The Common Thread: Factors Associated With Teacher Retention in Special Education

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Abstract

The purpose of this study was to determine the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the teacher support program aspect variables (instructional strategies, professional responsibilities, collaboration, and building culture) that are used to calculate the occurrence of mentoring, peer coaching, induction, and professional learning communities. The participants in this study were current district, interlocal, and cooperative directors of special education from across Kansas. These directors served in their position during the 2021-2022 school year. An online survey was sent to 71 directors, yielding 23 viable responses. As a result of the low response rate, the planned multiple regression analysis was replaced with calculations of Kendall's tau correlation coefficients. These correlations provide estimates of the strength and direction of the relationship between special education directors' perceptions of the occurrence of each of the support program aspect and component variables and retention as calculated from retirement, resignation, or both. The findings of this study indicated no significant relationships between any of the program aspect or component variables. Implications for action by individual districts and state education agencies, such as exploring alternative teacher supports, are discussed. Also recommended are implications for future research, including a recommendation for qualitative studies on teachers' perceptions of the best model for predicting special education teacher retention.

Dedication

To my Daddy, my hero, my inspiration, my biggest fan. You never doubted me, even when I doubted myself. I regret that you never got to see this through with me; we got so close. Nevertheless, I know you are still cheering me on from Heaven. I hope you are as proud of me as I am of you. Love you, Daddy.

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So many individuals have supported this journey. These people have supported me intellectually, individually, and professionally. This endeavor is not something to be completed without a tribe. It was my dragon to slay all of my students, my colleagues, and the neurodiverse.

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A special thank you to my Cohort 24 peers. The time we spent together will forever be tantamount to my growth as an educational professional. So many experts in their fields came together for a single goal, and here we are. We may be in different phases of our program, but we will always be a family in education.

Many thanks to the directors of special education across Kansas who allowed me to pester them repeatedly to participate in this study. This appreciation includes a huge thank you to Dr. Doug Anderson, who sent out an email endorsing my study and requesting participation on my behalf. Your credibility in the field far exceeds what I can ever hope to accomplish and lending that to li'l ol' me was a high honor.

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Chapter 1

Introduction

The findings associated with teacher attrition are clear. There are financial and learner achievement implications each time teacher turnover occurs. Watlington et al. (2010) reported on a School Turnover Analysis and Teacher Turnover Cost Calculation exploring the financial costs related to teacher turnover. They compared the responses to two tools. Watlington et al. (2010) anticipated difficulty in determining the financial impact of teacher attrition. However, they estimated the fiscal impact of teacher turnover at $2.2 billion annually for replacing teachers who leave the profession (Watlington et al., 2010). This amount increased by more than $2 billion when the calculations included replacing teachers who moved to new schools in the same district, totaling almost $4.9 billion per year. Teacher replacement costs include the cost of human resources when separation from the district occurs, the replacement cost, net replacement differences, and the incurred training expenses from the staff who leave and those who take their place (Watlington et al., 2010).

The fiscal implications of teacher attrition do not compare to the estimated cost to student achievement. Ronfeldt et al. (2013) hypothesized a compositional component to student achievement and the relationship with teacher attrition when veteran teachers are replaced by inexperienced teaching staff. When a veteran teacher leaves, so do their expertise, likely replaced by someone with less experience. Therefore, the compositional effect is negative. Ronfeldt et al. (2013) found a negative impact on student achievement when the exiting teacher is a veteran, and the new teacher is inexperienced.

Inversely, student achievement also plays a factor in teacher attrition. Boyd et al. (2008) found that 23% of fourth- and fifth-grade teachers in New York City Schools leave in the first year from schools in the lowest achievement quartile compared to 15% of those from schools in the highest achievement quartile. Boyd et al. discovered that the teachers of students in higher-achievement schools were less likely to apply for a transfer than teachers of students in lower-achieving schools. When teachers of high-achieving students remain at high-achieving schools while teachers from low-achieving schools either stay or move around districts, overall student achievement suffers (Boyd et al., 2008).

