works when students are placed in an instructional setting at their skill level, where skills are introduced gradually and students are taught to master the content at an individualized pace that encourages re-teaching or acceleration based on their unique needs.

Technology can support DI by enabling students to create work products that demonstrate their mastery of skills. For example, Storybird allows students to create short stories to demonstrate a recently learned concept. Storybird (<http://www.storybird.com>) is a free online story creator that allows students to choose from multiple sets of professional artwork, and then type a story into its simply designed interface. The ability to create a story with pre-determined artwork removes a lot of the guesswork for students who may be stymied by what to write, and how to display it visually. Accounts can be created by teachers to monitor creation of the stories, which can be turned into PDFs or printed into actual books. Storybird supports OCS students by giving them a chance to be creative, without the pressure of making the art and the story. Similarly, with the Padlet tool (<http://padlet.com>), students post answers or ideas about a question or prompt on a class-wide wall as a way to indicate knowledge of a subject. Padlet includes the option for instructors to approve posts before they appear on the wall, giving them a chance to look over work submitted and decide if it is appropriate or on task. Padlet is a tool that could help students post work collaboratively, and receive immediate feedback, which is important in Direct Instruction.

Curriculum-Based Measurement

While not a teaching strategy, curriculum-based measurement (CBM), is a methodology related to assessing students with learning difficulties in a way that can result in the development of attainable goals and objectives, as well as an effective instrument of measurement to chart student progress (Fuchs & Fuchs, 1986, 1989; Shinn, 1989). It can be assumed that proper assessment and evaluation results in better teaching methods for each student, regardless of individual need, yet this is especially important for students with learning difficulties, whose academic progress may be difficult to measure by traditional methods such as commercially

prepared tests, which are difficult to differentiate. Scored for speed and accuracy, CBM tests are usually brief tests of several minutes, which ask the student to demonstrate understanding of material chosen from that school's curriculum. Unlike traditional testing methods, CBM tests are not normed to a national average, and because they can be scored quickly, can be given repeatedly, meaning that smaller gains in progress are easier to see (Gickling & Thompson, 1985). The data that can be collected on student progress can result in the continuation, or discontinuation, of academic initiatives.

Technology can be utilized in support of CBM with the need to provide for self-pacing and accessibility features. Official CBM assessments and practice materials are available online, but other technologies can be used to enhance a CBM model as well. An example of this type of technology is Math XL (<http://mathxl.com>), which is adaptable to each student's learning style, and provides teachers with information related to student performance on any type of assessment or homework. Math XL can tell an instructor how much time a student spent working on a particular problem, and can automatically offer additional study problems based on student answers to problem sets. Additionally, for reading, a tool like the Diagnostic Online Reading Assessment (DORA) could be helpful. DORA measures a variety of reading skills for students in K-12 with interactive and adaptive technology that engages multiple modalities through multimedia, audio, and text. It provides not only an individualized assessment of reading skills immediately after completion, but also will suggest strategies for improvement.

Classwide Peer Tutoring

As a proven technique for special education students of all types, classwide peer tutoring (CWPT) can also help any student in a classroom, regardless of learning need. CWPT provides a system by which an entire classroom engages in peer tutoring to accelerate learning and provide

reciprocation on a student-student basis for the practice of skills and tasks. In a CWPT setting, students are given time in pairs to teach and learn in an immediate-feedback, game-based format that affords points as part of a process meant to provide healthy competition, and improve social skills and self-improvement. This strategy is research-proven, and provides teachers with the ability to provide regular assessments with immediate feedback (Greenwood, Delquadri, & Shaw, 1989; Fuchs & Fuchs, 1997; Plumer & Stoner, 2005; Bowman-Perrot, 2007). Students who participate in CWPT when tend to show more positive academic gains than those in control groups. For these reasons, CWPT tends to be recommended for at-risk students, students with ADHD, severely-learning disabled students, and others who face learning difficulties.

While an actual web-based system has been created for CWPT, there are other tools that could enhance the kind of peer-peer learning that it provides. Web 2.0 tools like Quizlet (<http://www.quizlet.com>) could help students create and monitor learning through brief activities that encourage healthy competition. Quizlet combines a variety of study tools that appeal to different learning modalities, including audio quizzes, with an aim to make learning and review fun. The quiz sets can be used collaboratively in a small group setting as students compete against each other to get the best scores. Likewise, if points are being earned, a Google spreadsheet could help students keep track of their progress together, in a shared space. Students could be given editing permissions on a shared Google spreadsheet, and be responsible for tallying points and entering other information, which could be turned into graphs and charts.

Co-Teaching

Co-teaching, when one special education and one certified classroom teacher, work together to meet the needs of their students, allows special education students to learn in general education settings. The current U.S. Department of Education standard maintains that “90

percent of students with disabilities will be educated in the general education classroom for a minimum of 80 percent of the school day” (*An Administrator’s Guide to the LRE*, 2012, p.1). To adequately cover the specialized nature of students with learning difficulties, co-teaching places at least two teachers of equal status in a classroom to provide differentiated instruction to students with Individualized Education Plans (IEPs). While it has its own challenges, co-teaching has proven to benefit students who see a more positive view of themselves, increased academic performance, better social skills, and peer relationships (Fenty, McDuffie-Landrum, & Fisher, 2012; Scruggs, Mastropieri, & McDuffy, 2007; Walther-Thomas, 1997). In this model, the classroom teacher provides specific knowledge of the curriculum and testing measures, while the special education teacher has professional expertise in strategies and other programs that can benefit students, such as tiered activities or other forms of differentiated instruction. There is no “assistant” in this setting; both teachers are equally responsible for the management of the classroom.

Schools employing a co-teaching model can utilize a variety of technological tools as instructional aids. A Learning Management System (LMS) like Moodle or Sakai can provide students and teachers a repository of classroom resources that are accessible 24 hours a day, as well as a place to turn in assignments and get personalized help. A system like this is also a good way to differentiate instruction with assignments that can be modified. Students can be engaged with an LMS in a different way because they are learning through posted screencasts, online quizzes, and class/individual forums to post questions or have discussions. Grading can also accompany use of an LMS, with more options for personalized feedback and returned assignments. For planning purposes, tools like Planboard can provide an accessible platform both teachers can use to create lesson plans, share resources, and remain organized and informed of

their co-teacher's plans. Planboard and other similar programs can be aligned to state curriculum standards and teaching schedules, which is important when teachers may work in multiple classrooms throughout the day. Plan templates that can be saved and recycled or reused can also help save time.

Natural Learning Environments

Before Brown et al. (1979) posited that even severely learning handicapped children be taught in chronologically appropriate, natural learning environments, traditional instruction centered around artificial learning objectives geared toward much younger learners, if not infants. With a goal of educating students to succeed in the world after school programs are over, Brown and his researchers advocated for the idea of presenting learning goals within a situated context. For example, teaching a severely handicapped student to “zip a zipper on a board” is not going to be nearly as helpful as teaching him to zip a zipper on a jacket, thus promoting the real-world (i.e., natural environment) usage of such a skill. Additionally, when learning important functional skills, it is important to teach them in the least restrictive environment possible because there is no way to prove that a learning disabled student will be able to apply those skills when faced with them in the real-life situation (Brown & Sorsenson, 2007; Noonan & McCormick, 2006; Colarusso & Kana, 1991; Gartner & Lipsky, 1987). In natural learning environments, children are able to interact with a wider variety of their peers, and their education is connected more meaningfully to the family context (Bayat, 2012).

Providing a natural learning environment may require multiple settings and people involved to carry out instruction. For example, instruction at the child's home may be necessary to complement learning at school when discussing daily routines. Families may want to provide examples of activities or other events that are a part of that child's regular schedule so they can

be incorporated into a learning environment. With so many people and perhaps unorthodox settings for learning in play, collaborative spaces such as Google Documents can be a helpful tool to allow multiple users the chance to add information, observations, and details about the child's progress and activities. It may be decided that instructors and family members will check in and enter information on a daily basis to update each other on progress or challenges faced by that student. They can communicate through the Google Document without the need for phone calls, which may be difficult to plan. Additionally, for times when an instructor and the child may not be in the same physical setting, a web-casting or other video-sharing tool can be helpful for the instructor to check in and provide guidance and personal feedback. This could be accomplished with a webcam and a program like Skype, or through videoconferencing software such as Adobe Connect or Elluminate.

With so many different needs, students who face learning challenges require personalized and individualized learning environments. The strategies listed here are but a few of those proven with research to benefit students with special needs. Accompanying technologies assist the strategy to make it more effective, useful, and practical, even though some challenges still exist for teachers in the OCS blended environment.

Ethics of Care

In a very fundamental way, caring is, or should be, a critical component of any classroom (Noddings, 2013). Without care for students, what aims could be reached, and what relationships could be built that lead to learning? Certainly this is a logical argument, but as a theoretical framework, the Ethics of Care is one that would ask educators to contemplate much more closely at the caring they do for others, and additionally, how they receive care. Is education for teaching basic skills and passing aptitude tests, or for teaching and learning how to

live a decent life? Do we care by “formulating or solving a problem [or] by sharing a feeling?” (Noddings, 2013, p. 31). These are some of the questions that the Ethics of Care model seeks to understand, and are especially relevant for teachers working in a blended setting, which requires a specific understanding of pedagogy, student needs, and technology.

Until the second half of the 20th Century, morality and caring about producing solid citizens was a critical component of American schools (Noddings, 1988). The immediate connection between blended teaching and an Ethics of Care model can most immediately be seen in the language traditionally used to describe a blended model: transformative, redefining, and reconceptualizing (Garrison & Kanuka in Halverson, Graham, Spring, & Drysdale, 2012). This kind of language aligns with the Ethics of Care, an educational theory aimed at promoting student welfare based on differentiated student needs.

Blended models by their nature shift the focus of instruction by way of an “increased integration of technology into traditional classrooms [and] increased recognition of the importance of promoting a sense of community” (Rovai & Jordan in Halverson, Graham, Spring, & Drysdale, 2012, p. 386). In fact, many districts which started state-run, fully online programs have now morphed them into a blended version, because they are not teaching students at a distance, and can then provide computer labs for physical meetings, once more building a bridge to better, more personalization and care in that way (Watson, Murin, Vashaw, Gemin, & Rapp, 2011). The same is true for teacher-teacher interactions, the focus of this study, and the core of analysis between co-teaching partnerships.

For an Ethics of Care model to work in a blended teaching setting, like the one employed through the NCVPS OCS model, the teachers must respond and let their co-teachers know that they have consciously received that care; this can be seen in a variety of ways including

communication between teachers and participation in activities required of both EC and virtual teachers. When this happens, they are calling to mind the kind of caring that Noddings would say harkens back to David Hume's idea of an "active virtue" that requires first the idea of natural or instinctual caring, which is followed by the guidance of what we have experienced, and what we have learned about it (Noddings, 2013, p. 80). The sense of caring that can come from an educational setting is reliant on the commitment the teacher feels to proceed and act on instinct. This is a choice, Noddings would say, only limited by the teacher's relation to the NCVPS OCS program; if an instructor feels that there is a "potential for growth" as well as the potential for the care to be reciprocated, then caring for a co-teacher becomes more of a priority (2013). The instructors are essential in this process, but also is the program design itself, as well as supports and other organizational frameworks, training and development pieces.

While blended programs are a far more recent addition to the educational world, an Ethics of Care approach as viewed through the perspectives of blended teaching models can shed light on how it would guide instructors through the framework's four main components: modeling, dialogue, practice, and confirmation. In the section that follows, a detailed explanation is provided of each component in the Ethics of Care framework, integrated with pilot study findings that revealed evidence of caring from the perspective of the participating NCVPS virtual teachers. It is important to note that the pilot interview questions were not structured to elicit responses from participants regarding these dynamics of care; they emerged from several rounds of coding.

Modeling

In an Ethics of Care model as viewed through the NCVPS OCS blended teaching program, the concept of modeling is vital, and demonstrated by teachers who display (i.e.,

model) caring and affirmation for their co-teaching partners (Noddings, 2005). In a caring environment, teachers “bear a special responsibility for the enhancement of the ethical ideal” and have a “unique power in contributing to its enhancement or destruction” (Noddings, 2013, p. 178). Modeling is not merely showing care or concern for grades or academic achievement as an eventual outcome, but something of a more holistic nature (Noddings, 1988). In both interactions and academically-minded tasks, instructors in a blended setting need to actively seek out teachable moments and in all situations act with respect and consideration for each other.

According to recently published reports, “in general, there is a newly sophisticated emphasis on meeting special student needs in online and blended learning” with blended learning paving the way for the most personalized and individualized model (Watson, Murin, Vashaw, Gemin, & Rapp, 2011, p. 5). Together, teachers in the NCVPS program model caring for each other through successful completion of communication documents and weekly planning time, as well as respecting each other’s ideas for student support. As Noddings explains, “a teacher cannot ‘talk’ this ethic. She must live it” (2013, p. 179) and does so through modeling caring behavior.

All three participants from Phase 1’s pilot study echoed these same goals in their interviews when they discuss working relationships with their co-teachers. Their interactions with their co-teachers especially demonstrate a caring and sense of positivity for the process of blended learning, and how it helps their students succeed. Whether it is Anna’s views that the “partnership” of working together brings about the best for her students, Theresa’s understanding of the innate challenges the EC teachers face in their positions and her decisions to model patience, or Judy’s ability to help novice EC teachers understand the benefits of the blended

learning model, the three participants from the Virtual School model care and concern, which results in an attitude toward learning that would be felt by their students.

Relevant participant statements.

Anna: "...when you have that partnership, you have the specialized teacher coupled with the exceptional children teacher bringing together that teaching for the student, I think that we can bring that together, bring our best practices together."

Theresa: "I had to do a lot of trust building with those teachers you know, and a whole lot of you know. Technical troubleshooting and stuff to get them to use the technology. ...I hear over and over again from them now that they wouldn't be able to get into the material as in depth, um, on their own, as they are able to do their materials and with you know me as a resource. So, um, you know, it kind of took a while to build that trust, but it has happened."

"I know, when I can't get someone on the phone, I don't take it personally. If that makes sense. I don't get upset about it, I know they just have stuff to do, um, and it takes a little while to build that relationship where they know I'm going to call them back, I'm going to get in touch with them, like, we're going to work it out, figure it out."

Judy: "And one thing I tell my teachers is you know, if something is happening with the technology at your school, if you can, text me, like all of them have my cell number. Text me. I can, you know, if you're Internet's not up, I can send you something, even if I text you some problems on the phone that we can work on, or you know, I can reference you something."

"Whereas a lot of people at NCVPS, I don't know what the breakdown is, but a lot of us stay home, so it's nothing to help, you know, it's nothing for someone to say, can you help with this? OK, sure, because I don't work a 9-5, or 7:30-3:30 and I can, uh you know, do a little more

when I put my kid down for a nap, and I can definitely help you create that video or do whatever it is we need done, you know. So I think just in general, we have a lot more flexibility that way.”

