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Struggling Student Teachers: Interventions for Support and Success

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STRUGGLING STUDENT TEACHERS:
INTERVENTIONS FOR SUPPORT AND SUCCESS

by

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STRUGGLING STUDENT TEACHERS: INTERVENTIONS FOR SUPPORT AND SUCCESS

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University of Nebraska, 2020

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Teacher shortages in K-12 schools have created unique challenges for teacher preparation programs (TPPs). University instructors face the task requirements of supporting candidates from a wide variety of backgrounds at the undergraduate and graduate level. While some of these candidates enter higher education programs skilled, eager, and committed, others are less prepared, requiring significant attention to make it through the program. Exams required by state departments of education and minimum grade point averages influence each candidate's ability to move forward within the program, causing some students to experience additional struggles related to mental health and financial burdens.

The problem of practice addressed in this dissertation identifies common struggles of students enrolled in four Career and Technical Education (CATE) programs at the University of Nebraska-Lincoln (UNL) and thus common struggles for their teacher educators. All of these CATE programs share a common content designation within state and national policies. In addition, the study examined strategies faculty use to support struggling students throughout those students' time as teacher candidates.

This study consisted of two parts methodologically. In Part One, a narrative case study was conducted to examine the progress and struggles of a single student, hereafter referred to as Josie. That research laid the groundwork for Part Two, in which three formal interviews were completed with faculty running CATE programs to gather initial

qualitative data to identify common struggles faced in all content areas.

A qualitative methodology was used to document interview results. Each interview was summarized based on question categories, similarities, and differences were highlighted to identify checkpoints and interventions that have worked well for teacher education candidates. Common themes of struggle and intervention were identified. Consistent with a 'dissertation-in-practice' (DIP) study that proposes application as well as diagnosis, a letter to the college deans from me and my CATE TPP colleagues was created to share information related to program status and structure.

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Abbreviation:	Explanation:
AACTE	American Association of Colleges for Teacher Education
Ag Ed	Agricultural Education
ALEC	Agricultural Leadership, Education and Communication
BMIT	Business, Marketing, and Information Technology
CAEP	Council for the Accreditation of Educator Preparation
CASNR	College of Agricultural Sciences and Natural Resources
CATE	Career and Technical Education
CEHS	College of Education and Human Sciences
CHEA	Council of Higher Education Association
CPED	Carnegie Project on the Educational Doctorate
CT	Cooperating Teacher
CTSO	Career and Technical Student Organization
CYAF	Child, Youth and Family Studies
ELL	English Language Learners
ETS	Educational Testing Service
FCCLA	Family, Career, and Community Leaders of America
FCS	Family and Consumer Sciences
GPA	Grade Point Average
GRE	Graduate Record Exam
IANR	Institute of Agriculture and Natural Resources
IDEA	Interactive Distance Education Alliance
IEP	Individual Education Plan

InTASC	Interstate Teacher Assessment and Support Consortium
NCATE	National Council for Accreditation of Teacher Education
NDE	Nebraska Department of Education
STEM	Science, Technology, Engineering and Mathematics
STS	Skilled and Technical Sciences
TEAC	Teacher Education Accreditation Council
TPP(s)	Teacher Preparation Program(s)

Chapter 1: Introduction

Paulo Freire discussed the power of dialogue within *Pedagogy of the Oppressed*, claiming that dialogue increases people's ability to become "more fully human" by creating and re-creating themselves (Freire, 2000). Trusting that the power of dialogue will result in a transformation in oneself and others is central to working within the field of teacher education. Without this faith, some of our best and brightest candidates may be lost to the field due to the structures in place from government, administration, and standards that are required by our institutions. Working with struggling student teachers has challenged both my ability and theirs to move past the idea of "depositing" ideas from my head to theirs, towards *active consciousness* shared as a part of the process (Freire, 2000).

Choosing to work with struggling student teachers has happened as a natural consequence of my position. I serve as program director for the FCS teacher preparation program at the University of Nebraska-Lincoln (UNL). This program prepares preservice secondary teachers for grades 6-12 and includes subject matter focused on improving the lives of individuals, families, schools, and communities (mirroring the College of Education and Human Sciences' mission). Subjects taught in the program include foods and nutrition; clothing, textiles, and design; early childhood and human development; culinary arts and food preparation skills; personal and family finance; and career education related to all of these areas of study. The program requirements at the post-secondary level are extensive. Students are required to complete 17 classes (51 credit hours) related to these content areas, as well as forty-two additional credit hours of professional teaching preparation, two practicum placements equaling one hundred

observation hours, and a 16-week, full-time, student teaching experience. Beyond these they have to complete the university's participation requirements.

Nebraska has been suffering from major shortages of FCS teachers in the past eight years, so my task has been to grow the program and develop high quality professionals (Moser, 2018). The FCS teacher shortage is a consequence of a national trend dating back to the early 1970's when many traditional FCS teacher preparation programs at the secondary and post-secondary level were eliminated. Some researchers described the cutback as being related to the women's movement (and a decline in the number of women interested in preparation for 'traditional' roles for women; Yellen, 2020). Others blamed the stereotypical nature of the subjects taught and observed that the content was often taught in an outdated, traditional way. These authors also contend that because of the stereotypical image of "home economics", students were misguided when entering college in regards to career opportunities (Johnson et al., 1987; Jackman & Rehm, 1995). More generally, the shift toward 'college preparatory' curriculum for all, accelerated by the federal report, *A Nation at Risk* (National Commission on Excellence in Education, 1983), has hurt the prestige and attractiveness of CATE programs, making them at-risk subject areas in terms of future viability, both in secondary schools and in teacher preparation programs (Darling-Hammond & Carver-Thomas, 2019; USDE, 2016).

Although the political and cultural climate have changed multiple times since the 1970s, FCS teacher shortages have been a consistent challenge. This has led the Nebraska Department of Education (NDE) to follow national trends in creating provisional and temporary licensing for these teachers (Nebraska Department of Education [NDE], 2017).

This has helped address the teacher shortage, but it has also created new challenges for preparation programs like the FCS at UNL where faculty are pressured to welcome ‘anyone willing’, including marginal candidates.

One circumstance in Nebraska that has influenced the success of students in this program has been the influx of non-traditional teachers securing positions to teach in all at-risk subject areas, especially those experiencing severe shortages (Tripp, 2006). Non-traditional teachers are defined as those holding a teaching certificate but not in the subject area they are teaching, as well as those securing positions with a Bachelors degree. This accounts for up to 18% of the openings in Nebraska between 2011 and 2019, ranging from 7-14 of the total positions available during that time period (Table 1). For the last eight years Nebraska has averaged 47.5 new FCS teacher hires and, of those, an average of having almost nine per year have been hired without regular licensure.

Table 1

Nebraska Family and Consumer Sciences Open Teaching Positions, 2012-2019

<u>Year</u>	<u>Number of Openings</u>	<u>Teachers Hired Without Certification</u>
2012	39	7
2013	34	5
2014	59	7
2015	57	8
2016	46	13
2017	57	9
2018	49	14
2019	39	7
Total:	380	70 (18%)

Dewey’s *theory of experience* is identified as an essential element within TPPs, which is sometimes missing for non-traditional candidates. This cycle involves careful,

persistent and active observations, consideration, and then reflection. Teachers' mind-sets need to be open, responsible, and include continual self-examination (Dewey, 1933). Johnson and Golombek (2002) believe this enables teachers to act with foresight, increasing control over their thoughts and actions, and will result in more enriched experiences. Preservice teachers who are marginal teacher candidates (i.e., those carrying lower GPAs or not passing the PPST/CORE) may struggle more than their more proficient peers to develop a reflective cycle of learning even though both their field (i.e., FCS) and their teacher education programs are significantly experience-driven (i.e., based on learning by doing).

New teachers (who can be conceptualized as learners in important ways) can internalize elements of the reflective cycle through externally guided activities such as co-teaching with a more experienced teacher or following the instructional advice given in a teacher's manual. As beginning teachers learn and gain experience, they gain increasing control over their own activity, taking ownership of what works by developing a conceptual map for teaching, which, in essence, allows them to shortcut (with efficiency and innovation) decision-making. Johnson and Golombek define this as *teachers' narrative inquiry*, which is "...conducted *by* teachers *for* teachers through their own stories and language" (Johnson & Golombek, 2002, p. 6).

This dissertation describes my efforts, as a veteran teacher and now teacher educator, to engage in narrative inquiry as I consider the various challenges of one CATE field, as described within the Methodology Chapter 3 (page 45). I do this in two ways: first, by analyzing my own support of a struggling new FCS teacher as she works to build and prove her efficiency and success in the classroom (see Chapter 4) and, second,

through consulting with fellow UNL CATE educators who like me, face pressure to grow enrollments because of statewide demand and/or as a way to safeguard the perpetuation of their academic programs (see Chapter 5).

Towards Identifying a Problem of Practice

As a Professor of Practice at the University of Nebraska-Lincoln, engaging in original research is not required as a part of my position. My contract states that my apportionment is 95% teaching and 5% outreach. As a veteran classroom teacher, this appointment has played to my strengths and fit me well. Still, I have been curious about ways to better support my students and this desire led me to pursue a doctorate and to carry out this research.

As a part of the Carnegie Project on the Educational Doctorate (CPED) course of study addressed in the Department of Teaching, Learning, and Teacher Education's EdD program, I have come to realize that reading and interpreting reputable, valid, up-to-date, and appropriate research implies many additional responsibilities on my part. First, I need to know what is actually *reputable*. As CPED students, we have been assigned the task of reading a wide variety of educational texts and research studies related to educational practice. We have been exposed to a plethora of research that has broadened both my perspectives and knowledge base in a profound way. We have been exposed to a variety of authors and types of inquiry, research topics, methods, and philosophical and theoretical frameworks. As a result, for both CPED and my Professor of Practice roles I have had to hone my sense of what makes 'reputable' research reputable.

In turn, *validity*, which considers the match between what is studied versus what one seeks to know, is also important for a high-quality study. How does my actual study,

this dissertation, match my specific research interests and the conclusions I am to draw from its results? Certain authors stand out to me in regards to Family and Consumer Sciences (FCS) education, social justice, student teacher success, and teacher retention. Their writings have helped me find a more focused problem of practice. I have also come to realize that the ways individual investigators have chosen to research these topics have been an important part of my analysis. What types of quantitative data are they collecting? Does quantitative information fit into my problem of practice or will qualitative be more of my focus? How do the struggles within my profession create a problem I can examine within each of these methods?

Personally, I am finding that the qualitative aspect of the research enhances the validity of the study (Maxwell, 1992) with the small number of struggling students I have worked with on both a professional and personal level. I have loved completing the observations and interviews with a struggling student teacher for the project we completed in the qualitative research class, and feel like I am really gathering important, relevant information that will help me design effective interventions with future struggling student teachers. In turn, the chance to ‘compare notes’ with three other CATE educators at UNL who are not in FCS, but do face challenges of being away from the core of UNL’s teacher preparation efforts (either as in units outside the TLTE department or as single-person programs) has been helpful. We share challenges related to needing to prepare more candidates than the available talent pool readily provides.

The reality of completing a research study that is relevant, *timely* and *up-to-date* is also highly related to the need for students like me to find a problem of practice that fills a gap existing in the literature. As I have worked with pre-service teachers, I have

experienced several who are not doing well within their student teaching or first few years on the job after graduation. That is a problem. It is a problem for their students, and it is also a problem for me as a teacher educator because I know that often those who are struggling could become good teachers in time. (And if they leave the field in frustration before figuring out how to be good teachers then the challenge of filling more teaching vacancies becomes more acute.)

While most of my students do not struggle, the challenge for many who do is associated with the scores they received on the required national exams (PPST/CORE and Praxis Content Assessment) as a part of teacher preparation program admission requirements in the U.S. and Canada. While I am not sure that these admission requirements predict success for all candidates, I do know that they create an obstacle for some. I also believe that there is a balance of talents a teacher must have to be successful in the classroom and their ability to read, write, and make mathematical computations matters.

The National Academy of Education evaluated TPPs and included measures of quality that included instruction, faculty qualification, effectiveness in preparing new teachers who are employable, and success in preparing high-quality teachers. The measures used to determine a “high quality teacher” included performance assessments, ratings by principals and employers, and value-added estimates. The use of “value-added” models examine other factors controlled for differences in achievement to “level the playing field”. These can include family income, the student’s prior achievement and other background factors (Feuer, Floden, Chudowsky, & Ahn, 2013).

Some other problems of practice that have surfaced in my “Real Life Experiences

in UNL FCS Teacher Education,” have included having to intervene with student teachers in their progression in the program, working with new teachers who are not getting good evaluations from administrators, and attempting to recruit quality candidates at a distance (and later finding out that their performance in the program does not meet the quality level needed to succeed). Measures of quality are identified not only by state mandated exams (PPST/CORE and Praxis Content Assessment), but also the evaluations required during practicum and student teaching experiences. The PPST/CORE requires minimum scores set by the Nebraska Department of Education, but also the formative and summative *NE Clinical Practice Evaluation Rubrics* that correlate with both the Interstate Teacher Assessment and Support Consortium (InTASC) and Council for the Accreditation of Educator Preparation (CAEP) program standards (NDE, 2018).

This is just a small sample of the issues I am facing within my own practice. Even more demanding is figuring out what to do to support these struggling students in all respects of the work. How can I create a teacher education program with interventions that enable as many of these 'strugglers' as possible to become excellent teachers?

As of this point in time, I am “all in” in regards to research and the importance of being able to change practices in the educational system related to career areas, such as FCS and other CATE content areas as well. My goal has been to look at current admission requirements and the outcomes for the students who have been struggling, acknowledging that there is currently an FCS teacher shortage in Nebraska. This is also true for the Business, Marketing, and Management and Instructional Technology (BMIT); Agriculture; and Skills and Technical Sciences faculty (i.e., the other CATE fields for which UNL prepares teachers). Because teacher shortages are so extreme in

some categories and because word has gotten out to the general public about these shortages, the question of “quality” is becoming more of a public concern. It is hard to attract educators to topic areas that are seen as at-risk for whatever reason. Across the CATE fields there is a limited supply, which means there is a place for practically everyone in the pool (although it does not directly follow that new teachers who struggle with standardized tests are the weakest candidates).

The subjects we teach in FCS and other CATE content areas may sound “fun” and “easy” to candidates hoping to get into this field of teaching because of the availability of jobs. During my years at UNL it has been my informal impression that the FCS teacher education candidates are drawn to these subject areas because they enjoyed them in middle or high school, but the skill to successfully teach them may involve a lot more information once they get into the program. As it stands, there is a need for UNL to produce as many FCS teachers as it can (because of the statewide and national shortages), to assure that they are as skilled as can be (because of the relevance of FCS skills to all of our lives), and to question whether some who are currently impeded from entering the profession (particularly because of the PPST/CORE standardized test) deserve a chance to try and succeed.

Studying struggling students is definitely not unique to Family and Consumer Sciences (FCS) and is a common concern of most (if not all) of the teacher preparation faculty at UNL. I say this having participated on the college curriculum and secondary education committees with other TPP program chairs. So, while my problem of practice would in some ways be unique to my particular niche, I have suspected that the pressures I navigate are not unique to FCS. As this dissertation exemplifies, I have believed I could

learn from how other UNL colleagues in related teacher preparation fields encounter and respond to challenges like mine. To branch out and get some additional perspectives, I decided that interviewing other secondary education faculty would give me additional direction and guidance in regards to how they are dealing with their own struggling students.

What seemed to make the most sense to me was to focus on “my colleagues” within the CATE programs. We are separate at the federal and state level from other teaching credential areas and we all have the common thread of skills-based instruction and Perkins support for our programs. In addition, the CATE faculty at UNL have served together on state boards for professional organizations and have attended many of the same conferences and workshops throughout the years. My CATE colleagues’ experiences and positions are more like mine than, say, those preparing math teachers and English language arts teachers. The latter faculty are preparing teachers for academically tracked classes as opposed to the heterogeneous enrollments CATE faculty encounters. CATE faculty are also preparing teachers to address so-called ‘real world’ skills (i.e., directly applied) rather than the more abstract intellectual and citizenship development content of the liberal arts fields. By including fellow CATE teacher educators in this study, my inquiry was extended beyond my own specific practice, yet maintained enough similarity to what I do that it retained relevance to my thinking about my problem of practice—the challenges of adequately supporting marginal teacher education candidates in an environment with pressures and expectations coming from many different sources.

Thus, within this dissertation, I have asked:

1. What are the most common issues struggling students in CATE programs are experiencing?
2. What characteristics are similar, as well as unique within all four CATE programs related to supporting struggling preservice teachers?
3. What interventions could be applied to all CATE programs both at UNL and at other institutions offering FCS programs?
4. What information might be helpful to share with the Deans of the College of Education and Human Sciences (CEHS) and the Institute of Agriculture and Natural Resources (IANR), as well as other stakeholders, that may result in improvements for all of CATE programs at UNL?

Organization of This Dissertation

This dissertation is divided into six chapters, including this introduction. Chapter 2 includes a review of the literature on teacher shortages, CATE education, the roles of teacher educators, and ecological theory. Chapter 3, the methodology section, describes how two complementary studies were pursued to answer specific problem of practice questions. In Chapter 4, results from a case study of a struggling FCS student under my supervision are presented. In Chapter 5, material is presented about how I gathered information on the perspectives of my fellow UNL CATE teacher educators, all of whom face many challenges similar to mine. Finally, in Chapter 6, the two studies are compared and implications for future applications within the CATE programs at the University of Nebraska are discussed in relation to the questions identified above.

Chapter 2: Literature Review

Teacher Shortages

The K-12 teacher shortage in the United States has become a serious issue and much research is continuing to focus on recruitment and retention in a wide variety of subject areas (Borman & Dowling, 2008; Feng & Sass, 2017; Guarino, Santibanez, & Daley, 2006). The Nebraska Department of Education (NDE) publishes an analysis of shortages each year as reported by school districts in the state. Family and Consumer Sciences (FCS) has been on this list six times in the past 16 years since the first published survey since 2000. I have been gathering data since 2009 at the University of Nebraska-Lincoln (UNL) documenting FCS openings, retirements, and positions filled without the proper certification, which supports the fact that shortages have occurred in additional years not reported by NDE's survey (NDE Vacancy Survey, 2017). (See also Table 1 in Chapter 1.)

Shortages and doubts about teacher quality have also been the subject of numerous government policies, blaming the American secondary education system (grades 6-12) for the lack of a qualified workforce, as well as the substandard achievement level of the students, placing responsibility on both the individual teachers and districts (Rivkin, Hanushek, & Kain, 2005). Reports from urban schools sometimes report as much as 100% immediate need for qualified teachers (Miller & Meszaros, 1996; Wronowski, 2018). (One hundred percent need means none of the existing teachers are viewed as qualified.) As a result, teacher preparation programs (TPPs) and state departments of education are raising the bar on entrance and minimum criteria for

certification including national exams measuring both pedagogy and subject matter (Cochran-Smith & Villegas, 2015).

Meta-analyses have shown that basic academic skills exams (such as the PPST/CORE, SAT or ACT) have little correlation with teacher effectiveness, either when examining the verbal scores alone or including the mathematics and reading scores (Aloe & Becker, 2009; D'Agostino & Powers, 2009). This very university has recently eliminated the required Graduate Records Exam (GRE) for admission into PhD programs within Teaching, Learning and Teacher Education (TLTE), as well as Child, Youth, and Family Studies (CYAF), both of which are departments supporting my work towards the doctorate.

Teacher shortages have long been an issue facing many states and regions in our country. During the Great Depression there were scholarly articles referring to “staffing difficulties”; these struggles have continued well into the 21st century (Sherratt, 2016; Darling-Hammond, 2010). CATE is specifically noted as a shortage area within the U.S. Department of Education’s data in 2017 (U.S Department of Education Office of Postsecondary Education, 2017). However, my review of UNL data showed severely low enrollments started in the early 2000’s (Moser, 2020). FCS has struggled with shortages, both in teacher education program enrollment and in the number of teachers available for hire all over the United States.

The beginning of the decrease in the number of home economics programs coincides with the women’s movement in the late 1960’s and early 1970’s as more women sought less traditional careers, especially not those that were stereotypically female (Stage & Vincenti, 1997). As the shortages grew in the 1970’s and early 1980’s, a

group of scholars began to question the framework of teaching and research within the profession, identifying the traditional approach as not reflecting the original philosophy of the founding members and had become too technical in nature (Brown, 1980).

With a philosophical change trending towards more rigor and intellectual integrity in the 1980's that was epitomized by *A Nation At Risk* (National Commission on Excellence in Education, 1983), home economics programs were viewed as more traditional and less intellectual, with resulting drops in enrollments. This triggered program closures, both at the secondary and post-secondary level (Brown, 1980; Eyre & Peterat, 1990). The problem compounded as more baby boomer-aged teachers reached retirement age. But an upswing began in the demand for teachers to take their places in programs that were still operating. This began a domino effect of post-secondary programs closing, teacher shortages, and non-traditional certification options becoming available, including online learning (Jackman & Rehm, 1994; Arnett, 2012b).

The shortage of teacher candidates is not just an issue within our country, but also in Europe and Canada. A study done in Belgium by Rots, Aelterman, and Devos (2014) examined why teacher education candidates chose not to enter the field after extensive professional preparation, a dynamic called "wastage." Using social learning theory as their framework, this team referred to prior research by Rots to identify predictive variables related to the students' choice to enter the profession after graduation. Four categories identified as enrollment predictors included personal characteristics, initial teaching motivation, the TPP they chose, and how they integrated into teaching. The most clear 'wastage' discrepancy was that females enter the profession 21% more often than males (F=79%, M=58%).

FCS teacher candidates show a higher tendency to choose to actually teach when they experience better classroom performance. Other factors that contributed to following through on teaching ambitions included a strong initial motivation to teach, high levels of mentor support, and feeling better prepared for the profession, including a higher level of efficacy in instructional strategies and classroom management (Rots, Aelterman & Devos, 2014). The Belgian research team's findings are consistent with characteristics identified in other studies of CATE and FCS teachers.

Teacher Quality

Strengthening and diversifying the teacher workforce have been foci of reports from The Pell Institute (Engle & Tinto, 2008) and, more recently, from the controversial National Council on Teacher Quality (2019). Inequities among candidates within these reports highlight issues related to testing requirements, financial need, and coursework and content deficits. According to the first of these, the chances of low-income and first-generation college students graduating was six times less likely when compared to high-income youth (Engle & Tinto, 2008).

The requirement that preservice teachers need to pass the PPST/CORE brings with it some additional issues related to determining success in teaching and the preparation programs that require these. Eighty-two percent of the states require prospective candidates to take some kind of basic-skills exam to earn a teaching certificate (Petchauer, 2012). As long ago as 1987, for both licensing and admissions screenings, exams became the most used tool to determine proficiency of candidates (Mikitovics & Crehan, 2002). Gitomer and colleagues working for ETS noted in 1999 a correlation between pass rate of the PPST and higher standardized test scores . They

claimed the correlation showed how to increase the intellectual level of the candidate pool for TPPs (Gitomer, Latham & Ziobek, 1999).

The usefulness of the licensure exams has been supported in another study completed by Gitomer (Gitomer, Brown, & Bonnett, 2011) which examined the Praxis I tests administered by ETS. Their team compared two groups of test takers who had either successfully met or surpassed the testing requirements versus those who were borderline and did not meet the criterion. The states included in the data collection were also those who had accepted both the Praxis I (now referred to as the PPST/CORE) and the Praxis II (recently renamed the “Praxis Content Assessment”). It is good to note here that Nebraska is one of the states within this category. Results of the comparisons showed that the tests showed the borderline candidates struggling to meet state requirements, whereas those that succeeded the first time with the exam encountered many fewer subsequent difficulties. Another significant finding was related to those students who had difficulty passing the writing exam were also more likely to struggle with writing-intensive curriculum (Gitomer, Brown & Bonnett, 2011).

In another study, Petchauer (2016) followed 31 African American students in a Northeastern historically Black institution for three years to consider the dimensions of the Praxis that were cognitive, affective, and racialized. The most significant predictor of performance was the previous test-taking experiences of the students and were based on individual tests (reading, writing or math) rather than the exam as a whole (Petchauer, 2016).

Goldhaber and Hansen (2010) analyzed teacher effectiveness and divided the different sources of information provided by licensing exams: screening or signaling.

The screening identifies a state's minimum score that is set to prevent incompetent teachers from entering the profession. The researchers designed a signaling function to assess the validity of the teacher's score on the exam to predict student learning. Using state licensing exams in from the North Carolina Department of Public Instruction, these researchers examined student and teacher data over an 11-year period that included achievement scores from grades four and six, as well as Praxis scores of the instructors. Overall, unlike the Gitomer studies with ETS, Goldhaber and Hansen found that there was no evidence of the Praxis exams' value as a screening device and that the exams did not show an increase in effectiveness for teaching reading. They did, however show reasonable screening effectiveness for math. They also found evidence that the signals for quality show up differently for the Black and male teachers, as well as higher levels of success for minority students when they are matched within the classroom.

The entrance of non-traditional teachers into FCS (as well as other CATE subject areas) continues to be a serious issue. *Career-switchers* is another term identifying some of these non-traditional students' move into the teaching profession. Surveys of career switchers showed multiple factors affected their entry into the profession, including student success and teacher satisfaction, dealing with discipline and behavior issues, lack of support from administration and parents, and overall passion for teaching (Omar, Self, & Cole, 2018). Most of these professionals also shared that teaching was better than their previous employment and that they used the subject matter from their prior experiences to enhance the content they are now teaching. Extrinsic factors of dealing with difficult student behaviors, workload, and an imbalanced work and family life were described as some of the most common stressors (Omar, Self, & Cole, 2018).

Uncertified candidates are required to hold a *Provisional*, *Transitional*, or *Temporary* teaching certificate by most states. The hiring school administration initiates this paperwork, and the district requires the candidates to complete coursework to meet full certification requirements within the span of two to three years. Most are also required to complete a student teaching experience at the end of the provisional period (NDE, 2020). Success is not guaranteed during the student teaching experience once students are admitted into a post-secondary program, and much analysis has focused on structure and supervision variables contributing to attrition (Ronfeldt & Reininger, 2012; Rots, Aelterman & Devos, 2014; Evans, 2017). This review considered factors that contribute positively and negatively to the success of student teachers, which in turn leads to greater employment in the field and future retention in FCS education teaching positions.

Declining Enrollments and FCS Programs

The previously noted decline in enrollments and overall program offerings in FCS started in the early 1970's, led to a shortage of teachers during the 1990's when the supply of prepared teachers outpaced the slower attrition of programs. This in turn led to a net gain in open FCS teaching positions, the implementation of emergency teaching certificates, and secondary departments not operating because of not being able to find qualified applicants (Jackman & Rehm, 1995; Miller & Meszaros, 1996).

Godbey and Johnson (2011) address the shortage of FCS teachers and their top influences for choosing this career. Their study was completed in Kentucky surveying FCS teachers who had been in the profession less than six years. Likert scales measured four sections related to work and personal demographics, values, career choice, and job

satisfaction. Participants also had the opportunity in open-ended questions to elaborate on job satisfaction and retention. The results showed all 26 participants agreeing or strongly agreeing that *helping people* and *liking to work with people* were their top influences for choosing FCS education. Also very highly rated were *the attractive schedule*, *the example of their own teacher as inspirational*, and *teachers bringing about social change*. The major influence of values for choosing FCS education included *the interest in this subject matter*, *wanting to help families*, and *college and high school instructors*. Job satisfaction was also important with *keeping it interesting* and *enjoyment of their work* being the top two responses (Godbey & Johnson, 2011). Comparing this with the survey of *career switchers* shows very different reasons for teaching and staying in or leaving the profession.

At the beginning of this century, the closing of post-secondary programs resulted in states offering FCS teacher education programs, as it had become harder to find and support the unfilled secondary positions all over the country. The creation of the Great Plains Interactive Distance Education Program (<http://www.hsidea.org/programs/fcsed/>) began a wave of creative and innovative pathways to certification for non-traditional students starting in 2006. The collaborative effort of Central Washington State, North Dakota State, South Dakota State, Texas Tech University, and the University of Nebraska-Lincoln resulted in an online master's degree program where students could earn an initial teaching certification in FCS (Godfrey, Allison, Alexander, Bergh, Borr, Debates, & Moser, 2016). Over time, the program has included students from 21 different states and several different countries, graduating over fifty students. The University of Nebraska-Lincoln houses most of the students majoring in the certification program, as

well as adding the professional advancement option in 2014. This program has been one of the largest contributors to the increase in enrollment at UNL.