Investigations into causal factors for teacher attrition vary in scope. However, several universal environmental characteristics affect teacher retention. In 2010, Klassen et al. performed a quantitative analysis of teachers in the United States, Canada, and the Republic of Korea to determine cultural norms, work-related beliefs, job satisfaction, and job stress associated with education in the eastern and western hemispheres and the commonalities of both. They found that teachers who are highly satisfied with their jobs report higher levels of collective efficacy. The researchers also determined the causation between job satisfaction and job stress. When teachers feel supported, effective, and satisfied in their position, the likelihood of them leavening the profession diminishes.

Carter-Thomas and Darling-Hammond (2019) found that teacher dissatisfaction can be linked to many factors, including educator shortages. Continual increases in student enrollment have precipitated an increase in teachers' responsibilities across the United States. The ever-increasing age of current educators and decreased teacher

induction program enrollment create vital concerns for education's future teacher resources.

In 2002, the United States required teachers to be highly qualified in their specific field (No Child Left Behind, 2002). This legislation negatively affected the number of qualified teachers nationwide by creating educational support gaps in many curricular areas (Borman & Dowling, 2008). Even with the replacement of this legislation by the Every Student Succeeds Act of 2015, the mandates for highly qualified staff remain (U.S. Department of Education, 2015). In the 1990s alone, teachers accounted for 15% of the overall attrition rate in America compared to 12% in the general workforce. Teacher shortages lend themselves to the stress and emotional exhaustion claims, as cited by teachers who have left the profession (Shin et al., 2013).

Hanselman et al. (2016) cited teacher attrition as having a "disruptive effect on the development and maintenance of social resources, including staff collegiality, community, and trust in a school" (p. 27). The results of studies (Boyd et al., 2008; Hanselman et al., 2016; Klassen et al., 2010) provide evidence of the need for further investigation into teacher attrition in schools while narrowing the focus to the special education population.

Billingsley (2004) linked contributing factors such as teacher characteristics, personal factors, teacher qualification, work environments, and other work problems to the reason for special education teacher attrition. Billingsley found inadequate administrative support and caseload problems were more important factors in teacher attrition than student issues. Mentoring, teacher induction, peer coaching, and

professional learning communities are cited as supportive factors attributable to teacher retention (Billingsley, 2004).

Bettini, et al. (2020) built upon Billingsley's earlier work to predict general and special education teachers' intent to stay based on conservation resource theory. These resources are anything teachers can utilize to help them be successful while drawing on limited resources. The research conducted by Bettini et al. upheld the prior findings of Billingsley (2004) related to administrative support when correlated with collegiality amongst other special education peers.