Dialogue

Having an open and flexible dialogue is not necessarily easy for teachers who must work within the boundaries of curriculum objectives, but a teacher who is holding true to the Ethics of Care ideal needs to adopt a caring dialogue that is not always rigid. It is a chance for teachers to “talk about what they show” in their caring actions (Noddings, 2005, p. 23). Building on Vygotsky’s framework of social interaction, dialogue leads to meaning, which is developed and shared with others (Tandy & Meachem, 2009). Teachers working together in the OCS blended program must be able to vocalize their opinions and know they will be heard, even if the outcome isn’t always in their favor.

Blended teaching and the NCVPS blended model in particular affords partner teachers the opportunity to work together in a system that is open to dialoguing. Teachers are encouraged to work together to create the right kind of differentiation for each student; each teacher involved must be an active part of that process in order to see success (Lourcey, 2014). It could be argued that the process of the virtual teacher providing resources and assistance to the classroom teacher wouldn’t happen in the absence of open dialogue. The EC teacher is the only partner who actually meets with the OCS students; without the sharing of information in an honest way, the virtual teacher won’t have the details necessary to provide proper resources. Both the EC teacher and virtual teacher have to be ready to connect, ask questions, and talk honestly; which an Ethics of Care model promotes as an important part of an educational relationship (Noddings, 2005 and 1988), and they are afforded many opportunities to practice this kind of open dialogue, as is noted below.

In the NCVPS OCS program, dialogue is exhibited as a result of not only a volume of communication, but also personalized and individualized communication. All three teachers in the pilot study specified instances in which they communicate with their co-teachers on a personal level, and reflect on that communication as an affordance of the blended model, or as Noddings says, to “build up a substantial knowledge of each other that serves to guide our responses” (2005, p. 23). The NCVPS OCS teaching environment promotes communication in ways that are not always possible in a traditional classroom such as collaborative Google documents, and is not limited by time or space; teachers can interact with their co-teachers in a way that sets them more as equals; communicating over e-mail, forums, or messaging systems gives them time to process their thoughts and respond with the full intended meaning.

Relevant participant statements.

Anna: “I dialogue with the [EC teacher] and the [EC teacher] will give me a good idea of the general idea of the climate in the classroom, the specific students and what their needs are and then I’ll provide supports necessary to build on that, and then sometimes that conversation that I have with teacher’s evidence like I might say, oh, you know, Kasha, I had a great conversation with the [EC teacher] about your great coursework and how well you’re doing.”

Theresa: “Yea, I mean you start with the teacher you’re working with, and say, I see, problem X, you know, what other things are you guys doing on the classroom?”

Judy: “And I just told her [new EC teacher], give me a month, give this a month, and try it, and see what we [NCVPS] have to offer. I said I bet you will change your mind, and she is my best paced teacher now, she is the one that I mean, she tells everyone now, she’s even gotten more classes added to her school for the spring semester because she gave it a chance, and she

saw you know, but coming in brand new, you know, and new at her school. Nobody had ever done it before, but she was just, I think, intimidated.”

Practice

When attempting to connect the Ethics of Care framework to the OCS blended teaching model, it is important to focus on how the model allows teachers to have practice in caring in their support for each other (Noddings, 2013 and Noddings, 1988, p. 223). The practice in this case comes from several sources: Weekly planning time, daily updates through the shared Google document, and the many unplanned moments of communication that may occur in the course of a semester (Lourcey, 2014). Blended teaching produces a classroom setting that gives teachers more opportunities to work with each other as they “practice” how to interact and find the best methods for reaching their students. It is most possible when those involved are “reasonably well trained” in the skills necessary for the task at hand (Noddings, 2013, p. 189).

Literature shows that blended models, as compared to traditional or fully online learning models, are able to produce “a stronger sense of community ” (Halverson, Graham, Spring, & Drysdale, 2012, p. 386). Teachers who work in blended settings echo this idea, with reports of increased quality of interaction over traditional courses (Norberg, Dziuban, & Moskal, 2011). Having so many opportunities to practice caring leads to confirmation, the final step in an Ethics of Care model, where the first three components are combined.

The virtual teachers demonstrated the concept of practicing care in their relationships with each other in pilot study interviews. All three teachers point out the importance of the partnership they experience at the Virtual School as crucial to their positive experiences working there; whether that is partnership with their co-teachers or as part of a partnership with school administrators. Anna’s viewpoint that they are “never alone” in their teaching process sums up

how important the idea of practice is for them. Additionally, Theresa, and Judy speak to the level of support and interaction at the Virtual School as creating a close-knit community of learners and educators; a form of practice in its own right that also helps to strengthen the teaching relationship between EC and virtual instructors. This echoes Noddings, who says that when people engage regularly in tasks they are both skilled at and “clumsy” with, they move to a greater appreciation for the work involved, and those who participate in it (Noddings, 2013, p. 189). This is exactly what the NCVPS OCS model is designed for; daily and weekly work that gives two different types of teachers the chance to learn from and appreciate the work the other has to do. What emerges from the pilot study findings is the sense of consistent caring efforts that are practiced consistently.

Relevant participant statements.

Anna: “I think in the same way that you know, we build relationships online through you know, social media or through sending Internet messages, and really it does become strong valid connection, I think that the key is, uh, to consistently pursue that connection, to have dialogue whenever you leave feedback, to be able to make your daily teaching, your daily announcements very personal.”

Theresa: “And the course is just wonderful. Having all of these different people working on it all the time it looks better each semester. That is what I like about virtual school is because we all work to improve the course, it really does get better each semester. And if something isn't working they are very flexible and change things. So, and I know you know this, because you work with a face to face school, that doesn't always happen.”

“Yeah, you have to do different things. Um....gosh, I mean you really have to, because of the level of feedback we're expected to provide on assignments because we do grading every night, you have to be really creative there.”

Judy: “When I first started, you also had a mentor that you could, you know, have alongside you to help you out if you have questions or concerns, so there's lots of different avenues for support, whereas I think in a traditional classroom, um, a lot of people feel concentrated and bogged down with stuff going on in their own element.”

“With the [EC teacher], you know, that's their main focus is to be there for their kids, for our kids, and so, when I, you know, have concerns, or questions, it's no problem. They are showing up every day so you have that support and that willingness to work together every day, daily, that needs to be done.”

Confirmation

Confirmation happens when people believe that their worth as a part of a learning community has been validated, and is something that all teachers need (Noddings, 2013). Respect and trust are necessary for confirmation to occur, which is partially an ethical construct and therefore difficult to generalize. When viewed from an Ethics of Care model, confirmation should arguably be a focus for all teachers, not just those in a blended setting. Blended teaching courses, with their unique design and ability for teachers to work together, may provide an important opportunity for those teachers to help each other “by assisting in the construction of [their] ethical ideal” (Noddings, 1988, p. 223). All teachers arguably need this to some degree, but those working in a blended teaching setting with the added challenges of teaching OCS students can certainly benefit from the care and concern they receive from their partner teachers.

As evidenced by the organization and consciously designed structure of blended models, blended teachers can encourage, motivate, and affirm an “attainable image of [each other] that is lovelier than the one manifested in his present acts” (Noddings, 1988, p. 224). This means that there is the possibility for the co-teacher partnership to produce dedicated, confident teachers who are motivated to do their best because they are being affirmed in their work. This does not mean praising or defending teachers in a general sense, or accepting and approving negligent practices, but instead giving teachers the chance to talk with each other about the methods they each choose, their goals, and the enjoyment they have received from the process (Noddings, 2013). Aiming for a positive, productive semester is something that all teachers should desire, but the confirmation exhibited by those working within a blended teaching model shows that they have personalized, reasonable expectations based on individual needs of each other.

The blended teaching model can be empowering for teachers who are able to communicate with each other through asynchronous modes like Google documents, while still being helped and guided by synchronous meetings and learning interactions (Norberg, Dziuban, & Moskal, 2011, p. 213). With the many opportunities for modeling, dialogue, and practice, co-teaching partnerships in a blended environment have the potential to help teachers overcome inherent stresses and challenges in their everyday instruction.

Additionally, the nature of confirmation in a blended teaching setting itself is self-affirming and can allow for a more mutually agreed-upon teaching relationship than in a traditional classroom setting. In this environment, it is important and expected that co-teachers will not “reflect fantasy nor conjure up ‘expectations’ as strategies” when working together for the common benefit of their students (Noddings, 2013, p.179). When weighing benefits and drawbacks to blended learning settings, one of the common remarks is how blended learning

challenges participants to have “more motivation, to ask questions” in an “engaging and relevant” setting that feels more like a “big family because [of the] extra support” (Ash, 2012, p. 32). While the current body of literature focuses on students, this is also true for teachers who are working together in a more supportive and caring setting, such as the NCVPS blended teaching program for OCS students.

While some issues may be more common across the board (i.e., low reading ability), each student in the OCS blended learning courses at the Virtual School has a set of individualized needs that must be met in order to be successful. Meeting these needs is a major challenge for EC teachers of OCS students, who are tasked with completing content area goals in addition to addressing the specific issues that student may be struggling with, all within the same classroom. It is also something that Noddings says is necessary to care for others, and something that OCS program teachers must also do to meet each other where they are, finding the admirable in each other, and the strength to become “even more admirable” (Noddings, 2013, p. 179).

Adding the virtual content-area teacher into the EC learning environment promotes the idea that each student can be successful because now there are two teachers working together to, as Anna says, provide “a personalized learning experience” that benefits each student individually. In order to make this happen successfully, both teachers in the NCVPS OCS model must consciously work together to support and affirm each other’s worth and unique perspectives on teaching.

Relevant participant statements.

Anna: “Partnership is very important, because my background again is with traditional learners. That’s what I went to college for, that’s what I did in the classroom when I taught face to face, and that’s where I started. So being able to have a relationship with [EC teachers] in the

dynamic and demographic they work with since the very beginning and they can understand that learning capacities of those children, it makes a big difference. It really helps, you know, keep things in perspective, and provide support.”

Theresa: “[EC teachers are] really busy people and as far as, just being an [EC] teacher means you can teach 7 different classes in a day and they're all different topics with kids who have totally different needs, so, they have to be incredibly flexible and your job is really to support them, and make sure that the kids get what they need out of your particular course. So, you know, you're job is to be flexible and give them what they as teachers and then the kids also need to be successful.”

Judy: “I feel like I've fallen back in love with teaching. Something I had lost, gotten frustrated where I was at, in that school system, my school that I was at, I really am just reignited, and it's great to have a way to be able to be encouraged again.”

Conclusion

The kind of caring that Noddings has developed in her framework is often dismissed as impossible because of “constraints of number, time, and purpose” (2013, p. 179). Blended learning, and in this case, blended teaching, may have the ability to remove some of those constraints, leading to co-teachers being able to reflect to each other continually the “best possible picture consonant with reality” of themselves and each other (Noddings, 2013, p. 179). For this reason, is important to examine the potential that blended teaching has for instructors working with OCS students, and their resulting experiences. Chapter three will outline the methodology use in this study, and the research design.

CHAPTER 3: METHODOLOGY

This chapter describes the research procedures utilized for this study, including a description of the research design, survey population, survey instrument and implementation, data collection processes, and data analysis procedures.

Introduction

Occupational Course of Study teachers face challenges when trying to serve the physical, emotional, and social needs of their students while at the same time, providing required content area instruction (Hausstatter & Connolley, 2012; Darrow in Friend, 2011). There are still many misconceptions concerning students with more serious learning disabilities, such as those who may be enrolled in one of these blended teaching OCS courses, and even as recently as 2004, they are still not commonly educated in the public school system (Bayat, 2012; Friend, 2011). Using a survey, this study seeks to identify the elements of care provided between teachers working in the blended teaching model in which the EC teacher receives a variety of supports and resources from the virtual teacher, from the perspective of an Ethics of Care framework.

Within the OCS blended environment at NCVPS, both the EC teacher, who is working directly with students, and the NCVPS virtual teacher, who is providing instructional resources and support, receive and give care to certain extents. This care can be described with survey questions for the sake of generalizability and versatility across a diverse group of teachers. For these reasons, a descriptive case study research design has been selected as the best way to capture this information.

Research Design

This research employed a descriptive single case study design to investigate the NCVPS OCS program, or more specifically co-teachers working in the blended OCS setting. In

education, non-experimental research is important and often justifiable because many variables needing to be studied cannot be easily manipulated in a controlled experimental setting (Johnson, 2001). Because of the unique nature of the NCVPS OCS program model and the lack of empirical data about it, a descriptive single case study with the primary purpose of describing a phenomenon is appropriate for this research design (Yin, 2014). This is valid because a case study can help provide understanding about a current situation (the NCVPS OCS blended teaching model) that is full of context (co-teachers working with a particular student population).

Within the framework of a descriptive case study, a survey was chosen as the research instrument because it does not require control of events in the way an experimental design would, yet it can focus analysis on current and ongoing situations in process. Using a theoretical orientation as a starting point was useful to help guide the survey design process; procedural activities and administrative tasks common to all NCVPS OCS teachers were pinpointed for their connection to the Ethics of Care framework. From this starting point, collected data were analyzed in two phases: pattern matching phase and open analysis phase.

Participants

The target population, or “set of units to be studied” for this survey (Groves, et al, 2009, p. 44) was the entire set of EC and virtual teachers working for the NCVPS OCS program. This included teachers working in multiple content areas, and with multiple classroom teachers. In this sense, the unit of analysis was “self-bounded” meaning that by choosing to look only at the NCVPS OCS co-teachers, the target population was automatically defined. Although there is sometimes the potential for a target population to be very abstract, as in the case of a survey attempting to represent the entire population of American teenagers, there was enough specificity in this survey’s target population to determine a finite size.

From this target population, the frame population, or sampling frame, was drawn. This survey used an internal NCVPS list that served as its target population, its sampling frame, and the sample itself, which included the teachers working with the NCVPS OCS program. While every attempt was made by NCVPS to provide an up-to-date and comprehensive list of participants, it should be noted that several email addresses were not valid, and so this list can be considered approximate. The sample was selected from this sampling frame, and “is the group from which measurements will be sought” (Groves et al, 2009, p. 45). It was the same as the sampling frame, in order to prevent limitations on those who would choose to respond.

NCVPS does not keep a lot of records on its teachers. However, the following information is true of their program. At least 950 groups of teachers were paired together in the NCVPS OCS program during the Spring 2015 semester, when the survey was conducted. Using NCVPS internal documentation, approximately 750 individual teachers were working with the program, with some working in multiple co-teaching partners. Using the number of individual teachers as the total population, with a confidence interval of 95% and a margin of error of +/- 4, a sample of at least 334 individual teachers was needed for results to reflect the target population.

In the sample design, a sample based on the entire NCVPS internal staff list was used, in order to ensure the largest return on the survey, and to not limit the sample size. The sample frame helped to ensure adequate responses from both EC and virtual teachers.

Intervention

The blended teaching OCS program at NCVPS was the underlying intervention examined in this research study. All research methods were derived from this program’s organizational structure as they related to the work of the EC teacher, and the virtual content-area teacher.

The blended courses are taught in a co-teaching environment driven by the OCS classroom teacher, who is face-to-face with students in a classroom setting. The classroom teacher is responsible for driving instruction and putting any modifications for students into place. The online content area teacher supports the classroom teacher by creating or finding resources that differentiate and personalize instruction for each student. The teachers collaborate through their LMS, e-mail, Google documents, and phone calls throughout the semester. The goal is to give them a multi-sensory experience with the course content that is also interactive (Lourcey, 2014).