The specific shortage related to FCS teachers and the influx of under-qualified, uncertified applicants present especially complex challenges. These twin dynamics threaten the overall quality of FCS teachers, which in turn affects the image and public view of an already overly stereotyped subject area. Based on data I collected over the past eight years, 18% of the teachers hired for openings in Nebraska did not hold a teaching certificate or an endorsement in FCS (Moser, 2019).

Attrition and Retention of Teachers

Retaining teachers has been an ongoing issue in many subject areas, and is especially significant in the CATE subject areas of FCS, Ag Ed, and STS (Nebraska Teacher Vacancy Comparison Report, 2017). Mimbs (2000) examined the national shortage of FCS teachers, finding that there has been an issue for this profession since the late 1980's. This study examined the retention rate and reasons teachers have left the FCS profession and found that as many as 29% of the teachers left within the first seven years. This is a much higher rate than the 15% attrition of nontraditional teachers. The most common reasons why FCS teachers left the profession included the teacher getting a different position, parenting obligations, working with students who are difficult to handle, and unavailability of positions close to where the teacher lived. A recurring theme to increase retention and recruitment of FCS teachers involved improving the image of the profession. Breaking the stereotypes and stressing the importance of FCS as a subject area has been a concern for TPP and teachers in the profession for many years (Ley, 1993; Mimbs, 2000; Simerly, 1993).

Several studies have also looked at the reasons certified teachers do not remain in the profession, including low pay, other employment opportunities, and too many extra responsibilities for FCS teachers. The attrition of newer teachers also stemmed from added stress, including lack of time for planning, student issues related to discipline and motivation, and lack of supplies, adequate facilities, salary, budget, and/or the work required with special populations (Mimbs, 2000; Tripp, 2006; Arnett, 2012b). A more recent report from the Economic Policy Institute that examined the teacher shortage found that increases in student enrollment and broadened curriculums were additional factors associated with teachers leaving the profession (Garcia & Weiss, 2019).

Recent data from the U.S. Department of Education and The Economic Policy Institute showed teacher attrition for those starting their career in 2007 at 17% by the fifth year in the field (i.e., 2012) and 30% by 2017 (Gray, Taie, & O'Rear, 2015; Garcia & Weiss, 2019). The rate for schools claiming a hard time filling vacancies has tripled from 2011-2012 to 2015-2016 from 3.1% to 9.4% with the number of schools doubling as well. Yet with a 15.4% drop in the candidates completing teacher education programs, the pool of certified applicants continues to shrink (Garcia & Weiss, 2019).

Arnett (2012b) also examined the retention of new FCS teachers during the first few years of their professional experience. This is especially pertinent to retention given the research indicating that 25% leave within the first three years. New FCS teachers are similar to new teachers in other subject areas with challenges in student and facilities management, and lack of administrative support being some of the most common challenges they are experiencing. Drawbacks noted specific to the subject area were the traditional image of FCS and negative perceptions of veterans who have already left the

profession. Newer, younger teachers, however, have other ideas. Arnett focused on new FCS teachers to identify problems they were facing during the first few years of their professional experience. Four themes were identified as being especially relevant for supporting these new professionals: 1) managing student behaviors, 2) managing the facility, 3) instruction management, and 4) external relations. Recommendations included ideas for teacher education programs, stakeholders, administrators, induction coordinators, mentors, and informing and supporting pre-service and beginning teachers.

The most applicable study found so far related to preservice teachers struggling was done by Southwestern University researchers. Barnard-Brak, Lectenberger, and Lan (2010) identified how much (or little) information college students disclose about their special needs. Students self-selected after a campus-wide recruitment sent emails via the disability services listserv. Ten students responded at first, with only two ending up doing extensive interviews. The procedure involved audio-recorded interviews, documentation of field notes, and archival documents from professors with the consent of participants. Data collection included face-to-face individual interviews using the interpretive framework because of the subjective nature. Researchers used Jourard's Self-Disclosure Questionnaire (1970) to survey students, with data transcribed, coded and categorized to determine comfort level (Jourard & Friedman, 1970). Most important for our purposes, however, was how reluctant those with disabilities were to participate in any study related to the implications or consequences of those disabilities.

Teacher Preparation Programs

Recruitment of teachers, whether traditional or non-traditional is also influenced by the admission policies and procedures of post-secondary institutions. Varying

assessments to evaluate teacher preparation programs have been in place since the mid-1800's by local officials administering examinations, with a significant transitioning to accreditation associations taking on the role in the 1940's and 50's (Nichols, 2020). Between 1989 and 2004, the National Council for Accreditation of Teacher Education (NCATE) was the primary accreditation service used by about 500 institutions. In a perhaps pejorative characterization, Nichols (2020) explains, that the creation of the Teacher Education Accreditation Council (TEAC) in the early 2000s "occurred due to a few liberal arts university presidents who were not satisfied with NCATE, turning towards the practice of each institution setting their own educational standards," a point echoed less pejoratively by Wise (2005).

In 2009, the two accrediting bodies (NCATE and TEAC) blended and in 2012. The Commission on Standards and Performance Reporting met to create new standards. CAEP approved these changes in 2013 and the next year this was the official accrediting body for teacher preparation programs. This removed NCATE and TEAC as accrediting bodies and in 2016 CAEP standards were implemented. Nichols states in the discussion "Teacher preparation programs and their intended goals continue to be a moving target and remain exacerbated by the changing agendas of accreditation agencies" (Nichols, 2020).

The National Academy of Education, in another report that evaluated TPPs proposed *The Key Effectiveness Indicator* (KEI). The KEI design sought to ensure that programs provided stakeholders with clear information about reporting requirements to facilitate efforts for teacher educators to improve. KEI focuses on evidence of program outcomes for: (1) strength of program candidates; (2) effectiveness of program

completers including those taking an alternative route; and (3) alignment of the states' workforce needs alignment with the program's production of teachers (Feuer, Floden, Chudowsky, & Ahn, 2013).

Endorsing these criteria, Nichols (2020) considers these changes to assessing teacher preparation programs as important for: (1) creating solid measures of high-quality data and effectiveness; (2) address concerns related to the quality of candidate, strength of content knowledge, and ability to teach, manage classrooms, and engage pupils; (3) reduce the measure and number of data points; and (4) update the data continuously so it is always current (Nichols, 2020).

Looking at the practices of post-secondary programs came up often in the literature related to the success of students. Many studies addressed how many teacher candidates actually remain in school so that they eventually major, then graduate in a teacher education certification area and enter the profession. Examining success in college has been an ongoing source of study at least since Tinto (1975) developed the *interactionist theory* that placed the responsibility of retention on the post-secondary institution to show how much they care and how much students become socially integrated during their experiences (Tinto, 1975). Nineteen years later, other factors identified in Tinto's research included financial status, experiences, and classroom interactions (Tinto, 1993).

Much of this older research is still valid today as examined by Braxton and colleagues (2004, 2014). They replicated much of Tinto's work and found that the key variables of social integration and institutional commitment were still valid (Braxton et al., 2004, 2014).

There has been research on academic preparedness to determine student success in college for many years, especially entry exam scores such as the ACT and SAT, as well as one's high school grade point averages (Camara, 2013). Including all of these academic markers to predict success combined with student's GPA in the first year of college, Atkinson and Geiser (2009) found high school GPA to be more predictive. (See also Korbin et al., 2008.)

In a more recent study, Hepworth, Littlepage and Hancock (2018) compared three elements (academic preparedness, perception of institutional commitment, and social integration), replicating research completed by Braxton (2014) and Littlepage and Hepworth (2016) with a much larger sample completing the survey. The 2018 study found the element of academic preparedness showed statistical significance for earning an 'A' and 5.7% likelihood of earning an 'E' or 'Withdrawn' for those students scoring highest on a rating scale measuring high school and college GPA.

When working to identify differences between community and 4-year colleges, Heller and Cassady observed external goal orientation and academic anxiety as two additional factors influencing success. In their study, cumulative high school GPA was still the variable with the highest level of predictive importance (Heller & Cassady, 2017).

Studies to examine the success for first generation, African American, and Hispanic college students has shown some significant information to encourage success in 4-year institutions. These populations represents only 11% of college graduates earning a Bachelor's degree within six years of first enrollment. This finding compares to 55% of continuing-generation students. A high level of interaction with faculty has been

an important factor related to greater academic success, especially if it involves high levels of support during the first year. Social obstacles have been examined showing first-generation students are also reluctant to ask for help from faculty, so more structured interactions may benefit their success (DeFreitas & Bravo, 2012; Engle & Tinto, 2008; Katreich & Aruguete, 2017; Stephens et al., 2012). These factors, along with lower levels of confidence for their own academic abilities also contribute to these already marginalized students being less likely to ask faculty for help (Jenkins et al., 2009).

The admission criteria of Ontario Canada teacher education institutions was the subject of a study completed by Casey and Childs (2011), with the effectiveness of such criteria as the focus. This study took a unique approach using admission criteria comparing pre-admission proxies (performance during practice teaching blocks and determination for student teaching by the student, an instructor, and the associate teacher) so that candidates who did not get positions after graduation could be included. The researchers also analyzed admission criteria, practice teaching performance, and the candidate's perceived readiness for relationships. Information on grade point average, written profiles, practice teaching evaluations, and preparedness evaluations were included in the literature review. Overall, the results showed that teachers in the study who were not certified felt significantly less prepared in several of these elements (Casey & Childs, 2011).

Exploring the consistency between the admission goals of a post-secondary institution and examining the ability to implement them into practice in regards to serving as a gatekeeper for the future success of students, Houlden and Kitchen (2017) found that 15% of the candidates were still considered poor quality. The researchers addressed how

to make criteria explicit and clearer to applicants, but their study and other literature (e.g., Amrein-Beardsley, 2012; Ingersoll & May, 2012) points to additional gaps between this need related to teacher education programs. With over 28% of teachers leaving their current positions, those taking on a different role in education or continuing their own education is preventable. One factor behind the exodus of teachers from education—poor school leadership—is outside of anything preparatory programs can control for.

The equity of admitting a more diverse pool of candidates have proven a difficult task related to changing admissions practices. A model in Texas in which the top 10% of the students have automatic admission into teacher education programs recommended the restructuring of Canadian colleges. Other aspects of the admissions policies including academic averages, standardized test results, recommendation letters, essays, interviews, and other multi-applicant and digital assessment tools were addressed to offer a comprehensive look at these elements related to future success as well (Houlden & Kitchen, 2017).

The research here is significant, especially in regards to recruitment of future teachers and filling the need for quality candidates. As already hinted, once these candidates make it through the administrative requirements, earn their certificate, and start teaching a brand new set of issues becomes evident.

Preparing New Teachers

Teaching is often referred to as the one profession where new professionals learn by being thrown into the fire, with the expectation for their initial performance measured with the same criteria as those used with experienced veterans. Citing this expectation is

one of the primary struggles of new teachers entering the profession, despite programs in place to give them additional support, preparing, and time to adjust (Tait, 2008).

The National Center for Educational Statistics (2014) recently documented an overall attrition rate of 16% and a higher rate for teachers with only one to three years of experience at 20%. Most often, teachers cited leaving the field for a better employment opportunity, better working conditions, improved workload, and military service (U.S. Department of Education, 2014). These findings are consistent with those found in literature specifically targeting Family and Consumer Sciences professionals as well (Jackman & Rehm, 1995; Miller & Meszaros, 1996; Mimbs, 2000; Tripp, 2006, Arnett, 2012b).

Graduates from a master's-level TPP were surveyed by Evans (2017) to evaluate their ability to predict graduate grade point averages (GPAs) and enrollment. Starting as criteria after the *A Nation at Risk* report was published in 1983 (National Commission on Excellence in Education, 1983), GPAs have become a core tool for screening the quality of candidates with TPPs then having the responsibility of creating successful teachers, as well as meeting the needs of students and educational initiatives. Standard 3.2, which required teacher preparation programs to increase the rigor of admissions, is the focus of Evans' study to examine the consequences of raising admissions standards. The author reported on the background of Standard 3.2 to look at research designed to predict the validity of admission criteria and how this used the undergraduate GPA and the Graduate Record Examination (GRE) to evaluate the success of students in career and additional educational experiences. This study examined these scores, undergraduate and graduate GPA, GRE score, and student background and demographics (gender, race/ethnicity, and

age) to predict success. Evans found that grade point averages to be one of the best predictors of success for teacher candidates, even higher than the GRE scores. With the minimum requirements of most colleges set at 2.75 for undergraduate candidates, they concluded that scores closer to this level (rather than well above) will indicate students who may struggle during student teaching and their first few years in the profession.

Several research studies have examined both the curriculum and preparing needs specifically of Family and Consumer Sciences (FCS) teachers (Arnett, 2012a; 2012b). The 2012a study examined the problems encountered by new teachers in FCS, but also the needs for curriculum to address diversity issues and improved student teaching experiences. In the same year, Arnett's 2012b study expanded further to explore the need for additional curriculum to address diverse student populations as well as new standards developed in a mid-western state as a number one priority. Additional research from 2003--2006 verified the need for more education for new teachers in this regard (Arnett-Hartwick, 2015).

In addition to the preparation needs of new teachers, Arnett (2012a) found that most teacher candidates are still white, middle-class, and female, which also does not reflect the diversity of students they will encounter in K-12 schools. The survey included questions focusing on diversity content needs, and reflections on how teacher candidates see diversity content strengthened. The teacher educators and their graduates indicated an average amount of preparation for teaching diverse students. Arnett suggested additional preparation for the teacher educators and inclusion of diversity topics infused into curriculum in a variety of instances and indicated that lack of diversity preparation is one of the major frustrations for beginning teachers and that diversity needs before their

student teaching and other educational experiences in college. This issue of diversity-influenced teacher preparation programs working to improve curriculum is timely and these concepts should be included on a regular basis.

Relationships with Cooperating Teachers

With teacher preparation programs struggling to recruit candidates and statistics showing many young teachers leaving the field within the first five years, key factors in the induction of new teachers merit attention. Giles and Kent (2014) completed a study surveying elementary teacher education candidates at the end of their student teaching experience. Ninety-seven percent of the 32 respondents reported feeling prepared for their student teaching experience. Forty-four percent indicated their prior work with elementary-aged students as a major contribution to feeling ready, with five mentioning field experiences, nine citing interactions with in-service teachers, and three sharing that their cooperating teacher (CT) and/or university faculty contributed to feelings of readiness as well.

In addition to the data cited above, Giles and Kent (2014) had participants also complete a rating scale about their relationship with their CT and the university supervisor. Seventy-one percent indicated they met regularly with their CT. Sixty-one percent strongly agreed with the item that their CT had provided beneficial feedback. Candidates also felt they were treated fairly and respectfully with 67.7% strongly agreeing, and all of those surveyed agreeing at least somewhat that this was true.

Giles and Kent (2014) also reported that university supervisors were viewed overall as more helpful than CTs in regards to constructive feedback. This underscores that student teachers' relationships with both CTs and university supervisors are

important for securing the best student teaching experiences of the future professionals. These are messages that need to be considered centrally by TPP programs given their potential impact on new teachers' ultimate success.

Bastian, Patterson and Carpenter (2020) have examined the relationship between the student and CT further, especially in terms of how a high quality placement can benefit struggling young professionals. In a study looking at high quality relationships between CTs and student teachers both during and after their partnership, CTs earn higher evaluation ratings, especially if they continue as a mentor during a new teachers' early career. Results showed that the experience of pre-student teachers whose GPA was in the bottom quartile particularly benefit from high quality placements. Those placements resulted in low suspension rates from the teacher education program, high collaboration between teachers, and students whose achievement rate exceeded or met expectations.

Arnett (2012b) also examined the retention of new FCS teachers during the first few years of their professional experience, finding new FCS teachers are similar to new teachers in other subject areas with challenges in student and facilities management and perceived lack of administrative support being some of the most common issues they are experiencing. Identified drawbacks specific to the subject area were the traditional image of FCS and negative perceptions of veterans who have already left the profession. Arnett focused on new FCS teachers to identify problems they were facing during the first few years of their professional experience. Four themes were identified as being especially relevant for supporting these new professionals: (1) managing student behaviors, (2) managing the facility, (3) instruction management, and (4) external relations. Arnett then offered recommendations for teacher education programs, stakeholders, administrators,

induction coordinators, mentors, and others supporting pre-service and beginning teachers.

Extending the studies she had completed on teacher retention, Arnett-Hartwick (2015) studied the pertinence of the length of the student teaching semester. With each experience lasting from 10 to sixteen weeks, this study examined the difference between the shorter and longer experience. The results indicated support for the extended time, especially in terms of teacher's level of maturity and progress toward becoming a qualified teacher. Other benefits included better bonding with the students, student teachers having a chance to see how a semester opens and closes, increased comfort level with their K-12 students, and the option of more time for supervisors to take corrective action leading to higher quality of teaching among teacher candidates.

These results are similar to work done by Chambers and Hardy (2005) to see if the length of student teaching experience was a positive element to include in teacher preparation programs, especially in terms of teacher candidates learning to manage student behaviors. The results identified the student's classroom management approach and relationship to their self-efficacy as an important link to successful at teaching and managing sometimes difficult child /youth behaviors. Longer student teaching experiences also predicted achievement on tests, as well as the additional encouragement and support needed for working with at-risk and diverse student populations.

Ronfeldt and Reininger (2012) also studied prospective teachers to determine if a longer professional semester would improve their performance. International data at the time indicated a trend in teacher preparation programs to lengthen the hours of these experiences during the pre-preparation stages of their education. This study examined the

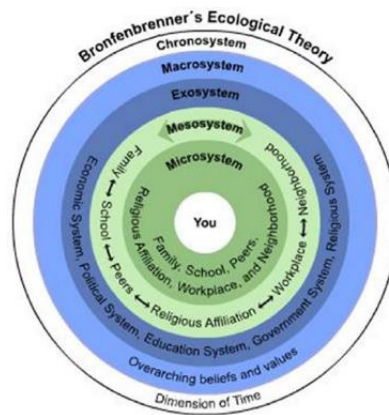
perceptions teachers have of being prepared for instruction, the effect of a 'long' student teaching experiences, and demographic characteristics. Preliminary work involved extensive literature reviews on variation in practice teaching in the U.S. and abroad, length of student teaching, dimensions of student teaching quality, field placement contexts, CTs, university supervisors, outcome measures, teacher efficacy, perceptions of instructional preparedness, and career plans. Next, the researchers surveyed four cohorts of students right before and after their practice teaching experience. Eighty percent of respondents reported that they were “completely” or “mostly” satisfied with these elements.

Additionally, the researchers broke down the overall ratings of *satisfaction* into: (1) the student teaching experience, (2) CT, (3) placement teachers and staff, and (4) placement. The four rating for measuring *quality* divided into: (1)CT , (2) supervisor (3) student teacher autonomy and control, and (4) faculty and staff support and welcoming behaviors. Their three most important findings showed student teaching candidates felt more prepared for teaching, more efficacious, and somewhat more interested in working with an underserved population when the student teaching experiences were longer. Those with longer student teaching experiences also reported higher levels of satisfaction with the student teaching experience, greater likelihood that the candidates felt prepared to teach, and firmer plans to stay in the profession longer. Ironically, the quantity of time of the student placements for their teaching experiences showed no effect on their efficacy.

FCS and Ecological Systems Theory

Aspiring FCS teachers and the faculty who work with them in higher education live and learn within a complex interactive system best described through Ecological Systems Theory, developed by Urie Bronfenbrenner. Refer to Figure 2.1 for a visual depiction of these embedded social systems.

Figure 2.1: Bronfenbrenner's Ecological Theory Diagram



Ecological systems theory addresses multi-dimensional influences on human development and learning. It also underscores the value of studying people in real-life situations (Bronfenbrenner, 1994). These concepts had a direct influence on the questions asked and methods used in this study (a theme returned to in the next chapter).

According to Bronfenbrenner (1994), the most basic social system is the microsystem, which includes the entire array of activities, roles, and interpersonal relationships individuals experience in immediate settings such as home or classroom. Adapting Bronfenbrenner for this study, the practicum and student teaching experiences represent the microsystem. These are both a requirement for pre-service teacher candidates during their preparation. This also applies to the experiences the college student has had when entering the program. These influences contribute to the skills and

aptitudes the candidates carry with them during their entire educational experience, as well as the one they will be enlisting in their own classrooms when they finish earning a teaching certificate.

In considering this microsystem, I have observed that students at the secondary level choose teaching for a wide variety of reasons. Some students have followed a pathway based on negative experiences, including their own behaviors as a student or negative experiences with former teachers. Others have chosen teaching because they love the age level of the students or the content they will be teaching. For FCS, some of the additional experiences I have witnessed during my tenure include that push students to our field are pre-university engagement with 4-H and the co-curricular student organization Family, Career & Community Leaders of America (FCCLA). These experiences seem to have shaped the students' love of the content, but have also created a bond with adults, teachers, and members of the community because of the types of participation involved. Both 4-H and FCCLA involve a wide variety of leadership, community service, competitive events, and multiple levels of participation.

Turning to the next level of Brefenbrenner's model, mesosystems connect two or more microsystems pertinent to the developing person. In this case, the mesosystem includes parents, teachers, at home, in schools, the workplace, and community structures. As students are learning, they are also absorbing the mesosystem experiences they are having and that they will apply in their own education. Family involvement, the quality of the school and peer experiences all factor in the success of the student as they move from secondary to a post-secondary program.

As mentioned before, parents are also a primary influence on career choice as children move through the educational system. For example, former teachers and parents are very influential in regards to the career paths chosen by their children. Rhodes, Nevill and Allan (2004) found over half of a group of 26% of the new teachers surveyed reported *very dissatisfying* support from their parents in regards to their career choice. Getting increased support from their parents was also rank ordered 14th out of twenty factors that would help these new professionals stay in teaching and 11th in regards to them leaving (Rhodes, Nevill, & Allan, 2004).

The “stable teacher” is also one whose work and life balance can affect not only their own satisfaction with their career choice, but also the achievement level of the students they are working with, especially if these pupils are disadvantaged (Ingersoll & May, 2012). Such stability as built or undermined at the mesosystem level.

Bronfenbrenner’s notion of the exosystem links the settings of education, politics, economic, and governmental systems. The exosystem involves one or more settings that do not involve a person as an active participant, but in which events occur that impact by what happens in the microsystem. Such factors are influential as students enter a teaching career. For example, teaching definitely has the reputation of being low-paying and holding less prestige within American culture. As teacher educators, we must consider the exosystemic experiences pre-service teachers are bringing with them to our classrooms such as influences learned within the family, as well as the culture of the community students grew up in and the view of education. The career choices of students’ parents is another factor influencing social networks and neighborhood. Because of the elimination of many FCS education programs in smaller districts, some students have not

had exposure to FCS courses in middle and high school. As a result, family members may be skeptical about the viability of spending four years in college preparing to become an FCS teacher.

The largest, most comprehensive systems in Brefenbrenner's schema are macrosystems. They consist of broad, institutional influences in people's lives, such as the legal, economic, religious, social, educational, political and policy systems. We have seen macrosystem influences, like the requirements for earning a teaching certificate become more difficult and cumbersome all over the United States. Even the factors contributing to young people choosing a career in teaching are controlled by external systems influencing all educational policies. These outside influences also create pressure on states to keep the quality of their teachers high so in turn those teachers can score well on achievement tests, keeping the United States competitive in the global marketplace.

Macrosystem elements also contribute to the stereotypes and misinterpretation of what FCS actually *is* as a subject matter and profession. The Career Clusters Model adopted by the U.S. Department of Education in the 1990's is a great example of this profession's omission from the program because of the crossover of subjects into business, agriculture, human sciences, and design. Back then, because of a belief that FCS was on its way out of secondary curriculum with programs dying in many educational institutions, the "powers that be" spread the content out and did not designate it as a separate content area. However, the professional organizations with strong leadership (i.e.: The American Association of Family and Consumer Sciences, and The Association of CATE) adapted the structure of FCS within their systems to keep the name and create divisions able to continue the work needed to develop standards and

support programs.

Continuing societal concerns for the state of the American family have been another macrosystem influence that has raised the importance of early childhood and parenting education in our country. Research completed on early childhood has shown a strong connection between early intervention and academic success, which in turn has affected policy at the national level. The implementation of both funding, program enhancement, and evaluation of quality all over the country, has led to additional research supporting the value of these initiatives. This also illustrates the chronosystem in Bronfenbrenner's ecological model, as *time* has been an important factor in analyzing the consequences of education, environment, and governmental support. Both changes in and consistency of support over time for FCS suggest it can be a viable, thriving professional career path. Currently, programs are again growing in many parts of the country. Refer to Figure 2.2 for a depiction of how the variables identified above fit within a Human Ecological Model.

Three-Dimensional Inquiry Space

Anticipating chapter 4 which tells the particular case of a struggling FCS preservice teacher, during my tenure at the University of Nebraska-Lincoln the number of struggling student teachers has been small. However, the demands in working with struggling students are time-consuming and difficult to manage well. Before state-mandated exams were required to qualify for certification, each professor would monitor the grades and status of each student as they moved through the program. These involved making individual appointments as needed and sometimes-requiring students to retake coursework or agree to a provisional status contract to continue. The individual

circumstances for each student struggling seemed based on many factors, so no one course of action would fit a model or consistent structure for completing interventions. These individual circumstances included grade point averages, withdrawing from college, poor performance in practicum experiences, personal crises or family tragedies, marriage, childbirth, and, eventually, results on standardized exams.

When in 2016 my work with the struggling students further elaborated upon in Chapter 4, the only awareness I had of them not performing well on the PPST/CORE exams was due to contact from a parent. The parent was concerned that the student may be dropped from the program because of his/her/their inability to pass the writing portion of the PPST/CORE exam and how that would influence retention within the program.

Clandinin and Connelly's (2000) concept of *temporality* involves looking back at one's whole life— past, present, future, people, places, things, and events. As a teacher educator, I also consider the needs, temperaments, and families the students may be teaching in the future and the effect this may have on our profession as a whole. The immediate, as well as future consequences could be serious in a wide variety of ways for the students and our program here at the University of Nebraska-Lincoln.

Using Clandinin & Connelly's (2000), notions of personal conditions and social conditions, struggling students also have some definite *personal conditions* (feelings, desires, hopes, moral, and aesthetic reactions) related to their career choice and the activities they have completed in order to over-compensate and make sure they would be able to complete the program. Some experiences related to FCS coursework during high school may influence student's decision to decide on the program in which they enroll in college. The *social conditions* (experiences and events that unfolded that were cultural,

social, institutional, and linguistic) are also illustrated in many struggling students' situations because of the stigma attached by the institution to not publicizing or recognizing students who had high abilities to excel when dealing with a special need.

Place (concrete, physical and topological boundaries where events take place), another concept from Clandinin and Connelly (2000), has also been relevant to several of my students who have struggled. Place includes bias against smaller communities, social stigma attached to special needs students, but also environments with high expectations for excelling in school. Coupling high expectations and stigmatization of special needs creates an environment in the building where special needs gets understood as pertaining only to those needing profound and serious supports who are separated and are not necessarily attending regular classes with the mainstreamed students. All others are expected to be able to excel. But I have watched students study longer, but who still find it harder to keep up. The *place* a high school student, college pre-service teacher, or new teacher negotiates can seem to have very few resources for students who struggle.

The relevance of Clandinin and Huber's (2000) three-dimensional inquiry space fell into place for me as I considered circumstances experienced with struggling students in the past, as well as the contextual factors fitting into this model. The community, the school, the cultural shaming related to failure or low status, the need for special needs support, and influence of family are issues congruent with and prompted by considering three-dimensional inquiry space.

While it may seem odd to end a literature review with a more autobiographic turn, like my musing above about Clandinin and Huber's three-dimensional inquiry space, we should remember from Chapter 1 that EdD students are supposed to take on a 'problem

of practice', i.e., a challenge we identify in our own professional environments that we want to ameliorate. It follows that I need to connect a broader consideration on the research related to getting qualified FCS teachers through our program and then into successful long-term professional to the environment I negotiate and influence. The final paragraphs above attempt to connect the preceding more conventional literature review to the methodology chapter next (Chapter 3) and the related decisions I made for the fieldwork, the two complementary inquiries, described in Chapters 4 and 5.