Background

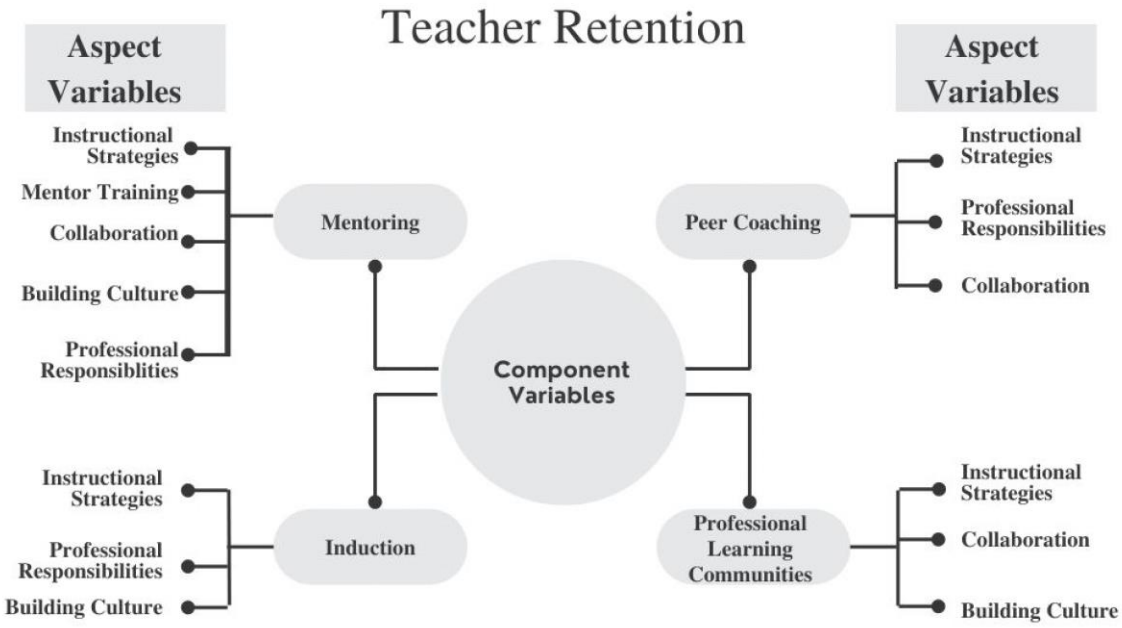
Current research in staff retention has limited the sample population to a broad spectrum of service providers in the educational setting. Darling-Hammond et al. (2018) found that 30.5% of teachers who left the classroom were in special education, more than twice the turnover rate for general education professionals. Carter et al. (2019) reported that in the fall of 2018, the number of unfilled special education vacancies in Kansas was 158. By the spring of 2019, that number had only dropped to 155 remaining vacancies in the report to the Kansas State Board of Education in October 2019. Watson (2019), Commissioner of Education for the State of Kansas, reported that special education teacher openings across Kansas rose to 186 by the fall of the 2019 school year. The U.S. Department of Education (2020) reported that from 2018 to 2020, 43 of the 50 states plus three U.S. territories had special education teacher shortages.

The four components of teacher support programs meant to increase retention identified in the research were mentoring, induction, peer coaching, and professional learning communities (Rhodes, 2019). Each component was made up of at least three

aspect variables. The aspect variables for mentoring were instructional strategies, mentor training, collaboration, building culture, and professional responsibilities. The aspect variables for induction were instructional strategies, professional responsibilities, and building culture. The third component variable, peer coaching, included instructional strategies, professional responsibilities, and collaboration. The last component variable, professional learning communities, comprised the aspect variables of instructional strategies, collaboration, and building culture. Figure 1 shows the delineation of the study's component and aspect variables.

Figure 1

A Conceptual Model of the Components and Aspects of a Teacher Support Program



Note. This figure explains the four component variables and the aspect variables specific to each component variable evaluated. Adapted from Teacher Support Systems in Rural Nebraska Schools: Components that Impact Teacher Retention by T. Rhodes, 2019, p. 4. https://www.ncsa.org/sites/default/files/media/dissertations/RhodesTodd.pdf.

Statement of the Problem

Special education teachers are in demand. These positions are often considered hard-to-fill based on the number of candidates applying for open positions and the current enrollment in teacher preparation courses specific to these areas (National Center on Deaf-Blindness, 2017). Gaines (2022) found that the number of states reporting special

education teacher shortages to the federal government jumped from 44 in 2019 to 48 for the 2021-2022 school year

In their report to the Kansas State Board of Education, Carter et al. (2019) reported 815 vacancies in education across Kansas. These vacancies were either not filled or filled by someone not licensed appropriately to fill the position. According to the Kansas Department of Education (KSDE), non-licensed professionals included substitute teachers who were temporarily filling the vacancies and teachers who were not licensed correctly, thus not counting as vacancies. When looking at special education numbers in Kansas, the Kansas Commissioner of Education Watson reported 186 unfilled special education vacancies to start the school year 2019, according to the May 2021 Vacancy Report by each Local Education Agency (LEA) KSDE (2021c), 205.42 full-time special education positions were left unfilled in Kansas. As a result of the current study, the researcher could determine if teacher support programs such as mentoring, peer coaching, induction, and professional learning communities positively affect teacher retention. The study could also reveal the best correlation between the assigned aspect variables of each component variable and the relationship with special education teachers.