These meetings provide opportunities for the classroom OCS teacher to share information related to IEP changes or updates, upcoming lesson plans which may require more help of the NCVPS teacher, or important information about the students' personal or social situations. In response, the NCVPS teacher will take this information and use it to prepare or gather resources that the classroom OCS teacher can have available during the next week. The NCVPS teacher is not physically present to work with the OCS students, but instead works to modify and adapt the curriculum to enhance the OCS classroom teacher's instruction.

In addition to weekly planning time which occurs over the phone, or other synchronous methods at a time that is mutually agreed upon, both instructors work together on a daily basis through a Web-based Google document to follow-up on student progress, submitted work, and planning. The classroom teacher provides notes on class progress, details about upcoming assignments or projects, and specific student recognitions or challenges, and the NCVPS teacher then responds with ideas or resources that can help students as soon as the next school day. The Google document is not only intended to record academic progress or questions (Lourcey, 2014), but to also include notes of mention about student behaviors or social gains. A breakdown of

tasks for the EC and virtual teachers is below (Figure 3), and the program model itself is also referenced in Figures 1 and 2 in Chapter One.

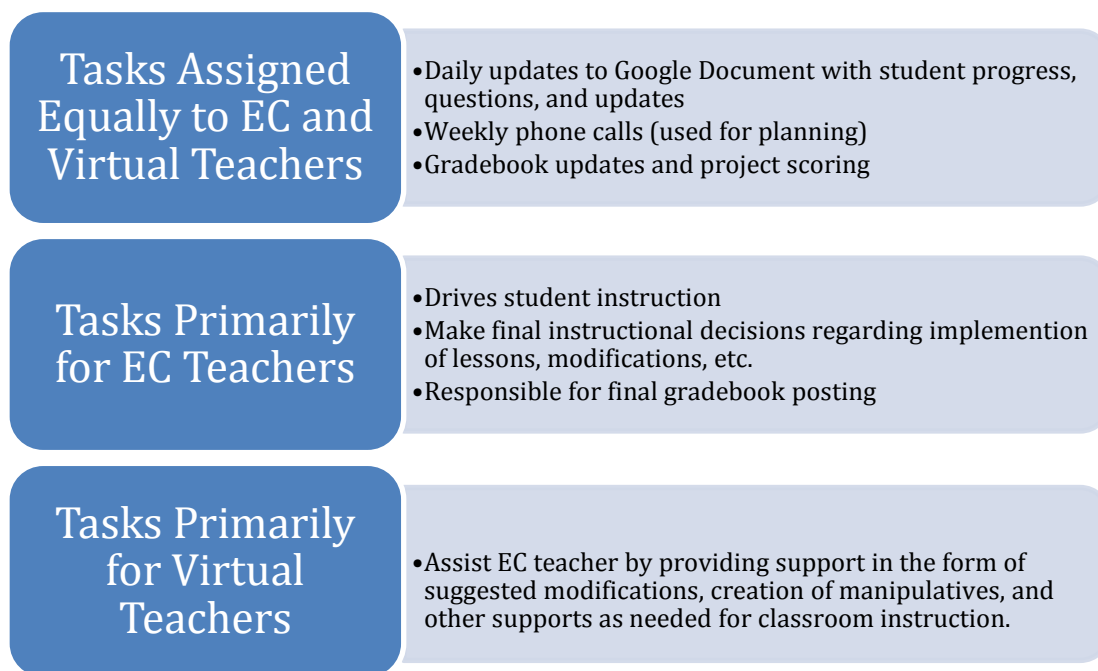


Figure 4. Expectations for Tasks in the NCVPS OCS Model

The department of public instruction evaluates EC teachers, and the virtual teachers are subject to spot checks by NCVPS administrators. The goal of NCVPS evaluations of its virtual teachers is to ensure that they are providing adequate resources and communication to ensure the needs of the EC teacher, and the OCS students, are being met.

Setting

This study seeks to describe the elements of care given and received by EC and virtual teachers paired together through the blended program at NCVPS. NCVPS operates with the full cooperation of the public school districts in its state and is considered one of the largest state-run online schools in the country (History, 2013; NCVPS Annual Report, 2012). The result, according to school press materials, is a highly personalized and individualized teaching model

which was demonstrated by a national recognition conferred upon the OCS course program in 2011 (NCVPS Annual Report, 2012). There are few, if any other kinds of programs offering this type of experience for students with disabilities, yet this program is succeeding, based on administrator, teacher, and student perspectives available through their website. What is lacking is a rigorous search for understanding of the program, which is the rationale for choosing this site and specifically the OCS program, for this study.

Survey Instrument

The survey instrument created for this research (Appendix B) starts with basic demographic questions to provide a context for the teacher's response (classroom vs. virtual teacher). The second section of the survey includes one section for each component of the Ethics of Care framework (modeling, dialogue, practice, and confirmation). Each section lists three activities that were either described as requirements of the blended teaching program in NCVPS materials or identified during the pilot study and found to be associated with that specific component of care. For example, the activity "enter information using the NCVPS OCS mandated Google document" is a task that is expected equally of virtual and EC teachers and was sorted in the survey under the care component of "dialogue." The survey seeks to describe how frequently the virtual and EC teachers perform these 12 different indicators of care within the four components of care. The survey also included four open-ended questions, one per each component of care, asking teachers to describe other activities they conduct that might fit into that component of care.

Survey Implementation

The participants responded to an open recruitment letter sent through a distribution list maintained by the school itself (Appendix B). Selection criteria required participants to be a

classroom OCS teacher currently teaching OCS students in a face-to-face environment, or the content-area virtual teacher, and included experiences from both perspectives to the greatest extent possible.

This survey was conducted in three waves using a variety of modes. The first wave included an emailed pre-notification note sent to the NCVPS email address on file. The pre-notification note contained the survey URL with a login code that the recipient could use to access the survey. The survey itself prompted users to enter an e-mail address, which was later removed, to verify the respondent's identity and remove duplicate survey attempts, and so that responses could be recorded appropriately, allowing me to track participants' attempts, as well as any breakoffs (attempts but no submission). A link to recover this code was provided on the survey login page, should any teacher find that the information has been misplaced. The survey itself was conducted via the web with a login code and password. Although not possible, the goal was for the survey to be something that popped up automatically in a selected respondent's Blackboard (LMS) home page.

For the second wave, an e-mail reminder was sent to all members in the sample to thank those who have completed the survey, and remind those who have not completed the survey, and again included the URL and login code. Consistent with studies about e-mail invitations, this second wave invitation contained an explanation as to the importance of the survey, how it would be used, and the URL and login code was placed at the bottom of the email with a clickable link (Tourangeau, et al., 2013, p. 46; Dillman, Smyth, & Christian, 2009, pp. 23-31). The third wave was an email reminder sent to non-respondents to reach the minimum responses needed for a 95% CI with a margin of error of +/- 4%.

There are substantiated reasons for choosing this particular model for delivery modes, including the suggestions of Dillman (2009) whose Tailored Design Method is designed with an introductory (pre-notification) letter, to be followed by the survey itself, with a reminder, to increase the likelihood of a higher response rate. With a basis in social exchange theory, that was designed in part to help explain why someone would do something else for another person (fill out a survey, for example), the purpose of utilizing a tried and true method for surveys is to establish a relationship with respondents in exchange for a higher response rate, and lower survey errors, mentioned in the limitations section below in more detail.

Web-based surveys are appropriate for a sample that has Internet access; we can safely assume this is true for any teacher working in the NCVPS OCS blended program because many of the program requirements (Google Documents, etc.) are only accessible online. In further support of this choice of survey delivery, web-based surveys are inexpensive; they are a low-cost way of increasing sample size to help lower nonresponse rates (Tourangeau, Conrad, & Couper, 2013, pp. 2, 37). By using a list-based probability sample, I was able to better generalize to the teacher population, avoiding traditional web survey concerns of sampling and coverage errors that often plague nonprobability Web survey samples.

Evaluation of Instrument

Measurement and response issues can plague any survey instrument, and make it more difficult to generalize from survey data. In order to prevent issues with this survey design, there are several steps that were taken. Construct validity was addressed through the use of multiple sources of evidence gathered in the form of interviews (Pilot phase) and both open and closed survey questions. Internal validity was addressed in the form of pattern matching and explanation building. The research questions posed provide a measure of external validity because they can

help provide for analytic generalizations. Case study protocol provided a measure of reliability. For this particular study, feedback was received from several teachers before administration of the survey to make sure the questions read clearly. Case study procedures documented here would allow an auditor to repeat the survey procedures.

Analysis of the Data

Using data from teachers, it is possible to look for patterns of information that can provide understanding of the unique phenomenon of the NCVPS OCS blended program. Teacher responses about various activities they experience with their co-teacher may be connected to the four kinds of care mentioned in the framework. If the goal is to understand the examples of care found in the NCVPS OCS program, and how they may align with the Ethics of Care framework, a two-step analysis process is favorable.

To answer the first research question, “How frequently are specified elements of care practiced by virtual and EC teachers participating in the NCVPS OCS program?” the first step in analysis was to compute frequencies to represent how often teachers reported participating in specified activities under each of the four elements of care (modeling, dialogue, practice, and confirmation). T-tests were also computed to determine if one group (virtual teachers versus EC teachers) performed a specific activity more frequently than the other group, addressing the second part of the first research question or “is care mutually beneficial or performed by one group more than another?”

To answer the second research question, “Can examples of constructs of care be found in the NCVPS OCS program, and what do they look like in this context?” the second step in analysis was to pattern match the open-ended statements made by survey respondents with the four elements of care. While teachers were asked to report additional activities that they conduct

that matched with a specific element of care, their lack of familiarity with the elements of care framework resulted in teachers sometimes describing activities in certain sections of the survey (e.g., dialogue) that actually represented a different element of care (e.g., modeling). Thus, there was a need to pattern match their statements and place them under one or more of the four elements of care to which they best applied.

Pattern matching is one of the most trusted techniques used in case study research, and in a descriptive case study such as this, is valid because the pattern of descriptive conditions was predicted prior to analysis (Yin, 2014). In this study, it was predicted based on pilot study results and knowledge of the Ethics of Care framework that examples of the four categories of care would be present in survey results. Pattern matching in this research design will come from the open-response statements from participants, and do not involve quantitative criteria.

A third phase of analysis conducted after pattern matching was an open coding of the participant statements for meaning. This phase addressed the third research question, or “What forms of support do these examples of care represent?” After participant statements were sorted into their respective categories of care based on the study’s framework, open coding was applied to determine what broad categories may be present in those statements that could provide context for what the elements of care look like in the NCVPS OCS blended setting. This is an important step because it can potentially provide a layer of understanding and context to the Ethics of Care framework, and more specificity for how the NCVPS OCS program operates from that lens. After open coding statements into categories, the final phase of this analysis determined what, if any, themes of support were present.

Limitations of the Study

This research design brings with it several potential limitations; some related to the research site and intervention being studied, and others related to the survey instrument. These limitations will be discussed here.

Limitations Related to Time

It could be said that the time it takes for teachers to develop caring relationships would make it difficult to study within the frame of a typical semester. However, teachers paired together in the NCVPS blended model must immediately begin working together, and continue a continuous working relationship throughout the course of the semester. They are immersed in their work together, and because they are asked to communicate on a daily basis, with the classroom EC teacher relying on assistance from the NCVPS teacher, caring and evidence of caring, can and does appear within a brief amount of time. NCVPS teachers in the pilot study reported that even one month after the start of a semester, EC teachers who were hesitant or even negative about their participation in the OCS Blended Courses were able to see the benefits of their paired teaching relationship. All three teachers in the pilot study indicated that they had formed close bonds with their co-teachers and stayed in contact after the semester was over, showing it is possible for caring to develop among teacher pairs in a semester. As the content and resources for each blended class are modified daily, there are constant reminders and growing evidence to demonstrate caring.

Limitations Related to Self-Selection Bias

An additional concern is that the teachers participating in the NCVPS OCS program are already caring in their work, and would not be a part of the program otherwise. It is true that from the NCVPS perspective, their virtual teachers are self-selected and may choose to work

with the blended courses because of prior work with OCS students, and a desire to teach in a blended setting. However, this is not necessarily true for the classroom teacher. Administrators at any public high school may elect to sign up their EC teachers for one or all four OCS classes, with little or no notice or explanation of the program prior to that announcement. The NCVPS teacher, in that case, must work with an EC teacher who may be uninformed and uninterested, or unwilling to work together. Caring is not predetermined in this case, because the EC teacher does not have the option of self-selection in the sense that the NCVPS teacher does. This could easily result in a blended teaching situation where caring does not develop, or where a more hostile setting results from EC teachers who feel forced into a partnership with the NCVPS.

Limitations Related to Prior Experiences with Co-Teaching

As is the case with potential self-selection, the NCVPS teachers may look favorably at working with the OCS program because of prior experience with co-teaching. Each of the three NCVPS teachers interviewed for the Spring 2013 pilot study indicated they had taught in a co-teaching classroom prior to working with NCVPS, and that they enjoyed the camaraderie of that particular teaching environment. In contrast, there is no guarantee that the EC teacher has worked in a co-teaching situation before being paired with an NCVPS teacher. If the EC teacher is a new teacher, or has worked exclusively with OCS students, who by their designation cannot be mainstreamed or taught in an inclusion setting, he may not have experience in a co-teaching situation. Additionally, even if both the NCVPS teacher and the EC teacher have prior experience in a co-teaching situation, there is no guarantee that it was positive. The experience could have been a bad one, which would not lead to a better state of mind or thinking about blended co-teaching.

Limitations Related to Lack of Need for the NCVPS Program

While it is true that teachers of OCS students in the classroom are highly trained, there is documentation that there is a need for this program. Prior to the 2010-2011 school year it may have been easier for an EC teacher working with OCS students to provide quality care without the NCVPS program. The overarching reason for creating the blended program came from changes mandated by the U.S. Department of Education (DOE), who during the 2008-2009 school year issued an order to the state of North Carolina to ensure that OCS courses were being assessed on the same content as those in other standard courses of study (“Assessment and Implementation Development Timeline,” 2010). According to the DOE, because the OCS students were assessed on different content standards, their scores could not count toward Annual Yearly Progress. Therefore, in order for OCS courses to be considered valid, EC teachers had to cover the same content areas and objectives as other NC public high school classes.

Before these changes, OCS students were taught life skills and a general, practical curriculum, but once EC teachers became responsible for standardized content across the curriculum, they also had to become both content area experts in addition to their other duties working with OCS students. This completely changed the scope of the content area knowledge EC teachers need to have, especially because their students do not switch classes, and stay with the EC teacher all day. For that reason, the addition of a qualified content-area resource like an NCVPS teacher can help make all the difference in ensuring coverage of the content area objectives are being met. This is what administrators at NCVPS feel is the most important reason for their OCS program; it gives EC teachers the ability to rely on and work with content area teachers so that they can continue to focus on their work with OCS students.