Chapter 3: Methodology

Inquiry Rationale

As I examined the problems of practice most relevant to this study, it was quickly evident that the struggles of young teachers was an issue needing additional examination, and, of course, the struggles of young or new teachers are linked to their experiences as preservice and student teachers. Looking into such issues at a personal level allows us to see and experience situations that may not otherwise be possible to examine (Duke, 2011). Spending quality and quantity time with a struggling teacher may also contribute to changing his/her/their ability to be more successful. To address the Problem of Practice I originally identified: *What interventions and supports are needed for student teachers struggling during their professional preparation?*, I used three compatible methodologies that would allow a high level of intimacy. I made this determination because as a member of the CPED program, my role is as a *practitioner inquirer*. In other words, as the teacher-educator working with struggling students I was already “...deeply implicated in the ongoing activity of practice *prior* to entering the site as an inquirer.” (Heaton & Swidler, 2012, p. 91).

To investigate the Problem of Practice I originally identified, I considered three potential qualitative methods of inquiry: Narrative Biographical Study, Ethnographic research, and Case Studies. The qualitative possibilities will be addressed in regards to some of the sub-issues related to the teacher education programs preparing FCS educators including severe shortages, alternative certification programs, retention and attrition of professionals within this field.

Narrative Biographical Study

Narrative research has been defined as both a product and method. These stories, descriptions, or narratives document the events of the human experience, as well as the cultural, familial, linguistic, and social experiences shared by research participants (Clandinin, 2013; Pinnegar & Daynes, 2007). The stories the participants have to tell as a history of their experiences are relevant as we work to understand the issues of new teachers who struggle. Several directions can be taken to examine these stories: elements of plot structure (characters, setting, problem, actions, and resolution); three-dimensional space (interaction [personal and social], continuity [past, present, and future], and situation [physical or storyteller's place]; or a chronological approach (collecting and retelling stories using narrative elements, rewriting into a chronological sequence, then incorporating setting or place into the experiences of the participants) (Clandinin & Huber, 2002).

The final element of narrative analysis that is helpful is that it enables the researcher to account for the contextual materials and facts related to struggling new teachers. Narrative analysis allows me to take into account things like the identification of learning disabilities, evidence of an Individual Education Plan, anxiety issues showing up during middle school, and overachievement behaviors. Not only can these elements be examined qualitatively, but they can also lead to the interpretation of a larger meaning of this research by looking critically at the testing practices for applicants seeking teaching as a career. Quantitative information could also be added to show correlations between current research and how the struggle teachers graduating from the University of Nebraska-Lincoln and teaching are comparing. Are they staying longer than five years?

How are the scores they received on the PPST/CORE or Praxis I showing up in performance after graduation? What are the administrators reporting back to the University? How does this all compare to new teachers in other subject areas or CATE specifically?

Ethnographic Research

Creswell and Poth (2018) define ethnographic research as the examination of patterns of behavior, especially when an entire culture-sharing group is involved. Applying this to my work here considered the culture-sharing group, patterns developed, initial fieldwork and experiences with students in this college program to recognize the functions related to struggling students. In this case, the culture-sharing group is not only the college campus and traditions of this university, but also the FCS profession. There have been patterns developed by the educational system that influence and determine how these students are evaluated and allowed to participate in the major. Students exhibit similar behaviors when they are struggling and instructors have different ways of designing interventions that may help them succeed or advise them to find another career path. Examining the performance of students during the TPP experiences in the classroom allows immersion into context that will add to the different interventions actually needed or helpful for each particular student. All of these elements lend to how ethnography fits this problem of practice.

Another way to take advantage of the strengths of this method would be to identify the status of other struggling students at this institution to see what interventions their faculty mentors have implemented. Opportunities for possible shared communities in education could include other secondary education programs, as well as elementary

and early childhood programs both within and outside of the College of Education and Human Sciences (CEHS). In this case, I determined that the closest culture-sharing group would be all other CATE programs at UNL.

CEHS and the IANR share a common connection with extension in CEHS. All of the CATE content areas also share the common issue of shortages and teachers hired without certification in the state. Additional examination of this condition may serve as a starting point for future interactions and interventions to support students more efficiently, as well as creating continuity between programs that would benefit all four. The elements of ethnographic research that would not be as possible to implement in the near future would be the immersion of campus faculty into the daily lives of these students or new teachers. Observations and interviews would be possible, but not in an intense way that would yield the amount of data needed to identify the values, behaviors, or beliefs of the group as a whole over a long period of time. Creswell and Poth (2018) do indicate that there are times that the cultural group can be small and specifically mention teachers.

Looking for patterns in the behavior, socialization and ideation of new teachers is a defining feature of ethnographic research. Some of these patterns could directly relate, for example, to how new teachers search for ways to get support and to obtain help to pass prerequisite exams, achieve better grades in high school and undergraduate classes in college, and connect with mentors during the first few years of teaching. Arnett (2012a, 2012b; Arnett-Hartwick, 2015) completed qualitative interviews and questionnaires with FCS students and new teachers. She used open-ended questions that were examined using a coding rubric, identifying themes that were then revised after a

group discussion with veteran professionals. This researcher's participants were in the same context as my work with previous struggling students, with a different focus and process (Arnett, 2012b). The lack of published examples related to FCS education using these strategies indicates it would not only be needed, but also a new and innovative way to look at the needs of these students.

Qualitative Design and Interpretive Framework

Several texts and studies resonated as the first part of this process (to just work with a few struggling students in a small university program) unfolded. I saw definite correlations between the culture of the smaller school district and Peter Demerath's ethnography *Producing Success* (2009), especially the aspects of parenting support, intervention, and policy manipulation, as well as the role of the school in "advantaging" the students who graduate from there. Demerath also described well the way the parenting styles and practices are influenced by the social pressure from the community.

In Hilty's *Thinking About Schools* (2011), the issues impacting 21st Century schools includes topics very close to the issues related to my problem of practice. She wrote a chapter on the "professionally challenged teacher" (p. 389) addressing schools and failure for both the educators and educated. Many of the same issues were evident in the comments she recorded by young teachers as were true of their "failing" students. She also addresses the "challenge to succeed" and many teachers shared the *need* to feel that their work was making a difference, viewed as important and helped students feel successful.

Applying this work to an interpretive framework also seems to fit many aspects of this problem of practice as described in Creswell and Poth's (2018) text, *Qualitative*

Inquiry & Research Design: Choosing among Five Approaches. I can definitely see how the situations I have experienced with struggling students could fit in the disabilities theories category, addressing the meaning of inclusion as a way of informing the research process (p. 31). As for myself as a researcher, I am drawn to the social constructivism framework because of the methods including observations, interviews, and analyzing texts (p. 24). This framework also focuses on the world where we work and live, where there can be multiple and variable meanings. These meanings are also formed through interactions with others (like teaching), along with cultural and historical norms operating in that particular individual's life. The contexts in which these individuals live and work need to be understood to, in turn, understand these participants. This fits well within both the Bronfenbrenner (1994) and Demerath (2009) insights as well.

The other consideration in regards to philosophical framework is the work the Family and Consumer Sciences (FCS) profession has done to create a more viable and critical approach to teaching our subject matter. The critical science perspective is applied to the analysis of individuals, families, and communities by using the practical reasoning process designed by Brown (1980). Using this process to think critically about the way we approach research is also consistent with narrative inquiry and focusing on a few individuals in respect to their impact on others close to them. Brown's practical reasoning process can be applied individually or as a group task, but the concepts of *context, valued ends, means, and consequences* are considered while formulating a *judgment* of "what should be done" about practical perennial problems faced over and over in history. These problems also contain an ethical element, so the morals and values of each individual, family, and community are considered as part of the process.

Case Study

Another qualitative research strategy and approach of interest is the Case Study (Creswell & Poth, 2018). Previous cases were explored by Stake (2005) because of issues related to struggles during student teaching, specifically the ability to write and plan lessons. The work with these students also represents a concrete entity that is bounded by time and place, creating an edge around the case. Stake also asserted that case study research is a choice of what is to be studied and not necessarily a methodology. My work (in Chapter 4) with struggling students and CATE colleagues (in Chapter 5) also presents the opportunity for gathering multiple sources of information including interviews, observations, lesson plans with evaluations, and videos of teaching.

The case study features identified in Creswell and Poth (2018) correspond directly with five of the seven defining characteristics of the initial study of one struggling student teacher: (1) a single case was identified for a specific individual; (2) the case can be bounded within parameters (time and place); (3) it is unique because of the special circumstances which qualifies it as *intrinsic*; (4) many forms of data were collected; and (5) this instance involved analyzing multiple units of the one case. Stake (1995) notes two other case study features—identifying case themes, and building *assertions* or conclusions about the overall meaning of the case.

Challenges I see associated with choosing struggling students within FCS to write about in case studies include the difficulty in keeping the students completely anonymous (although that gets easier the wider the chronological separation from when I studied the case and when I write it up) and that focusing on struggling students can unwittingly reinforce the stigma of this content area. Moreover, in my experience, the number of

undergraduates who struggle each year is small, many times only one student so the background circumstances could be easily associated with the specific individual. Having more information available to the public about specific struggles of FCS education could also present a unique problem because of districts, states, and even the federal government not recognizing the content as essential. Publicizing teachers coming out of this program who are not exemplary may endanger our program's reputation, although it is my hope that the converse happens—that my consideration of how to better support struggling students as a problem of practice reinforces the idea that our programs are thoughtful, conscientious, and endeavoring always to become stronger.

Drawing from Across Related Traditions

Using a qualitative research model for working with struggling students and new teachers in the FCS program at UNL was a good fit for exploring the contextual work and interventions that are often used with pre-service teachers and new teachers. Gathering personal information and completing observations also allows the construction of case studies to illustrate the uniqueness of this context. The participant criteria would be only those FCS education students who have not passed at least one part of the PPST/CORE exam by the time they are ready to student teach, which constitutes a very small number. This would allow me to identify specific connections between each case, as well as some overall meanings related to the struggles of these students.

This is the approach I began with four years ago when I began piloting the idea of studying individual students as part of my doctoral coursework, a line of inquiry that subsequently formed the vast majority of Chapter 4. Looking more in depth at ethnography, the participant observation process involves the researcher being deeply

immersed within the lives of the people included in the study. The work with Josie in Chapter 4 fits this structure more completely than a case study that is written for a specific case with artifacts including interviews, observations, and field notes. This instance represented a high level of immersion because of knowing the student for an extended period of time beforehand, as well as not knowing much of the information until the interventions were in place. Therefore a *within-case analysis* could be applied to this one participant by including detailed descriptions of this one case and looking for themes (Creswell & Poth, 2018). This then led to a cross-case analysis in Chapter 5.

The logic of the cross-case analysis became pertinent as I developed the second strand of the inquiry of gathering additional information about the FCS program experience with that of my CATE colleagues (which became Chapter 5). Although the data in that case were drawn primarily from member-checked interviews, there too I sought to identify specific connections between each case. The interviews also provided me to analyze the themes related to similarities and uniqueness of the programs (Research Question #2), the interventions shared (Research Question #3), and the improvements to share with the college deans (Research Question #4).

The initial insights into my first problem of practice began based upon one student teacher who had not passed one of the PPST/CORE exams (writing) and struggled during the professional semester. The overall goal at that point was to gather additional information about this student's progress and continuing struggle as they entered the teaching profession. That inquiry could supply enough data to write an initial case study to present to a few veteran FCS teachers for input. The questions and scoring rubric used by Arnett (2012b) in her study identifying the issues of new FCS teachers

served as a guide for interpreting and establishing credibility to the interpretation. As additional students entered the student teaching semester without having passed all of the prerequisite exams, I reasoned that I could ask them to become a participant allowing me to expand the subject pool but these students are still more rare than common. Before this instance the last student teacher who struggled to this degree was in the spring of 2016 and fall of 2014 before that.

The predictive validity of the prerequisites for students entering teacher preparation programs (TPPs) was analyzed in a study by Evans (2017), especially referencing CAEP standard 3.2. This standard was implemented in July of 2013 and required TPPs to increase admission standards to demonstrate a higher level of achievement and ability than had been expected before this time (CAEP, 2013). Not only was the background on this standard included as part of my initial research project (see Chapter 4), but it also provided predictive validity of the admissions criteria of TPPs including grade point average, the Graduate Requisite Exam, and other common assessments. Yet the Evans study, with the data sources, measures of predictor variables, covariates, and outcome variables also provided a solid example for comparing all of the CATE teacher candidates at UNL (i.e., Chapter 5). Analytic methods used included predictive validity analysis to see how well the scores predicted the teacher candidates' performance using a correlational analysis, then multiple regression, and incremental validity.

As a researcher, I appreciated the numerical data and richness of the information gathered and analyzed by ETS on the success and aptitudes related to being successful in teaching. Their work (summarized primarily in Chapter 2) provided a useful model.

However, it was not a substitute for studying the specifics of struggling students in CATE programs at UNL. That need led me to design two new studies specifically focused on needs and supports for struggling students in CATE programs at UNL. The entire project was carried out from February 2019 to June 2020. The results of those studies are presented in Chapters 4 and 5. (One could argue that the start date for Chapter 4 is older as my relationship with the studied former student began much earlier than my effort to systematically document and analyze that case; for anonymity purposes, however, I do not specify that earlier date.

For the case considered in Chapter 4, both the CT and UNL supervisors contacted me about that about-to-become-a-teacher's struggles. Upon the recommendation of the adults working with that individual, I approached them about giving extra tutoring and support and they accepted (Appendix A). This situation helped address the first research question—What are the most common issues struggling students in CATE programs are experiencing? Not that I am claiming that student's struggles match all students' struggles, rather the insights of the case were to clarify how various challenges and circumstances can intertwine with each other. The observations, artifacts, and field notes gathered included my documentation of the student's struggles, the subsequent interventions, and that student's initial success at landing a full-time teaching position.

After observing and reflecting on the unique struggles of FCS students (the focal case in Chapter 4, but also the handful of other struggling students who I have worked with since taking on UNL's FCS TPP), I wondered if my UNL colleagues were having the same issues in their CATE programs. This led to three additional research questions:

(2) What characteristics are similar, as well as unique within all four CATE programs

related to supporting struggling preservice teachers? (3) What interventions could be applied to all CATE programs both at UNL and at other institutions offering FCS programs?; and (4) What information might be helpful to share with stakeholders and the deans of CEHS and IANR that may result in improvements for all of the CATE programs at UNL? To complete that portion of the research I contacted the other three CATE program chairs at UNL asking for their participation. I used the observations from the case study and the literature review to sort and design the questions for interviewing each faculty member, securing permission to set up Zoom interviews (which were recorded and transcribed) in the spring of 2020. During the interviews, the goals were to identify common issues for students who have struggled in the same way within all of the programs, to describe interventions that are leading to greater success for students, to consider how the programs and students are similar and how they are different, and more generally to address the issue of preparing high quality teachers. The transcribed interviews were then summarized using the same categories as the structure of the questions to identify common themes and issues related to our work with UNL students. Ultimately, the information was much more concisely summarized and sorted to design a letter for the Deans that was member checked with CATE faculty that asks for promotion and other support of our programs. The bulk of the synthesis appears as Chapter 6, but the aforementioned letter to the Deans is Appendix E.

Chapter 4: Research Findings Part I

This chapter describes what I discovered in considering carefully the case of one particular struggling student. In turn, this case led to Chapter 5, which bears the title ‘Research Findings’ ‘Part 2’. As I thought about my own challenges with a few of my FCS preservice teachers, I wondered if my colleagues who lead the teacher education programs in other CATE teacher preparation pathways—namely BMIT, Agriculture (Ag), and Skilled & Technical Sciences (STS)—faced similar challenges. As a result, my problem of practice evolved and addressed this question in a second phase, which I will describe in the next chapter.

Explanations of Study Part I

The research participant I chose for my initial problem of practice was a senior who was then student teaching. We will call this student ‘Josie’. She chose to complete her professional semester (student teaching) in a high school of approximately 2,000 students. Josie’s most obvious challenges revolved around the required testing the Nebraska Department of Education (NDE) implemented for both the PPST/CORE or Praxis I and the Praxis Content Assessment exams. These are required of all teaching candidates seeking a teaching certificate from the state. Two years prior to her student teaching experience, this student’s mother began emailing me for advice and support, as it was already apparent that Josie was struggling to pass the writing portion of the Praxis I exam.

Josie’s situation also reflected the characteristics of Clandinin and Connelly’s (2000) *temporality* of three-dimensional narrative space by drawing attention to the people and events influencing Josie’s future as a teacher. Her own experiences in

elementary and secondary school were influencing the trajectory of her career choice and success in college. This information gathered from the interactions with Josie illustrated the continuum of the larger narrative that includes the school culture, her family, and the educational landscape she had experienced before choosing this career path.

After taking the PRAXIS I exam three different times, Josie was still failing the writing portion. So our ability to place her in the professional student-teaching semester was only possible because of a policy change at NDE to accept a composite exam score. Josie needed this break in order to be able to student teach in FCS because, without this change in policy, she would not have been allowed to finish this career path. The Nebraska State School Board adopted the idea of a composite score based on similar actions taking place in nearby states. However, the change in policy was then vetoed by the Governor after Josie had started her professional semester.

The Student Teaching Semester

Due to her high level of participation and responsibility modeled during the semesters prior to student teaching, this candidate was not one of particular concern initially. During my observations and direct experiences in classes with Josie, she had done excellent work in the methods, as well as in her practicum experiences. Based on the interactions Josie had with her classmates, she was very well liked by the other FCS education majors and had prior teaching experiences in 4-H extension and at a local sewing machine store. What she lacked in writing or intellectual skills she made up for in perseverance and a bubbly personality. Josie was always in a good mood, positive, smiling, and willing to work. She also took guidance and suggestions for improvement seriously, implementing them immediately into her work and planning.

The relationship I had with Josie's primary CT had also spanned over twenty years, first as the CT's peer and then as a district employee in charge of the entire FCS program in the school district. As an administrator within this public school system, I was aware of this teacher's style of teaching and leadership, knowing her as very empathetic to Josie and invested in the student's success while under her supervision. As a department chair and member of professional organizations, this teacher was seen by her colleagues as skilled and innovative, doing extra work within the past few years to improve the program in her school to meet the needs of the at-risk population students in her classes. Much of the success of that school's program has been due to her growth and leadership as shared via coworkers and the building administration, which at the time of this writing is still ongoing.

The FCS department at this high school offers 16 different course offerings, three of which Josie taught this particular semester. The culinary course serves as the first in the sequence for secondary students interested in careers related to professional cooking/culinary arts. After a successful semester, the students can enroll in the Food Preparation course for more experiences related to culinary arts, as well as entrepreneurship, management, and team competitions. The *Student Parenting* class, only offered for those individuals who are parenting or currently pregnant, also includes students who are having their child cared for in the in-school licensed childcare program run within the building that was housed as part of the FCS department. Josie chose this experience based strictly on her relationship with the CT, with whom she had completed one of the previously required practicums. Josie was this CT's first student-teacher

placement, and so that CT was completely new to the process, requirements, and work involved in supervising student teachers.

As Josie's UNL program director, I had done some serious reflecting about my role in her development as a teacher. I knew she struggled and compensated by seeking help from others in her studying and assignments. At the same time, her bubbly and happy personality definitely influenced the view others had of her talents and abilities. She had previous experience teaching and the clothing and textiles content came very easily for her. This seemingly natural ability to teach is one aspect of her behavior that seems to have helped overshadow any deficits. Josie posted pictures of her work on social media and brought examples to share with the other students in class, which also contributed for their love for her.

When Josie's student teaching experience started, I did not have any reservations other than the concern about her not passing the Praxis I writing exam again the previous semester. She had done so well on the unit lessons in class the semester before that I felt secure about her ability to get one class done at a time when she started teaching classes. My level of concern grew quickly when the UNL supervisor informed me that she was already struggling with her planning early on in the semester. Upon seeing Josie's daily lesson planning at the beginning of the student teaching experience, red flags began to appear for me too. Within the first preparation, Josie began to get behind on her planning. What she was developing was based almost completely on materials and resources provided by her CT and she was leaving out required elements for each day's lesson.

Following a Struggling Student

From the beginning of the semester, student teachers in my course are required to electronically turn in daily lesson plans. Within this context, I witnessed Josie struggling early on. The lessons were incomplete, with no valid set activities, guiding questions, transitions, or concluding/summaries included. (See the example TLP Format, Appendix B.) I began communication with her UNL supervisor and CT to make a plan to support this student. The collaboration with these two veteran teachers and Josie resulted in an initial observation scheduled to see how she was doing in the classroom. We would be able to determine additional interventions once I talked to her privately to see what we could do to help.

During the initial observation, Josie was switching between notes on her phone, Chromebooks the students were using, and the PowerPoint slides provided by the CT. The UNL supervisor hired to visit Josie reported the same struggles, as well as identifying that she had a tepid teacher voice and needed to improve the management of student behaviors during class (Moser, 2018). It was at this point that this student teacher became a subject for me to consider given my problem of practice.

Josie was the product of a reputable mid-size school district in Nebraska (school population approximately 2,400 grades K-12). Josie shared during general conversations that she had spent her entire educational experience in the district and had a parent working at the high school. Josie is an only child, born seven weeks early, resulting in a minor visual impairment. Josie revealed that she had an Individual Education Plan (IEP) for writing during elementary school and that she had known of her writing disability as

early as 2nd grade. Her IEP was discontinued during the mid-years of her elementary experience through the hard work and support of her family.

Nonetheless, by the time she was in 7th grade, Josie can remember experiencing major test anxiety. This continued to be an issue that caused her to bypass many required exams over the years. She shared in our interview that she actually studied very hard and compensated for the writing deficit by getting extra help and support from peers during high school. She entered UNL with a sufficient grade point average that she could bypass the ACT requirement and had never taken that test. The student's disability was evidently viewed more as an impairment within the social context of a small community; therefore, there was a discrepancy between social context and Josie's actual abilities that ultimately affected her performance. This quote from Anastasiou and Kauffman (2013) relates well to this context: "A coherent understanding of developmental disabilities involves the integration of intrinsic structures (genetic, anatomical, physiological), functional factors (cognitive, behavioral), and contextual factors (natural environment, sociocultural context, and politics)" (p. 452).

When applying for the FCS education program at UNL, Josie's college grade point average (right at the 2.75 GPA required) was the first indicator of academic struggles (albeit one only visible in retrospect). During the FCS methods and curriculum coursework, she did excellent work and modeled organization and creativity to her classmates. Josie completed five teaching-learning plans for class, earning grades equal to or better than her peers. She also completed one hundred hours of practicum experiences successfully. All of the evaluations received from CTs were positive and encouraging, one earned at a middle-school and the other at the high school level.

For student teaching, Josie requested to return to work with one of the same people she had had for a practicum experience earlier in her coursework. This appeared to show that her comfort and acceptance level had been positive. Josie's placement was at a larger high school with a high level of diversity, students with at-risk backgrounds, lower socio-economic status, and a population of over 2,100 students. Her schedule included teaching and planning for two culinary arts classes (one beginning and one advanced), and the Student Parenting class.

When she began to struggle, I asked her if she would like to help me with the project, Josie's reaction was quick and positive, thanking me for the opportunity. Our relationship reflected a sense of security or *sociality* within the three-dimensional space identified by Clandinin and Connelly (referenced in Clandinin, Caine, & Steeves, 2013) because of Josie's comfort level and trust in myself and her CT. From our conversations, I believe Josie felt we had her best interests at heart and that we wanted her to be successful in this experience based on the level of disclosure of personal events and information up to this point. Still, Josie's hesitancy to self-disclose to her CT about her challenges was not expected (for reasons outlined in Chapter 2). For reasons of privacy, identity preservation, or aversion to reflection, she was willing to risk the success she hoped to have within the student teaching semester.

My visits started the third week of Josie's experience at the high school with Josie at the end of her teaching day, two afternoons a week. I received daily lesson plans from her and all of the student teachers for three weeks before I set up our visits. We spent 1½ to 2 hours each day going over her lesson plans, talking through the sequencing and adding guiding questions, sets, transitions, and summary conclusions. Josie's thinking

seemed disjointed during these sessions and all of the materials and resources were located in different electronic locations, adding to the lack of continuity.

Our *narrative inquiry space* was important for Josie's ability to focus and avoid distractions, so the teacher-plan center office was the best choice. This allowed professional dialogue to take place in a quiet, uninterrupted environment even as the CT was close by (Clandinin, Caine & Steeves, 2013). The focus of most of our work together was on Josie comprehending every aspect of planning and implementing lessons, especially the sequencing and writing questions.

Josie's improvement with my intensive intervention was immediately evident as the visits continued consistently for four weeks. The level of improvement showed up in her ability to comprehend the content of lessons and organization of her lesson planning, as well as Josie's ability to deliver the lessons. Her interactions with her high school students improved as well because of her getting more comfortable with the content and processes she was implementing.

Up to this point, the CT's reflections and input about Josie's classroom behavior had been documented during my visits to the school. So a natural next step was to complete an observation in the classroom. The Food Preparation class ran a restaurant every week for one day, so we arranged for a visit to that class for the next week. During this observation, the catering activity was already in full swing when I arrived and the CT and Josie were team-teaching the lab. The CT's style was spontaneous as the class progressed through the orders to prepare and deliver food to teachers in the building. Josie made rounds in the kitchens to check on the students as they worked on a variety of foods, clean up, organization of leftover food, and computerized portfolios. I

noted that Josie and her CT had very complementary personalities with their introverted and extroverted behaviors.

Additional Students Struggling

Before I say more about Josie's experiences (and my responses) I should note that during my pursuit of my doctorate (and its overt attention on having me think about problems of practice), additional students within the FCS education program have struggled. One student teacher in particular, a Hispanic, first-generation college student, failed the PPST/CORE writing exam right before student teaching. The student experiences office at the university pulled this student from the placement and shared a process with them to complete a waiver allowing that student to return to their placement. This waiver process has meant that students who do not pass one of the three exams in the series can appeal to Nebraska's Commissioner of Education to plead their case and have the test-passing requirement waived. This particular student had taken the writing exam five times and did not pass it for the final time right before student teaching. The Commissioner waived this student's exam requirement, identifying their status as a first-generation college student and a English as a Second Language student based on Spanish as the first language within their childhood home.

This student showed early struggles with assertiveness when managing students, writing detailed lesson plans, and developing their own style when teaching. I put an improvement plan in place during the 6th week of this student's student teaching, right before Spring Break was to occur. The plan included getting three weeks of planning for three different preparations completed before the end of the break. When checking with this student teacher mid-way through the week, the planning was not complete so the

supervisor and instructor for the course during this semester reiterated the seriousness of the plan and the hazard of leaving it unfinished. The student teacher did get the planning completed by the end of that week, but then the district where they were student teaching closed the schools due to the COVID-19 pandemic.

Students placed in this particular district were then not allowed to participate in an online learning environment once the buildings were closed. This also did not allow them to support their CT or the students, nor practice planning online lessons. Whether CATE program chairs (like me) were in favor of this decision or not, it created an abrupt stop to the student's experience and ability to keep learning about handling alternative deliveries of curriculum now and in their future. Nonetheless, this candidate did secure a full-time teaching position for fall in a district and building where they will have additional support from a team of strong teachers. As the interviews were taking place, the student and I talked through some of the advantages and disadvantages of the different buildings with openings and the student took my advice to be with a stronger teaching team. Whether this new teacher is now prospering or has only lasted a short period of time before burning out are important details that, unfortunately, are not yet clear at the time of this writing.

Summary of Chapter 4

Reflecting on the work completed with this student teacher, the processes used to complete this research fits better within the participant observation structure. Participant observation is defined by Jorgensen (as cited in Creswell & Poth, 2018 p. 321) as a process of gathering information in a variety of ways primarily by becoming a participant and observing the culture-sharing group within the setting. My role as the observer also

included participation within the learning environment, interviews and interactions with the CT and UNL supervisor with a higher level of immersion, with some occurring after-the-fact. Josie's situation fell into my lap at an opportune time simultaneous with the study of qualitative research, as well as the ongoing search for ways to support struggling students in general.

During the time I was completing this work with Josie, my biggest concern was to see how she improved with the interventions provided. While I was willing to make extra efforts, I was not willing to lower my expectations for her just because of my desire to see her become successful. There were actually three veteran FCS professionals providing interventions to help her through this experience: The UNL supervisor; the CT; and myself. At times, I felt I was giving too much guidance and not enough push for her to be more independent in her planning. Her UNL supervisor was much stricter with the expectations she had for Josie's planning and ability to communicate. Over time, I noticed that Josie become less communicative and receptive to that supervisor's feedback. The UNL supervisor and I discussed the level of expectations we felt were appropriate for Josie to achieve and concluded that she was going to be a "C+" (meets expectations) student teacher at best. We also agreed that this was reflective of the reality of her performance, given Josie's writing disability, struggles to multi-task, and her difficulty in getting her planning completed ahead of time as she added additional courses to her teaching and planning load (to make it more in line with a professional teaching assignment).