Purpose of the Study

The focus of this study was to determine the best model for predicting the retention of special education teachers based on known teacher support variables. The first four purposes of this study were to find the best model for predicting the retention of special education teachers from the directors' perceptions of the occurrence of the aspect variables used to calculate each of the teacher support program component variables (mentoring, peer coaching, induction, and professional learning communities). The fifth

purpose of the study was to find the best model for predicting the retention of special education teachers from the director's perceptions of the teacher support program component variables.

Significance of the Study

Findings from this quantitative study could help school districts, interlocals, and cooperatives focus on the details that encourage special education staff to remain in their position for more than five years. This study's findings could contribute valuable information to the profession to inform retention practices, potential professional development opportunities, and staff support practices to enhance the working conditions of special education teachers. At the time this study was conducted, the knowledge base lacked sufficient prior research regarding retention issues associated with special education teachers and the relationship to teacher support programs. The study may also aid in increasing staff retention and informing district, cooperative, and interlocal programs about ways to support this specific subset of educational professionals.

Delimitations

Delimitations are the defined boundaries a researcher puts on a study (Creswell & Creswell, 2018). This quantitative study was focused on staff retention in a specific subset of educational professionals who teach students with disabilities. The researcher used a survey to gather information from special education directors across Kansas.

Assumptions

Assumptions are the basis for what the researcher believes to be true. Lunenburg and Irby (2008) defined assumptions as "postulates, premises, and propositions that are

accepted as operational for the purposes of the research" (p. 135). For this study, it was assumed that special education directors participating in the study:

- understood and answered survey items honestly and openly.
- took the time to understand the definition of each component variable and the aspect variables that support it.
- looked at the 2021-2022 demographics of their district, interlocal, or cooperative, when answering the questions.
- embodied the spirit of the research as their impetus to participate.

Research Questions

The research questions for this study serve as a guide to developing the research design procedures. There are four research questions encompassing the inclusion of the teacher retention variables and their corresponding aspect variables. The fifth research question seeks to find the best combination of teacher support programs to increase teacher retention.

RQ1

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the aspect variables (instructional strategies, professional responsibilities, building culture, collaboration, and mentor training) that are used to calculate the occurrence of the component variable, mentoring?

RQ2

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the aspect variables (instructional

strategies, professional responsibilities, and collaboration) that are used to calculate the occurrence of the component variable, peer coaching?

RQ3

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the aspect variables (professional responsibilities, instructional strategies, and building culture) that are used to calculate the occurrence of the component variable, induction?

RQ4

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the occurrence of the aspect variables (professional development, instructional strategies, building culture, and collaboration) that are used to calculate the occurrence of the component variable, professional learning communities?

RQ5

What is the best model for predicting the retention of special education teachers from the director's perceptions of the occurrence of the component variables (mentoring, peer coaching, induction, and professional learning communities)?

Definition of Terms

The researcher chooses essential terms as descriptors that delineate the most accurate representation of the terms related to this study. Terms can change based on dialect, geographical area, and industry. According to Creswell and Creswell (2018), the definition of terms section defines terms the reader may not understand.

Building Culture

The National School Climate Center (2021) defined school or building culture as a pattern of student, parent, and school personnel's life experiences. It reflects norms,

goals, values, interpersonal relationships, teaching and learning practices, and organizational structures.

Collaboration

Slater (2004) defined collaboration as a voluntary and interdependent relationship among participants with a common purpose and mutual goals that are also beneficial to the organization.

Cooperative

KSDE (2021b) defined a cooperative as a facility created by a sponsoring district to provide additional special education opportunities for the member school districts. Currently, there are 24 cooperatives as of October 2021 in Kansas.

District

The National Center for Educational Statistics (n. d.) defined a school district as a locally governed agency responsible for the free public education of elementary and secondary students.

Induction

Wong (2004) defined induction as a system-wide, coherent, comprehensive training and support process that continues for two to three years and then seamlessly becomes part of the lifelong professional development program of the district to keep new teachers teaching and improving toward increasing their effectiveness.