Limitations Related to Survey Design

This survey design carries with it several limitations that may result in various error issues. These limitations are anticipated to come in the form of coverage, nonresponse, and measurement errors.

Firstly, although it was necessary to explain the concepts of care as they pertain to the OCS model, the introductions to the scale questions for modeling, dialogue, practice, and confirmation could be considered leading questions. The wording in the questions could cue respondents to answer that they participate in these actions more frequently than they actually do, because although the survey was anonymous, the respondent would not want to be perceived as not caring.

When a target population is included in a sampling frame, it is known to be covered (Groves, et al, 2009). However, there is no perfect way to ensure that all target populations will be covered, and the resulting error is present in nearly all sampling frame designs. Coverage errors can be detrimental to the results of a survey, rendering it inaccurate and less likely to produce reliable results. Understanding the target population and how the frame may represent and include the target population is important to determine if under coverage, ineligibility, clustering, or duplication has occurred. In terms of this survey, coverage error should be less of a threat than other forms of error because it can be assumed that a list of all NCVPS OCS teachers is available which contains exact information. However, there is no guarantee that the list will have been updated to include newly hired teachers, or to remove staff or faculty who no longer work with the program. It will be important to understand what information is provided by NCVPS and to what extent it may or may not be complete.

Another type of error that is difficult to avoid completely is nonresponse error. This type of error occurs when someone either fails to respond to a survey entirely, or does not complete an item on a survey (Groves et al, 2009). In this case, survey respondents, who were initially notified by a postal mailing to their school mailbox, and then received the e-mail through the Internet, may have decided not to respond due to reasons of timing or indifference. The survey could also not get to that person, in a failure of the e-mail system to send it to the appropriate mail inbox. Respondents may find that certain questions, while worded to ensure clarity and relevance, may be difficult to answer and decide to skip them, because they cannot provide appropriate answers. While the initial sample may “strive to ensure an equal number” of NCVPS OCS teachers from across the different subgroups, if a larger proportion of one of those groups answers, there will be an issue of overrepresentation as it applies to nonresponse issues (Groves, et al, 2009). Using a weighted distribution, it may be possible to balance the number of responses on each group.

Although it has been determined that the nature of the requested information in this survey is not highly personal or sensitive, whenever someone is asked to provide information and opinions related to their job, there is a chance that what is reported may differ from the actual answer. This is called measurement error. Because teachers are not in the habit of answering surveys about their personal attitudes, it may not be easy for a teacher working in the NCVPS OCS system to admit certain negative opinions, if they exist. Additionally, depending on other affiliations the teacher may have, it may be true that he or she would not feel comfortable showing dissatisfaction with the current system at NCVPS. Regardless of the reason, if there is a deviation from the true value of a survey question for any reason, measurement error has occurred. Having an anonymous survey may help prevent this kind of measurement error.

Ethical Issues

Any research study carries the risk of ethical issues regarding intellectual property, and the treatment of study participants. Steps have been taken to ensure the highest ethical considerations have been met. Specifically, an Institutional Review Board (IRB) approval will be granted for the study prior to beginning any data collection, and steps were taken to ensure the privacy of pilot study participants. The researcher does not have any affiliation with the research site, and has not been compensated in any way for her work in this study.

Conclusion

The pressures on educators in this country continue to grow. Demands to increase testing scores, as well as provide differentiated instruction and lifelong learning skills are important to teachers, who are asked to do a lot for their students while navigating issues related to finance, technology, and policy (Christensen, Horn, & Johnson, 2008). In the case of OCS students, and in general, the nearly 7 million students receiving special education services in this country, the need to ensure “meaningful access to the general curriculum” is just as crucial, but requires even more planning and dedication (Friend, 2011, pp. v, 4). This research design provided a closer look at the goals and objectives to be explored further.

A good research design should make sense, and be understandable to the reader. If in fact, blended courses taught as a collaborative co-teaching experience may provide OCS students with more access to quality instructors and individualized learning, there is the opportunity to graduate more of these students into a world where they have the skills to thrive and be successful. Taking into account methods for ensuring validity of the survey instrument, as well as the limitations of the study as they present themselves here, the researcher presents findings and analysis in the final two chapters of this research study.

CHAPTER 4: RESULTS

This research study aimed to identify and classify examples of care received and given by teachers working with the NCVPS OCS blended program. Specifically, this study attempted to determine how frequently specified elements of care are practiced by virtual and EC teachers participating in the NCVPS OCS program, and whether examples of constructs of care could be found in the NCVPS OCS program. Both the virtual teachers and the EC teachers provided information from an original survey instrument designed to measure their degree of experience with various aspects of care as it applies to their co-teaching relationship in the NCVPS OCS program. Respondents were also asked to include additional demographics related to teaching experience, educational background, age, race, and gender. In this chapter, the results of the study are presented in three sections: Population and sample, results of the research questions, and a summary of the survey results. Results of the research questions will be broken down into three sub-sections: Frequencies and/or cross tabulations, qualitative examples as they relate to that category of care, and open coding of those responses.

Population and Sample

The target population, or “set of units to be studied” for this survey (Groves, et al, 2009, p. 44) was the entire set of EC and virtual teachers working for the NCVPS OCS program. This includes teachers working in multiple content areas, and with multiple partner teachers. Although there is sometimes the potential for a target population to be very abstract, as in the case of a survey attempting to represent the entire population of American teenagers, there is enough specificity in this survey’s target population to determine a finite size.

From this target population, the frame population, or sampling frame, was drawn. This survey used an internal NCVPS list that served as its target population, its sampling frame, and

the sample itself, which covered all teachers working with the NCVPS OCS program. It was the same as the sampling frame, in order to prevent limitations on those who would choose to respond.

Using contact information from NCVPS administrators, both EC and virtual teachers received emailed letters in three waves. Outreach included a first-wave pre-notification letter and e-mail reminders to non-respondents. Consistent with studies about e-mail invitations, the second wave invitation contained an explanation as to the importance of the survey, how it would be used, and the URL and login code was placed at the bottom of the email with a clickable link (Tourangeau, et al., 2013, p. 46; Dillman, Smyth, & Christian, 2009, pp. 23-31). The third wave was an email reminder sent to non-respondents in an attempt to reach the minimum responses needed for a 95% confidence interval with a margin of error of +/- 4%.

In total, 188 respondents attempted the survey, with a completion rate of 167, or 91%. Of this number, 122 respondents were EC teachers, 41 were virtual teachers, and 4 respondents indicated they hold a position that is not considered either an EC or virtual teacher. Considering that virtual teachers made up approximately 30% of the original population, they were almost as equally represented in their response rate of 25%. Overall, the completion rate is half (49%) of what was needed to reach the optimal 95% confidence interval. Within this sample, the following demographics were collected and analyzed for frequencies, means, and standard deviations.

Results of the Research Questions

To answer the research questions, it was necessary to look at each construct of care (modeling, dialogue, practice, and confirmation) to determine which groups identify as giving and receiving that care. The data for each category of care is organized into three sections: Frequencies and/or cross tabulations, which answer the first research question, qualitative

examples as they relate to that category of care, which answer the second research question, and open coding of those responses. If there were any significant t-test results that show significant differences between EC and virtual teachers at $p < .05$, that will be noted following each cross tabulation. It is appropriate to use these measures because the sample size is greater than the standard number of 30 ($n_1 + n_2 \geq 30$).

Modeling

In this section of the survey, participants were asked to identify on a scale how frequently they participate in the following acts:

- Listen and respond to my co-teacher(s) ideas with an open mind and receptive feedback.
- Give my co-teacher(s) the chance to share ideas and try new methods of instruction without pressure or coercion.
- Responding to my partner teacher's requests for information and support with authentic feedback.

Options for these questions included: 1 (almost never, less than once a month), 2 (rarely – less than once a week), 3 (sometimes – once a weekly), 4 (frequently, several times a week), and 5 (almost always – daily). Overall, respondents reported completing these actions frequently (several times per week), and no respondents indicated that they do these things almost never or rarely.

Frequencies for Modeling Questions. The table below displays means, standard deviations, and frequency/percentage counts for both EC and virtual teachers for the modeling questions listed above. This information most directly answers research question one, “How frequently are specified elements of care practiced by virtual and EC teachers participating in the

NCVPS OCS program, and is care mutually beneficial or performed by one group more than another?”

Table 3. Descriptive Statistics for Set of “Modeling” Questions

Item	Mean	Standard Deviation	Almost Never	Rarely	Sometimes	Frequently	Almost Always
Modeling: Listen	EC: 4.55	.644	0	0	10 (8% ¹)	30 (25%)	71 (58%)
	Virtual: 4.72	.615	0	0	3 (7%)	4 (10%)	29 (71%)
Modeling: Receive Ideas	EC: 4.51	.632	0	0	8 (7%)	38 (31%)	65 (53%)
	Virtual: 4.76	.600	0	0	3 (7%)	3 (7%)	31 (76%)
Modeling: Respond	EC: 4.57	.615	0	0	7 (6%)	34 (28%)	70 (57%)
	Virtual: 4.86	.701	0	0	1 (2%)	3 (7%)	33 (80%)

¹ Numbers in parentheses indicate percentage of respondents in that group who chose that option.

The survey results from the modeling set of questions show that in all instances, EC and virtual teachers report frequent rates of listening and responding to their co-teachers, receiving ideas, and responding information and feedback. There were no statistically significant test results from this series of questions.

Qualitative Examples of Modeling Care. In both interactions and academically-minded tasks, instructors in a blended setting need to actively seek out teachable moments and in all situations act with respect and consideration for each other. This is modeling; when behaviors display care for another without needing to say so outright. In pattern matching and placing open-ended comments under a particular construct of care, several statements were sorted under this construct of modeling (see Appendix C). Statements were then open-coded and categorized to describe specific types of modeling that take place in the NCVPS OCS program. To further understand the context that modeling care takes in the NCVPS OCS program, open coding revealed the categories listed below.

By far the most common form of modeling care provided by Virtual teachers to EC teachers was sharing instructional ideas and resources. Thirteen EC and four Virtual teachers discussed Virtual teachers providing a variety of materials and ideas to support EC teachers' instruction, including: demonstrations for teaching concepts, video-based presentations, sample study guides and tests, homework worksheets, lesson plans for substitute teachers, and Web links. In three comments, EC teachers suggested sharing of instructional ideas was "back and forth," or two-way, but the majority of comments seemed to suggest this form of modeling care is typically provided from Virtual to EC teacher for classroom use:

My NCVPS partner teachers go out of their way to make sure I have the materials and any extra support I need. [EC teacher]

In the past, several of my NCVPS co-teachers have shared study guides and tests for different novels. My math co-teachers share worksheets that I can use as homework assignments. [EC teacher]

Helped support the teacher when they needed extra materials/demos to teach a concept. [Virtual teacher]

As a sub-category of providing instructional ideas and resources, two EC teachers noted that their Virtual teacher partners used technology effectively to motivate OCS students. Comments were vague, but would suggest the Virtual teacher provided a model that the EC teacher might learn to adopt:

Online teacher is very creative with technology. Always finds ways to communicate with students in fun ways. [EC teacher]

The second most common form of modeling care mentioned by seven EC teachers and three Virtual teachers was Virtual teachers providing help to differentiate materials and lessons to accommodate student needs, which is a primary goal of the NCVPS OCS program:

Online teacher sends additional information that is individualized when we discuss a struggling learner. [EC teacher]

My co-teacher modified test for my students. This really helped them pass the material covered in the lessons. [EC teacher]

My co-teachers listen to my concerns and adapt the lessons to meet the needs of my students. [EC teacher]

Very willing to help in given modified assignments upon request. [EC teacher]

Email with individualized learning activities and games. [Virtual teacher]

Frequently create extra print resources to meet the needs of individual students based on an observed need. [Virtual teacher]

Only one category of modeling care appeared to run from EC teacher to Virtual teacher, as mentioned by two EC teachers, and that was EC teachers reminding their students to follow through with activities posted by the virtual teacher or to message the Virtual teacher. Although the Virtual teacher may not know about these reminders, the act of recognizing the Virtual teacher's role in classroom practices can be considered modeling care here:

Backing up what the online teacher requests from the students by assisting the students with follow through. [EC teacher]

Encouraging my students to message their virtual teacher. [EC teacher]

Dialogue

In this section of the survey, participants were asked to identify on a scale of 1-5 how frequently they participate in the following acts:

- Enter information using the NCVPS OCS-mandated Google Document.
- Meet via phone call at the designated time each week to discuss current student needs.
- Reach out to my partner teacher(s) when challenges arise.

Options for these questions included: 1 (almost never, less than once a month), 2 (rarely – less than once a week), 3 (sometimes – once a weekly), 4 (frequently, several times a week), and

5 (almost always – daily). Overall, respondents reported entering information on the NCVPS-mandated Google Document frequently (several times per week).

Frequencies for Dialogue Questions. The table below displays means, standard deviations, and frequency/percentage counts for both EC and Virtual teachers for the dialogue questions listed above. This information most directly answers research question one, “How frequently are specified elements of care practiced by Virtual and EC teachers participating in the NCVPS OCS program, and is care mutually beneficial or performed by one group more than another?”

Table 4. Descriptive Statistics for Set of Dialogue Questions

Item	Mean	Standard Deviation	Almost Never	Rarely	Sometimes	Frequently	Almost Always
Dialogue: Google Doc	EC: 4.82	.485	0	1 (.9%)	2 (2%)	13 (12%)	94 (85%)
	Virtual: 4.85	.654	0	0	1 (2%)	2 (5%)	38 (93%)
Dialogue: Phone Call	EC: 3.75	.930	0	1 (.9%)	62 (56%)	11 (10%)	37 (33%)
	Virtual: 4.49	.711	0	0	5 (12%)	11 (27%)	25 (61%)
Dialogue: Reach Out	EC: 3.85	1.10	2 (2%)	13 (12%)	28 (25%)	28 (25%)	40 (36%)
	Virtual: 4.37	.830	0	1 (2%)	6 (15%)	11 (27%)	23 (56%)

The survey results from the dialogue set of questions show that these three indicators of dialogue were performed at least sometimes by EC and Virtual teachers. There were no statistically significant test results from this series of questions.

Qualitative Examples of Dialoguing Care. In the NCVPS OCS program, dialogue is exhibited as a result of not only a volume of communication, but also personalized and individualized communication that promotes a sense of care and concern. In pattern matching and placing open-ended comments under a particular construct of care, several statements were

sorted under this construct of dialogue (see Appendix D). Statements were then open-coded and categorized to describe specific types of dialogue that take place in the NCVPS OCS program. Open coding revealed a closer look at the context of dialoguing care in the NCVPS OCS program.

Three forms of mutual dialoguing between Virtual and EC teachers were mentioned in participant comments. The most frequently mentioned form of dialoguing was a weekly phone call between EC and Virtual teacher partners as mandated by NCVPS, mentioned by 13 EC and four Virtual teachers: “We talk on the phone once per week.” The second most frequently mentioned form of dialoguing was updating a shared documentation log in Google as mandated by NCVPS, mentioned by eleven EC and two Virtual teachers: “Daily correspondence via a co-teacher documentation log.” The third most frequently mentioned form of dialoguing was Virtual and EC teachers sending emails and texts to one another, mentioned by two EC and three Virtual teachers: “Emails and texts also factor into dialogue.”