The one behavior Josie displayed that was encouraging for the CT, UNL supervisor and myself was always her willingness to try the ideas we suggested. Her

attitude remained positive and upbeat, even when she was nervous, worried about not passing this semester, or dealing with family issues outside of school. She had a desire to improve and a work ethic to make it happen. During her final evaluation, Josie was surprised when the CT and UNL supervisor gave her higher marks than she had given herself.

Epilogue: Josie's Career Pathway

Josie secured a teaching position before graduating with a provisional certification in FCS education. She moved to one of a few larger communities in the middle of the state, which was about a 2-hour drive from her parents and hometown. The curriculum she was to teach was primarily clothing, textiles, and human development, which all seemed to fit her talents perfectly. The other two FCS veteran teachers within the department were supportive and served as great mentors for Josie as she entered the teaching profession. She made the move and settled into her teaching as smoothly as we had predicted based upon the abilities she had already practiced many times during her undergraduate work experiences in a sewing machine store, as well as student teaching. The fit could not have been better as far as I could see.

Still, during my tenure at UNL I have seen several instances of students choosing not to teach after the professional semester, as well as those who leaving teach after only a few years. Josie resigned her high school teaching position recently after completing two years on the job. She moved back home to live with her parents and is pursuing a position in Cooperative Extension to work with 4-H and other youth programs related to clothing, textiles, food preparation, and child development. Irrespective of which of these positions she chooses, she will still be using the talents and skills learned as part of this TPP. When

I asked her about leaving her teaching position, she responded that it was strictly related to missing her family and there was no mention about her success as a teacher or the PPST/CORE writing exam. The provisional certification gives practicing teachers 2 years to complete the missing requirements, so Josie would have to retake the exam if she had not passed it at this point in time. That she did not mention this reality does not mean it was unrelated to her decision and I was also hesitant to push any further to avoid causing her to feel hurt or anxiety. I am also responsible for our future relationship and do not want her to close any doors in regard to giving her additional support. The nature of this design is that we will continue to be connected, understanding the world we live in despite any imperfect fits

At the same time Josie resigned, one of the veteran teachers she was working with announced her retirement. The support and nurturing this mentor teacher provided to Josie was one of the factors I surmise was related to her success within that position. Seeing Josie resign came as no surprise based on that personal observation. As of the time of this writing, the school district has also not been able to interview any qualified candidates to fill these two positions in the fall. So none of the courses either had recently taught will be offered. This returns us full circle back to the issue of the shortages, districts not being able to fill positions with qualified candidates, and the curriculum often being delivered by unprepared teachers.

Chapter 5 -- Research Findings Part 2

The issue of struggling students is not unique to FCS and is a common concern of most (if not all) of the teacher preparation faculty at the University of Nebraska-Lincoln (UNL). Similarly, many of the educators in various teacher preparation pathways report pressure to boost enrollments, including accepting marginal candidates, because there is such a demand for new teachers in their content areas. As I continued to ponder how to truly help and support struggling students it occurred to me that starting with my own program made the most sense because of the close relationships I have with them. Nonetheless, while my problem of practice would be in some ways unique to my particular niche, I suspected that pressures I negotiate are not unique to just FCS. I thought it would be interesting and likely helpful to learn how other UNL colleagues in related teacher preparation fields encounter and respond to challenges like the ones I am experiencing first-hand.

To branch out and get some additional perspectives, I decided that interviewing other secondary faculty would give me some additional direction and guidance in regards to how they are dealing with their own struggling students. I was particularly interested in colleagues for whom the relationship between the shortage of teachers and subject matter may have been a factor when considering whether to admit and retain teacher candidates with marginal PPST/CORE scores. Similarly, I am a professor of practice and have limited expectations for generating and publishing research, but have a routinely higher teaching load than tenure-line faculty with '2-2 loads' (i.e., an expectation of teaching four classes a year, two in the fall semester and two in the spring). My typical class load is 4-4, although I often ending up teaching more than eight courses even without counting

my summer work. I also lead an ‘umbrella field’ where various discrete skills and kinds of coursework (from sewing, to food preparation, to consumer decision-making, to clothing, textiles, and interior design) are combined in a single certification category, unlike some other fields, notably natural sciences where there is differentiation of content-oriented certifications (e.g., chemistry, biology, physics). That means my teaching load usually requires different preps for the different classes. Getting ready to teach sewing is literally different than getting ready to teach consumer decision making.

So as I designed this second line of inquiry, what seemed to make the most sense was to stick to fields closely related to my own. In this case that would be within the CATE programs at UNL. The four CATE programs include FCS education, BMIT, Agriculture Education (Ag Ed), and Skilled and Technical Sciences (STS). All of these TPPs are also at-risk either in regards to the teacher shortage in Nebraska, or the number of students enrolled. The Ag Ed and STS programs have moved to a 2+2 agreement with community colleges in Nebraska so students can take the endorsement content before coming to campus for the pedagogy portion of the certification. This has boosted the enrollments in a positive direction, but all CATE programs are still all very short of teacher candidates to fill open positions each year (Nebraska Department of Education, 2019).

CATE certifications are separate from other certifications (such as English or Mathematics) at the federal and state level, and all have the common thread of skills-based instruction and Perkins support for programs. These CATE colleagues have been close friends and allies not only during my tenure at UNL, but as fellow former high school teachers and administrators at the Lincoln Public Schools district office. We have

served together on state boards for professional organizations and attend many of the same conferences and workshops throughout the years. I knew our existing relationships would allow me quick access and cooperation because of the support that is inherent with these faculty. (Indeed, all emailed permission slips were returned within 30 minutes of these individuals receiving them. That is amazing support!) And their experiences and positions were most like mine. By including them in my study, my inquiry became bigger than just my own specific practice, but it stayed similar enough to what I do that it retained relevance to my thinking about my problem of practice—the challenges of adequately supporting marginal teacher education candidates in an environment with pressures and expectations coming from many different sides.

In this part of my study, the interviews with the CATE teacher education colleagues at UNL makes it impossible to keep these colleagues fully anonymous, having already identified the university and the programs, who the people are who guide these programs is traceable. Still, per the logic of a dissertation-in-practice, I should name where I work and what I do because the problem of practice that I am taking on is inseparable from the context where it (and I) exist. Therefore, it is important to briefly clarify here, how my colleagues remain protected as ‘human subjects’ (which is a core criterion of the Institutional Review Board). First, none of my questions explored anything that would jeopardize the confidentiality of the teacher/student relationship or go beyond information that could be public (i.e., to assure and enhance the quality of the programs they lead). Second, none of my direct quotes from the interviews identify who specifically said them (plausibly it is any of the CATE faculty). Third, I am aware of the prospect of their being identified and that informed how I have quoted them and what I

have shared in this public document. Finally, even though I do not 'name names' individually, these colleagues have all reviewed and endorsed the letter to our Deans that is included in Appendix E (and those Deans will know how the recommendations collectively thus come from). In an important way that letter is a signal that, rather than hide from identification, they welcome the chance to have their observations and ideas shape our collective program improvements. Nonetheless, readers of this chapter need to know of these ethical assumptions and the rationales that undergird them.

CATE Programs at the University of Nebraska-Lincoln

UNL is unique within our state in regards to having the only full set of CATE teacher preparation programs at the same university. Based on previous casual conversations with the program chairs for Ag Ed and STS, I became aware that many teacher candidates coming into their programs were also struggling with the PPST/CORE exams. The cost for taking the first set of exams all at once is \$150. When students do not pass one or all of the sections, the advisors refer the struggling students to the local community college where there is coursework designed to prepare specifically for the reading, writing, or mathematics portions of the exam they have failed. This, however, involves taking the tests again after completing the community college course for one hour of credit costing \$64, and another \$90 each for the sections they are required to retake via ETS (Metropolitan Community College, 2020; ETS, 2019).

There may also be other factors contributing to CATE students struggling. Financial strains are often common (Student Teaching Handbook, 2017). Student teachers are often asked to give up paid employment during the capstone experience (i.e., their final semester) which can make things even harder to manage. STS and Ag Ed

students also have a high number of students completing a 2+2 program through local community colleges (Southeast Community College, 2020). Given these issues shared among the UNL CATE students, instructors all have the need to find interventions that are successful in helping students succeed. It would also be useful to discover similarities and differences that may contribute positively to our ultimate goal of increasing the number of high-quality teachers to fill shortages within our state. Phrased another way, this problem of practice is not only my problem of practice; it has the potential to gain insights to generate ideas for what my CATE teacher education colleagues and I could/should do collectively. Indeed, appended to this dissertation is a brief ‘recommendations report’ to the UNL CEHS Dean related to our programs that is the result of this joint inquiry.

Observation and Data-Gathering Plan

A plan was made was to set up interviews with each of the CATE program chairs to discuss program issues, characteristics of the struggling students during the semester prior to and/or during their student teaching, and the interventions they implemented that showed success and promise for their own programs and perhaps for CATE programs overall. Prior to the interviews, I secured permission from each of the other program chairs involved (Appendix C). The permission form specified that if/when my colleagues mentioned the names of students, their hometown, secondary educational institution, or gender, in my reporting none of this information would be identifiable. Several questions were designed for the interviews based on variables identified during the initial observations and discussion with my original research subjects as outlined in Chapter 4 (See Appendix D: Questions for Career & Technical Education Collegial Interviews).

In addition, discrepancies in regards to the PPST/CORE writing exam and how many of our UNL students have failed that exam were also part of the discussion. So having some background information to share with faculty participants about the data for each content area and achievement level of the students required to take the exams was essential (Praxis Education Research, 2020). Interview questions included demographic data on the program status, enrollments, ability to fill the need for teachers in Nebraska, and interventions implemented on a regular basis with students (graduate and undergraduate). One of the community colleges in the state still offers education majors remedial coursework to help them pass each of the PPST/CORE exams (reading, writing, and mathematics) with 1 hour of credit for each. The catalog description mentions “..self-paced practice tests and learning activities...” in each subject area, so really no different than checking out study guides and doing them on their own (Metro CC, 2020). Another community college offers tutoring in the UNL student advising center along with study guides to check out. So students who are enrolled in coursework get this service at no charge.

To explore the interventions further, questions focused on the specificity to the PPST/CORE content exams, coursework taken prior to student teaching, and achievement during the professional semester and at the end of their college experience. This can be measured by grade point average, as well as a summary of the Nebraska Department of Education student teaching evaluation all programs are required to use within our state teacher education programs (Nebraska Department of Education, 2018). Themes were generated from the instances only involving students who have

struggled and summarized to highlight similarities and differences between the programs. case studies of the most common will be written accordingly.

In all of this, I was guided by the idea that identifying common characteristics and effective interventions that program leaders believe work could lead to new processes incorporated within teacher preparation programs that will have immediate benefit for CATE students at UNL. Such findings could support best practices in CATE programs as well as stimulate needed changes or innovations in other aspects of the programs. Building on this study, it would perhaps also be possible to see a positive influence on the education of secondary education students beyond CATE programs and beyond Nebraska.

Faculty Participants

Three faculty members were interviewed in a search for similarities and differences among the CATE programs at the University of Nebraska-Lincoln (UNL). In addition, the expertise of faculty represented among the interviewees ranges from 25 to over 35 years of teaching and research each. Again, the four CATE programs at UNL include FCS education, BMIT, Ag Ed, and STS. These departments are located within two different colleges at UNL: the College of Education and Human Sciences (CEHS); and the College of Agricultural Sciences and Natural Resources (CASNR). The BMIT and FCS majors are in two different departments within CEHS: Teaching, Learning & Teacher Education (TLTE) and Child, Youth, and Family Studies (CYAF). Ag Ed and STS are in CASNR and are both housed in the department of Agricultural Leadership, Education and Communication (ALEC).

All four majors have experienced shortages within the past 10 years, with Ag Ed, FCS, and STS having a slightly higher rate than BMIT. In our state there are three FCS and BMIT post-secondary programs, two Ag Ed and one STS to attend to these shortages. Each program has experienced ups and downs in enrollments and there have been some interesting changes for each that are unique to the content, positions opening, and candidates seeking to teach in each subject area. Each interview will be summarized with sections related to the similarities and differences between them, representing themes that surfaced by asking the faculty the same series of questions within five different categories:

1. Program Background
2. Characteristics of Struggling Students
3. Interventions Implemented
4. Special Circumstances
5. Other Issues

All interviews were completed using Zoom, which was recorded and transcribed using VidGrid supporting technology as a resource. Each interviewee's program was summarized anonymously with no identifying information to distinguish each from the other and randomly assigned a number. The abbreviation of "CATE" represents all of the content areas. All participants were able to withdraw from the study at any time, but all agreed to remain and will be notified of the results .

Interview Number One

Program Background

Program number one has a single faculty member who we will call 'Richard'. His assignment includes teaching classes and monitoring the education students. This particular program has approximately six students enrolled in methods coursework and student teaching each year, in addition to eleven within the transitional certification pathway. The transitional certification program involves uncertified professionals around the state who have already secured a full-time teaching position within Nebraska. Districts who have no qualified candidates applying for teaching positions in shortage areas identified by the Nebraska Department of Education (NDE) are allowed to hire an applicant holding a bachelor's degree. A transitional certification in Nebraska also requires a candidate to have 75% of *significant* coursework completed in a subject area with three years to complete the full certification. Instructors within all at-risk subject areas (those with shortages identified) sometimes work with these candidates to facilitate coursework required, although the formal program is housed at the University of Nebraska at Kearney (NDE, 2019).

This instructor keeps track of the job openings in the program in a casual sense, allowing NDE career field specialists and administrators from individual districts to contact the university to indicate a need for a teacher if a position is still open. The enrollment within this program has been fluctuating between four and twelve from year to year in the past six years since this Richard was hired. The students within this program also demonstrate very little diversity, primarily male with only a few instances of first generation students or students from a different ethnic group other than European

American. Following up on former students sometimes happens as a result of the same administrator contacting Richard to ask about graduates. For example, Richard found out about a first year teacher discontinuing their contract for a second year. This new teacher had been in a very large district, so Richard speculated that they had probably not received enough support during their first year on the job.

Characteristics of Struggling Students

The majority of the students within this program are male, transferring into education after majoring in the content area from the college program with the same content. The majority of the students (>75%) are male and European American, typically seeking a teaching degree that also includes coaching. Richard also pointed out that within the past year the two students who have struggled to pass exams are also English Language Learners (ELL) and first-generation college students.

One of the first indications that there may be the possibility of struggles within this teacher educator program is an assignment during the freshman level entry course that was offered (and since has been discontinued). Not only did this allow Richard to identify and begin to develop a relationship with the future students within this program, but a paper written as an assignment helped identify weaknesses in areas that are tested by the PPST/CORE exam. This instructor expressed concerns about how much the student would need to improve before taking the exam during the next year.

Interventions Implemented

Richard was the only participant with adjunct status, meaning he did not have a continuing contract, but rather was, in one sense, rehired over and over, albeit without interruption. When he was first hired, the assignment included teaching an introductory

technology course, but the department changed the structure of the program and eliminated a separate class for this major. By doing that, the early contact with the students majoring in this degree was eliminated, leaving most early support as the province of the college advising center.

Students are also admitted on a provisional basis if they have not passed all sections of the PPST/CORE when entering into the professional semesters. The professional semesters include a methods course, practicum experiences within secondary classrooms, and student teaching for 16 weeks full time. Once the students are admitted (fully or provisionally), Richard has more personal communication with them and sometimes learns students are already struggling. Richard reported that students voluntarily sharing this information was becoming more common. Still he acknowledged that there have been those who have dropped out of the program, graduated without certification, or needed additional interventions in order to pass the exams..

Resources available to the students who are struggling include a free study guide check-out from the advising office, privately hired tutors, and online practice exams provided by ETS. Students who do not pass these exams initially all participate in one or more of these resources and sometimes retake the tests numerous times. Richard remembered one student in particular took the Mathematics section five times before passing, while another within this program graduated without certification at the recommendation of the advising center and this faculty member.

A unique concept shared by Richard was the relationship between the student and their CT. Good classroom management and a complementary personality are considerations during the placement process that can lead to greater success, especially

when struggling student teachers are involved. This is one of the steps within the student teaching application process that includes the program chair as well. Richard sets up a preliminary meeting with each CT once the student teaching experience has begun in order to go over the expectations for all participants. The goals of the student teacher are also emphasized to the CT so both are on the same page (UNL's expectations, student teacher's goals, and how the CT will help them). In Richard's words:

So that the one thing that doing the orientation is something because that's an intervention, you know, it is because we do that so that first you can meet that teacher and then secondly, so that they know what our expectations are and set those deadlines and then help our students with their goals. [Be]cause you have to have goals for student teaching. You're not perfect. What are ways that you want to grow and what are things that you want to see happen and set those goals and share those with your CTs.

The expectations student teachers were struggling with that Richard mentioned included writing lesson plans, meeting learning targets, and managing student behaviors. Richard believes if the student has an attitude of "corrective practice" and implements the suggested changes quickly, that success will come more consistent. Implementing a process of scaffolding learning, as well as giving students some grace and nurturing their abilities as they complete the experience were also observations in the interview. These specific interventions are also more likely to result in an overall more successful student teaching experience.

Special Circumstances

One of the advantages of teaching the students during their freshman and sophomore years is that Richard can implement additional experiences to expose them to the teaching profession. When he taught a technology course specific to the majors in this program, it included an extra observation to go observe a veteran teacher within a middle school setting. Middle schools have implemented some Science, Technology, Engineering and Mathematics (STEM) curriculum to the coursework, and the students within this major were not liking the content that was being implemented. This extra experience also included the delivery of a mini-lesson so the students are exposed early in their program to creating a realistic classroom experience. This allows the students to change their major early if they discover at that point in time that teaching is not going to be something they want to do. This also represents one of the interventions that is used within this program wherein students choose not to move further on the pathway to certification.

Other Issues and/or Themes

Some of the other issues shared by Richard also involved a couple of students who had mental health issues, specifically anxiety and depression. This resulted in one student teacher calling in sick during their professional semester, as well as conflict with the CT. In this instance the CT gave the student teacher full creative license, but the pressure of additional planning and applying resources within lessons caused additional stress. The CT did not feel comfortable asking the student about their health issues, so discontinued the experience for that semester and assigned the student to a new CT the next term. Again there was evidence of additional health and personal issues, but Richard

gave the student teacher space to figure it out on their own, hoping not to create any additional pressure.

Richard described scripted curriculum as an additional stressor for these students. In this setting the district did not allow the students to create much original planning during the student teaching semester, providing exact information and dialogue to deliver within classes. Very little planning was required, but the experience felt inauthentic. Just the opposite can happen wherein the student teacher is expected to create all of the lesson content, including electronic documents and resources that the CT then wants to keep. Each of these circumstances places the student teachers in a difficult position, possibly resulting in additional stress during the professional semester, or qualms at giving away some of their own intellectual property.

Richard also shared a story about one student who had financial challenges and was having to work a lot during the semester. Once he contacted the student and offered up help/support, the student opened up and explained what was going on. This in turn allowed the student to bounce back and get everything resolved, thus not jeopardizing their status in the program. That student finished the student teaching semester and has been successful since.

Interview Number Two

Program Background

This major has been in existence at UNL since the early 1900's and was one of the strongest content areas on campus until recent decades when Nebraska has become more urban. We will call this faculty member 'George'. He has a rich history as a researcher and teacher educator at the university and was the only interviewee holding a

PhD. The perception George shared about this content being offered in our state is that smaller schools are more likely to have positions and are mostly located in rural Nebraska districts. Not long ago, programs within this content area had dropped to only 123 students from over two hundred, but now have returned to higher numbers within the past four years. Most of the schools with these programs are also located outside of the three largest counties in our state: Sarpy, Douglas and Lancaster with 65% being in the smaller schools within our state. George also had a UCARE¹ student (an undergraduate who works with a faculty member to carry out a research project) complete a survey of school districts who were reopening this department. An important finding was that one of the factors districts wanted was the strength of the content within their community (vs. relying on a student organization or leadership opportunities for the students as a primary means for achieving mastery).

This particular content area has historically been male, with only 25% of the teachers being female, but that scenario has now reversed with the teachers graduating today being primarily female. This has changed student teaching dynamics because of the bulk of their teacher education students are now female, which goes against the stereotype established in the past. Some communities still maintain that the male teachers are more suited for this content area, perpetuating the stereotype even further.

Characteristics of Struggling Students

This major requires students to take a course during their freshman or sophomore year to introduce them to this content area and the teaching profession. Students are required to document work-based learning hours and pass all sections of the PPST/CORE

¹ UCare students receive an award to participate in 1:1 research or creative activity with UNL faculty.

before they can earn a passing grade. This structure of not allowing students to progress into the program until the introductory course is passed has resulted in very few students who struggle during student teaching. At the time of this interview there were 20 undergraduate students enrolled in this program and five (25%) were struggling with grades or the PPST/CORE exams in the entry course.

Grade point averages (GPA) are the most common struggles students experience within this program. Students are monitored by an adviser in the college, as well as by George. Grades may hold some students back, but for the most part the PPST/CORE and poor grades go hand in hand. One opposite example shared by George was a student with a 3.3 GPA who had a conflict with the CT during the professional semester which required a variety of different interventions. The student graduated and was certified, but still of concern in regards to how they would do during their first few years of teaching. The struggle with grades and exam scores is also of concern within this program when districts hire students before they complete the professional semester, or are enrolled in the *Transition to Teaching*² program. George suggested including a requirement that candidates cannot be hired until they are certified. This may also include offering a stronger methods course for CATE students.

While discussing students struggling with the PPST/CORE exams, George made an observation that if students have difficulty with this element, “It’s a flag of their abilities, too, that I’ve seen. Usually, there’s something there beyond just being able to

²The *Transition to Teaching* program in Nebraska is a partnership between the TPPs and the Nebraska Department of Education to allow recent college graduates with a bachelors degree or mid-career professionals alternative routes to certification.

write and compute that's influencing their ability to prepare and to be successful in that test."

Interventions Implemented

The primary safeguard for prospectively struggling students within this program is that George advises all of them. A significant quote related to this during the interview, "...and we will hang onto that [advising] until we go down." As a result, the required introductory course incorporates these key elements: grade point average, fulfillment of the hours for the occupational endorsement, and passing of the PPST/CORE exams. Students are not allowed to earn a passing grade in the class until all three elements are completed at the standard required both by UNL and NDE. Because challenges and problems are addressed at the beginning of the program, only new and more rare ones are likely to emerge at the end.

During the advising process students are counseled in what classes to take and to complete the PPST/CORE exam as soon as possible. To help with the Mathematics section they are advised to take Math 103, which is a 5-hour course that has a more gradual structure. As soon as that is completed the students take the PPST/CORE while the mathematics is still fresh in their minds. With approximately 20 students each year in the program, only a fourth of those have any academic issues. George shared that advising is the "key to everything..." "At the beginning, early, and often." In response to any issues, the students own up to challenges because of the relationship with the advisor that has been built early in the program.

"Front-loading" the introductory courses was one of George's most significant recommendations. The task of getting these future teachers involved in the classroom and

profession early was emphasized by teachers in the field as long ago as the 1970's. In George's explanation, the rationale is:

I think that whole concept of front loading a program, that's true, no matter what program you go into, even if it's athletic coaching. If your new people into the program have contact with those who really are good within the profession, that will stimulate what you mentioned about passion and interest, and cause them to come together.

Special Circumstances

Instances of students not sharing about a needed accommodation has occurred within this program and that omission has caused struggles for these individuals. One in particular was a non-traditional student who had never learned to use a keyboard and George shared he had no idea how many times that student had failed the exam. The validity of the exam itself was also questioned, especially in regard to how the questions are worded ("poorly" according to George) and the subjective nature of the grading process.

When asked if the number of struggling students and the severe shortages within CATE teachers were correlated, George shared that he did not see that happening much. The biggest struggle for this content area has become recruiting male students for teaching, which is a directly opposite challenge compared to when George was first involved in the program. The current predominance of female graduates has exacerbated some prejudices from the schools because want to hire male teachers due to the stereotypes still in place about the content. George explained it in this fashion:

So, I think what I've interpreted out of that is, there's been a softening. I'll describe it as in the [CATE] education curriculum at the secondary level, and the softening has gone to the high touch kind of skills of leadership and cognitive instruction, and away from the hands-on, that (another faculty member and content area), and I would suggest that maybe males have gravitated away from the kind of curriculum that exists at the secondary level these days.

As importantly, George did not report that the young women graduating from his program were having difficulty landing teaching jobs.

A leadership program intended as part of a statewide initiative to find talented candidates for majoring in this content area has not had a positive effect on the recruitment of future teachers. Instead of earning a teaching degree, the students in that leadership program are drawn more into non-traditional careers related to the content that has them moving to a larger community and not returning to the small schools or areas where they grew up. The lack of coursework offered within larger districts also influences the students who major in this content area at the college level. Because there are very few classes offered in the largest communities, future teachers are not coming from those locations.

Students who do not succeed within the coursework or professional experiences in this program are rare because of the introductory course and early advising monitored by this faculty member. Students coming into the program more recently have shown some GPA struggles. The interventions have been implemented earlier within their program to put the students on a strict regimen of coursework and monitoring grades.

Students transferring into this program from a smaller feeder program in Western Nebraska have included some of those struggling with GPA as well.

Other Issues and/or Themes

One of the special issues within this content area has been the external perception that the only thing students learn within these classes are stereotypical and oversimplified. The citizens within the communities where these classes are offered tend to see the basic career areas, with no demand for those areas within their geographic location, and so see no need for the coursework to be offered in the schools. George called this part of an “upside down” model based on the changes in the gender of the teachers and the fact that these stereotypes remain in these communities. An example George shared to illustrate this concept is how some apartment communities housing over 55-year-old adults can turn into a gossipy, accusing environment similar to pigs biting each other’s tails. Because so many of these programs are in small or very small communities, this illustrates the way old beliefs continue in a strong sense.

During our interview, George also mentioned information and research about cultivating a “growth mindset” within the students. Carol Dweck (2016) has published extensively about both a “growth mindset” and a contrasting “fixed mindset” in students, and George described it this way:

If a student has a fixed mindset, they’re usually keyed on grades and performance, and when they don’t succeed, what they will tend to do is back away from the challenge and recede, and then they get a mindset and they don’t do it, they’ll avoid. Whereas a growth mindset suggests, okay I wasn’t successful, but I will study and look, and I will get there, and there

will be benefits from that, and so they don't get deterred from it, and I would say that might have a whole lot to do with resilience in this situation.

If this mindset is adopted and evident, the students are more receptive to constructive interventions and reflective within their own practice. This is important because evidence can be observed by the student teaching supervisor that leads to a higher level of achievement and success within the program.

In addition to the information by Dweck that he shared, George uses Kolb's Learning Style Model and some of Stan Boswell's strategies for building resiliency as he advises students. George mentioned an inventory developed by Kolb that identifies how people take information in and process it. This is used within the introductory classes to emphasize the way students (and teachers) learn differently. The relevance of this relates back to the stereotypes within all CATE content areas that we are "hands-on" with everything, then struggle with the lesson and program planning required by teachers. George summarized this tension well: "...they've got to plan, they got to be reflective, and so the point I'm getting at is, that's not a natural tendency of CATE students."

Interview Number Three

Program Background

In 2014 there were no students enrolled within the major when this faculty member who we will call 'Paul' was hired. Though the program had been offered through UNL for many years within a different department, it was moved to another college/department and this new faculty position was filled to rebuild the program. Starting six years ago with no students required a new structure to recruit and build

enrollment, so a 2+2 program was created. Students enrolled in a community college content area associated with this subject (which is usually a two-year degree) were then recruited to become teachers during that experience (adding two more years at the university). Paul has connected closely with three community colleges in the state where the content is taught. During advising sessions, teaching is introduced and encouraged, but the students can choose whether or not they want to pursue the degree, which includes coming to UNL for two years after earning an Associate's degree. In 2018 there were three students who declared this content area as a major during their freshman year and he/she/they sent them out to the community college to take courses after their first semester on the UNL campus. Working between the community college and UNL sites allowed them to take all of the content courses required for certification and have access to the individual tutoring and support for the more difficult math and science classes, that might be challenging for students.

The way this program has been built has been by collaborating with the community colleges and student organizations to recruit candidates. The shortage of teachers in this content area appears to be the most severe, with Paul only having two students working towards graduation in 2014. Today Paul is in contact with over forty recruits via the community college connections. See Table 5.1 for enrollment figures in this program over time as recalled by the faculty member.