Instructional Strategies

KSDE (2021b) defined instructional strategies as teaching methods that effectively meet student needs by delivering comprehensive instruction and measuring learning progress through various assessments.

Interlocal

KSDE (2021b) defined an interlocal as a facility created by an agreement to provide additional special education opportunities for the member school districts. In Kansas, there are seventeen interlocal agencies as of October 2021. Unlike a cooperative, an interlocal has no sponsoring district and functions independent of the member districts.

Mentoring

Roberts (2000) defined mentoring as a phenomenon where people with knowledge in a particular field informally coach, sponsor, role model, assess, and share their expertise with someone with less knowledge of the field.

Mentor Training

KSDE (2021b) defined mentor training as learning to observe, coach, give constructive feedback to peers, participate in learning self-reflection, best instructional practices, classroom management, and organization.

Peer Coaching

Robins (1991) defined peer coaching as a confidential process through which two or more professional colleagues work together to reflect on current practices, refine and build new skills, share ideas, teach one another, conduct classroom research, or solve problems in the workplace

Professional Learning Communities

DuFour et al. (2016) defined professional learning communities as an ongoing process in which educators work collaboratively in systematic collective inquiry and action research cycles to achieve better results for their students. Professional learning communities operate under the assumption that the key to improved learning for students is continuous job-embedded learning for educators

Professional Responsibilities

KSDE (2021b) defined professional responsibilities as the process of self-reflection and continuous growth in which a teacher engages. Other teacher responsibilities include participation in collaboration and leadership opportunities.

Teacher Retention

Broderick (2021) described teacher retention as the ability to keep teachers teaching in schools from year to year instead of leaving the profession. Rhodes (2019) further defined teacher retention as "a field of study focusing on how factors such as school characteristics and teacher demographics affect whether teachers stay in their schools, move to different schools, or leave the profession before retirement" (p. 6).

Organization of the Study

This chapter introduced the study. The components of Chapter 1 were the background, statement of the problem, the purpose of the study, the significance of the study, the delimitations, assumptions, research questions, and the definition of terms. Chapter 2 includes a review of the literature relevant to the proposed research questions and hypotheses. Chapter 3 contains the study's methods. The results of the study are found in Chapter 4. In Chapter 5, a summary of the study, the findings related to the literature, and the conclusions are included.

Chapter 2

Review of the Literature

Understanding teacher retention begins with understanding the issues facing teachers today. There are many dimensions to education. When reviewing the complexities and the factors that influence teacher retention, one must understand the research surrounding teacher retention. Narrowing this even further to include only those factors that affect special education teachers, one must first understand the history of special education. Chapter 2 provides a historical review of special education, including legislation affording students access to a free and appropriate public education (FAPE). Factors in teacher retention, including teacher characteristics, school, organizational factors, and job satisfaction, are explored to understand the teaching culture's parameters better. Finally, teacher support systems are explored, including mentoring, peer coaching, induction, and professional learning communities.

History of Special Education

Pedro Ponce de León, a Benedictine monk in the highlands of Spain, is touted as the first teacher of the deaf (de Chaves & Soler, 1974). In 1578, he undertook the education of two deaf brothers from an aristocratic family in the monastery school. Following the success of the two brothers, Pedro de León taught the sisters. He wrote a book on training the mute to sign, but that book was never printed, yet is cited in History of St. Benedict by Frey Juan de Castañiza, monk and friend to Pedro de León (de Chaves & Soler, 1974).

However, Jean Pablo Bonet wrote what is widely considered the first published book on special education in 1620. As a Spanish priest, Bonet created Reduccción de las

letras y arte para enseñar a hablar a lost mudos or Reduction of Letter and Art for Teaching Mute People to Speak. Bonet's work was the first modern treatise on sign language (Winzer, 1993).