Two forms of dialoguing initiated by the Virtual teacher were mentioned in participant comments. First, one Virtual teacher discussed dialoguing with NCVPS instructional leaders when they could not solve an issue that an EC teacher faced: “I seek help from my Instructional Leaders when my co-teachers and I have a problem we can't solve alone.” This is a part of structured support protocol in the NCVPS system. Second, three EC teachers and one Virtual teacher described how the Virtual teacher used the announcements section of online courses to dialogue with EC students. These announcements took many forms from reminders to lesson review audio/video to encouragement:

Daily review videos and audios on the announcements about the lesson. [EC teacher]

The students were particularly stressed about testing and the holidays. ... I focused the next day's daily announcement on a video of a group of high school students singing/acting to "Don't Worry Be Happy." [Virtual teacher]

Participant comments suggested EC-Virtual teacher dialogue broached at least five topics. By far the most dialogued topic was personal connections, with many teachers describing how they took the time to get to know one another's families and students and built personal relationships with each other. As this form of dialogue fits better under the "confirmation" construct of care, it is discussed further in a later section.

The topic mentioned second most frequently by three EC and one Virtual teacher was dialoguing about student progress and grades, which according to NCVPS administrators, is a shared task that should be driven by the EC teacher:

I communicate non-confidential grade info on g-doc or on weekly call. [EC teacher]

Provide daily updates about students' progress. [EC teacher]

Third, two EC and two Virtual teachers noted their dialogue involved Virtual teachers troubleshooting technical issues for EC teachers and their students: "respond quickly when troubleshooting is needed or some document didn't load from the course." Fourth, two EC teachers and one Virtual teacher mentioned that dialoguing involved discussing problems with specific students: "I always contacted my NCVSP OCS teacher regarding any discipline issues or absenteeisms for our students." Finally, one Virtual teacher described how dialogue involved conversations about instruction and how to best teach concepts to students: "The EC teacher is the expert in modification - I am the content expert. Together we troubleshoot and look at the best way to teach students concepts and help them overcome misconceptions."

Practice

In this section of the survey, participants were asked to identify on a scale how frequently they participate in the following acts:

- Consistently communicate (via email, shared documents, phone calls, etc.) with my partner teacher(s).
- Maintain a current shared Google Document with student updates and information that is entered on time.
- Provide current grades for designated assignments.
- Utilize technology resources as necessary for instructional purposes.

Options for these questions included: 1 (almost never, less than once a month), 2 (rarely – less than once a week), 3 (sometimes – once a weekly), 4 (frequently, several times a week), and 5 (almost always – daily). Overall, respondents reported completing all of these actions frequently (several times per week).

Frequencies for Practice of Care Questions. The table below displays means, standard deviations, and frequency/percentage counts for both EC and Virtual teachers for the practice of care questions listed above. This information most directly answers research question one, “How frequently are specified elements of care practiced by Virtual and EC teachers participating in the NCVPS OCS program, and is care mutually beneficial or performed by one group more than another?”

Table 5. Descriptive Statistics for Set of “Practice” Questions

Item	Mean	Standard Deviation	Almost Never	Rarely	Sometimes	Frequently	Almost Always
Practice: Consistent	EC: 4.6	.667	0	2 (2%)	3 (3%)	28 (25%)	78 (70%)
	Virtual: 4.88	.331	0	0	1 (2%)	7 (17%)	33 (80%)
Practice: Maintain Google Doc	EC: 4.70	.687	1 (1%)	2 (2%)	2 (2%)	19 (17%)	85 (77%)
	Virtual: 4.78	.475	0	0	0	5 (12%)	36 (88%)
Practice: Maintain Grades	EC: 4.09	1.06	4 (4%)	5 (5%)	15 (14%)	37 (33%)	47 (42%)
	Virtual: 4.63	.581	0	0	2 (5%)	11 (27%)	28 (68%)
Practice: Tech. Resources	EC: 4.69	.648	1 (1%)	1 (1%)	2 (2%)	24 (22%)	78 (70%)
	Virtual: 4.95	.218	0	0	0	2 (5%)	39 (95%)

When practice questions were examined for statistically significant differences between groups, Virtual teachers self-reported that they regularly update grades more frequently than EC teachers. Additionally, NCVOS OCS employees who were trained as traditional classroom teachers reported updating grades more frequently than those whose training and prior experience to joining NCVPS was connected to EC or special education classrooms. Also, Virtual teachers indicated they used technology resources more frequently.

Qualitative Examples of Practicing Care. In a co-teaching environment, the practice of care extends beyond communication with each other, which may fall under dialogue of care. Teachers involved with a practice of care find opportunities to participate in caring in *consistent* ways across many different types of situations. Whether in big moments or “smaller” situations, practice involves a repeated effort to demonstrate care each and every time. In pattern matching and placing open-ended comments under a particular construct of care, several statements were sorted under this construct of practice (see Appendix E). Statements were then open-coded and categorized to describe specific types of practice that take place in the NCVPS OCS program. Categories found through open coding are described below.

Teachers going beyond the mandated communication of the program (i.e., one weekly phone call, daily updates in shared Google Doc) to initiate their own more frequent phone calls and text messages was the most common representation of the practice of care in this study mentioned by four Virtual and three EC teachers. Virtual teachers referred to this practice as “checking in,” demonstrating their concern for EC teacher partners, and some described making an extra effort to “check in” by placing multiple calls until their EC partner could be reached, or using an alternative form of communication to reach their EC partner teacher (e.g., text message). All partners noted the “critical” importance of regular communication to the success of the program, and Virtual teachers in particular seemed to understand and accept that their partner teachers may have challenges specific to their position as EC teachers:

When I know my teacher is having a particularly hard week, I will call multiple times to check in beyond the scheduled appointment. [Virtual teacher]

I try to be understanding of their busy schedule and paperwork, so if they do not answer the first time I call in a week, I will comment that I will try the same time the next day. Or, I will text them to find an alternate time if I know they have another co-teacher to talk with or staff meeting that next day of the week. Weekly phone calls are CRITICAL to me being able to help them well! [Virtual teacher]

The google doc is key - this allows us to communicate even on days without texts/calls. I try to text at least 2 other times per week to check in. [Virtual teacher]

The weekly (sometimes even more) phone calls never seemed rushed to me, and they always took their time and listened (as did I). The communication, although sometimes it was a lot of time, was key to making this work. [EC teacher]

The practice of care in the blended NCVPS OCS program extended beyond paired co-teachers to include the OCS students as well. Two Virtual teachers and three EC teachers described how the Virtual teacher would commonly recognize OCS students through announcements, mention them by name, pick a student of the week to recognize, or otherwise give “shout outs” of recognition: “I had a co-teacher who would pick a student of the week, and I

would share pictures when we did labs and she would post them on the announcement page.” In addition, five EC teachers described strategies by themselves and their Virtual teacher partners to help the Virtual teacher partner get to know the OCS students better. In some cases, EC teachers would send photos of their students to their virtual partner, and one EC teacher indicated their Virtual teacher partner was planning to visit their classroom in person to meet and get to know the students, which is not a requirement of the program:

I try to send videos and/or pictures of my students in the classroom weekly so that the online teacher can feel like s/he can really "get to know" the students and understand their needs. [EC teacher]

One of my NCVPS co-teacher is planning on visiting the students so that she could meet them in person. [EC teacher]

Confirmation

In this section of the survey, participants were asked to identify on a scale how frequently they participate in the following acts:

- Support my co-teacher(s) in challenging moments or situations.
- Provide encouragement and affirmation of my partner teacher(s) ideas and suggestions.
- Receive encouragement and affirmation from my partner teacher(s).

Options for these questions included: 1 (almost never, less than once a month), 2 (rarely – less than once a week), 3 (sometimes – once a weekly), 4 (frequently, several times a week), and 5 (almost always – daily). Overall, respondents reported completing these actions frequently (several times per week).

Frequencies for Confirmation of Care Questions. The table below displays means, standard deviations, and frequency/percentage counts for both EC and Virtual teachers for the confirmation of care questions listed above. This information most directly answers research question one, “How frequently are specified elements of care practiced by Virtual and EC

teachers participating in the NCVPS OCS program, and is care mutually beneficial or performed by one group more than another?"

Table 6. Descriptive Statistics for Set of Confirmation Questions

Item	Mean	Standard Deviation	Almost Never	Rarely	Sometimes	Frequently	Almost Always
Confirmation: Support	EC: 4.06	1.09	2 (2%)	11 (10%)	15 (14%)	30 (28%)	49 (46%)
	Virtual: 4.76	.489	0	0	3 (7%)	10 (36%)	28 (68%)
Confirmation: Encourage	EC: 4.31	.837	0	4 (4%)	15 (15%)	24 (24%)	56 (57%)
	Virtual: 4.78	.475	0	0	1 (2%)	6 (15%)	33 (80%)
Confirmation: Receive	EC: 4.36	.779	0	2 (2%)	15 (15%)	24 (24%)	58 (59%)
	Virtual: 4.63	.581	0	0	1 (3%)	7 (18%)	32 (80%)

There was one statistically significant item from this set of questions. EC teachers reported receiving more encouragement and affirmation than Virtual teachers. On this item, a significant difference was also noted with regard to prior role. Participants who came from EC classrooms reported receiving more care than participants with traditional classroom experience.

Qualitative Examples of Confirming Care. When teachers are involved in the confirmation aspect of caring, they confirm, nurture, and encourage their co-teacher(s) and recognize something admirable in that person. Confirmation of care is revealed when co-teachers identify the positive development of those they work with, even in the midst of challenges. In pattern matching and placing open-ended comments under a particular construct of care, several statements were sorted under this construct of confirmation (see Appendix F). Statements were then open-coded and categorized to describe specific types of confirmation that take place in the NCVPS OCS program. Immediately below are categories of confirmation of care as they relate to the NCVPS OCS blended setting.

The most common form of confirmation in this study was co-teachers taking the time to get to know one another personally beyond their professional contact, mentioned in 16 comments by nine Virtual teachers and seven EC teachers:

I develop a semi-personal relationship with my co-teachers. I know about their families, their children, their grandchildren. We talk about vacations, weekend getaways, things going on in their lives (theater participation, t-ball, etc), home repairs and any number of other things that impact their lives and my life. [Virtual teacher]

I work to get to know my co-teachers beyond the teacher relationship. During our weekly chats I ask about their families and lives outside of school. [Virtual teacher]

Remembering important school and personal dates, making mention of it, remembering things going on in each other's lives and talking about those. [EC teacher]

Related to these personal connections to one another's lives were comments by seven Virtual and three EC teachers that indicated co-teachers sent greetings to one another on holidays and special occasions such as birthdays. These greetings were often in the form of e-cards, but might also be a simple message that a teacher will: "Send e-cards; remember them on holidays."

A specific form of confirmation mentioned by five EC and three Virtual teachers was encouraging one another through difficult or challenging times. Also, two EC teachers noted that Virtual teachers provided encouragement to their students through such means as messages or class announcements. Encouragement was frequently but not necessarily communicated in the form of a card, sent via mail or virtually:

Sending notes and cards to each other on particularly difficult weeks, and even simple short texts/emails/calls of encouragement. [EC teacher]

I work at a residential facility that has a charter school on the campus, so our students have some issues, and it's difficult on a teacher emotionally. They all made sure I was okay and had everything I needed. [EC teacher]

Mailing them cards as pick-me-ups... [Virtual teacher]

I encourage them on bad days and allow them to vent to me. [Virtual teacher]

Another form of confirmation mentioned by five Virtual and two EC teachers was appreciating or letting co-teachers know their work was appreciated and not taken for granted.

This can happen in different forms, including notes and comments:

I like sending snail mail cards to my partners with handwritten notes showing that I care and that they are wonderful partners. I specifically list the ways that they are great partners, such as doing the doc daily. [Virtual teacher]

[I send] small gifts to show appreciation and special notes of appreciation in the daily announcements. [Virtual teacher]

Co-teachers encourage me by positively commenting about a specific web tool or announcement. [Virtual teacher]

I tell the students some of the conversations that my online teacher and I have so that they can appreciate the co-teacher and her requests more thoroughly. [EC teacher]

A final form of confirmation mentioned by five EC teachers was simply their general praise for their partner teachers and the NCVPS OCS program. This praise was focused both on personal and professional reasons:

I have always loved my co-teachers. They are creative and supportive. [EC teacher]

All of the co-teachers I've worked with go the extra mile for me and my students. They are amazing, and I rely on them so much. [EC teacher]

My teachers were amazing, they may not all be as awesome as those ladies, but I feel like most are because of how NCVPS trains everyone. I absolutely LOVED co-teaching with NCVPS and really hope to be able to do it again. [EC teacher]

Conclusion

The results of this case study included data that helped explain how frequently specified elements of care are practiced by Virtual and EC teachers participating in the NCVPS OCS program. Additionally, responses from open-ended questions were analyzed across the four categories of care. Open coding was applied to these matched statements to further identify what care looks like in the context of the NCVPS OCS blended program. Chapter 5 presents a summary and discussion of the study's results as they apply to the NCVPS OCS program, blended learning, and working with technology.

CHAPTER 5: DISCUSSION

The goal of this descriptive single case study was to explain how frequently elements of care are practiced by Virtual and EC teachers, and to identify what care looks like in the context of the NCVPS OCS blended program. Chapter 4 presented the results of analysis for frequency of care given and received, as well as coding for further examples of practiced care in relation to the Ethics of Care framework. This chapter presents an analysis of the findings as they relate to the research questions, with a focus on the factors of care found in the blended teaching program and implications for the program model itself.

The discussion is organized into three major sections. The introduction will focus on how well the categories revealed from the open coding of data match with the Ethics of Care framework. Findings from Chapter 4 will be layered on top of this framework to determine to what extent they connect. Next, the second section in this chapter will discuss the factors found in the blended teaching program that contributed to elements of care.

Thirdly, issues relevant to EC teachers will be discussed from the perspective of study results. Paperwork/administrative tasks, variability of student needs, and administrative support are all important issues that relate to EC teachers specifically, and will be addressed in light of survey results and their relation to the NCVPS OCS blended teaching program. Overall, the purpose is to understand better the examples of care found in the relationship of partnered teachers in the NCVPS OCS setting because “virtually all care theorists make the *relation* more fundamental than the individual” (Noddings, 2013, p. xiii). It is that motivation to understand the unique paired teaching relationships that drives the research questions in this study, and what may motivate an administrator or teacher to participate in a program like this.

Introduction

Overall, it is encouraging to see that responses revealed a self-reported level of care that could be described as frequent across all four categories (modeling, dialogue, practice, and confirmation). This means that for those who chose to participate in the survey, NCVPS OCS teachers feel that they both give and receive various aspects of care in their work with the program. This is important in a program designed to provide support for EC teachers, who work in a challenging learning environment with students of varying need. For administrators and teachers interested in a program like the NCVPS OCS blended model, it is important to understand its design and how it affects those who are working there. Upon closer inspection, some of the categories more closely matched each of the four components of care, while some categories overlapped, and some findings didn't fit with each component as closely as others.