Table 5.1

Enrollment Figures 2014 - 2020 Program 3

Year	Graduates	Provisional or Transition to Teaching Candidates:	Openings
<hr/>			

2014	2		
2015-2017	0		
2018	3		
2019	6	3 (provisional)	17-20
2020	8	4-5 (transitional 12-hour program)	21

In addition to these students graduating from the on-campus program, Paul is working with 4-5 teachers through the *Transitions to Teaching* program at the University of Nebraska at Kearney. This program also includes 12 hours of coursework taught within the UNL program. So these prospective teachers are getting content-specific planning and instructional methods. Paul includes virtual visits with the new teachers within the first course, as well as live observations of their teaching (which was temporarily interrupted by the pandemic). Assignments include reflections on how their lessons are going. There is also a second course designed to implement all of the methods from the first course, as well as providing lab-focused experiences. The addition of a Career and Technical Student Organization (CTSO) course is also being developed that will hopefully be delivered nationally as part of a program for recruiting teachers to this subject area around the country.

The community college connection has certain unique features to encourage more students majoring in this content area to become teachers. Paul referred to this as “contact” and “monitoring” of the 40 (at the most) students who have expressed interest through their community college adviser. Paul summarizes the contact as follows:

Paul: I treat them as not even in the major. They’re just figuring it out.”

Moser: Monitoring?

Paul: Yeah. Be(cause) a lot change their mind or ‘I want to go do this.’ You know when you’re at the community college, they’re not in a program per se. Right.

They're getting put into different programs. So for some of them it's like going grocery shopping, you know. They're finding something looks better and that's what they want to do and that's okay. And I'm for them, 'Hey, you're not going to hurt my feelings.'

An especially important part of the co-advising process is that students are prepared to make the career decision that is right for them. Pushing these candidates one way or the other is not part of the advising, especially because teaching requires a skill set that has the well-being and future of adolescents at stake. Paul sees this as a responsibility that overrides the desperate need for filling teaching positions.

Characteristics of Struggling Students

Most of the students who are struggling within this program have problems passing the PPST/CORE exams. One student in particular took the writing exam eight times before passing. This particular student also hired a personal tutor to prepare and evaluate their level of achievement each time. Paul had definite issues with this portion of the exam:

They (student and tutor) evaluated the questions from the exam and found numerous errors within the writing of the 40 questions of the writing component and he tried to contact the PPST and voice concerns. They would have none of it. And then the exam itself, the writing portion itself isn't just assessing, it's assessing keyboarding, it's assessing other things. My problem with the PPST is just, it's assessing more than they say it is and they're unwilling, number one, to give feedback for the people that take it. And number two, it's an inaccurate exam.

Uncertified teachers are also common within this content area and are hired regularly in smaller school districts who struggle to get qualified applicants. Paul provides mentor connections to these new teachers to help with curriculum and more direction for delivering course content because of a personal relationship with a veteran teacher. This creates a comprehensive program that begins at the community college, moves to the UNL campus both with advisers and this faculty member, continues into the student teaching experience with a high quality hand-chosen CT, and then provides additional support in the induction phase during their first few years of teaching.

Interventions Implemented

One of the most significant interventions this program has incorporated is the use of community college advisers to help monitor and support the undergraduates. Early in their experience once hired, Paul worked hard to develop advising contact teams at two of the community colleges in the state. Once students were identified who were interested, a meeting would be set up to meet and make sure the potential candidate was aware of all of the steps and requirements to complete the program. Once a year there are face-to-face meetings with both the student and adviser, including updates and any coursework or policies that have been changed within the UNL program. A third community college took a bit longer to get set up before a cooperative faculty adviser was found and the connection was secured.

With the 2+2 program in place, connections were made between each campuses' advisers specific to this major with a focus on how the students are progressing and achieving. One example was shared about Southeast Community College in Lincoln that has a "transitions lab" for students who are enrolled in these programs. With an adviser

there, the students are individually paired with tutors to help them in a variety of subjects, as well as specific exam preparation. All of this is included as part of the services provided to students enrolled in any coursework; and is particularly focused on the PPST/CORE exams.

Paul also has a dual-assignment between the NDE and UNL, so is responsible for “permit preparation” for teachers out-of-certification. This *JumpStart* preparation involves any candidate hired out of certification who volunteers to participate in a 4-day bootcamp-style preparation seminar. During the preparation, this faculty member’s observation was,

They don’t know...an objective from a knob on the door. I mean it’s funny. I bring in an administrator the first hour and have the administrator talk about what they’re looking for, and they’re using all these educational acronyms and education needs and you just see all these people just, their eyes glaze over and their jaw drops, and it’s like, ‘What did I get myself into?’ And so my goal by the end of those four days is that they have a comfort zone going into day one. That’s kind of the goal right now.

In contrast to this alternative pathway, the students who come from the community college programs have almost all passed the PPST/CORE before they arrive at UNL for the last two years of their program. This is true even though the community college students may enter with an ACT score as low as 15. So a majority of the academic coursework is completed at the community college to better prepare the students to take the PPST/CORE. This includes five hours above college algebra and

applied physics before they arrive at UNL, and Paul claims all of the students who have completed these two also successfully pass the PPST/CORE.

Paul has also made a connection with the college adviser for the students in the 2+2 program once they are on campus. This adviser monitors grade point average and resources needed for passing the PPST/CORE if the students come without all sections passed. Paul noted that some of the non-traditional students have had to repeat full semesters, up to a year and a half worth of coursework in order to start over.

As Paul shared in our second interview, CTs are also integral to this program's quality control. This includes high quality, professional instructors with the CTSO associated with this content area and an ability to make sure the student teacher is successful. To develop the sites student teachers are able to practice in, Paul has two status levels to which students are informally assigned: "developing" and "ready".

Special Circumstances

All teaching content areas have a separate Praxis exam associated with their program and all required practitioners to earn a teaching certificate in Nebraska. Because this content area has a more recent version of the exam, there is no cut score, meaning no one fails. Paul referred to it as "a joke", "So basically we're taking the least financial capable and we are charging them to take a test. The reasoning according to [illegible] was they want to gather data." As a consequence, the students do not even prepare to take the exam; they just go in and take it with no worry about the way they score.

Recruitment is another issue that came up during this interview. CTSOs have been one of the main sources of support to build the program at both institutions. In the beginning Paul visited high schools and CTSO events to gain enrollment. The college

also supports recruitment efforts, but Paul does not depend upon that as a consistent source for candidates. College recruiters have every program to work with, so asking them to take on one specific major is not realistic or probably possible. Paul shared a presentation and materials that had been used prior to the college recruiter taking over. This is a characteristic similar to what happens in the FCS program. The larger the number of students enrolled in the program, the less time the coordinator has to do the extra work to recruit additional enrollment into these majors.

One specific student and his parent have been especially significant to the dispelling of stereotypes related to this major. The student, a son of a prominent community college leader, has graduated from the program and will be teaching this coming year. This parent is a new point of contact and support at an influential level that could help dispel the stereotypes and limited thinking some of the more traditional teachers in this program still hold. The connection between the CTSO and also came to fruition as one of the student teachers who just graduated was also a national champion participating in the competitive events and will carry the connection forward. Creating a CTSO post-secondary group has also helped support the integration between recruitment, the 2+2 program, and the success of the students after graduation. Students are required to complete a project within the CTSO during their UNL experience, and are placed with advisers who can mentor them during both an introductory class and practicum experiences.

Other Issues and/or Themes

The shortage in this content area has been so severe (because of no students enrolled six years ago), that the placement rate in the last two years has been 100%. Paul

guessed that 17-20 positions were posted this year and last, with many of them being filled with teachers who have graduated from a different CATE content area. Paul expressed some frustration with NDE turnover, compliance employees being unaware of what is going on in the *Transition to Teaching* program, and/or candidates teaching out of certification. Paul indicated frustration with those teaching out of certification within their own content area and that many of the key secondary classes are being taught by another CATE teacher based on the strength of the student organization and leadership programs admired in the smaller communities, rather than seeking field-specific accredited teachers. Paul acknowledged that the NDE employees really just do not have time to monitor all of these teachers or situations.

Working with the chair of the department to add an additional faculty member to the team was discussed during this past year's annual faculty evaluation. The process for doing this would be atypical because they are proposing recruitment of a doctoral candidate who is in the department as a student, grooming that student to take over the teacher preparation program. The structure would involve having the person in the assistantship run the CTSO for the undergraduate students, the introductory undergraduate course, and recruitment. As of the end of my research period that hire was still pending.

More support is also needed for new teachers out in the field, as well as supervising student teachers. Paul still goes out to visit every student teacher at least once during their professional semester, and as the enrollment increases so does the pressure and overload associated with "doing it all."

Examples of students who have struggled include those with low GPAs and difficulty passing coursework, including one who had to forfeit a year and a half worth of classes, as well as others who have taken math and chemistry classes two or three times in order to move forward in the program. The student who failed the math and chemistry requirement multiple times had also taken the maximum number of hours allowed from the community college . That meant the student was required to take them through UNL, which costs more.

Self-Interview Number Four

Due to the goal of considering all four CATE programs within the university, the need for answering the same questions about the FCS program of which I am in charge is essential. These responses reflect the answers to the questions developed and shared with the other interviewees in the same categories. Restraint was required to shorten the amount of information merely because I know much more about my own program than I can glean about the other CATE fields from interviews with colleagues.

Program Background

The FCS program has been in existence at UNL for almost 100 years. In fact, the College of Home Economics was originally part of the College of Agriculture, separating into different entities and buildings only in the 1960's. There was a severe drop in enrollment from 1990-2008, remedied only when a full-time position to build the program was funded by CEHS. Initially, I was recruited from Lincoln Public Schools to fill an adjunct position to teach FCS education and Family Science classes. At that time there were five undergraduate and three graduate students in the program that year. Enrollments have grown to over 100 at this point in time. In addition to the undergraduate

courses I was teaching, I took over the Great Plains Interactive Distance Education Program (IDEA) master's degree program in the fall of 2011 when it had only three students. That program has grown to 45 students by the spring of 2020.

Despite the increase in enrollment both at the undergraduate and graduate level, the shortages of FCS teachers in Nebraska are still severe (as initially noted in Table 1 back in Chapter 1). With data collected by myself and the NDE since 2011, the unfilled positions and those filled with an uncertified candidate constitute an average of 19% of the openings. Because so many candidates are out of certification, the qualifications of those hired includes a wide range of bachelors degrees and aptitudes, most of whom are not monitored by me. All certification qualifications and students enrolled specifically for that purpose are monitored and controlled by the university's certification officer.

Undergraduate students who apply to the program do so within the fall semester of their sophomore year in CEHS. At this point in time all candidates are required to take the PPST/CORE exam and pass those at a level set by NDE. Preliminary acceptance into the program is normal for many of these students as they take the exams during the same semester as the application. Students take two semesters of coursework in preparation for the student teaching semester. All of the three tests given within the PPST/CORE (Reading, Writing, and Mathematics) are required to be passed before students start the student teaching semester. The Praxis Content Assessment for FCS education is also required prior to the student teaching semester, but many students wait until the very last minute to take it which sometimes jeopardizes their placement. If they do not pass, the certification office pulls them out of their placement and forces the student to postpone the experience (and graduation) for another semester. It is at these two points in the

student's college experience that I usually become aware of their status related to these exams unless the student has already voluntarily shared that information with me privately.

Characteristics of Struggling Students

The only checkpoint set within the FCS education program to monitor student's qualifications include the original application to the major (grade point averages and PPST/CORE scores are required) and prior to the student teaching semester as an additional application is submitted to the UNL placement office. Some students share their completion of the exams and the way they scored, but those who have not passed are more likely to keep quiet. The FCS program has an adviser assigned to monitor all students who keeps a tracking sheet that is shared with me on a regular basis. The general achievement level of the students applying for this program is well above the minimum GPA required by the college of 2.75 out of a possible 4.0.

The most common point in time during which students share their struggles in passing the PPST/CORE is during the application process for the student teaching experience. Students who have failed or not taken the exam are not allowed to accept a placement until all sections have been passed. When a section of the exam has not been passed, students retake it as often as possible with December being the last month to qualify for spring semester student teaching and August being the last month for fall. Enrollment has been affected because several students who did not pass the PPST/CORE in time for the subsequent semester either postpone their professional semester until the next semester after they become eligible or withdraw from the major and graduate

without certification. A total of four students recently have gone this direction with two of those occurring in the fall of 2019.

Writing lesson plans is also an integral and important part of the FCS methods and curriculum coursework. Students who do not have strong writing skills do not do as well on the Teaching/Learning Plan (TLP) assignments (5-6 total) that require them to write out full units of study for a concept. These assignments constitute 25% of their total grade in both pre-student teaching classes. Remediation of these written papers is also allowed and encouraged, including individual help through a visit to my office to revise and improve their writing skills and to regrade at their request. Two of the recent struggling student teachers had also failed the writing portion of the PPST/CORE and scored significantly lower on the TLP's during the same points in the program.

Interventions Implemented

The most common interventions in place for the FCS education program occur during the application process to the CYAF department and then again when completing the student teaching prerequisites. These formal interventions are processed via the CEHS Advising Center and the Student Experiences Office run by the college. The Advising Center has one person who works specifically with FCS students as part of their assignment, helping with scheduling and program requirements. This adviser also has access to the student's records and transcripts. The first time any of this information is available to me is when the students apply for the FCS program. I process those applications that also include the student's GPA and PPST/CORE exam results if it has been taken. These are given a value of five points on a scoring rubric developed for FCS applications out of 45 total. Students can be provisionally admitted without having

completed the PPST/CORE exam and a GPA below 2.75/4.0, but are required to meet the standard of passing all three of the academic areas (reading, writing, and mathematics) based on NDE criteria.

Students not passing the PPST/CORE can pursue a few different directions to receive support for studying to retake failed exams. One of the most popular involves study guides housed in the CEHS advising center that can be checked out and used for free. These study guides can also be purchased for approximately \$20-25 each; retaking the exam costs an additional \$90 for each separate content area. There is a fee waiver process included on the ETS website, but the information to take advantage of this is also confidential and I have not had any of my former students share this information with me. Scores are sent directly to the Advising Center and Field Placement Director, who monitors the student during practicum and student teaching experiences.

Students who receive failing grades usually share that information with me once it is getting close to the end of their second semester of involvement in FCS education coursework. Most of the time this happens during the semester directly prior to student teaching. This is the “do or die” deadline for passing because student teaching placements are requested several months before this and have likely been accepted and confirmed. The last date to retake an exam is also the week before the holiday break, so there is a definite end to the opportunity to pass if it has not happened prior to that week.

Personally, only a few students have discussed their frustrations with me about the exams, having to retake them, all of the extra studying, tutoring, and practice tests they have paid for as well. Some have hired private tutors, especially if they are retaking the math portion of the exam. A couple have visited the campus writing center but most

reported not finding it very helpful in regard to gaining skills related to this specific exam.

Special Circumstances

Some of the unique circumstances within the FCS program have included student accommodations, first generation status, and English spoken as a second language within the student's home. These have all had some influence on the success of students within this program, especially when taking the PPST/CORE exams and in terms of their overall GPA.

For example, recently I had a student who did not pass the PPST/CORE writing exam and the timeline crossed over into the student teaching experience. Students can take the exam as late as the last week in December, but the writing portion requires up to three weeks for results to be returned. This student was already placed in a building, was attending regular classes at a middle school, and was beginning to plan lessons for the second week of the experience. The certification office received the failing score, pulled the student teacher from the placement and called them into the office to terminate the professional semester. During the conversation with the certification officer it was brought to the student's attention that being a first-generation college graduate and from a home in which English is the second language qualifies them for a possible waiver. Similar to the example shared in Chapter 4, this process involves writing a letter to the Commissioner of Education at NDE and explaining the circumstances related to the exam, how many times the student has taken it and failed, as well as the qualifications related to their own background. This student wrote the letter on a Friday and was given

permission by the commissioner on Monday to return to the student teaching placement on Tuesday.

Since all of the recent growth within this program has been during my tenure, diversity of candidates has been a big priority when recruiting and offering support for these students, but with an average of 39 students enrolled yearly between 2011 and 2020, usually only one or two are from a non-white background or are male. Almost all students are European American females, creating a perpetuation of the stereotype related to who teaches FCS. Male students have all been European American as well and no GPA or PPST/CORE exam issues were experienced with this population. Few first generation student have enrolled and they have encountered some challenges.

Other Issues and/or Themes

The shortage of teachers has definitely influenced the enrollment in both the undergraduate and graduate students within FCS education. Enrollments have increased by 350-800% to over 135 students today from a low point of only four to six undergraduates in 2009 and only three graduate students in 2011. Recruitment and marketing of this program has been supported extensively by the Child, Youth, and Family Studies department. The tie between extensive recruiting and getting the word out about teacher openings and the prevalence of out-of-certification teachers are starting to change the value of majoring in FCS education in a positive direction. Keeping track of the graduates has been accomplished because of a systemic support system through NDE, as well as diligence in keeping accurate data that truly represents the openings for graduates in this major.

Charts were developed to keep track of the teacher openings in Nebraska, along with the additional movement of teachers into different FCS positions beyond the classroom. One of the biggest myths I have had to overcome was that FCS programs were not valuable, with many administrators and leaders in education claiming it was going away and not a viable content area to include in the curriculum. The image of FCS was also highly stereotypical within the general public (such as parents, students, and other faculty in my teaching experience) believing the classes were “fluff”, not necessary, and included only traditional Home Economics content. The “stitch and stir” image and trouble people have calling the field by its official title, *Family and Consumer Sciences* vs. *Home Economics*, took a negative toll in communities and on college campuses. To counter such messages and beliefs, we have developed marketing materials, communicated evidence of enrollment increases to different groups and stakeholders, and made presentations at the local, state, and national level to start getting the message across that FCS is thriving here and growing all over the country. This chart illustrates the enrollment growth at UNL since 2012. These figures outnumber all other CATE program on campus at this time:

Table 5.2

FCS Program Enrollments 2012- 2020

Year:	Statewide Openings	Statewide Retirements	New Programs or Positions	Programs Closed
2012	39	14	5	0
2013	34	8	1	0
2014	59	26	4	1
2015	57	26	3	2
2016	46	12	7	1
2017	57	15	7	1

2018	49	13	4	0
2019	39	6	6	1
2020	58	9	9	2
Totals	438	109	49	8
Average Per Year	48.6	12	5	.89

The increase in the number of students within the program has meant for a wider variety of issues that the students are bringing with them into the program. While the vast majority of experiences have been successful and without hiccups, student teachers have been removed and graduated without certification, as well as several being moved to different positions because of unsuccessful relationships with CTs. There have been several special needs students who have struggled with the PPST/CORE, and whose writing difficulties show up in the writing of lesson plans during student teaching. This has resulted in a shorter tenure of those students who are within the group with unsupported special needs. There has also been at least one student per class at the undergraduate level who has either dropped out after the first semester, or right before student teaching. Some of these withdrawals have been because of the PPST/CORE exams, but there have also been a few times when students just decided teaching was not for them.

A few students have shown extraordinary stamina and persistence in order to get through the program. The challenges faced by these students have included the PPST/CORE, even taking the separate tests over as many as five times. GPA problems related to coursework required for the certification and endorsement classes are additional challenges. Financial struggles are illustrated most frequently with students working two jobs, running out of financial aid options, and living on their own with no family support for tuition or basic living expenses. Some students in this program also

commute from Omaha (an hour away) and other small communities to save money and live closer to family. These all represent the diversity and range of issues that have arisen with the increasing numbers of students at all levels within the program. This exacerbates the concept of faculty workload that includes teaching, advising, and managing all of the student behaviors and issues.

Summary of Faculty Interviews

The need for additional research related to all CATE TPPs, the practices that are implemented and the interventions to assist struggling students is small and many studies are outdated. This study provided a greater understanding of our programs, as well as how we can better support our students. This in turn can be applied to other TPP practices to possibly improve the success of different levels, content areas, and variety of issues struggling students are facing within our own college, and the larger community of post-secondary institutions in our state and nation.

Important information shared by the CATE faculty identified the similarities we shared (Research Question #1 & #2) as intellectual struggles (specifically GPA and exams required for certifications), as well as the 1st generation students and special needs that are not identified or supported at the post-secondary level. Personal struggles were also identified from all faculty as a common area of concern (financial issues, physical, and mental issues) that are many times not shared with advisers or instructors. The severe shortages create additional work and concern for faculty (hiring candidates with no certification and the stereotypes related to our content areas), as well as struggles that are common during the student teaching semester (managing student behaviors, the relationship between the CT and UNL supervisor) and writing lesson plans.

Interventions (Research Question #3) that worked the best for all of the CATE faculty included prerequisite coursework and the point of entry into each of the programs. These also represented a difference (Research Question #2) in respect to *how* the students are accepted into the programs. Two involved prerequisite coursework, with the others involving an application process facilitated by the advising center. This also leads to the way faculty communicates with students, which either begins with the application process or instruction of prerequisite classes. The other significant difference involved the resources provided for monitoring student GPAs and exam support (which included both study guide books and specific coursework).

Significant differences focused around the each program's background and the characteristics of the students we each work with (Research Question #2). The demographics of students, growth and recruitment, uncertified teachers, specific contact with students, advising, coursework, exam and GPA support, supervision and placements of the practicum and student teaching experiences, and growth of the programs all included unique characteristics for each CATE program. The information significant for sharing with stakeholders and the Deans (Research Question #4) are summarized in the next chapter.

Chapter 6: Discussion

Preparing future teachers can be a daunting task, especially when some of them lack some of the most basic academic skills and knowledge at the start of the program. Josie (Chapter 4) was definitely not the first student I worked with that struggled during student teaching, even after doing relatively well during the two semesters of the methods required for coursework. The adoption of the PPST/CORE exams by the Nebraska Department of Education in 2014 changed the preliminary intellectual requirements we place on future teachers (NDE, 2019). The rate of undergraduates passing the PPST/CORE on the first attempt is 89.6% (Goodwin, 2017), leaving approximately 10% at risk for not being able to pursue their dream of becoming a teacher.

Considering the shortage of teachers within Family and Consumer Sciences (FCS) and other CATE programs, this magnifies the importance of our efforts to grow programs and recruit quality candidates. There are other factors related to the stereotypes held throughout the country related to CATE classes as well, and these can be a major hindrance to recruitment when program changes are not parallel to public expectations.

As noted in the Introductory Chapter of this dissertation, four questions guided my work:

1. What are the most common issues struggling students in CATE programs are experiencing?
2. What characteristics are similar, as well as unique within all four CATE programs related to supporting struggling preservice teachers?
3. What interventions could be applied to all CATE programs both at UNL and at other institutions offering FCS programs?

4. What information might be helpful to share with stakeholders and the Deans of the CEHS and the IANR that may result in improvements for all of CATE programs at UNL?

Working with Josie in Study One (Chapter 4) and Interviewing the University of Nebraska-Lincoln (UNL) faculty in Study Two (Chapter 5) were of significant value in identifying the characteristics of the CATE majors, the interventions that are currently being implemented as well as ideas from each program that can help all of us meet some of the unique circumstances and needs of our struggling students. The growth of our programs has been an exciting learning process that will hopefully lead to some new ways of supporting struggling students, while also improving all of our interventions.

Themes Worth Noting

Some of the most basic themes that came through consistently from all programs is the common struggles of the students and interventions implemented by faculty and staff focused around the advising students, structured coursework, and faculty loads and status (Research Question #4). The timing of contact between the students and faculty/program chairs influences the communication opportunities we all have with our students, so the sooner we meet and connect with them the closer our relationships and ability to help become. This help can include face-to-face meetings (advising), specific coursework identified to help with PPST/CORE exams, or general advice given to students who are struggling. Of course, the bigger our programs become, the harder it is to engage in such monitoring/ connecting. Characteristics of the students themselves are also a factor, especially if they are a first-generation college student, or English Language Learner, or a students with a disability who struggles with writing.

To create additional context, the status of the instructors who are running these programs involves a wide range, from adjunct to full professor status. Two of the instructors were hired as adjunct, with one being promoted to Professor of Practice after a few years at the university. The other two instructors were hired as an Assistant Professor (over 30 years ago) and a Professor of Practice (PoP). Richard is part time, but all other faculty members are full time. The PoP's both teach a minimum of five classes each semester, as well as advising graduate students, recruiting, and working with Career and Technical Student Organizations (CTSO). Advising is also another part of the assignment for two of the faculty who work with undergraduate, graduate, and out-of-certification students as part of their regular assignment. The two faculty members in the College of Education and Human Sciences (CEHS) advise graduate and out-of-certification candidates in addition to their teaching assignment. All faculty are expected to work with out-of-certification students, while one has direct relationships with community college advisers who feed into that program.

Tracking the students who are currently in the program, as well as those in the field is another responsibility the faculty members have to add to their advising duties. Three of the faculty members interviewed either track their own students or work closely with the advising center employee who is assigned to the specific major. The Nebraska Department of Education (NDE) career field specialists also help all of the faculty track students, especially first-year teachers and those being hired without certification.

Similar Characteristics

The faculty interviews illustrated many more similarities than differences in regards to the struggles we encounter and interventions that we implement (Research

Questions #2 & 3). Students who struggle fall into two categories related to intellectual abilities. This led to additional discussions about what other issues students were experiencing in their personal lives, as well as diagnosed or undiagnosed learning disabilities, and mental and emotional factors that all contributed to student stress. Points of communication between the program chair or adviser (at community colleges or UNL), prerequisite coursework, and application processes provide checkpoints for implementing interventions.

Struggles

During the interview process with fellow CATE faculty, it was acutely evident that remembering the stories of the students that struggle was not far from the front of their minds. The success of our students weighs heavily, both on those of us preparing the students and the students being prepared. The students are entering a program with set criteria for Grade Point Average (GPA) and Praxis exams. These can be obstacles. Similarly, stressors from outside of academia cause some to fall away at different points within the programs. Some of the most common characteristics are external to campus—the required exams, and personal issues that may include physical, mental or intellectual issues. A few of the struggles are within the student's ability to control, such as the student teaching experience and interventions available to help with the exams and coursework.

Severe Shortages.

According to the Association for CATE (ACTE), the premier professional organization representing all content areas within the field, over 92% of high school students take CATE classes and over 8.4 million seek an associate degree or post-

secondary certificate in a CATE-related field of study (ACTE, 2020). The Nebraska CATE (CTE) department at NDE reports that 100% of the schools in our state offer coursework in one of the content areas (CTE, 2020). Nebraska is also reported as one of seven states that is reporting shortages in all content areas other than social sciences and English language arts (NDE, 2020; USDE, 2017). Each of the CATE colleagues I interviewed reported shortages and major efforts to recruit into our fields and retain the students who are at the junior and senior level.

All of the CATE programs are considered as teacher shortage areas both by the Nebraska Department of Education and the United States Department of Education nationwide for loan forgiveness (NDE, 2020; USDE, 2016). For the one of my CATE colleagues hired with no students in their program, building the enrollment from scratch took four full years.

George shared that he did not document or keep track of graduates for their first few years of teaching because the career field specialists at NDE take care of their progress and needs. The FCS program has the best source of documentation based on the relationship between me and the NDE career field specialist. So I know that 20% of the positions have been filled with uncertified candidates and as many as 10 positions have gone unfilled each year since 2011 (Moser, 2020). The other program chairs had approximate enrollment from 10-20 students with 100% placement for their graduates wanting to teach. FCS is still the largest program with over 40 students on campus, 45 online graduate students, and 35-45 out-of-certification candidates within the state (Moser, 2020).

Hiring Out of Certification.

Because of the shortages within our own state and all over the country, alternative certifications have become a part of every state's department of education policies.

According to the 2017 *United States Department of Education Shortage Report*, all 50 states and six territories reported teacher shortages. In fact, the shortages included in Nebraska within this document showed at least one CATE content in the top 5 shortage areas documented since 2006-2007 (USDE, 2017).

Dealing with candidates who have never taught school is an extra responsibility placed on the shoulders of most of the teacher education faculty around the state as well. The *Transitional Teaching Permit* program offered through the University of Nebraska at Kearney (UNK) for teachers entering the field with a bachelor's degree that also includes expedited coursework which will earn the candidates a master's degree by completing the program. As long as the candidate takes 6 hours of graduate credit per year, this permit can be renewed until the program is completed. In addition to these teachers, unqualified candidates can also be hired and work with a *Provisional Teaching Permit* or a *Temporary Teaching Certificate*. When no other qualified candidates applied for the open position, both of these can be issued to applicants who need additional college credits and/or have exam requirements that have not been met (NDE, 2019).