Winzer (1993) cited the first inclusion of those with exceptionalities in institutionalized education in the middle of the 18th century in Europe. Before that time, little tolerance was afforded to those deemed different; they were rarely treated humanely as part of the Enlightenment period. The growth of special education began in the latter half of the 18th century alongside the abolition of social classes and aristocracy. By the close of the 18th century, special education began to take hold in Europe as a charity, less of an educational model. Experimentation with pedagogy and communication with children of the aristocracy was conducted within the Catholic Church.

Brown v The Board of Education, Topeka, Kansas, can be seen as the modern father of the special education movement, thanks to Thurgood Marshall's argument against separate but equal (United States Courts, n.d.). Through cultural diversity came disability inclusion. Disability rights advocates used this groundbreaking ruling as a basis for the first disability rights movement beginning in the late 1950s.

It was not until the Pennsylvania Association of Retarded Citizens in the early 1970s, using the separate but equal citizenship theme, brought a suit against the Pennsylvania Commonwealth in 1972. That litigation allowed a free and appropriate public education for every student with an intellectual disability (Lengyel & Vanbergeijk, 2021). In this groundbreaking case, parents of children with disabilities over the age of eight and under the cognitive age of five claimed that their students were denied access to public school. Ultimately, the district court found that denying access to public school for

anyone ages five through 21 was unconstitutional, regardless of their cognitive or physical disabilities.

"The Vocational Rehabilitation Act of 1973 and specifically Section 504 of the Act, became the first piece of federal legislation that made it illegal for public institutions which received federal funds to discriminate against individuals based on disability" (Lengyel & Vanbergeijk, 2021, p. 26). Following closely behind was the monumental Education for All Handicapped Children's Act (EHA) in 1975. Also known as Public Law 94-142 (PL 94-142), this legislation supported states in protecting the rights of individuals with disabilities. PL 94-142 also provided for the education of infants, toddlers, children, and youth, along with guidance on meeting their specific needs (U.S. Department of Education, 2022).

When President Ford signed PL 94-142 into law, he granted those with disabilities the rights to FAPE, ensured they were to be taught in their least restrictive environment, and provided protections for both students and their parents, otherwise known as procedural safeguards or parental rights (U.S. Department of Education, 2022). PL 94-142 was reauthorized three times. In 1986, language to ensure services from birth was added. Before this time, only those three and older were provided special education services. In 1990, EHA was again reauthorized, adding language to include those with a traumatic brain injury as a disability class. At that time, the law's name was changed to the Individuals with Disabilities Education Act (IDEA). Provisions for transition to adult services were also added. Finally, in 1997, IDEA was again reauthorized, providing minimum standards for progress, emphasizing access to general education, and expanding the disability class of developmentally delayed to age nine. Parents were also

extended additional safeguards to ensure dispute resolution with local education agencies (U.S. Department of Education, 2022).

Minor revisions continued alongside changes in general education legislation. In March 2017, the most significant change to special education in 35 years came from a Supreme Court ruling, Endrew F. v. The Douglas County School District Re-1 (2017). Under this ruling, teachers were no longer held to 'de minimis' regarding student progress. Endrew F. (2017) afforded "an education that aimed to provide a child with a disability opportunity to achieve academic success, attain self-sufficiency, and contribute to a society that is substantially equal to the opportunities afforded children without disabilities" (p. 15).

Factors Influencing Teacher Retention

Many factors influence teacher retention. Borman and Dowling (2008), while conducting a meta-analysis of more than 150 studies involving teacher attrition and retention, found commonalities among the findings. These commonalities included teacher satisfaction associated with networking ideas, regular and supportive communication, and various teacher support measures. Skaalvik and Skaalvik (2011) demonstrated an alignment between teacher job satisfaction and motivation to leave the profession. Of the 2,569 Norwegian elementary and middle school teachers interviewed, 53% cited a feeling of belonging, including supervisory support and parent and peer relations, as reasons for staying in the profession. An exploration of job satisfaction, networking, and communication as they pertain to teacher retention is included in the literature review. The components associated with teacher support systems are also addressed.