Each participant statement was analyzed for best fit in its relation to the Ethics of Care framework and then coded into categories, specifically in line with the components of modeling, dialogue, practice, and confirmation of care. In most cases, the categories could be said to fit into each component of care, which provides a framework for establishing caring relations between parties involved in educational settings. Categories found through open coding will be explored here in the context of components of care.

Modeling. The categories found through open coding in the modeling section were mainly focused on the actions of the Virtual teachers and how they share instructional ideas, model effective uses of technology, and provide help with differentiation. An open coding category with two statements focused on EC teachers encouraging students to communicate with their Virtual teacher[s]. These categories are in line with Noddings' version of modeling, which says that modeling is more holistic than the other categories, based on a display of caring that

results from the intention to care for others (Noddings, 1988). Put another way, modeling is not just about words, but how the concept of caring is demonstrated.

When a Virtual teacher shares instructional resources, this is a form of modeling care because in order to know what resources to find and share, the Virtual teacher must be receptive to the EC teacher's requests. The same is true when a Virtual teacher models the use of technology by utilizing programs or applications. As Noddings explains, "a teacher cannot 'talk' this ethic. She must live it" (2013, p. 179) meaning that words are important, but actions display a modeling attitude. Someone who discusses using technology, but never follows through is not modeling care, but the statements in this category point to the completion of the act itself. The same could be said, though less strongly, when EC teachers encourage students to communicate with their virtual teachers. In this way, they are, "contributing to its enhancement" of the Virtual teacher's ideal, which Noddings says starts with modeling. The categories found in this study point to the acts that constitute this first component of Noddings' framework.

Dialogue. Open coding revealed several different categories for the dialogue component of care. Forms of dialogue (by phone once per week, daily updates to the Google Document, emails/text messages, and to students via announcements) made up the largest number of categories. These actions directly relate to the Ethics of Care framework, and specifically the component of dialogue in care, which means that participants "talk about what they show," in their actions (Noddings, 2005, p. 23). Teachers who are working in the NCVPS OCS blended program are required to do these things; their comments show that they are in fact performing them.

Another series of categories related to the content of the dialogue. Written statements were coded into the following categories as they relate to content of dialogue: Troubleshooting

technical issues, referencing student problems, dialoguing about student progress and grades, and dialoguing about instruction. These categories can be layered over the dialogue component of the framework that stipulates the readiness to connect, ask questions, and talk honestly in an educational relationship (Noddings, 2005 and 1988). In an environment exhibiting dialogue of care, teachers should be able to share opinions and feel respected, something that is shown in the written statements.

Practice. Statements from the practice component of care were split into three distinct categories. In order to be a fit for Noddings' framework, these actions must give NCVPS OCS teachers the chance to engage regularly in tasks they are both skilled at and "clumsy" with, in order to move to a greater appreciation for the work involved, and those who participate in it (Noddings, 2013, p. 189). Once statements were coded, the themes of recognizing students and getting to know students personally emerged. At first glance, these categories do not seem to be a good fit for the framework, because it is not always known whether these actions are consistently practiced, or a repeated effort, which is a hallmark of the practice of care. On closer inspection, the statements do indicate that the actions are completed regularly, and in the minds of participants, may be important indicators of moments that demonstrate a partner teacher practicing care, only in ways that are not clearly defined in the survey or by Noddings herself.

The third and final category of practice in care is a much closer match for the idea embedded in Noddings' framework. When the virtual teacher goes beyond mandated contact with extra calls, emails, or texts, this is a clearer connection to practicing care. The statements in this category demonstrate more closely how a teacher in a blended setting could make a caring connection with repeated and consistent efforts.

Confirmation. Open coding in this category closely aligned with Noddings' vision of confirmation, which is something that occurs when people (in this case, educators) believe that their worth as a part of a learning community has been validated (Noddings, 2013).

Several of the open coding categories speak directly to this idea. When an EC teacher takes the time to get to know their co-teachers personally or sends greetings in the form of emails or cards, that teacher is validating their importance as a human being outside of stipulated contact. When a teacher can encourage her partner teacher[s] through challenging times, and/or encourage the OCS students in the course, it is because that teacher is helping to build up "the construction of [their] ethical ideal" (Noddings, 1988, p. 223), and the same can be said for when teachers in the NCVPS OCS program encourage students through messages.

According to Noddings, confirmation happens when another person, "spots a better self," in someone else, "and encourage its development," (2005, p. 25). The category of appreciating and recognizing work and practice, and sending thanks, demonstrates this component of care very clearly. This category, as well as the idea of teachers recommending/commending others, and praising them, falls under confirmation of care because it shows that partner teachers have recognized, "something admirable...struggling to emerge in each person" (Noddings, 2005, p. 25). These are acts of confirming care, and represent the framework well.

Overlapping Categories of Care. Some categories found through the open coding process fit neatly into more than one area of care. One example is the idea of personal connections, which came through clearly in both the dialogue and confirmation sections. This is understandable; dialoguing care is connected to communication, and the actions of caring (phone calls, text messages, etc.) that comprise dialogue could lend themselves to a more personal connection between partner teachers. What emerges from the findings is the closer connection to

confirmation, which is the ultimate realization of another person as working to attain something positive. Additionally, encouragement was found in both modeling and confirmation, but again, is more fully realized and shared in statements through confirmation of care. By the time a paired set of teachers in the NCVPS OCS blended program have reached a confirmation of care with each other, they have secured, “a relation of trust,” to ground it, and as Noddings says, “the carer in acting to confirm must know the cared-for well enough to be able to identify motives consonant with reality. Confirmation cannot be described in terms of strategies; it is a loving act founded on a relation of some depth” (Noddings, 2005, p. 26). What may emerge as personal connections or encouragement in dialogue and modeling can be fully realized when teachers reach the point of confirmation of care with each other. Noddings says emphatically that while not all caring requires this level of continuity, teaching does.

Below is a figure that depicts the Ethics of Care framework components, with open coding findings layered over to depict elements of fit. The figure shows that the four components of framework overlap, but point to confirmation of care as an eventual ending point, where the realization of a person’s ethical idea is reached. Categories appear near the component of care in which they were found, but may edge toward another, as in the case of modeling: instructional support, which approaches fit with dialoguing care as well. In two cases (personal connections and encouragement) there is a direct overlap between categories found in coding.

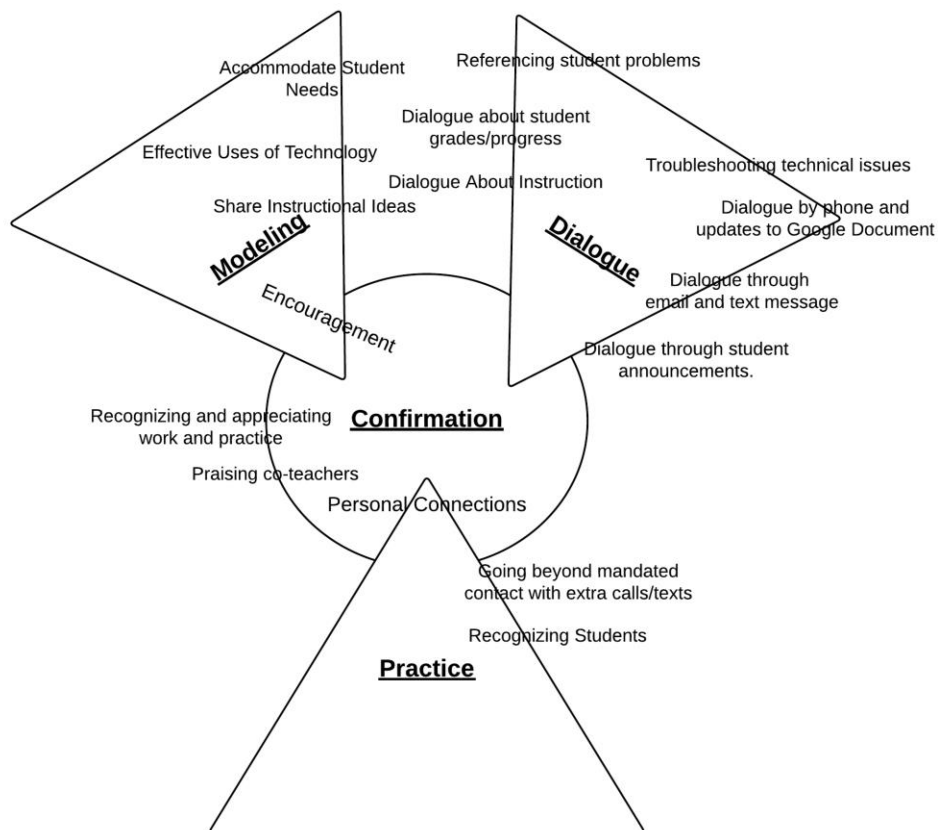


Figure 5. Categories of Care in the NCVPS OCS Blended Program

Factors of Care in the NCVPS OCS Blended Program

Looking further into the factors of care that are found in the NCVPS OCS blended teaching model, several primary factors seem to be contributing. Personal connections and encouragement are prominent in two of the four components of care and appear more frequently in coded statements. Additionally, dialogue in various forms was a substantial part of how care is given and received, and can also be looked at as an additional factor. Each of these factors has an important place not only in educational settings, but blended settings and special education settings in particular. These factors of care can be analyzed through the perspective of the NCVPS OCS program design.

NCVPS OCS blended program design. The NCVPS OCS blended program design is the inverse of most traditional inclusion classrooms, where the special education teacher supports a traditional classroom teacher (AASEP, 2006). Or, as stated in Friend (2006), in a traditional special education environment, it was assumed that the “specialists were ‘givers’ and the general education teachers were the ‘receivers,’” (p. 102). In the NCVPS OCS program, Virtual teachers are intended to provide support and assistance to the EC teachers. The EC teacher drives classroom instruction and has the ultimate decision-making abilities. The NCVPS OCS program is also different from a traditional self-contained special education classroom, where an EC teacher is assisted by an aide. In this scenario, the EC teacher is in charge of curriculum planning and design, but without the type of supports that could be given by a Virtual teacher for content and individualized learning. The NCVPS OCS program is structured to promote support, and thus encouragement, which is known to be an issue in particular for special education teachers, who have higher than normal rates for attrition and burnout (Stempian & Loeb, 2002 in Roberts, 2014; Talmor, Reiter & Feigin, 2005; Carlson & Klein, 2004; Billingsley, 1993) whether in traditional or special education school settings.

Additionally, the mandated communication of the NCVPS OCS program presents a unique method of both requiring dialogue, but also providing multiple outlets for it to occur. Through the use of technology, both synchronous (phone calls) and asynchronous (shared documents, email, etc.) dialogue can be occurring at any time. These varied methods of communication can help ease the isolation that many special education teachers report (Greer & Greer and Stempian & Loeb in Roberts, 2014; Dempsey, Christensen-Foggett, 2011; Dempsey, Arthur-Kelly, & Carty, 2009). This is seen in the many categories found in the dialogue component of care. These factors, which appear to contribute to the elements of care, can be

looked at from the perspective of an administrator or teacher looking for a new way to promote success for students with special needs, but must be taken into consideration with some of the more challenging issues faced by their teachers.

Issues specific to EC teachers as they Relate to the NCVPS OCS Blended Program

Special education teachers face unique challenges that put them at higher risk for burnout and attrition than teachers in traditional classrooms (Stempian & Loeb, 2002 in Roberts, 2014; Talmor, Reiter & Feigin, 2005; Carlson & Klein, 2004; Billingsley, 1993). Specifically, issues related to paperwork and administrative tasks, variability of their students' needs, and administrative support are some of the challenges that EC teachers in this study contend with on a regular basis, and that may be alleviated or reduced when looked at in perspective to the NCVPS OCS blended program.

Paperwork and administrative tasks. When surveyed, special education teachers like the EC teachers in this study report that managing their paperwork and administrative workload is a key issue in their ability to maintain a positive and productive work environment (Billingsley, 2004; Stempian & Loeb, 2002). Listed in typical surveys of demands on their time are IEP creation, maintenance and meetings related to IEP implementation, medical and health-related billing forms, progress reports and data tracking, as well as time-consuming reports and updates regarding current special education laws and compliance, diagnostic evaluations and progress reports, and administrative/parent meetings. One study found that special education teachers can spend as much as 50 percent of their day completing paperwork (Mitchell, 2011). While some if not all of these tasks are present in a general education classroom, special education teachers must be specifically trained to maintain current reports on all of their students

and often present them to general education teachers (if the student is mainstreamed) and other para-professionals.

Blended instruction, with its more flexible scheduling blended formats and its varied delivery methods, can possibly offer some relief from paperwork and administrative tasks (Staker & Horn, 2012; Picciano, Seaman, Shea, & Swan, 2012; Staker, 2011; Osguthorpe & Graham, 2003). Because grading is often done within an LMS, data and other information may be more easily recorded, and when teachers understand the needs of their learners, which is one of the primary goals of the NCVPS OCS program, available technologies can benefit each student as an individual (Staker & Horn, 2012; Staker, 2011; Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C., 2011). In an Ethics of Care framework, blended learning can become a vehicle for the components of care due to its flexible, personalized design.

Findings from this study indicate that when looking at the factors of care given and received by co-teachers, support is available to help with some of the tasks mentioned above (grading and progress reports in particular). This is in addition the factor of encouragement and personal connections that can help EC teachers through meetings and other challenging and emotional tasks associated with their jobs. These factors are in line with what blended learning, and in this case, blended teaching, can offer teachers, especially those in an EC classroom setting.

Variability of student needs. EC teachers must deal with more physical, emotional, behavioral, and academic challenges than traditional teachers while still teaching the standard course of study. For each of their students, these needs present differently and to varying degrees. Additionally, EC teachers may need to provide personal hygiene or other daily living skills for their students, who come to their classes with a wide range of ability levels.

For these reasons, it is important that EC teachers can modify and provide individualized instruction for their students, something that is inherent in the NCVPS OCS program design, and blended learning in general. Studies show a blended model more readily allows teachers to offer individualized learning experiences which move at a more personalized pace, something EC teachers may not be able to do easily without the flexibility inherent in a blended teaching environment (Krueger, 2013; Staker & Horn, 2012; Staker, 2011). Noddings would suggest that this kind of individualized education is a starting point for equitable, caring education (2012), and factors of care found in this study point to the potential for individualized learning based on the NCVPS OCS co-teaching partnership.

The Virtual co-teacher can provide daily support for content-area related tasks, which means that EC teachers can focus more on their students' daily living, emotional, or behavioral needs. In traditional pre-service programs, this is more closely aligned with the training an EC teacher would have received. Also, having that kind of additional support in the form of the Virtual teacher means that the EC teacher is not isolated in the classroom, and has a ready outlet for help. Encouragement, personal connections, and instructional support through modeling and dialogue are factors into this help, and can alleviate the strain that an EC teacher may face handling such a variety of student needs while also working to teach across the content areas.