All four of the CATE faculty work with teachers who have been hired within the state and are in a program to add an endorsement or earn a full teaching certificate. Some of the faculty members interviewed expressed great concerns about the preparation and retention of these individuals. One in particular mentioned the hiring of unqualified teachers as a weakness of our state department of education, especially in regards to keeping track of unqualified teachers and related high turnover there within the past few

years. Not only are the career field specialists expected to monitor not-yet-qualified teachers and prepare them, but this is on top of an overload of other responsibilities. The NDE CATE department has developed additional programs to support unqualified candidates moving into teaching with coursework and a summer week-long workshop called *JumpStart*, with the “...goal by the end of those four days is that they have a comfort zone going into day one (Interview #3).” Not surprisingly, comparing the classroom readiness of a new teacher who has gone through a full TPP and has a semester of well-supported student teaching experience to a new teacher who has come through *JumpStart* reveals that ‘new’ teachers can start with very different levels of preparation.

Stereotypes.

The teaching profession has been primarily female and European American since Catherine Beecher helped popularize teaching as ‘women’s work in the 19th Century (Proefriedt, 2008). Women originally entered the workplace only when young and single, with those who did marry and have children then expected to stay home. In the middle of the 20th Century, women entered the workforce at an increasing rate that also included moving out of traditional occupations which included teaching, nursing, social work, and clerical jobs (Yellen, 2020). Of all of the content areas that can be chosen by future teachers, possibly the most stereotypically gendered is home economics. The profession’s core content emphasizes work within the home to improve the lives of families in a variety of ways. Originally the coursework was very traditional and technical, including many skill-based learning experiences. Literally all teachers in home economics at the secondary and post-secondary level were women, with only a few men involved at the college level as the profession became more categorized and inclusive of scientific areas

of study (i.e., nutrition, early childhood development). The opposite was true of the other CATE content areas.

Ag Ed, BMIT, and STS were primarily male-dominated within the teaching profession until the late 1990s. It was not until women began to comprise over 70% of the total teaching workforce in the mid-1970s that these areas began to turn over, with Ag Ed now being over 75% female (compared to 25% as recently as 20 years ago). BMIT involves almost an even gender split in regards to teachers, but FCS is still over 95% female.

Along with the traditional coursework, the type of careers each of these content areas produce is also the same ratio of male to female, so the stereotypes are perpetuated by society's expectations of who will major in these areas of study. The career areas related to each content area also undergird the stereotypes because these same trends appear within the workforce. FCS careers tend to be female-dominated, such as teaching early childhood, clothing and fashion design, hospitality and culinary arts, food production, and human development and family studies. Stereotypes related to the content are also evident for the career areas of Ag Ed and STS. Both encompass specific content related to industry trades which are now identified by four career fields: *Science, Technology, Engineering and Mathematics; Architecture and Construction; Manufacturing; and Transportation, Distribution and Logistics*. Ag Ed has morphed into the following career categories: *Agribusiness; Animal Systems; Environmental and Natural Resources; Food Products and Processing; Plant Systems; and Power, Structural, and Technical Systems* (NDE, 2020).

The lingering stereotypes of the fields that were mentioned by faculty mirror the origination of the professions they index. Ag Ed originated from farming and producing food and crops in a rural setting. Most programs in Nebraska are still in the smallest districts with some administrators only wanting to hire the male candidates because they are looking for someone to teach the most traditional content. The same is true of STS with districts still holding on to traditional courses like building construction, welding, small engines, or machine tool. BMIT's equal division of students from each gender is no congruent with the other CATE content areas, but there too stereotypes come into play, with the male students interested in coaching being drawn to the major. FCS is still dominated by female students, with most drawn into the content because of interest in the care and well-being of children and families.

FCS has had an image problem since its name change (from Home Economics) and did not show up as a separate Career Field or Cluster Models identified by the US Department of Education and a variety of other institutions in 1996. The FCS career pathways actually cross over into several different subject areas. The primary FCS career field is considered Human Sciences and Education, with *Human Services* and *Education and Training* being the primary connections within our profession. Careers included within these two fields include early childhood and FCS education, as well as human development and family pathways. The cross-over fields of study include *Hospitality and Tourism* which is also in the BMIT cluster, and *Architecture and Construction* in the STS cluster where culinary arts, fashion merchandising, and interior design are listed. One of the biggest concerns of FCS professionals is that this structure does not give any special treatment or attention to the fact that these career pathways are taught within FCS course

offerings at the secondary level, but also reflects the diversity of our subject area (NDE, 2020) .

The last issue related to stereotypes mentioned by faculty was that of the “fun” or “skills-based” focus of CATE coursework, drawing students who like that style of learning during their secondary education experience. George expressed concerns about how their field of study is changing, moving to more “soft skills”:

So, I think what I’ve interpreted out of [an easy subject to teach or job to secure] that there’s been a ‘softening’. I’ll describe it as the [content area] curriculum at the secondary level, and the softening has gone to the high touch kind of skills of leadership and cognitive instruction, and away from the hands-on.

Richard also mentioned the teacher education candidates not liking the direction CATE is moving in regards to the Science, Technology, Engineering, and Mathematics (STEM) national movement (ACTE, 2020). Students are being expected to participate in curriculum focusing on these areas that overlap into each CATE content area, moving away from some of the reasons these students have wanted to teach this in the first place.

Middle school [content area] is going through a transformation because in some school districts it’s all [one specific technology]. There’s been a great demand for teachers that have [one specific career area]....and student’s don’t like [another specific technology].

This shows movement towards the focus on intellectual skills and away from “hands-on” learning. This juxtaposition shows up in all four content areas and can draw more

students into the program or cause them to change their minds and follow a different path during college.

Intellectual Struggles.

Maintaining the grade point average and taking exams to qualify for teacher educator programs is an ongoing concern for students at the undergraduate and graduate level. It is more often normal than not to have students struggle in larger institutions during the first year they are in college. Estimates of the freshman dropout rate ranges from 30-40% nationwide with students not returning for their sophomore year and 60% of the students graduating within six years (USDE, 2019). There are also correlations tied to a higher dropout rate in regards to student loan debt, first-generation college students, ethnic background, and preparedness for the academic rigor or structure (Ed Data, 2020). While these are all 'bigger issues' than just CATE concerns, all of these variables were shared as issues affecting the UNL students in the CATE programs during the interviews. Most cases were not specific to just one struggle, but most often due to a variety of stressors causing students to fall away academically.

With the majority of students in the 2+2 CATE program attending a community college before coming to campus, Paul reported fewer struggles for his students in regard to lower grade point averages. The other three faculty members have a few students who struggle with GPA and the examples were most often about the first-generation college students or those suffering with mental or emotional distress. Two of the faculty also did interventions to help the students with these issues by reaching out when the struggles were evident, referring them to campus resources for free or low-cost support, and offering extra help with classwork or extending assignments. Consequences ranged

from students dropping out of the program when the prerequisites had not been met within a required introductory course or after continuing in the program and not able to get their GPA high enough to continue. One key to these students being able to continue or finish started with the faculty member or academic adviser communicating concern and asking them if they could help.

Exams.

One specific checkpoint within all of the CATE programs at UNL is to pass the PPST/CORE exams required by NDE. Two of the programs require an introductory course that screens the students for GPA, the passing of the PPST/CORE exams, and completing requirements for work hours to earn the occupational endorsement. The other two programs have a later application time as the students enter their junior year of college, so the information is kept at the advising level. All programs require the students to pass all parts of the PPST/CORE (reading, writing, and mathematics) before moving into the student teaching experience. Consequently, a few students within both of these programs withdraw or are not allowed to enter into the student teaching experience if all exams have not been passed (although there sometimes are waivers related to these requirements as earlier described).

Three of the programs include a prerequisite course in order to move forward in the major that also involves successfully passing the PPST/CORE exam. The courses are all taken at the freshman or sophomore level for undergraduates and completing all elements required leads directly to certification. CATE courses are all required to include an “occupational” component that involves documentation of work experiences related to each subject area. If the hours are unsupervised by a CATE faculty member, the students

only need to document 300. If the hours are not supervised, 1,000 are required. Each requires legal proof of employment included as part of the documentation in the form of pay stubs or income tax returns. The other career pathway including community college coursework includes specific recommendations for classes that will help students pass the exams, as well as individual tutoring and interventions by the advisers in each institution.

There are resources available on the UNL campus as well, including study guides and specific coursework that could help students do better on the exams. Once the exams are completed the results come straight to a database on campus. So advisers can keep track of eligibility for all of the CATE teacher educator programs. Two of the programs advise their own undergraduate students, so they and a college adviser are notified of results. The two other program chairs, who do not get the information directly, must depend upon the advisers to communicate that status. These two programs are also the only ones who accept students into the program on a *provisional* basis at the beginning of their junior year. This gives the students who are passionate about teaching the opportunity to study, get a tutor, or take additional coursework in order to pass. Regardless, most of these options require additional money and risks that can cause emotional distress for these aspiring teachers.

Every program has students who struggle with the PPST/CORE exams. The time at which the tests occur during their career path may be at different points, but we are all losing candidates, some of whom faculty consider to be very talented and capable of becoming excellent teachers. This issue carries over into the additional struggles of maintaining a GPA high enough for staying in the program, financial strains related to the

cost of the exams, and the emotional distress of not being able to move forward in a program they many have already invested 2-3 years to accomplish.

GPA.

The establishment of standards for evaluating teacher education programs has been an ongoing process since the establishment of The American Association of Colleges for Teacher Education (AACTE) in 1948. The accreditor changed to the National Council for the Accreditation of Teacher Education (NCATE) in 1954 and did not transition again until 2009 (Wise, 2005). At that point, a nonprofit organization called The Teacher Education Accreditation Council (TEAC) that had started in 1997 agreed to blend with NCATE. New standards were approved in 2013 and have now been recognized as the official accrediting standards for teacher education programs under the name of the Council of Higher Education Association (CHEA).

Personal Issues.

Outside influences are a normal part of a college student's growth and development. For many it is the first time they are living away from their parents, home town, and familiar or secure relationships. UNL is a large university with over 25,000 students on campus each year, so freshman students sometimes feel lost and overwhelmed. UNL Student Retention Rates for First-Time, Full-Time Freshmen show only 72% of those who start graduate in 4 years. The graduation rate within six years increases to 83.2%. This rate has been extremely consistent between the years of 2006 and 2017 (the last year reported). In the opposite sense, 28% of full-time freshmen drop out the first year, but an additional 11.2% return and graduate. Even if it takes 6 years,

this is an impressive graduation rate in comparison to many peer institutions (UNL, 2018). Still, campus-wide attrition patterns do not exclude the CATE TPPs.

CATE students who struggle with personal issues mirror the common issues facing most college students: finances and work; grade issues; and mental or emotional wellness. Living away from home presents many of these young adults with challenges they have not experienced before coming to college. These include adjusting to living in a dorm with roommates, paying for living expenses and keeping track of finances, and buying their own food, clothing, entertainment, and essentials for living. With housing (\$7,000/year), meal plan (\$4,300/year), tuition (\$3,885 + fees \$430), and other expenses (\$200/month) the overall cost for one year is over \$22,000 per year (UNL, 2020).

Forty percent of the students who are attending college full time hold a part time job, and if they have not graduated by the time they are 25 years old, the rate of part-time work increases to 59% (COE, 2020). The average full time student at UNL also takes 15 hours of coursework each semester. At UNL the Academic Policies and Procedures Credit Hour Definition identifies each credit hour of instruction will require at least 2 hours of homework during a 15-week course. This results in 45 hours devoted to attending and preparing for class. Add to this the part time work of 40% of these students and you can expect that they are engaged in activities other than socializing for 60-70 hours a week (UNL, 2020). Sometimes in over-full schedules something has to give.

To pass the PPST/CORE on the first attempt costs each student \$150, with each section of the test not passed costing \$90 each for a re-test. Once a single exam has to be retaken, it goes up to \$90 for each attempt with several reports from CATE faculty of students who took just one section 4-8 times. Investing the time and emotional energy

into preparing for these exams takes its toll on these students. Over half of the students who do not pass the exams fall away and do not end up student teaching. Paul expressed frustration about the extra financial stress put on the students who are already at risk of emotional and mental duress associated with taking additional exams as well.

Student Teaching.

The student teacher experience is a hands-on 16-week experience of full-time classroom experiences. Student teachers are expected to enter a classroom full time, start planning and teaching from the beginning of the semester, and pick up preparations weekly until they have a full schedule of secondary classes for a minimum of 4 weeks. When the student teacher picks up a class (called “phasing in”), they are expected to complete all of the planning, preparation of materials and resources, grading, and delivery of curriculum to the students. An added element that students must master is managing student behaviors, including interpreting Individual Education Plans (IEPs) and accommodating appropriately for special education students. Managing student’s behaviors includes developing positive and consistent relationships, implementing teaching procedures, identifying consequences and due process for disciplining students, and differentiating instruction to meet their needs (Smith, 2016).

Two of the faculty interviewed had student teachers who struggled with managing student behaviors. Those who could not get control of the classroom found this overwhelming and sometimes debilitating. A factor contributing to this described by Richard was a student who had anxiety issues and struggled getting up in front of students to teach every day. I have also witnessed a couple of introverted, quieter students

struggle with student management, and they had a difficult time getting more assertive and outspoken during presentations.

The student teaching semester is the capstone experience for both the undergraduate and graduate-level teacher education programs. Students are required to complete all teaching pedagogy and endorsement credits, in addition to passing the PPST/CORE and Praxis Content Assessment for the certificate they are seeking. This experience also commonly occurs at the end of the student's educational experience. So the pressure for success is high stakes. Students at UNL in two of the four CATE programs are able to choose their own placement with the guidance of their program chair or adviser. A supervisor is either assigned by the program chair or they themselves visit the student teacher a minimum of four times during the semester and assist the CT to complete the formative and summative evaluations.

Choosing the CT that is right for each student is an ongoing challenge for both the student and the adviser/program chair. The importance of this relationship can be make-or-break even though sometimes the students have never met, nor had a previous chance to work with the CT before entering their classroom at the beginning of the student teaching semester. All of the CATE faculty mentioned having to reassign, terminate, or do an intervention between the CT and student teacher during their tenure at UNL. Problem situations mentioned included conflicting personalities, curriculum accessibility, planning, and managing student behaviors.

The importance of the personalities that are complementary or supportive is an important aspect of success during the student teaching experience. The CT communication is an element mentioned as making or breaking the experience, as well as

curriculum that is provided or scripted compared to completely created by the student teacher. One program chair mentioned issues of intellectual property of the student teachers when they are required to create all of the lesson elements (PowerPoint presentations, worksheets, exams, keys, etc.) and then leave it all for their CT when finished. The opposite extreme was also mentioned by another program chair in regard to the CT where the curriculum was completely scripted, timed, and the student teacher has no choice in what or how it was delivered.

The UNL supervisor and student teacher relationship is an important element that can improve the experience, as well as ensure a higher success rate for these young professionals. The best case scenario is that the UNL supervisor is skilled at intervening to improve the practice of the student teacher without crossing boundaries of the CT or the district in which they are assigned. All of the CATE faculty expressed the seriousness of selecting a CT that will complement and support the student teacher, as well as being a high quality professional. The faculty also selects UNL supervisors who are kind, reflective, and supportive of the student teacher and the program requirements of the department and college, although as programs get bigger finding so many good placements gets harder.

The relationship between the CT and student teacher has been identified as one of the most important aspects of the student teaching experience extensively in research. Bandura (1977) labeled the student teaching experience as *vicarious* because of the self-efficacy formed by the “live and symbolic modeling of practice” that occurs. This relationship of the experiences, feedback, and mastery to become efficient teachers, but also predict retention in the teaching profession (Bandura, 1977; Bastian, Patterson &

Carpenter, 2020). Bastian and associates used value-added measures to determine the effectiveness for CTs, as well as those early in their career. A second measure to examine the instructional practices and additional contributions by using evaluations from the North Carolina Educator Evaluation System (NCEES). Results supported the hypothesis that underachieving student teachers with lower GPAs will benefit the most when placed with a high quality CT, especially when this instructor rated higher on standards based on the NCEES evaluation and leadership standards. This also contributed to early-career teachers having higher evaluation ratings if their mentor met the same criteria (Bastian, Patterson & Carpenter, 2020). Given the limited number of this type of CT placements available in Nebraska, this study presents a structure that may be applied for our faculty to address and support the need for high quality placements for our struggling students.

The relationship of the CT and student teacher was mentioned within every faculty interview, including some very specific relationship, teaching skills, and supervision-related to placements. Paul required the CT to have a CTSO incorporated into their program, as well as knowing the quality of their teaching and support for the UNL program. The others identified specific CT's who were able to nurture and support the struggling student teachers that results in a higher level of achievement compared to intellectual skills or prior performance in practicum experiences.

Another issue mentioned by faculty related to the expectations of the CT during student teaching tied to the writing and planning required during the experience. All CATE faculty interviewed expressed concerns about how student teachers struggle to plan, especially in regards to the consistency between learner outcomes and standards (local, state, and/or national). Faculty were also seeing struggles with writing beginning

in coursework and prerequisite classes that students are required to pass before moving into the full program. I have also struggled with both CTs and UNL supervisors not agreeing with the expectations for student teachers to turn in lesson plans three days in advance, as well as writing everything out in detail when picking up each class during the experience. A very rare example of terminating a student teacher during my tenure occurred when the candidate not being able to keep up with planning for one class and then not couldn not move forward with the requirements to teach a full schedule.

Writing and planning are also tied to other expectations of completing a successful professional semester in the formal summative evaluation: meeting the needs of students; differentiating instruction; promoting a positive classroom environment; using accurate content and academic vocabulary; engaging students in critical thinking and collaborative problem solving; developing literacy and communication skills; using assessment; planning for instruction; incorporating digital tools; and using professional communication. Ten direct ties can be identified to writing skills as part of the evaluation criteria at the advanced level (NDE, 2018).

Looking back at annual evaluations from first year teachers and the administrators working with them, both score *Planning for Learning* and *Managing Classroom Activities and Learning Environment* as the top two concerns. Comparing this to the capstone scores of FCS education graduates in 2017, student teachers scored 90-92% on unit plans turned in at the end of the 16-week experience. This indicates that high stakes planning and projects result in a much higher quality than the day-to-day requirements during the first year of teaching. This all points to an intervention during the first year of

teaching to give these new professionals more support and help with planning and managing classroom activities, staying involved in their career after graduation.

George specifically mentioned the need for a good online Methods course designed for the teachers hired out of certification. Another one of my colleagues mentioned working with the Career and Technical Student Organization (CTSO) to design a methods course for these students as well. Presently it is offered as an independent study *Instructional Methods* class where students develop lessons, plan lab experiences, observe a veteran teacher out in the field (hand chosen by the program chair), and reflect upon the experience. FCS education has also added a separate section each summer for non-traditional teachers because of so many needing the specific content before beginning their career in education. This course includes some history of the profession, curriculum philosophy, and planning structure applied to FCS content that can be implemented directly into their classrooms in the fall. Candidates within this course have found it extremely helpful, indicating their appreciation for being more prepared with unit plans when the semester starts. Despite these efforts though, all but one of the faculty members are witnessing a lack of planning during the student teaching semester, as well as the first few years of teaching.

Interventions

Interventions to support and help students who are struggling occur at different points of time within each separate major. Faculty members who advise their own students contact students when their GPA drops or they do not pass the PPST/CORE to plan coursework and share resources to help them make a plan to move forward. The same is true for the advisers who oversee three of the programs who keep track of GPAs

and exam scores as they are reported and they check on student progress each semester.

The other instance occurs when the students actually report to the program chairs in regards to their progress. This happens more often with faculty during the last semester of coursework prior to student teaching as well, especially when a high level of communication and rapport has been established between the student and faculty member. One additional caveat is that the program that has the 2+2 community college agreements are notified when students do not meet the GPA or exam requirements. Specific coursework and tutoring support at the community college is included as part of campus advising. So this occurs simultaneously with the timing of next term's enrollment for the students.

Communication and rapport with the students was a recurring theme among the faculty interviews, especially in regards to them sharing personal struggles, grade issues, or exam results. Because of the small number of students within these programs, faculty connections are showing a higher level of importance. Students are willing to share information that is much more personal due to the ability to connect both intellectually and personally with these future teachers. Instances of the students sharing other private information included childhood experiences, anxiety and special needs diagnosis, addiction or legal consequences related to alcohol (including arrests), previous abuse, and other struggles in school. This may also be related to the small class numbers and time faculty members are given within their schedule to be able to connect with these students on a regular basis.

Prerequisites & Points of Entry.

The prerequisite coursework and applications required for entry into each program serve as a checkpoint within all of the programs at different points in time. The similarity among programs is that the advisers or program chairs have contact with each of the students to update their status and point them in a direction that has proven to be the best course of action for success. These include the prerequisite coursework that faculty has included in the programs, personal advising communication and points of contact, and the resources available for helping students with the PPST/CORE exams. Of the fourteen Big 10 Universities, 13 require these exams, with the University of Illinois Urbana-Champaign being the only one not listed on the ETS website (ETS, 2020).

Prerequisite Coursework.

Setting up a prerequisite class for students to take has been a part of two of the CATE programs since their inception. A third program had the class in their program initially, but it was removed at the college level due to budget cuts, also causing the course schedule to become less than full time. The FCS program has not had an entry level course since the mid-1980's. All of these classes served to help Richard, George and Paul identify intellectual struggles at the freshman and sophomore level that included writing, reflective practice, and updates on their progress towards passing the PPST/CORE exams. There are definite advantages for programs who have these classes in place, as well as the one whose course was cut that has also proven as a disadvantage for both the faculty members and students.

The two programs that have their students together in a course at the sophomore level use that course as a strict gatekeeper for candidates who will actually be able to finish with a teaching certificate. These students are required to complete three separate

elements in order to pass the class: 1) Meet the minimum GPA of 2.75 within all coursework; 2) Pass all of the PPST/CORE exams; and 3) Complete documentation of all work experience hours (300 supervised or 1,000 unsupervised). At this point in the programs, any of these criteria that have not been met results in an “incomplete” grade for the course and no moving forward into the methods or practicum classes. The program faculty, who also serve as their advisers, meet with the students and set up specific coursework that has been identified at either UNL or local community colleges whose curriculum has been approved. These courses have led to a higher rate of success for students at both institutions (e.g., a math class that is a higher number of hours per semester and is delivered at a slower pace at UNL, a consumer math class at the community college, and an applied physics class at the community college). One of the program chairs who also advises has had students start coming into the program at the freshman level and then sends them to the local community college for these classes specifically to support student success. These chairs all said that about 20% of the students will still struggle with grades and passing the exams, causing them to find other ways of trying to move forward within the programs or ultimately changing their major.

Advising.

Contact with an adviser for students entering UNL at the freshman level occurs during New Student Enrollment the summer before they arrive on campus for classes. This is the first of many interventions in place at the college level for students to be successful within their chosen career path. The connection with the college-level adviser assigned to a declared major is how two faculty members keep track of students, while the program chairs themselves are the other two points of contact. For the programs

whose students work exclusively with the advising center, the first time they are in direct contact with the program chair is during the application semester (usually 1st semester junior year) or earlier if by chance they choose to connect via university student organizations. Three of the four programs have initiated more contact with CTSOs at the collegiate level to begin developing more connections between secondary and post-secondary groups and participation. All of the faculty are involved with NDE's work with CTSO's and participate with students and teachers within each subject area on a regular basis during the school year. The faculty whose two programs do their own advising had very strong feelings about the importance of contact with their own students. George summarized the importance by saying:

Yeah, and we will hang onto that until we go down. We just won't give it up, and may the will [college leadership want to go to an academic advisor program] if they can find a funding source to support it, but we just think it's critical. That's the key to everything, and that's advising. At the beginning, early, and often. So by the time we might get to [dropping out of the program], there's such a relationship established between advisor and student that they own it, and we've known it, and so it's nothing new.

This strong sense of staying connected with the students has proven to keep and build enrollments, as well as having only a few students fall away from the program because of academic or other issues.

Paul, who also has the 2+2 program along with three community colleges in the state, the relationship and contact between advisers at that level and within the advising office on campus has helped that program increase enrollment from no students to over

45. This relationship involves communication and visits to the three different locations, reparing advisers if or when the program is moved to a new person, and meeting with each student at least once a year in person, no matter what the distance to travel is involved.

For the two faculty members working with the advising center in another college, keeping track of students is handled differently by each. Richard, who is adjunct and part-time is in contact with the adviser a couple of times a year, but does not participate much in tracking students in regards to grades or exam progress. The other full-time professor of practice works with a different adviser who provides a running list of students in the program who have already identified their major, as well as including GPA and PPST/CORE scores and progress. Contact before the application for being admitted into the teacher education program is minimal, mostly related to the collegiate student organization projects and meetings. Both of these faculty members were hired after the advising center had been established over 11 years ago within the college and it provides the standard structure for all of the education programs.

Communication with Students.

The level of communication with students is directly related to entry into each program and who is advising them. Two CATE faculty advise students individually as part of their workload, whereas the other two give that responsibility to an on-campus advising center representing the entire college. Meeting with students and developing a personal relationship and high level of rapport confer advantages for the faculty members who advise their own. Their feelings about the importance of keeping that arrangement as part of their workload was strongly communicated.

For the two faculty members who work with the college advising center, the opportunity for communicating with undergraduates is an additional task that happens on their own time and initiative. If the adviser keeps track and shares the information on a regular basis, these interventions are easier to execute. Efforts by Paul to get a collegiate CTSO going have required a lot of energy but yielded very little participation. So trying to connect does not always work to meet the goal of additional communication and contact with students before the junior year.

Another communication issue related to informing students about exam scores, negative evaluations, or low grades happens more comfortably when the students have a closer relationship to the faculty. When they have to share status reports that are not positive, usually the students have no negative reaction to the events. In contrast, one of the faculty members who does not have contact with the students early in their college experience has had more students react negatively to both themselves and the advisers when these conversations take place. The faculty who advise their own students have had less conflict and a higher level of acceptance when faced with having to deliver bad news.

Several CATE faculty members mentioned the relationship and support of the college adviser, considering it to be an advantage and good resource for helping students. Three out of the four programs work with a college advising center and two of these have a close relationship and high level of rapport with them. This facilitates more fluid interventions and a high level of communication between the program chair and students as well. All of these faculty characterized these arrangements very positively.

Exam/GPA Support.

All of the programs have similar resources available for students to get help and support when they do not pass the PPST/CORE. With all education majors at UNL required to take and pass the PPST/CORE, as well as the Praxis Subject Assessment for the content area in which they will be certified, support for those not doing well is essential. The major source for students is the set of books each advising center has purchased for each subject area: reading, writing, and mathematics. When a student does not pass one of the three exams, the most common resource they seek out is the specific book for that test.

All faculty noted that about 20% of the students majoring in their particular teacher education program struggle with the PPST/CORE and have to retake at least one of the exams. Only two students were mentioned as having found a different major due to not being able to pass one of the tests. So the prerequisite coursework is definitely helping some students make decisions about going in a different direction. The specific tests faculty shared as being the most common for students to retake included writing and mathematics. Students were mentioned who had taken the mathematics test five and eight times, one of whom finally changed their major. Two of the faculty members shared that the writing exam was one they felt was too subjective and not adequately measuring the actual writing abilities of candidates. Here is what these two faculty said about the experiences they had with their students:

I had a student, he's a nontraditional [student] who took it eight times.

After about the third or fourth time, he got a professional tutor. They evaluated the questions on the exam and found numerous errors within the 40 questions of the writing component and he tried to contact the [ETS]

folks and voice concerns. They would have none of it. And then the exam itself, the writing portion isn't just assessing [writing], it's assessing other things. He was just struggling with the keyboarding aspect. There is a very good writer, but he wasn't getting it done in a timely fashion.

My problem with the PPST is just it's assessing more than they say it is and they're unwilling, number one, to give feedback for the people that take it. And number two, it's an inaccurate exam. Over the years I've watched it. Those who have difficulty, yeah, it's a flag of their abilities too, that I've seen. Usually, there's something there, beyond just being able to write and compute that's influencing their ability to prepare and to be successful in that test. Now we've had instances of an extreme nature, where someone was taking it and they had an accommodation that they told nobody about.

We had another kid who took it, who didn't know how to keyboard, and so since it's all on the computer, he was doing this [hunt and peck]. I don't know how many times he took the writing test, but he took it a bunch of times. And if you read some of the questions that they use on that test, they're poorly worded. They can be interpreted differently. So there's some flaws in it, but I think by a huge margin, it's kind of indicative of what this kid's abilities are.

One of the most recent changes that has come to light is the policy for students who take and fail the PPST/CORE exams, but meet certain criteria, that allow them to have the exam waived by the Commission of Education for the State of Nebraska. The

other CATE faculty had not heard of this until our interviews, so the information was especially interesting to all of us. The NDE Rule 23 allows for an accommodation based on English as a second language. The rule states:

008.01 Individuals whose primary language is sign language or for whom English is a second language shall be required to take the same basic skills competency examinations as other individuals. However, if they fail to obtain the minimum passing scores as specified in Section 003.02 or 003.03 of this chapter, they may apply to the Commissioner for a review of their past education, employment, and standardized testing experience. (NDE, 2014)

I have already shared the example of a student wrote a letter to the Commissioner after receiving a 5th failing grade on the writing section of the PPST/CORE explaining her justification for being able to waive the exam. The Commissioner responded within a day, approving the waiver and allowing the student teacher to continue on the pathway for certification. This student successfully completed the student teaching experience and secured a full-time teaching position.

Differing Characteristics

Perhaps the most common difference in the way our CATE programs are run is reflected in when, where, and who has contact with the students first, as well as where that takes place. What is evident is that because of the shortages, the effort these faculty take to recruit and retain students is intense. (Perhaps it also reflects that as non-tenure-line faculty we do not have as much employment protection from the university of our programs are not full.) The benefit of faculty participation in recruiting is that we can assure students are well aware of the courses and actions that need to be taken to be

successful and when they are not, they are most times appreciative and accepting of their fate. The interventions used have been developed based on this close contact, and the relationships with faculty have established with the students at both UNL and the community colleges.

Program's Backgrounds and Characteristics of Students

Demographics of Students.

One of the most evident differences in the programs is the ecosystemic context experienced by the students who enter, especially in regards to the content area and where they went to school in Nebraska. Most of the CATE programs are located in the eastern half of the state that also has most of the larger school districts and the majority of the state's population. Because of this, most of the students entering three of the programs are from this geographical location. Only one of the CATE programs draws students from rural districts, which is also where most of these courses are taught at the high school level. The gender ratio of students within two programs has evolved over the years, with the ratio of 75:25 male to female in the past having now flipped to 25:75, female-dominant. Two other programs continue highly stereotypical ratios of male to female students with one being 95% female and the other being 95% male. Recruiting students of the opposite sex to either program proves to be very difficult because of this dominance. Moreover, those of the 'minority' gender in each program who do enter the profession need to be especially secure and confident in their abilities.

The formal connection to the community colleges by two of the programs has proven an extremely valuable resource in recruiting students. Two of the three community colleges are in a metropolitan area of our state, so many of the students are

not stereotypical for majors within those CATE content areas. This is helping to build enrollment, as well as allowing students who prefer a smaller college experience two years to do that before they move to the larger on-campus institution. The familiarity of the program chair and contacts made ahead of their completion at the community college level also gives students a sense of belonging, so acclimating to the larger campus does not feel as isolating.

In a study examining the success of both community college and university students, Heller and Cassady (2017) found significant differences related to the type of college (environmental), learning strategies (behavioral), and motivational and anxiety indicators (personal) that predicted GPA. Results identified significant differences between the community college and 4-year institution students, especially concerning resource management strategies they employed and the differences in location. The authors attribute this to the population differences between the two types of institutions, as well as different expectations of each for performance evident in a difference of .93 points higher for the 4-year institution students. Future recommendations suggested making sure community college students have information about resources available on campus, scaffolding their access for tutoring and peer-learning experience, and implementing teaching strategies to increase their level of intrinsic motivation (Heller & Cassady, 2017). Because the STS students are involved in both learning environments, this type of information is valuable and helpful when considering the types of support they need when transitioning between the two types of institutions.

Growth and Recruitment.

All of the CATE programs at UNL have had the opportunity to grow and prosper due to support of the college Deans. With two of the programs (re)starting with less than five students, up was the only direction they could go (other than being completely eliminated). NDE's naming of shortages has been effective in communicating the value of having these programs offered and, because UNL is the largest university in our state, we have been better positioned to respond to the new demand. Two of the four programs had actually been provisionally eliminated, with each being brought back by administrators seeing the value of offering the programs. Only one program has had consistent enrollment over the past 30 years and never experienced the threat of extinction, while the fourth program was purposely kept alive in spite of very low enrollments because of a department chair who believed in keeping the program.

The current range in the number of students enrolled in the programs is between six and 40 students. One program started from scratch with no students enrolled, while another had only four when Paul was hired. The largest growth has occurred in the 2+2 program with the community college connection and the master's degree program offered online.

All of the faculty work with candidates hired out of certification and non-traditional students although these numbers are not consistently calculated to support the amount of growth within the program. Some of the faculty do a good job of tracking these students, while others do not. Keeping track of students and advising are not necessarily a part of each faculty member's appointment on campus. With only George holding a full Professorship, two designated as Professors of Practice (PoP), and one as an adjunct, the apportionments for each position are very different. The adjunct gets no

extra time or support for outreach, recruiting, or advising. The POP appointments are usually 95-100% teaching, with sometimes a small amount of time given to recruit and do outreach activities. The full Professor apportionment usually includes 50% teaching and 40% research, sometimes with a small percentage to complete outreach and advising as well. This structure is not currently consistent, mostly because two of the majors are in one college, two in another within two different departments. The CATE programs are disconnected physically, institutionally, and philosophically.

Uncertified Teachers.

One of the fastest growing populations of students for the CATE programs at UNL are those who have already been hired by schools as uncertified candidates. Up to 20% of the students we work with on a yearly basis come to us because they secure a teaching position in a CATE content area with just a Bachelor's degree and no certification. Some of these candidates hold a teaching certificate in another subject area, but there are some who just have Bachelor's degrees in any major you can imagine.

Given the apportionment mentioned above, all of the faculty at UNL work with these candidates gratis based on their teaching, advising, and overall load. The statewide shortages have assured significant numbers of candidates with these profiles, with FCS growing from about six to over forty-five at different points in time during the past five years. The other program chairs did not have an accurate count of the number of students we all work with due to a disconnect between the College of Graduate Studies application system and identifying the majors for each uncertified candidate. Within the past year this structure changed and all endorsement areas are all listed in the application process (over 15), so now the colleges can actually track the students and know who is helping/

supporting them. More of this type of documentation would prove valuable information to these content areas to compare the shortages and how positions are being filled to meet those shortages.

Contact with Students

The timing, closeness, and number of contacts each of the CATE programs have in place is unique to that program and contributes to the communication level that faculty develop with students. Not having contact early in the college experience is not as supportive of the students among those faculty who advise later in the process. The early contact also contributes to our ability to support and do interventions with students who are struggling. The communication between advisers is good for a few, but not all of the CATE programs.

No contact also means no communication, so students may be floundering without knowing about the resources available for them to be more successful. This prospective support relates to the coursework they can take to help them pass the PPST/CORE exams, as well as tutoring at the community college and university for writing, mathematics, and possible accommodations for learning disabilities.

Coursework.

Prerequisite coursework is offered by only two of the four programs (because of one course being cut a few years ago) and allows the development of relationships early in the student's college career and major in CATE. The way this is set up to monitor the completion of coursework (both to prepare them for the PPST/CORE exams, as well as keeping GPAs up) and of certification requirements sets these students up for a higher rate of success. It also allows for interventions that may help save them from additional

tuition and exam costs that are evident with the students in the other college without this structure.

The additional structure provided for the 2+2 and students in two of the programs in regards to coursework that specifically aligns well to the PPST/CORE content is also something the other two programs do not include. The information shared by the two faculty who work with the community colleges and have students take these specific classes was a new concept for me. The way the program is set up for the FCS education students is that they can take any Mathematics and English class to fulfill graduation requirements. These instructors know from the community college advisers the exact courses that will help the students pass individual content for the PPST/CORE and then have the students take the exam directly after taking the coursework. This has proven to be an important element in helping students pass the exams and would be beneficial for all education majors at UNL.

Advising.

The variations between the faculty who advise the students within their specific major and those using the advising center is an important difference, especially in relation to the interventions in place to support their majors. The disconnect between the advising center and being in control of your own contacts from the start of each student's college career has definite disadvantages. Not connecting with students before their junior year can mean the few on-campus majors we do have may fall away due to low GPA or exam scores. One of the common characteristics the two programs have witnessed with students not required to take the PPST/CORE exams until the semester when they apply

to the specific endorsement includes some who do not pass one or more of the exams, or a GPA too low to enter the program during the first semester of coursework.

Due to the structure of the two programs without the program chair as adviser, students who fall behind also experience additional financial strains and emotional stress. Because these two stressors also contribute to students not being able to focus on classes, as well as working additional hours to pay the extra costs, many become detached and find it too difficult to seek out resources. Interventions by the advising center and individual faculty can sometimes come to the attention of the program faculty, but most times the advising center (who are also over-taxed with 100's of advisees) is given the responsibility to contact the students. Many times this is done via email or telephone and students do not respond to the inquiry. Documenting students and their status in the programs by charting progress has been the best solution when shared between the advising center and program chair as long as it is on a regular basis.

The two programs whose faculty advise their own students and the “early and often” focus seems to be one of the best practices within the UNL system. They have time built into their schedules to visit with and prepare community college advisers to recruit and lead students into the UNL major, as well as having a good relationship with the college adviser on campus. The smooth transition between the community college and UNL system is relatively seamless, with the students familiar with the requirements and expectations.

Some additional research into the retention rate of students within each program based on how they perceive faculty interventions would be helpful here as well. We could hypothesize at this point that the perception of the students advised this way are

more satisfied with their UNL experiences. Considering that the goal is to better meet the needs of struggling students, this seems like a simple and basic task that could be implemented and have a pretty substantial effect.

Exam/GPA Support.

Two of the biggest differences related to the PPST/CORE exams and GPA support are the coursework advised and the point in time in which students take the exams. The biggest difference is the type of coursework advised for the 2+2 and other college programs compared to the lack of specific choices identified for the two programs advised through the college. Both programs using the specific coursework at this point are benefitting, while the students given choices with little guidance are choosing classes that are not necessarily helping with the exams. Having students take specific coursework that will lead to a higher level of success for PPST/CORE exams is something that can be added via the college advisers for the other two programs. Adding this to the program options sheets is a simple curriculum change process and can be implemented within a year. This will be an easy element to measure in regards to the success of students struggling on these exams.

The students admitted later in the program without necessarily passing the PPST/CORE exams have been given “provisional status” in the past. This was specifically for the Reading, Writing, and Mathematics exams with usually only one or two remaining to be retaken. The programs that include a prerequisite course are managing this requirement much more efficiently by having the students not move forward early in their college experience, thus saving them stress, money, and allowing them to find a different major in a timely manner.

The additional Praxis Content Exam required for each major seemed to be less of an issue for the students, especially given that all of the endorsement credits were already completed before this test was taken. Faculty in three of the content areas did not have any issues with students moving forward with this requirement because the failure rate is so low. The one program with no cut score makes this exam seem unnecessary for those students; instead it functions as just one more thing to pay for in addition to the other stressors these students are experiencing. Since this is an element out of the control of our faculty, we would hope the Educational Testing Service will figure this out and have an exam that will actually be relevant in measuring the same quality of information the other three program areas require.

Supervision and Placements.

The final element among the CATE programs that was relevant to this study was the control of CTs and who are supervising student teachers. In the beginning of each program, the chair was the one who supervised all practicum and student teachers. The faculty who supervise their own students have specific criteria related to placements and the characteristics of the CT. One of the program chair's required characteristics were specific to the content and CTSO integration within the curriculum taught. Another chose CTs strictly based on the student teacher's choice, causing the program chair to travel long distances for visits. The other two have developed relationships with a large number of quality programs where the CT does a great job with a wide variety of student teachers. These are the CTs who are quick to connect with student teachers, nurture the skills that are lacking and encourage them to push for improvement at all levels.

It was recommended by Bastian, Patterson and Carpenter (2020) for education preparation programs to focus more on these close relationships, including possibly preparing the CTs and providing additional resources. The research group also recommended that districts could help identify the high-quality learning environments available, including recruitment and preparing CTs. This would be especially beneficial for student teachers who may have a lower GPA and are not as well prepared to teach (Bastian, Patterson, & Carpenter, 2020).

Supervisors are also an important factor that can improve the success of the student teacher during the professional semester. Most of the program chairs and some additional college faculty supervise the students within their own program to maintain the qualities they want to instill and encourage. Because the FCS program was so small when I was hired, the supervision of practicum and student teachers was included in the responsibilities on top of teaching full time. I found out that the prior faculty had placed constraints on how far the students could choose for their student teaching placement (65 miles from campus) so it was not too far to travel for visits. As the program grew, the Office of Student Experiences for the college informed me that they would pay for supervisors, both for student teachers and practicums. To provide the placement officer with viable supervisors, I called friends around the Lincoln and Omaha metro area and started to hire some retired FCS teachers to serve in this role. This also allowed students to expand placement choices, extending the area within the state so they could possibly live closer to their hometown and save money during the semester by living at home. The one caveat was finding out that some of the supervisors were actually too strict, inflexible and not as nice to the student teachers during the semester. This did not meet my

standards for nurturing, positive, constructive supervision during this very stressful semester, so several of these supervisory relationships were terminated early as I was figuring out how to hire such professionals.

It is evident that the supervision of student teachers is important enough that some of the faculty still supervise their own students, even after many years at the university. The time is not necessarily included in any of the faculty employment full time equivalents (FTE), but these professionals are dedicated to the success of their students. All of the faculty interviewed work more than expected in a wide variety of capacities including supervision, creating close relationships with students, hiring support staff that are positive and supportive, and completing interventions to help all who want to teach to be able to do so.

Growth in Programs

The growth of the individual programs ranged from 350% to 800% over the past ten years. The supervision was originally handled by each individual faculty member and now is supported as part of advising or budget outside of his or her own departments. The shortages within our state are still very high with 15-18% of all openings being filled with uncertified teachers. In addition, 20% of the students in the programs are not finishing their degrees due to struggles related to mental and emotional stressors related to exams, grades, and finances.

The potential for all programs to grow in new ways is exemplified by the FCS program that also includes an online Master's degree program and support for non-traditional students throughout the state. Many of the non-traditional students move into the Master's degree programs because of wanting to earn the degree along with the

coursework they are required to do to earn a teaching certification. This program had two tracks in 2009 when I was hired and now has 6 different pathways to support the students within the program.

Adding Faculty

The FTE load of the POPs and full Professor carries with it a wide variety of responsibilities. These faculty members supervise and/or advise their students, other advisers at the community colleges and oversee all non-traditional out of certification teachers already working in the field. The POPs teach between three and seven classes each semester and pick up additional coursework in the summer to again meet the needs of the non-traditional teachers in the state.

The Student Experiences Office is supporting the cost of supervisors for two of the majors, so additional funding from the other college could be requested for the other two programs. Proposing additional program options may also benefit all of the programs, which would build the smallest of the four majors to support a full time POP.

Support of Departments

One of the elements that helped build the FCS program has been the support for recruiting and outreach to draw students into our program. The Child, Youth, and Family Studies department has invested time to travel, financial support for local, state, and national presentations, and all kinds of recruiting materials and give-away items for events. Having events on campus is a positive draw for students from out of town to become familiar with our majors. Some examples that have been created so far include a “Future FCS Teacher Dinner”, a Retired FCS Teacher Network (which also feeds into the supervisor candidate pool), and a “New FCS Teacher Workshop” on campus. School

groups periodically come to campus for field trips and connecting with departments is an important part of the exposure, as well as the opportunity to meet faculty. CTSO district and state conferences meet in Lincoln several times a year and sponsoring activities for them on campus can also serve to expose them to our programs and faculty.

Transportation between the conference site and campus could be proposed as part of the package that can be included for the CTSOs and students visiting campus at different times during the school year.

Part of the recruiting and marketing of our CATE programs also involves technology support and production of materials and videos. The Pixel Lab can do some of this work for CEHS, as can UNL Communications, but sometimes fiscal support is also required to get the quality needed for publishing our programs. Updating and maintaining webpages to draw in high school students requires having state of the art photography and videos, which may also include testimonials from graduates or current majors.

Supporting the student organizations on campus would also serve to promote and recruit additional students into our programs. Holding events and having students participate requires time and resources (some mentioned above that could work to double dip), as well as commitment for students to complete the preparations if the Registered Student Organization status is required by the department. Funding for these may also involve requests for travel to district, state, and nation conferences.

Recommendations for the Deans

One of the elements that may help these programs move forward would be to communicate these observations and reflections to the two college Deans so they are both aware and informed of the needs of the CATE programs. The juxtaposition of all of this is that in order to grow, more support is needed and for more support, there will need to be additional faculty and staff hired or assigned to these instructors. With this in mind, I have constructed an academic letter to submit after completion of this dissertation and defense (See Appendix E). The goal of such a letter is to put these programs on the radar so senior administrators are aware of the interventions that could improve support and value to the success of the students and quality of their educational experience.

Concluding Caveats and Next Steps

It is common in many dissertations to include caveats about the study's limitations. There are limitations to this study and how much one might learn from it. This work happened in a particular place, at a particular time, with particular people. This is not a study of the dilemmas of all CATE programs, although the literature review demonstrates that the issues examined in this problem of practice are not strictly unique to UNL. Nor do I think my recommendations apply anywhere and everywhere without further qualification. Given that they come from two complementary studies by a situated scholarly practitioner author (i.e., me), they are relevant beyond UNL only with adaptation. It is my professional experience (and a point reiterated in the educational reform literature), that practitioners can learn from the cases of others (indeed the rationale of the Harvard Business School's famous case education curriculum is that learners can learn from experiences by others elsewhere), but the expectation is not that they will learn a prescription or script that to follow. Rather, this dissertation, and work

like it, proposes that others can learn by considering what I considered and what those I studied did, thought, and understood. It is not a limitation to acknowledge that it is their work as much as mine to figure out how my uncovering additional evidence might have changed what I learned, how my recommendations do or do not fit to their environment, and so on. While blindspots are inevitable, my responsibility has been to tell readers what I saw and did and to have them determine the aptness and groundedness of my conclusions.

References

- Aloe, A. M. & Becker, B. J. (2009). Teacher verbal ability and school outcomes: Where is the evidence. *Educational Researcher*, 38, 612-624.
- Amrein-Beardsley, A. (2012). Recruiting expert teachers into high-needs schools: Leadership, money, and colleagues. *Education Policy Analysis Archives*, 20(27), 1-26.
- Anastasiou, & Kauffman, . (2013) Disability as a cultural difference: Implications for special education. *Remedial and Special Education*, 33(3), 139-149.
- Arnett, S. E. (2012A). Diversity needs: Preparing family and consumer sciences teachers for the 21st Century classroom. *Journal of Family and Consumer Sciences*, 30(2), 66-71.
- Arnett, S. E. (2012B). Problems encountered by beginning family and consumer sciences teachers. *Journal of Family and Consumer Sciences*, 30(2), 34-44.
- Arnett-Hartwick, S. E. (2015). A qualitative study of the student teaching timeframe. *Journal of Family and Consumer Sciences Education*, 32(1), 42-48.
- Association of CATE (2020). Basic facts. <https://www.acteonline.org/why-cte/what-is-cte/basic-facts/>.
- Atkinson, R. C. & Geiser, S. (2009). Reflections on a century of college admissions tests. *Educational Research*, 38, 665-676.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Bardach, L. & Klassen, R. M. (2020). Smart teachers, successful students? A systematic review of the literature on teachers' cognitive abilities and teacher effectiveness. *Educational Research Review*, 30, 1-21.
- Barnard-Brak, L. Lichtenberger, D., & Lan, W. Y. (2010). Accommodation strategies of college students with disabilities. *The Qualitative Report*, 15(2), 411-429.
- Bastian, K. C., Patterson, K. M. & Carpenter, D. (2020). Placed for success: Which teachers benefit from high-quality student teaching placements? *Educational Policy*, 0(original manuscript), 1-29.
- Behrstock-Sherratt, E. (2016). *Creating coherence in the teacher shortage debate: What policy leaders should know and do*. Education Policy Center at American Institutes for Research. <http://educationpolicy.air.org>

- Braxton, J. M., Doyle, W. R., Hartley, H. V., Hirschy, A. S., Jones, W. A., & McClendon, M. K. (2014). *Rethinking college student retention*. San Francisco: Jossey-Bass.
- Braxton, J. M., Hirschy, A. S., & McClendon, S. A. (2004). *Understanding and reducing college student departure*. AHoboken, NJ: John Wiley and Sons.
- Bronfenbrenner's Ecological Model (2011). [Model illustration in Metaphysical Ecology Reformulated March 22, 2011]. *Grand Strategy: The View from Oregon*. <https://geopolicraticus.wordpress.com/2011/03/22/metaphysical-ecology-reformulated/>
- Brown, M. (1980). *What is home economics education?* Minneapolis: Minnesota Research and Development Center for Vocational Education, University of Minnesota.
- Camara, W. (2013). Defining and measuring college and career readiness: A validation framework. *Educational Measurement: Issues and Practice*, 32(4), 16-27.
- Carger, C. L. (1996). *Of borders and dreams: A Mexican-American experience of urban education*. New York: Teachers College Press.
- Casey, C. & Childs, R. (2011). Teacher education admission criteria as measure of preparedness for teaching. *Canadian Journal of Education*, 34(2), 3-20.
- Chambers, S. M. & Hardy, J. C. (2005). Length of time in student teaching: Effects on classroom control orientation and self-efficacy beliefs. *Educational Research Quarterly*, 28(3), 3-9.
- Chiong, C., Menzies, L., & Parameshwaran, M. (2017). Why do long-serving teachers stay in the teaching profession? Analyzing the motivations of teachers with 10 or more years' experience in England. *British Educational Research Journal*, 43(6), 1083-1110.
- Clandinin, D. J. (2013). *Engaging in narrative inquiry*. Walnut Creek, CA: Left Coast Press.
- Clandinin, D. J., Steeves, P., & Caine, V. (Eds.) (2013). *Composing lives in transition: A narrative inquiry into the experiences of early school leavers*. Bingley, UK: Emerald Group Publishing Limited. Chapter 3 - Methodology (43-52); and Chapter 7: A narrative account of Andrew. (103-114)
- Clandinin, D. J. & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. San Francisco, CA: Jossey-Bass.
- Clandinin, D. J. & Huber, J. (2002). Narrative inquiry: Toward understanding life's artistry. *Curriculum Inquiry*, 32(2), 161-169.

Cochran-Smith, M. (2006). *Stayers, leavers, lovers, and dreamers: Why people teach and why they stay, Occasional Paper Series 16* (New York, NY, Bank Street College of Education).

College Dropout Rates (2019). <https://educationdata.org/college-dropout-rates/>

Council for the Accreditation of Educator Preparation. (2016). *Demonstrating academic achievement: CAEP Board clarifies refines CAEP Standard 3*. Washington, DC: Author. <http://caepnet.org/about/news-room/caep-board-clarifies-refines-caep-standa>

Creswell, J. W. & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches*. Los Angeles, CA: Sage Publications, Inc. Curtis, C. (2012). Why do they choose to teach -- and why do they leave? A study of middle school and high school mathematics teachers. *Education*, 142(4), 779--788.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York, NY: Teachers College Press.

DeFreitas, S. C. & Bravo, A. (2012). The influence of involvement with faculty and mentoring on the self-efficacy and academic achievement of African American and Latino college students. *Journal of the Scholarship of Teaching and Learning*, 12(4), 1-11.

Demerath, P. (2009). *Producing success: The culture of personal advancement in an American high school*. Chicago, IL: The University of Chicago Press.

Dewey, J. (1933). *How we think*. Chicago, IL: Henry Regnery.

Duke, N. K. & Martin, N. M. (2011). 10 things every literacy educator should know about research. *The Reading Teacher*, 66(1), 9-23.

Dweck, C. S. (2016). *Mindset: The new psychology of success*. Ballantine Books: New York.

D'Agostino, J. V., & Powers, S. J. (2009). Predicting teacher performance with test scores and grade point average: A meta-analysis. *American Educational Research Journal*, 46, 146-182.

Educational Testing Service (2019). Test and Service Fees. <https://www.ets.org/praxis/about/fees/>

Engle, J. & Tinto, V. (2008). *Moving beyond access: College for low income, first-generation students*. Washington, DC: The Pell Institute.

- Evans, C. (2017). The predictive validity and impact of CAEP standard 3.2: Results from one master's-level teacher preparation program. *Journal of Teacher Education*, Volume #68(4), 363-376.
- Eyre, L., & Peterat, L. (1990). The practice of critical thinking in home economics. *Journal of Vocational Home Economics Education*, 8(1), 1-7.
- Feng, L. & Sass, T.R. (2018). The impact of incentives to recruit and retain teachers in "hard-to-staff" subjects. *Journal of Policy Analysis and Management*, (37)1, 112-135
- Feuer, M. J., Floden, R. E., Chudowsky, N. & Ahn, J. (2013). *Evaluation of teacher preparation programs: Purposes, methods, and policy options*. Washington, D.C.: National Academy of Education.
- Freire, Paulo. (2000) *Pedagogy of the oppressed*. New York: Continuum.
- Garcia, E. & Weiss, E. (2019). U.S. schools struggle to hire and retain teachers: The second report in 'The Perfect Storm Teacher Labor Market' series. Economic Policy Institute, Washington, DC.
- Giles, R. M. & Kent, A. M. (2014). An exploration of factors contributing to the perceptions of preparedness for elementary candidates in a clinically based program. *Hindawi Publishing Corporation, ISRN Education*, Article ID 743273, 1-6.
- Ginder, S. A., Kelly-Reid, J. E., & Mann, F. B. (2019). *Enrollment and employees in postsecondary institutions, fall 2017: and financial statistics and academic libraries, fiscal year 2017*. U.S. Department of Education, National Center for Education Statistics, Institute of Education Sciences.
- Gitomer, D. H., Latham, A. S. & Ziomek, R. (1999). The academic quality of prospective teachers: The impact of admissions and licensure testing. Educational Testing Service (ETS), The Teaching and Learning Division Research and Data Analysis Group. NJ: Princeton.
- Godbey, K. & Johnson, C. A. (2011). Career choice influences and job satisfaction for early career family and consumer sciences teachers. *Journal of Family and Consumer Sciences*, 29(2), 12-25.
- Goldhaber, D. & Hansen, M. (2010). Race, gender, and teacher testing: How informative a tool is teacher licensure testing? *American Educational Research Journal*, 47(1), 218-251.

- Godfrey, R., Allison, B., Alexander, K. L., Bergh, K., Borr, M., DeBates, D., & Moser, S. M. (2016). *The great plains IDEA: Preparing FCS teachers through distance education*, 108(1), 48-51.
- Goodwin, A. L. (2017). Who is in the classroom now? Teacher preparation and the education of immigrant children. *Educational Studies*, 53(5), 433-449.
- Grant, H. & Dweck, C. S. (2003). Clarifying achievement goals and their impact. *Journal of Personality and Social Psychology*, (85)3, 541-553.
- Gray, L., Taie, S., & O'Rear, I. (2015, April). *Public School Teacher Attrition and Mobility in the First Five Years: Results from the First through Fifth waves of the 2007-2008 Beginning Teacher Longitudinal Study*. U.S. Department of Education, NCES 2015-337. <https://nces.ed.gov/pubs2015/2015337.pdf>
- Great Plains IDEA. (2018). *Family and Consumer Sciences Education program information*. <http://www.hsidea.org/programs/fcsed/>
- Greenberg, J., Pomerance, L. & Walsh, K. (2011). Student teaching in the United States. *National Council on Teacher Quality*. www.nctq.org/edschoolreports/studentteaching.
- Grimes, S., Southgate, E., Scevak, J. & Buchanan, R. (2019). University student perspectives on institutional non-disclosure of disability and learning challenges: Reasons for staying invisible. *International Journal of Inclusive Education*, 23(6), 639-655.
- Guarino, C. M., Santibanez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research*, 76(2), 173-208.
- Heaten, R. M. & Swindler, S. A. (2012), Learning to see inquiry as a resource for practice. In Latta, M. M. & Wunder, S. (Eds.), *Placing practitioner knowledge at the center of teacher education: Rethinking the policies and practices of the education doctorate* (89-103). Charlotte, NC: Information Age Publishing, Inc.
- Heller, M. L., & Cassady, J. C. (2017). Predicting community college and university study success: A test of the triadic reciprocal model for two populations. *Journal of College Student Retention*, 18(4), 431-456.
- Hepworth, A., Littlepage, B., & Hancock, K. (2018). Factors influencing university student academic success. *Educational Research Quarterly*, 42(1), 45-61.
- Hilty, E. B., Editor (2011). The professionally challenged teacher: Teachers talk about school failure. In *Thinking about schools: A foundations of education reader*. Philadelphia, PA: Westview Press.
- Houlden, M. & Kitchen, J. (2017). Choosing how we choose: A review of teacher education admissions literature. *Teaching & Learning*, 11(1), 16-31.