Administrative support. The ability of an individual school and its overarching district to support its teachers is a key factor in teacher retention, and therefore, the success of student programs (Billingsley, 2004), especially for EC teachers, who particularly report feeling that they never have enough time to plan and carry out objectives (Tochon & Munby, 1993; Fimian & Santoro, 1983). If teachers feel supported, they are more likely to stay in that school, and in the profession. EC teachers need administrators that have knowledge of their needs, which

include providing and promoting appropriate technology support, access to professional development and professional learning communities (PLCs), and an understanding of their scheduling needs and time commitments (Adera & Bullock, 2010; Skaalvik & Skaalvik, 2007; Umbreit, Ferro, Liaupsin, & Lane, 2007). Studies show that these issues are key factors in lowering attrition rates of special education teachers.

As some studies suggest, blended instruction environments may produce better academic returns than either traditional instruction, or online instruction only, and is considered a vehicle for individualized learning (Halverson, Graham, Spring, Drysdale, & Henrie, 2014; Means et al, 2009 in Graham, 2013). For this reason, it is important to consider the potential of blended instruction and what it can offer both instructors and students working in the NCVPS OCS program. To most effectively capture the potential of blended instruction, it is imperative to put appropriate planning and pre-service goals into place. If this is true, there are potential implications for administrators looking to support their special education staff. The question remains, how can administrators provide for their EC teachers while also working within budgetary and staffing limitations?

Unfortunately, what often emerges from the literature, either by direct statements or implicitly, is the idea that “at the institution level, the readiness to adopt blended learning is reflected in the decision by an institution to adopt it” (Wong, Tatnall, & Burgess, 2014, p. 238) meaning that there may not be an understanding of the blended model before the decision to adopt one. The NCVPS OCS training program can be one remedy to the lack of support available to administrators looking to initiate a supportive program for their EC teachers.

The NCVPS OCS program provides built-in technology support through the partnership with Virtual teachers, who, as evidenced through open coding, provide instructional technology

supports. The nature of the partnership provides a ready-made professional learning community, even if just of two teachers partnered together, and is beneficial to both parties, but especially EC teachers. When Virtual teachers offer resources or other suggestions based on the requests of the EC teachers and that help is received, a natural kind of professional development is taking place. For their part, administrators get assistance for their EC teachers without having to bring in additional support to their building, and because the program and associated training is offered free of charge, they do not need to consider budgeting needs when agreeing to participate.

The idea of the NCVPS OCS program as an administrative support is an important one to consider, but one that is not directly addressed by the NCVPS OCS program – how the co-teaching partnership could assist administrators looking to assist their EC teachers and alleviate some of the demands to their teaching assignment. More research will need to be conducted to understand what, if any benefits administrators see from the NCVPS OCS blended program, and how it could in turn help influence policies related to EC teachers.

Implications

When the NCVPS OCS program was introduced in 2008, the goal was to provide EC classroom teachers with content area support for their OCS student. Although there still exists no data to determine what, if any success the program has had on students, this study has implications for teachers and administrators. Both groups can look at the results of this if they are looking to provide support for EC teachers or OCS students.

Administrators, who are responsible for the oversight of students with special needs, may not feel prepared to assist their EC teachers, or may not be able to provide the level of support, professional development, or technical assistance that they feel is important. They may not have the physical space or finances to add more staff or classrooms to their physical building, but are

still responsible for ensuring that the OCS students in their school are receiving quality services. A program like the NCVPS OCS program provides built in professional development and support from highly qualified teachers, who are trained to work with new learning environments (like blended learning) as well as students with special needs. The administrators in schools who know they need to do more for their EC teachers can look at this as a solution that does not put more demands on their home school, but shares that task with a secondary educational institution.

Likewise, EC and Virtual teachers can benefit from participating in a program like the NCVPS OCS blended program. For EC teachers, the benefits are more readily apparent. As mentioned in this study previously, EC teachers can experience feelings of isolation and lack of support, which can lead them to burnout and to leave the field of education. In a day-to-day support setting, their Virtual teacher partner[s] not only takes a part of the curriculum planning from their already full schedule, but offers assistance and support. This help is not superficial, the way a search engine may return suggestions or web links. Instead, it is personalized and designed to meet specific learner needs. A properly trained EC teacher, who understands blended learning, is able to utilize this partnership as fully as desired.

Although not as immediately apparent, there are also implications for Virtual teachers. Knowing that most Virtual teachers were originally trained as classroom teachers, but now work as Virtual content-area teachers, they get to experience a new learning model and a different way to teach. They can work remotely, without needing to be physically present in a bricks and mortar classroom, which provides them a flexible schedule. Additionally, they are able to impact the EC teacher's daily environment directly through their support. This opportunity, for classroom teachers who are looking for different kind of teaching assignment, has implications

for a traditional classroom teacher looking to stay in the field, but without some of the physical and scheduling-related demands of a regular teaching position.

Reflections

This study has taken an in-depth look at how teachers care for each other in a very unique co-teaching situation. Consistent responses and results across the four components of care point to a descriptive case study that attempted to understand the type and frequency of care given and received by teachers working with OCS students in blended settings. These results have resulted in the formation of potential recommendations for the Virtual School and other institutions looking to implement similar programs. The research questions delve into much more than what kind of technology is being used by teachers in the OCS courses. They point to issues of administrative support, student needs, and teaching assignments for EC teachers. Within this study, there are areas of strength, and limitations, which contributed to its overall impact. Further studies of blended teaching are recommended that can continue to examine the role of caring in varied settings.

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APPENDICES

APPENDIX A: E-MAIL/PROTOCOL LETTER

Date: 1/12/2015

Dear NCVPS OCS Teacher,

You are being contacted today to participate in an online survey to be used in a doctoral dissertation research study. Because of your employment with the North Carolina Virtual Public School's (NCVPS) Occupational Course of Study program (OCS) I am asking for your help. To make it easy for you, I have provided access to a web-survey via a special login code found at the bottom of this card.

The purpose of the survey is to determine teacher opinion and attitudes related to your work with the NCVPS OCS blended program and to what extent it provides you a caring environment for teaching.

I am interested in understanding your role as a co-teacher in that system as they relate to your teaching tasks and activities, as well as the extent to which those activities generate in your opinion an environment of caring and support. Your input is greatly desired.

Please use the URL and login code to access the survey: www.stateadvisorsurvey.com

Login code: mbkrks795

Sincerely,

Amanda Cadran, Primary Investigator

North Carolina State University

acadran@ncsu.edu

APPENDIX B: SURVEY INSTRUMENT

Section1: Background Information

1. What is your current role in the NCVPS OCS blended program? Please check all that apply:
 - a. EC teacher paired with one NCVPS virtual teacher*
 - b. EC teacher paired with multiple NCVPS virtual teachers in different content areas.
 - c. NCVPS virtual teacher paired with one EC teacher.**
 - d. NCVPS virtual teacher paired with multiple EC teachers.
 - e. Other:

Branching Questions:

*: For EC teachers:

How long have you been employed as an EC teacher?

- Less than one year
- 1-2 years
- 3-5 years
- 6-10 years
- More than 10 years

** : For NCVPS virtual teachers:

Please indicate your prior teaching experience before joining the NCVPS OCS program. Choose all that apply:

- Traditional classroom teacher
- Exceptional Children's/Special Education teacher
- School administrator
- School resource teacher/facilitator
- Other:

2. How many EC or NCVPS teachers are you currently partnered with this semester?

- a. 1
 - b. 2
 - c. 3
 - d. 4
 - e. Other:
3. How long have you been working with the NCVPS OCS blended program?
- a. This is my first semester working with the program.
 - b. This is my second semester working with the program.
 - c. I have worked with the program for more than two semesters.
4. Please indicate your experience, if any, with co-teaching prior to working with the NCVPS OCS blended program:
- a. I have no prior experience with co-teaching. This is my first semester in a co-teaching environment.
 - b. I had 1-3 years of prior co-teaching experience.
 - c. I had 3-5 years of prior co-teaching experience.
 - d. I have more than five years of prior co-teaching experience.
5. Please indicate which content area you are now, or have previously worked with in your role(s) with the NCVPS OCS blended program: (Please choose all that apply).
- a. English
 - b. Math
 - c. History
 - d. Science
6. How many years have you worked, in any position, in an educational setting?
- a. Less than one year
 - b. 1-2 years
 - c. 3-5 years
 - d. 6-10 years
 - e. More than 10 years
7. Are you:
- a. Male
 - b. Female

8. Please indicate your age:
 - a. 18-24 years old
 - b. 25-34 years old
 - c. 34-44 years old
 - d. 45-54 years old
 - e. 55-64 years old
 - f. 65-74 years old
 - g. 75 years or older

9. Please specify your ethnicity (choose all that apply):
 - a. White
 - b. Hispanic or Latino
 - c. Black or African American
 - d. Native American or American Indian
 - e. Asian/Pacific Islander
 - f. Other
 - g. I prefer not to answer

10. Please indicate the highest level of education you have achieved:
 - a. Associate degree
 - b. Bachelor's degree
 - c. Master's degree
 - d. Professional degree
 - e. Doctorate degree
 - f. Other

Part 2: Behaviors and Demonstrations of Caring

11. Modeling means that our behaviors show what it means to care. Teachers who model care do not only talk to their co-teachers about care but demonstrate their caring in their relations with them. Modeling care means that interactions and dynamics between co-teachers are free of sarcasm, coercion, and inauthenticity. Please indicate how often you demonstrate the following examples of modeling care in your co-teaching relationships with your NCVPS OCS partner teacher(s):

	Almost Never (less than once a month)	Rarely (less than once a week)	Sometimes (once a week)	Frequently (several times a week)	Almost Always (daily)
Listen and respond to my co-teacher(s) ideas with an open mind and receptive feedback.					
Give my co-teacher(s) the chance to share ideas and try new methods of instruction without pressure or coercion.					
Responding to my partner teacher(s) requests for information and support with authentic feedback.					

12. Please list any additional activities here that demonstrate modeling care in your co-teaching relationship(s) with your NCVPS OCS partner teacher(s):

13. In many ways, dialogue is the most common way to display caring. As a tool to encourage conversation and communication, dialogue between co-teachers can promote a sense of caring and concern. Please indicate how often you demonstrate the following examples of dialogue in care in your co-teaching relationships with your NCVPS OCS partner teacher(s):

	Almost Never (less than once a	Rarely (less than once a	Sometimes (once a week)	Frequently (several times a	Almost Always (daily)

	month)	week)		week)	
Enter information using the NCVPS OCS mandated Google document					
Meet via phone call at the designated time each week to discuss current student needs					
Reach out to my partner teacher(s) when challenges arise					

14. Please list any additional activities here that demonstrate the dialogue of care in your co-teaching relationship(s) with your NCVPS OCS partner teacher(s):

15. In a co-teaching environment, the practice of care extends beyond communication with each other. Teachers involved with a practice of care find opportunities to participate in caring in consistent ways across many different types of situations. Whether in big moments or “smaller” situations, practice involves a repeated effort to demonstrate care each and every time. Please indicate how often you demonstrate the following examples of practicing care in your co-teaching relationships with your NCVPS OCS partner teacher(s):

	Almost Never (less than once a month)	Rarely (less than once a week)	Sometimes (once a week)	Frequently (several times a week)	Almost Always (daily)
Consistently communicate (via email, shared documents, phone calls, etc.) with my partner teacher(s)					

Maintain a current shared Google document with student updates and information that is entered on time					
Provide current grades for designated assignments					
Utilize technology resources as necessary for instructional purposes					

16. Please list any additional activities here that demonstrate practicing care in your co-teaching relationship(s) with your NCVPS OCS partner teacher(s):

17. When teachers are involved in the confirmation aspect of caring, they confirm, nurture, and encourage their co-teacher(s) that recognizes something admirable in that person. Confirmation of care is revealed when co-teachers identify the positive development of those they work with, even in moments of struggle. Please indicate how often you demonstrate the following examples of confirmation of care in your co-teaching relationships with your NCVPS OCS partner teacher(s):

	Almost Never (less than once a month)	Rarely (less than once a week)	Sometimes (once a week)	Frequently (several times a week)	Almost Always (daily)
Support my co-teacher(s) in challenging moments or situations					
Provide encouragement and affirmation of					

my partner teacher(s) ideas and suggestions					
Receive encouragement and affirmation from my partner teacher(s)					

18. Please list any additional activities here that demonstrate confirmation of care in your co-teaching relationship(s) with your NCVPS OCS partner teacher(s):

**APPENDIX C: STATEMENTS PATTERN CODED UNDER MODELING CONSTRUCT,
AND RELATED OPEN CODES**

Statements	Open Codes
<ul style="list-style-type: none"> • Asking for their expertise and assistance in understanding the content so that I can improve my teaching in the classroom. Also using the co-teacher's suggestions for hands on activities and additional links when students are interest. [EC teacher] • Sharing ideas and celebrating successes [EC teacher] • With my previous teacher- we shared resources back and forth outside of the NCVPS curriculum for our NCVPS class and other classes, etc. [EC teacher] • My NCVPS teachers share additional resources with me. [EC teacher] • My NCVPS partner teachers go out of their way to make sure I have the materials and any extra support I need. [EC teacher] • Resources for extra lessons [EC teacher] • helped <i>support the teacher</i> when they needed <i>extra materials/demos</i> to teach a concept [Virtual teacher] • My co-teachers have shared a lot of different types of <i>resources</i> that I have been able to apply to other teaching areas. [EC teacher] • In the past, several of my NCVPS co-teachers have shared study guides and tests for different novels. My math co-teachers shares worksheets that I can use as homework assignments. [EC teacher] • My co-teachers are always quick to respond with materials and explanations and advice. [EC teacher] • When my partner teachers have to be out of the classroom, I try to provide them with extra materials to help with sub lesson plans. [Virtual teacher] • she is always giving me ideas and listens to ideas I have. [EC teacher] • giving feedback <i>on links provided</i>, telling them how much students liked <i>something they posted</i> [EC teacher] • I provide test preparation documents on a weekly basis. I also share preparation materials (websites) that we use at my f2f school. I make sure I share as much information as possible to help our students. [Virtual teacher] • ...creates videos with where the students can hear and also sometimes see the online teacher. I have wonderful online teachers. One of them created many videos for the math content in classes. Her videos are done in such a way that the students always understand those particular lessons. It is not just by chance. She is a teacher who can relate to the learning of my students and is demonstrated by her teaching in those videos. [EC teacher] • when co-teachers are anxious about upcoming observations by their administrators, I provide extra support, web tools, printable handouts, etc. in advance [Virtual teacher] • NCVPS teacher has collaborated with me and given me ideas on other matters. [EC teacher] 	<p>virtual teachers share instructional ideas and resources</p>

<ul style="list-style-type: none"> • Online teacher is very creative with technology. Always finds ways to communicate with students in fun ways [EC teacher] • Uses technology daily [EC teacher] 	virtual teachers model effective uses of technology
<ul style="list-style-type: none"> • My co-teachers listen to my concerns and adapt the lessons to meet the needs of my students. [EC teacher] • My co-teacher <i>modified test</i> for my students. This really helped them pass the material covered in the lessons. [EC teacher] • OL teacher send <i>additional information that is individualized</i> when we discuss a struggling learner. [EC teacher] • NCVPS send remedial activities as needed. [EC teacher] • Always accommodating. With students needs [EC teacher] • Very willing to help in given modified assignments upon request [EC teacher] • All my NCVPS co-teachers have <i>supplied materials</i> that I have requested for the learning needs of our students [EC teacher] • email with individualized learning activities and games. [Virtual teacher] • Frequently create extra print resources to meet the needs of individual students based on an observed need. [Virtual teacher] • I attempt to use web 2.0 tools to differentiate in this feedback as well. [Virtual teacher] 	virtual teachers provide help with differentiation to accommodate student needs
<ul style="list-style-type: none"> • Backing up what the online teacher requests from the students by assisting the students with follow through. [EC teacher] • Encouraging my students to message their virtual teacher. [EC teacher] 	EC teachers encourage students to communicate with virtual teacher

**APPENDIX D: STATEMENTS PATTERN CODED UNDER DIALOGUE CONSTRUCT,
AND RELATED OPEN CODES**

Statements	Open Codes
<ul style="list-style-type: none"> • Weekly phone conversations [EC teacher] • We talk on the phone once per week [EC teacher] • weekly phone conversations [EC teacher] • phone conversations once a week. [EC teacher] • weekly communication (phone calls) up-to-date. [EC teacher] • We talk on the phone once a week. [EC teacher] • weekly phone chats with my co teacher [Virtual teacher] • weekly synchronous contact [Virtual teacher] • phone calls only required 1 time per week [EC teacher] • but talk once a week on the phone. [EC teacher] • weekly phone call [EC teacher] • I call if it's an emergency. [EC teacher] • and encouraging phone calls [Virtual teacher] • My partner teacher and I speak more than 1x per week when needed. [EC teacher] • My co-teacher and I communicate daily via Google Docs and weekly via telephone. [EC teacher] • Daily google Doc and weekly phone calls. [EC teacher] • We speak by phone at least once a week as a PARTNERSHIP to instruct students. [Virtual teacher] 	<p>form of dialogue, partner teachers dialogue by phone once per week</p>
<ul style="list-style-type: none"> • writing daily in the google document for communication [EC teacher] • and share via google drive daily [EC teacher] • Daily communication via Google Doc; [EC teacher] • I keep my daily communication (googledocs) [EC teacher] • in addition to our weekly online written communications [Virtual teacher] • Daily correspondence via a co-teacher documentation log [Virtual teacher] • We talk daily on the Google app [EC teacher] • Google spreadsheet, [EC teacher] • My teacher this semester is very helpful and we communicate daily with the log [EC teacher] • We are careful to share in depth information in the google doc. [EC teacher] • My co-teacher and I communicate daily via Google Docs and weekly via telephone. [EC teacher] • Daily google Doc and weekly phone calls. [EC teacher] • Two of three teachers have the communication log on the main page of their virtual class, which makes it easy to communicate daily. [EC teacher] 	<p>form of dialogue, partner teachers dialogue via updates to Google Doc daily</p>
<ul style="list-style-type: none"> • We also email each other [EC teacher] 	<p>form of</p>

<ul style="list-style-type: none"> • emails and texts also factor into dialogue [Virtual teacher] • I email when needed. [EC teacher] • e-mails, text messages [Virtual teacher] • I send update emails [Virtual teacher] • We text frequently, often daily [Virtual teacher] 	<p>dialogue, partner teachers dialogue via emails and texts</p>
<ul style="list-style-type: none"> • sharing announcements and shout out and classroom wall posts [EC teacher] • Daily review videos and audios on the announcements about the lesson. [EC teacher] • Using the message boards and announcements to pass along info. [EC teacher] • Daily announcements that are aimed at student needs...for instance, in one of my schools, the students were particularly stressed about testing and the holidays. My co-teacher let me know how unpleasant things were becoming. I focused the next day's daily announcement on a video of a group of high school students singing/acting to "Don't Worry Be Happy." My co-teacher said she could feel the atmosphere in her classroom change and the students spent the rest of the day singing, "Don't Worry, Be Happy." It was an easy thing for me to do that changed everyone's day for the better [Virtual teacher] 	<p>form of dialogue, virtual teachers dialogue to EC teachers and their students via announcements</p>
<ul style="list-style-type: none"> • I seek help from my Instructional Leaders when my co-teachers and I have a problem we can't solve alone. [Virtual teacher] 	<p>virtual teachers dialogue to NCVPS instructional leaders when help is needed</p>
<ul style="list-style-type: none"> • respond quickly when troubleshooting is needed or some document didn't load from the course [EC teacher] • When problems do arise, my VPS teachers do a really good job of trying to help resolve the situation as best they can from a remote setting. [EC teacher] • There are the typical classroom teacher/partner teacher interactions about content, students, and answering tech questions. [Virtual teacher] • There are the typical classroom teacher/partner teacher interactions about content, students, and answering tech questions. [Virtual teacher] 	<p>content of dialogue, dialoguing involves troubleshooting technical issues</p>
<ul style="list-style-type: none"> • respond through emails/google docs about students' difficulties and when they were absent from class. [EC teacher] • I always contacted my NCVSP OCS teacher regarding any discipline issues or absenteeisms for our students. [EC teacher] • I help co-teachers solve personal problems facing students [Virtual teacher] 	<p>content of dialogue, dialoguing references student problems such as absentee and disciplinary issues</p>
<ul style="list-style-type: none"> • I sometimes forget to post grades, but almost all of our graded material is 	<p>content of</p>

<p>through the on-line class, so I believe my co-teacher can see them as well. I get too caught up in the written part of our dialogue and sometimes forget the "little" things, like grades!! [EC teacher]</p> <ul style="list-style-type: none"> • I email grades for non-computer scored items (Bio pre/post tests). I communicate non-confidential grade info on g-doc or on weekly call. [EC teacher] • Provide daily updates about students' progress. [EC teacher] • All of the above methods are used daily to ensure that we reach each student. Assignments are graded within 24 hours of submission and relevant feedback is provided with real life examples. [Virtual teacher] 	<p>dialogue, dialoguing about student progress and grades</p>
<ul style="list-style-type: none"> • The EC teacher is the expert in modification - I am the content expert. Together we troubleshoot and look at the best way to teach students concepts and help them overcome misconceptions. [Virtual teacher] 	<p>content of dialogue, dialoguing about instruction</p>
<ul style="list-style-type: none"> • We have not had a lot of challenges, but when we do, we talk about them. [EC teacher] • When we have situations come up my co-teachers work with me and my students however they can. [EC teacher] • Positive communication [EC teacher] • My co teacher has the ability to foresee needs and offers without being asked... she's wonderful. [EC teacher] • The last question is difficult to answer. Whenever there is a problem I reach out to my partner teacher. That doesn't happen often, but whenever it does I always reach out. [Virtual teacher] • I would inform the NCVPS teachers about which activities that was done as a class activity to help the students to better understand the content. [EC teacher] 	<p>generic, difficult to code/sort without more information</p>

**APPENDIX E: STATEMENTS PATTERN CODED UNDER PRACTICE CONSTRUCT,
AND RELATED OPEN CODES**

Statements	Open Codes
<ul style="list-style-type: none"> • Last semester, I had a co-teacher who would pick a student of the week and I would share pictures when we did labs and she would post them on the announcement page. [EC teacher] • When the online teacher recognizes our students in the announcements... [EC teacher] • give shout outs to students for things relating to the class or school environment. [Virtual teacher] • candy for the students [Virtual teacher] • The VPS teachers are really good about recognizing students by name on the daily announcements. [EC teacher] 	recognizing students
<ul style="list-style-type: none"> • One of my NCVPS co-teacher is planning on visiting the students so that she could meet them in person. [EC teacher] • I try to send videos and/or pictures of my students in the classroom weekly so that the online teacher can feel like s/he can really "get to know" the students and understand their needs. [EC teacher] • For me, I try to send photos of the students and their work as well as send copies of worksheets used by our students in other parts of the OCS curriculum so that the teacher can make meaningful assignments related to the OCS program. This is so important for our students in transferring of skills. [EC teacher] • Send photos of student work or students to co-teachers. [EC teacher] • I have felt really connected to some of the teachers I have worked with. I have sent pictures of students completed assignments and/or working on projects. [EC teacher] 	getting to know students personally
<ul style="list-style-type: none"> • When I know my teacher is having a particularly hard week, I will call multiple times to check in beyond the scheduled appointment. [Virtual teacher] • The google doc is key - this allows us to communicate even on days without texts/calls. I try to text at least 2 other times per week to check in. [Virtual teacher] • I try to be understanding of their busy schedule and paperwork, so if they do not answer the first time I call in a week, I will comment that I will try the same time the next day. Or, I will text them to find an alternate time if I know they have another co-teacher to talk with or staff meeting that next day of the week. Weekly phone calls are CRITICAL to me being able to help them well! :) [Virtual teacher] • When google docs would not let me send her a message we called each other and email more often than usual. [EC teacher] • My co-teachers always took the time to really answer and write in our Google document, very detailed information for me. The weekly (sometimes even more) phone calls never seemed rushed to me, and they 	virtual teacher going beyond mandated contact with extra calls and texts

<p>always took their time and listened (as did I). The communication, although sometimes it was a lot of time, was key to making this work. The more we communicated effectively, the more we got accomplished. [EC teacher]</p> <ul style="list-style-type: none">• We text almost daily [EC teacher]• text messages just to check in [Virtual teacher]	
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**APPENDIX F: STATEMENTS PATTERN CODED UNDER CONFIRMATION
CONSTRUCT, AND RELATED OPEN CODES**

Statements	Open Codes
<ul style="list-style-type: none"> • Sharing personal experiences in education [EC teacher] • friendliness beyond work talk [EC teacher] • take time to see how they are doing on a personal level [EC teacher] • As well as professional communication, I develop a semi-personal relationship with my co-teachers. I know about their families, their children, their grandchildren. We talk about vacations, weekend getaways, things going on in their lives (theater participation, t-ball, etc), home repairs and any number of other things that impact their lives and my life. [Virtual teacher] • remember important information about their family [Virtual teacher] • I work to get to know my co-teachers beyond the teacher relationship. During our weekly chats I ask about their families and lives outside of school. [Virtual teacher] • We share a little bit about our personal lives (i.e. pets, children, trips...) in our phone conversations. [EC teacher] • I am always enthusiastic during chats and communication in the doc. I remember important things going on in their lives, both personal and professional and I comment on those things, to show that I care. [Virtual teacher] • Also, the partner relationship is personal. We talk about family events, children, local school experiences and share our lives as we build the co-teacher relationship. [Virtual teacher] • Ask personal questions about the teachers themselves (and their kids, their lives) and ask questions about how the classroom is going (the kids lives and not just the educational aspect of things). [Virtual teacher] • I strive to reach them on a personal as well as professional level. They know I value them as a colleague and as a person/friend [Virtual teacher] • We also communicate about our personal experiences. [EC teacher] • sharing of personal information and advice [Virtual teacher] • I have developed personal relationships through daily and weekly contact. [EC teacher] • In the past few years as an NCVPS OCS Partner, I have lost students in my classes, I have had students shifted to hospital settings, and I have had students move out and back in to a classroom/school. We talk about all of these issues and I'm always available to listen. [Virtual teacher] Remembering important school and personal dates, making mention of it, remembering things going on in each other's lives and talking about those [EC teacher] 	<p>taking time to get to know co-teacher personally</p>
<ul style="list-style-type: none"> • send e-cards; remember them on holidays [Virtual teacher] 	<p>friendly</p>

<ul style="list-style-type: none"> • sending eCards for various events in their life in or outside of school [Virtual teacher] • I send emails and e-cards for events that are going on in and out of the classroom. [Virtual teacher] • Cards at birthday and holidays. [EC teacher] • In the past my co-teachers have sent me cards [EC teacher] • Several teachers send cards on holidays to the teacher and especially to the students. [EC teacher] • I send e-cards [Virtual teacher] • e-cards [virtual] • cards mailed to me from partner teachers [Virtual teacher] • Send birthday messages [Virtual teacher] 	<p>greetings, e-cards for events and holidays, general</p>
<ul style="list-style-type: none"> • sending notes and cards to each other on particularly difficult weeks, and even simple short texts/emails/calls of encouragement. [EC teacher] • NCVPS sends e-mail cards that encourage me often [EC teacher] • send encouraging messages [Virtual teacher] • Mailing them cards as pick-me-ups... [Virtual teacher] • I encourage them on bad days and allow them to vent to me. [Virtual teacher] • Ms. X always knows how to lighten the load... make me laugh... and adds sincere encouragement. [EC teacher] • All of my teachers went above and beyond the call of duty for me. I had 4 teachers and 1 student. They worked so well with us and we really became great partners and even friends in the end. They cared for ME as a new NCVPS teacher in a special environment. I work at a residential facility that has a charter school on the campus, so our students have some issues, and it's difficult on a teacher emotionally. They all made sure I was okay and had everything I needed. Some even sent gift cards for treats. They were awesome. [EC teacher] • NCVPS made me feel like I wasn't failing at teaching everyday and that I wasn't alone. LOVE IT. [EC teacher] 	<p>encouraging co-teacher through difficult times (often through e-cards but not always)</p>
<ul style="list-style-type: none"> • The teacher sends the students encouraging messages and let them have opportunities to make up work/quiz, etc. I am VERY pleased with my co-teacher. [EC teacher] • The partner teacher gives encouragement to the students. [EC teacher] 	<p>encouraging students</p>
<ul style="list-style-type: none"> • co-teachers encourage me by positively commenting about a specific web tool or Announcement [Virtual teacher] • Thanking them for personalized announcements, [EC teacher] • I tell the students some of the conversations that my online teacher and I have so that they can appreciate the co-teacher and her requests more thoroughly. [EC teacher] • Send thank you notes [Virtual teacher] • Thank you notes mailed from partner to me via the mail; small gifts and cards mailed to me from partner teachers [Virtual teacher] 	<p>appreciating and recognizing work and practice, sending thanks</p>

<ul style="list-style-type: none"> • small gifts to show appreciation and special notes of appreciation in the daily announcements [Virtual teacher] • Mailing them cards ... to let them know that I value their partnership. [Virtual teacher] • I am always commending them on great classroom teaching. [Virtual teacher] • I like sending snail mail cards to my partners with handwritten notes showing that I care and that they are wonderful partners. I specifically list the ways that they are great partners, such as doing the doc daily. [Virtual teacher] 	
<ul style="list-style-type: none"> • written letters of commendation to my administrators. [EC teacher] 	recommending
<ul style="list-style-type: none"> • My co-teacher Ms. [name omitted] is the best co teacher I ever worked with. She understands my students perfectly. [EC teacher] • Great teachers, rarely do we have any challenging moments or situations! [EC teacher] • We shared ideas and work. I have always loved my co-teachers. They are creative and supportive. [EC teacher] • All of the co-teachers I've worked with go the extra mile for me and my students. They are amazing, and I rely on them so much. [EC teacher] • Everything I have said before. My teachers were amazing, they may not all be as awesome as those ladies, but I feel like most are because of how NCVPS trains everyone. I absolutely LOVED co-teaching with NCVPS and really hope to be able to do it again. [EC teacher] • We care for each other and celebrate each other's successes and troubleshoot shortcomings. This can happen as often as every day. [Virtual teacher] 	praising co-teachers, like/love them