- Ingersoll, R. & May, H. (2012). The magnitude, destinations, and determinants of mathematics and science teacher turnover. *Educational Evaluation and Policy Analysis*, 34, 435-464.
- Jackman, D. H. & Rehm, M. (1995). Supply and demand in family and consumer sciences education: Pragmatic and philosophical issues. *Journal of Family and Consumer Sciences Education*, 13(2), 1-19.
- Jenkins, A. L., Miyazaki, Y., & Janosik, S. M. (2009). Predictors that distinguish first-generation college students from non-first generation college students. *Journal of Multicultural, Gender and Minority Studies*, 3(1), 1-9.
- Johnson, K. E., & Golombek, P. R. (Eds.). (2002). *Narrative inquiry as professional development*. New York: Cambridge University Press.
- Johnson D. W. & Johnson, R. T. (2010). Presentation at ESRC Seminar: *Restorative conflict in schools: Necessary roles of cooperative learning and constructive conflict*. MN: Minneapolis.
- Johnson, J. M. (1987). Student recruitment strategies in undergraduate home economics programs: An exploratory study. *Home Economics Research Journal*, 5(1), 169-176.
- Johnson, J. M., Holcombe, M., Kean, R., Woodward, J., Tweeten, B., & Hafer, J. (1987). Image perceptions of home economics. *Journal of Vocational Home Economics Education*, 5(1), 67-76.
- Jourard, S. M. & Friedman, R. (1970). Experimenter-subject "distance" and self-disclosure. *Journal of Personality and Social Psychology*, 15(3), 278-282.
- Katrechich, A. V. & Aruguete (2017). Recognizing challenges and predicting success in first-generation university students. *Journal of STEM Education*, 18(2), 40-44.
- Korbin, J. L., Patterson, B. F., Shaw, E. J., Mattern, K. D., & Barbuti, S. M. (2008). *Validity of the SAT for predicting first-year college grade point average* (Research Report 2008-5). New York, NY: The College Board.
- Levine, A. (2013). Fixing how we train U.S. teachers. *The Hechinger Report*. <https://hechingerreport.org/fixing-how-we-train-u-s-teachers/>.
- Ley, C. J. (1993). Subversive forces in marketing home economics. In E. P. Anderson & V. L. Clark (Eds.), *Marketing home economics: Issues and practices* (139-152), AHEA Yearbook 13. Peoria, IL: American Home Economics Association and Glencoe.
- Littlepage, B. & Hepworth, D. (2016). Influence of social integration on class success. *Journal of Continuing Higher Education*, 64(3), 162-171.

- Lincoln Public Schools Annual Statistical Handbook, 2016-2017. *Student Section*. <https://docushare.lps.org/docushare/dsweb/Get/Document-2392461/2017%202018%20Student%20Section.pdf>
- LiveText @ watermark (2018). *About us*. <https://www.watermarkinsights.com/about-us/>
- Manolis, C., Burns, D. J., Assudani, R., & Chinta, R. (2013). Assessing experiential learning styles: A methodological reconstruction and validation of the Kolb Learning Style Inventory. *Learning and Individual Differences*, 23, 44-52
- Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, 62(3), 279-300.
- Mays, B. J. (2018). *Understanding experiences of undergraduate students with physical disabilities* [Unpublished doctoral dissertation]. University of Oklahoma.
- Metropolitan Community College Tuition (2020). Costs for Nebraska Residents. <https://www.mccneb.edu/Prospective-Students/Tuition-Financial-Assistance/Tuition.aspx>
- Mikitovics, A. & Crehan, K. D. (2002). Pre-professional skills test scores as college of education admission criteria. *The Journal of Educational Research*, 95(4), 215-223.
- Miller, S. H. & Meszaros, P. S. (1996). Study of national incoming supply and demand for family and consumer sciences teachers and extension educators. *Journal of Family and Consumer Sciences*, 88(1), 51-54.
- Mimbs, C. (2000). Retention of certified family and consumer sciences teachers: Implications for teacher supply and demand. *Journal of Family and Consumer Sciences*, 18(1), 38-49.
- Moser, S. M. (2018). *Struggling student teachers: Interventions for support and success*. University of Nebraska-Lincoln, Dr. Elaine Chan TEAC 995.
- Moser, S. M. (2020). *FCS education open positions ALL 2011—Present 10-2020*. University of Nebraska-Lincoln.
- National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*. Washington, DC: Government Printing Office.
- NCE Model and Career Clusters (2020). <https://www.education.ne.gov/nce/career-clusters/>
- Nebraska CATE (2020). CTE Conferences and Workshops. <https://www.education.ne.gov/nce/2017-conferences-and-workshops/>

- Nebraska CATE (2020). *Strengthening Nebraska's high-quality CTE system*.
<https://www.education.ne.gov/NCE/>
- Nebraska Department of Education (2020). *2020-2021 CTE course standards and programs of study*. <https://cestandards.education.ne.gov/>
- Nebraska Department of Education (2018). *Loan forgiveness programs*.
<https://www.education.ne.gov/educatorprep/loan-forgiveness-program/>
- Nebraska Department of Education (2018). *NE Clinical Practice Evaluation Rubric – Summative*. <https://www.education.ne.gov/educatorprep/information-for-institutions/ihe-clinicalprac/>
- Nebraska Department of Education (2017). *Transitional teaching permit*.
<https://cdn.education.ne.gov/wp-content/uploads/2017/07/PROVISIONAL20TEACH20Permit2-20Web.pdf>
- Nebraska Teacher Vacancy Survey Comparison Report for Districts (Public and ESU)/Systems (Nonpublic) (2017).
<https://www.education.ne.gov/educatorprep/teacher-shortage-survey/teacher-shortage-survey-archive/>
- Nebraska Department of Education Teacher Vacancy Survey Report (2019), Adult Program Services. <https://www.education.ne.gov/educatorprep/teacher-shortage-survey/>
- Nichols, J. D. (2020). An examination of key assessments in a teacher education program: Muddy water with purpose. *Educational Research Quarterly*, 43(4), 36-58.
- Omar, M. K., Self, M. J. & Matlock Cole, K. I. (2018). "Teaching job satisfaction of career-switchers in CATE school system" From: Proceedings: International Research Symposium Series, November 9, 2017, Hig Hotel, Langkawi.
- Petchauer, E. (2012). Teacher licensure exams and black teacher candidates: Toward new theory and promising practice. *The Journal of Negro Education*, 81, 252-267.
- Praxis® and Educational Research (2020). <https://www.ets.org/praxis/research> Praxis® Subject Assessments Overview (2020). <https://www.ets.org/praxis/about/subject/>
- Proefriedt, W. (2008). *High Expectations: The Cultural Roots of Standards Reform in American Education*. New York: Teachers College Press.
- Protecting Student Privacy: What is FERPA? (2020). United States Department of Education. <https://studentprivacy.ed.gov/faq/what-ferpa>

- Rhodes, C. & Nevill, A. (2004). Academic and social integration in higher education: A survey of satisfaction and dissatisfaction within a first year education studies cohort at a new university. *Journal of Further and Higher Education*, 28(2), 179-93.
- Rivkin, S., Hanushek, E. & Kain, J. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73, 417-458.
- Ronfeldt, R. & Reininger, M. (2012). More or better student teaching? *Teaching and Teacher Education*, 28, 1091-1106.
- Rots, I., Aelterman, A., & Devos, G. (2014). Teacher education graduates' choice (not) to enter the teaching profession: Does teacher education matter? *European Journal of Teacher Education*, 37(3), 279-294.
- Simerly, C. B. (2012). Confronting the home economics stereotype. In E. P. Anderson & V. L. Clark (Eds.), *Marketing home economics: Issues and practices* (114-124), AHEA Yearbook 13. Peoria, IL: American Home Economics Association and Glencoe.
- Smith, R. & Dearborn, G. (2016). *Conscious classroom management, 2nd Ed.: Unlocking the secrets of great teaching*. Conscious Teaching LLC.
- Southeast Community College UNL Transfer Guides (2020). <https://www.southeast.edu/unltransferguides/>
- Stage, S. & Vincenti, V. B. (1997). *Rethinking home economics: Women and the history of a profession*. Ithaca, NY: Cornell University Press.
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. E. (2005). *Multiple case study analysis*. New York, NY: Guilford Press.
- Stephens, N., Fryberg, S.I., Markus, H.R., Johnson, C., & Covarrubias, R. (2012). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology*, 102(6), 1178-1197.
- STEM Area of Interest (2020). <https://www.acteonline.org/stem-area-of-interest/>
- Student Teaching Handbook Initial Certification, University of Nebraska-Lincoln, College of Education and Human Sciences (2017). Office of Field Experiences. <https://cehs.unl.edu/cehs/practicum-and-student-teaching/>
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, (27)35, 1-40.

- Tait, M. (2008, Fall). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly*, 57-75.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Education Research*, 45(1), 89-125.
- Tripp, P. (2006). A profile of California's secondary family and consumer sciences teachers. *Journal of Family and Consumer Sciences*, 98(1), 60-64.
- U. S. Department of Education. (2014). *Teacher attrition and mobility: Results from the 2012-13 teacher follow-up survey*. Retrieved from <https://nces.ed.gov/pubs2014/2014077.pdf>
- University of Nebraska-Lincoln Academic Policies & Procedures (2020). Retrieved from: <https://catalog.unl.edu/undergraduate/academic-policies-other-units/procedures/#text>
- University of Nebraska-Lincoln Fact Book 2018-2019, Office of Institutional Effectiveness and Analytics, Retention and Graduation.
- U.S. Department of Education Office of Postsecondary Education. (2017). *Teacher shortage areas nationwide listings 1990-1991 through 2017-18*. Washington, DC: U.S. Department of Education.
- Wise, A. E. (2005). Establishing teaching as a profession: The essential role of professional accreditation. *Journal of Teacher Education*, 56(4), 318-331.
- Wronowski, M. L. (2018). Filling the void: A grounded theory approach to addressing teacher recruitment and retention in urban schools. *Education and Urban Society*, 50(6), 548-574.
- Yeager, D. S. & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4), 302-314.
- Yellen, J. L. (2020). The history of women's work and wages and how it has created success for us all. 19A The Brookings Gender Equality Series. <https://www.brookings.edu/essay/the-history-of-womens-work-and-wages-and-how-it-has-created-success-for-us-all/#:~:text=Between%20the%201930s%20and%20mid,factors%20contributed%20to%20this%20rise.>

Appendices

Appendix A:	Student Participant Informed Consent Form
Appendix B:	TLP Format
Appendix C:	Faculty Participant Informed Consent Form
Appendix D:	Questions for Career & Technical Education Collegial Interviews
Appendix E:	Letter to the College Deans

Appendix A: Student Participant Informed Consent Form

IRB # 19806

Student Interviewee Permission

Format Study Title: “*Struggling Student Teachers*”

Principal Investigator: Sheree Moser (402) 472-7996

Secondary Investigator: Ted Hamann ehamann2@unl.edu

Key Information:

The study being completed is to identify common characteristics of Career and Technical Education (CATE) students at the University of Nebraska-Lincoln who are not passing the PPST/CORE exams prior to the student teaching semester during the teacher education programs, and which exams are most commonly repeated. The ultimate goal of the research is to identify interventions that will lead to greater success within the teacher education program and during their future career.

If you agree to participate in this study, the project will include the following:

- The principal investigator will call to set up an appointment to complete the interview. The location should be in the interviewee’s office or an alternative private space of their choice. The time required will need to be at minimum of 2 hours and maximum of three.
- The principal investigator will complete interventions during the student teaching experience to identify interventions for supporting weaknesses as identified by the student themselves, cooperating teacher, and the university supervisor. This may include sharing information and comments on planning documents via google, meetings to plan at the school building, observations within the classroom, and student teaching seminars.
- Professor Moser will be asking questions provided to each participant ahead of the interview time. This way the interviewee will have time to gather information about current and former students.

Why are you being asked to be in this research study?

Only Career and Technical Education students are being asked to participate in this study because of the similar characteristics among the programs (Family & Consumer Sciences, Business Education, Skilled & Technical Sciences, and Agriculture Education). This allows for a common set of criteria to begin working towards interventions, which may eventually be applied to additional teacher education programs within the college.

What will be done during this research study?

Each participant will be interviewed individually and the information will be transcribed, analyzed, and summarized to find themes and common characteristics of the student teachers involved. Based on these results, interventions may be identified that are common among CATE students to explore further.

What are the possible risks of being in this research study?

These interviews only involve UNL students, so no direct risks would occur to the participants. Some indirect risks may include the ability for participants to be identified by association with the university and Career and Technical Education overall content areas. The participants will not be identified individually, only as an overall group or with anonymous information to hide any personal factors close to the actual student. This includes the location of the student teaching experience, where they grew up and went to school during their K-12 experience, their name, gender, or any specific information about their grades, exam scores, or other activities that may connect readers to their identification in any respect.

What are the possible benefits to you?

The benefits for completing this study will be a higher level of success for the students participating in CATE teacher education programs whose candidates are struggling with PPST/CORE exams or other content within the coursework required before the student teaching semester.

The benefits for completing this study for the students will be the collaboration of strategies that are successful or helpful between the different programs within identified groups (determined after the interviews).

The benefits for completing this study for the CATE profession will be the preparation of more highly qualified teachers to meet the need in shortage areas.

Will you be compensated for being in this research study?

Compensation will be gift cards for educational materials in the amount of \$50 for each participant (Amazon or Barnes & Noble). No funding from the department at UNL will be involved.

How will information about you be protected?

Participants' names or content area will not be used within any of the research reports, dissertation, or defense presentation during the entire project.

Student interviewees will have all identifying information changed to generalize personal facts (also included in the possible risks).

Faculty interviewees will be assigned a random number to document the information, but then all results will be summarized as a "CATE" and not specific content areas.

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw") at any time before, during, or after the research begins for any reason without any negative consequences.

Documentation of informed content

We will notify you regarding this study as the results are being processed. Any questions or concerns you have will be addressed during the interview process as well.

I have read, understand, and agree with all of the terms described above for my participation in this research study and the pending results.

Full Name (printed)

Full Name (signature)

Date

Return a copy of the signed form to:

Professor Sheree Moser
Department of Child, Youth & Family Studies
University of Nebraska-Lincoln
231P Louise Pound Hall
Lincoln, NE 68588-0366
402-472-7996
smoser2@unl.edu

Appendix B: TLP Format

TLP Format

Course Title:

Dates:

Grade Level:

Broad Concept:

Sub-concept/topic:

Recurring Concern:

Learner Outcomes:

Key Questions:

FCS Essential Learning and NE Standard:

National Standards--

Nebraska Standards--

Assessment:

Formative

Summative

Rationale:

Day #1--

Set:

Activity #1:

Guiding Questions or think sheet included

Transition:

Activity #2:

Guiding Questions or think sheet included

Summary/Conclusion:

Day #2—

Set:

Activity #1:

Guiding Questions or think sheet included

Transition:

Activity #2:

Guiding Questions or think sheet included

Transition:

Activity #3:

Guiding Questions or think sheet included

Summary/Conclusion:

Day #3--

Set:

Activity #1:

Guiding Questions or think sheet included

Transition:

Activity #2:

Guiding Questions or think sheet included

Summary/Conclusion:

Day #4--

Set:

Activity #1:

Guiding Questions or think sheet included

Summary/Conclusion:

Day #5--

Set:

Activity #1:

Guiding Questions or think sheet included

Transition:

Activity #2:

_____ Guiding Questions or think sheet included

Summary/Conclusion:

Other Details that can be included:

- **Accommodations for Students?**
- **Resources & Materials Needed?**

Appendix C: Faculty Participant Informed Consent

IRB # 19806

Faculty Interviewee Permission

Format Study Title: “*Struggling Student Teachers*”

Principal Investigator: Sheree Moser (402) 472-7996

Secondary Investigator: Ted Hamann ehamann2@unl.edu

Key Information:

The study being completed is to identify common characteristics of CATE students at the University of Nebraska-Lincoln who are not passing the PPST/CORE exams prior to the student teaching semester during the teacher education programs, and which exams are most commonly repeated. The ultimate goal of the research is to identify interventions that will lead to greater success within the teacher education program and during their future career.

If you agree to participate in this study, the project will include the following:

- The principal investigator will call to set up an appointment to complete the interview. The location should be in the interviewee’s office or an alternative private space of their choice. The time required will need to be at minimum of 2 hours and maximum of three.
- Professor Moser will be asking questions provided to each participant ahead of the interview time. This way the interviewee will have time to gather information about current and former students.

Why are you being asked to be in this research study?

Only CATE faculty are being asked to participate in this study because of the similar characteristics among the programs. This allows for a common set of criteria to begin working towards interventions, which may eventually be applied to additional teacher education programs in the college.

What will be done during this research study?

Each participant will be interviewed individually and the information will be transcribed, analyzed, and summarized to find themes and common characteristics of the students discussed. Based on these results, interventions may be identified that are common among the CATE teacher educators to explore further.

What are the possible risks of being in this research study?

These interviews only involve UNL faculty, so no direct risks would occur to the participants. Some indirect risks may include the ability for participants to be identified by association with the university and CATE overall content areas. The participants will not be identified individually, only as an overall group.

What are the possible benefits to you?

The benefits for completing this study will be a higher level of success for the students participating in CTE teacher education programs whose candidates are struggling with PPST/CORE exams or other content within the coursework required before the student teaching semester.

The benefits for completing this study for the teacher educators will be the collaboration of strategies that are successful or helpful between the different programs.

The benefits for completing this study for the CATE profession will be the preparation of more highly qualified teachers to meet the need in shortage areas.

Will you be compensated for being in this research study?

Compensation will be gift cards for educational materials in the amount of \$50 for each participant (Amazon or Barnes & Noble). No funding from the department at UNL will be involved.

How will information about you be protected?

Participants' names or content area will not be used within any of the research reports, dissertation, or defense presentation during the entire project. Interviewees will be assigned a random number to document the information, but then all results will be summarized as a "CATE" and not specific content areas.

What will happen if you decide not to be in this research study or decide to stop participating once you start?

You can decide not to be in this research study, or you can stop being in this research study ("withdraw") at any time before, during, or after the research begins for any reason without any negative consequences.

Documentation of informed content

We will notify you regarding this study as the results are being processed. Any questions or concerns you have will be addressed during the interview process as well.

I have read, understand, and agree with all of the terms described above for my participation in this research study and the pending results.

Full Name (printed) _____

Full Name (signature) _____ Date _____

Return a copy of the signed form to:

Professor Sheree Moser
Department of Child, Youth & Family Studies
University of Nebraska-Lincoln
231P Louise Pound Hall
Lincoln, NE 68588-0366
402-472-7996
smoser2@unl.edu

Appendix D: Questions for CATE Collegial Interviews

Questions for Career & Technical Education Collegial Interviews Research Project for the Doctorate of Education Sheree Moser, Assistant Professor of Practice University of Nebraska-Lincoln

Purpose:

The study being completed is to identify common characteristics of CATE students at the University of Nebraska-Lincoln who are not passing the PPST/CORE exams prior to the student teaching semester during the teacher education programs, and which exams are most commonly repeated. The ultimate goal of the research is to identify interventions that will lead to greater success within the teacher education program and during their future career.

If you agree to participate in this study, the project will include the following:

- The principal investigator will call to set up an appointment to complete the interview. The location should be in the interviewee's office or an alternative private space of their choice. The time required will need to be at minimum of 2 hours and maximum of three.
- Professor Moser will be sharing questions provided to each participant ahead of the interview time. This way the interviewee will have time to gather information about current and former students.

Procedures:

1. Only CATE faculty at the University of Nebraska-Lincoln are being asked to participate in this study because of the ways we are aggregated together as programs. This allows for a common set of criteria to begin working towards interventions, which may eventually be applied to additional teacher education programs in the college.
2. Each participant will be interviewed individually and the information will be transcribed, analyzed, and summarized to find themes and common characteristics of the students discussed. Based on these results, interventions may be identified that are common among the CATE teacher educators to explore further.
3. Recognizing that a two-hour interview is a burden/favor, compensation will be gift cards for educational materials for \$50 for each participant (Amazon or Barnes & Noble). No funding from the department at UNL will be involved.

NOTE: Of Course, my dissertation is a research project that I need to be individually responsible for, but I do think, as a second much more modest outcome of these interviews, it may be advantageous to all of us to craft something together. I would propose that we can consider co-authoring a very short memo (3-4 pages) for the Dean and/or our department chairs related to considerations for the future of CATE education at UNL. If we are going to think about all of these issues related to our programs, we might as well put it on people's radar screens that there are possibilities that they need to be aware of.

4. Participants' names or content area will not be used within any of the research reports, dissertation, or defense presentation during the entire project. Interviewees will be assigned a random number to document the information, but then all results will be summarized as a "CATE" and not specific content areas.
5. Participants can decide not to be in this research study, or can stop being in this research study ("withdraw") at any time before, during, or after the research begins for any reason without any negative consequences.
6. We will notify participants regarding this study as the results are being processed. Any questions or concerns they may have will be addressed during the interview process as well.

Interview Question with Categories:

1. *Program background*

- a. What is the current demand for new teachers above the number you are now producing?
- b. If there is not a substantial shortage, how does this compare to the other CATE education programs?
- c. How does the demand influence the pressure to admit students who are struggling?
What are the characteristics related to their struggles? (GPA, exam requirements, other)? How do you respond to these students when this is the case?
- d. What is your sense of how/whether your teacher preparation tasks/challenges are like or not like the other CATE education programs?

2. *Characteristics of struggling students*

- a. When do you first know students are struggling within your program? (Do you have a checkpoint?)
- b. How do you specifically identify the reason for the struggle?
- c. What are you noticing about the enrollment and quality of the students entering your program?
- d. What are their specific struggles related to your preparation program?

3. *Interventions implemented*

- a. What types of interventions do you have in place?
- b. How have your students reacted to those interventions?
- c. How do these relate to the exams the students did not pass in the PPST/CORE?
- d. What other types of resources do you use to help students do better in class or on the required exams?
- e. How do your students react to the interventions? Are they receptive or defensive?
- f. How do you intervene if the struggles are occurring during student teaching?

4. *Special circumstances*

- a. What special circumstances are you noticing related to your students, and how well they do within your program?
- b. How much diversity do you have within your program? Do you notice a difference in regards to the achievement level and relationship to their scores on the PPST/CORE?
- c. What characteristics do you see related to the achievement level of students from different ethnic backgrounds?
- d. Under what circumstances have your students received waivers for any of the exams within the PPST/CORE?

5. *Other issues*

- a. What personal characteristics of your students have that pulls them into teaching?
- b. How do you see these characteristics bring additional strengths for the students who are struggling?
 - i. Managing student behaviors
 - ii. Planning & implementing high quality instruction
 - iii. Passion for teaching FCS and the content
 - iv. Developing relationships with students, peers & parents
 - v. Love adolescent-aged humans
- c. What examples of resilience, grit, or stamina have you witnessed among your students who have been successful despite their performance on the exams?
- d. What other issues and/or ideas do you have for me to include as part of this study?

Appendix E: Letter to the College Deans

512 So. 12th St., 231P Louise Pound Hall
Department of Child, Youth & Family Studies
Lincoln, NE 68588-0366

January 25, 2021

Dean Sherri Jones
College of Education & Human Sciences
Human Sciences Building, Room 105
Lincoln, NE 68588-0800

Dean Mike Boehm
Institute of Agriculture & Natural Resources
Agricultural Hall, Room 300
68583-0708

Dear Dean Jones and Dean Boehm,

As a dedicated and veteran faculty member in the department of Child, Youth, and Family Studies, I am honored to be writing to you [both] to share the results of my dissertation work. I am Sheree Moser, an Assistant Professor of Practice and the program chair for the Family and Consumer Sciences (FCS) education program. As part of earning an Educational Doctorate (EdD) from the department of Teaching, Learning and Teacher Education, I am excited to be able to share some valuable information with you both that will be of interest to both of you.

As a teacher educator and lifelong resident of our state, my goal has always been to improve the lives of individuals, families, and communities by teaching concepts that will improve the health and well-being of my students. My hope was to have these future secondary FCS teachers become an agent for change within their own futures, continuing the cycle of building positive relationships and strong families. To improve the status of FCS education within our state and at this University, I started in the Carnegie Program for the Educational Doctorate (CPED) five years ago. My dissertation started with a project involving a few of my students who were struggling during their student teaching experience. With the shortage of teachers being an issue for FCS, as well as other CATE content areas, it seemed a natural direction to connect with the other programs chairs to explore issues they were experiencing with students, and the interventions in place to help them be more successful. UNL is the only post-secondary institution in Nebraska with all four programs: FCS; Business, Management & Information Technology (BMIT); Agriculture Education (Ag Ed); and Skilled and Technical Sciences (STS).

Interviews were completed this past summer and some of the information shared has been both enlightening and interesting. I am hoping that some of the interventions and structure that is working well for students can contribute to some positive directions for all of our programs in the future. I am happy to share the entire dissertation with you if it is something you would like to read. The major recommendations fall into three categories: 1) Advising Students; 2) Structured Coursework; and 3) Faculty Loads and Status.

1) Advising Students:

Advising of the students falls on the shoulders of all program chairs with or without outside support. The communication, advice, and relationships developed create a way to give support when issues arise for students who may be struggling. The best structure is contained within the two programs that have communication during prerequisite required coursework at the sophomore level, as well as the connection to community college programs via those advisers. The Ag Ed program chair noted that they will hang onto the advising of their own students until the program goes “down”. This shows how important this aspect is to the success of these future teachers.

The two programs (FCS and BMIT) without the prerequisite coursework and advising postponed until the junior year of applicants into the program have fewer opportunities to connect and guide their experiences as they move into teaching. Additional opportunities to communicate and connect are making big differences in the retention rates, as well as passing exams required for certification and maintaining grade point average (GPA).

2) Structured Coursework:

Structuring the coursework showed two big advantages for the programs who have this already implemented. The first advantage is the pre-requisite coursework identified by both the Ag Ed and STS faculty have included in their programs. STS has added a 2+2 program with connections with three separate community colleges that also involves set coursework and yearly visits to check on students coming through that system. Both of these programs also include a sophomore level course required of all majors. This means that these students are connected early in their college career and interventions are implemented often and early.

Creating a class just for the FCS and BMIT students would be a valuable first step for both of these majors. Additional 2+2 programs may also be possible for the BMIT majors that would greatly benefit both the enrollments and the pre-requisite coursework at the community college level that would boost the GPA and success passing required exams.

3) Faculty Loads and Status:

These faculty bring with them years of teaching and expertise related to each content area. One of the biggest differences between the faculty is the status of their appointment, especially the one program that is part time and adjunct. This faculty member was at a definite disadvantage related to the number of courses taught and the ability to connect with students. This also does not allow allotted time to advise students, recruit or connect with the advising center on a regular basis. With two of the program chairs, building the enrollment was part of their charge when hired, so additional time and a promotion to Professor of Practice was an incentive to work harder to move the program forward. Creating a new professor of practice position for BMIT

would create more equality within the programs, but also allow the chair to do more work to monitor, support, and connect with students.

The three recommendations here would fulfill the goals of creating equity for faculty, as well as opportunities for a higher level of connection and success for students majoring in a CATE teacher preparation program. The support of our departments has been very positive, especially for those of us who started with none or very few students (STS and FCS). Investing in the one additional position to strengthen BMIT could also be transferred to support additional majors in the teacher preparation programs by sharing the structure and supports in place to other majors. Adding a course for the BMIT and FCS students would allow for the connections to occur earlier in their post-secondary experience, implementing interventions fashioned to create a higher level of retention and success. Time to connect with students is an overarching theme that creates positive relationships with our future teachers, but also a higher success rate as they move into their first few years as professionals. Adding allotted time to each faculty member's schedule for advising or co-advising would show support and value for creating this connection.

Again, I appreciate your time and attention to this information and results for exploring ways we can work together to connect the CATE majors and success of our future teachers. If either of you would like to have time to meet and discuss additional ideas from these interviews, I am happy to set up a time to visit. I can be reached at 402-890-3997 by phone and email: smoser2@unl.edu. I sincerely appreciate all of the work you do to support these programs, faculty, and students.

Sincerely,

Sheree Moser

Assistant Professor of Practice for Family & Consumer Sciences Education