Job satisfaction

Statistics suggest that teacher satisfaction is on the decline. In 2008, The Met Life Survey of the American Teacher results showed that 62% of teachers surveyed were very satisfied with their jobs. However, just four years later, in 2012, the reported teacher job satisfaction had dipped to 39% (Harris Interactive Group, 2012). The Harris Interactive Group, a market research company, provided the content for this report. The Harris Interactive Group found that 29% of teachers surveyed said they were likely or fairly likely to leave the profession. In 2022, the authors of the Merrimack Survey found that the number has almost doubled to nearly 44% of teachers likely or fairly likely to leave the teaching profession. The results of the 2022 Merrimack Survey also indicated that only 12% of teachers are very satisfied with their current teaching assignments (Merrimack College, 2022).

Morewood and Condo (2012) discussed the need for universities and preservice teaching programs to focus on teacher confidence in content and curricular progression, knowledge, and pedagogy. The researcher suggested that "preservice special education teachers must have opportunities to engage in these various types of knowledge through coursework, mentoring and practical application" (p. 16). Moreland and Condo also advised building a preservice teacher's confidence, in-depth knowledge, behavioral strategies, and breadth of practice to alleviate teacher attrition. The low number of teacher preparation program candidates often leads to unfilled vacancies in a highly specialized field. Low wages, poor work conditions, increased higher education costs, and credentialing barriers in some states have been cited as reasons for personnel

shortages (National Coalition on Personnel Shortages in Special Education and Related Services, 2020).

Similar trends were found in Kansas by Church and Simmering (2022), who surveyed 20,000 teachers as part of the Kansas Teacher Retention Survey sponsored by the Kansas Teacher Retention Institute. Of those 20,000 educators, 18,427 completed the survey containing 60 Likert scale items, with one being highly dissatisfied and five being highly satisfied. Using multiple regression analysis, Church and Simmering (2022) determined levels of engagement. Engagement is defined as a driver for educator retention. Those drivers that received the highest engagement were opportunities to receive professional development to assist in the growth and the quality of professional development. Nevertheless, compared to job satisfaction, the quality of professional development received one of the lowest satisfaction ratings.

Of the teachers responding to the Church and Simmering (2022) survey, 16% indicated they were more likely or very likely to leave the educational profession, 12% were more likely to move to a new district to teach, and 14% indicated they were likely to retire in the next year. That means 30% of those surveyed were considering leaving education altogether in the next two to three years. Qualitative data was also cited in the survey results, indicating that the recent changes related to the impact of COVID on education being the number one reason for teachers leaving the profession (Church & Simmering, 2022).

Church and Simmering (2022) reported a mean of 3.41 (responses ranged from 2.04 to 4.16) for the responses related to having opportunities to receive feedback to assist their professional growth. A mean of 3.10 was reported by participants related to

having collaboration time with their peers as part of their team in a professional learning community. Finally, Church and Simmering reported a mean of 3.0 related to respondents feeling they had opportunities to participate in quality professional development in their district.

Merrimack College's Winston School of Education & Social Policy sponsored the 1st Annual Merrimack College Teacher Survey: 2022 Edition. The EdWeek Research Center (2022), a nonprofit, nonpartisan research organization, provided the content for this report. The survey, consisting of 26 questions, was online between January 9 and February 23, 2022. More than 1,324 public school teachers participated from various grade level configurations during that window. The study's authors found a significant decrease in teacher job satisfaction ratings from their last survey in 2012. Just 12% of teachers were very satisfied with their current teaching assignments. Nevertheless, four out of 10 teachers said they were very or fairly likely to leave the profession in the next two years.

Networking and Communication

Hargadon (2010) stated that the development of peer networks provides encouragement and avenues of communication.

> In a profession that can be profoundly isolating and lonely even though teachers are interacting with students all day, educational networking holds a significant key to improving opportunities to find both emotional support and support for exploring new ideas. (p. 5)

Hargadon stated that networking and communication are crucial to retaining teachers with the promise of social networking and connection.

Baker-Doyle (2010) conducted a meta-analysis of research surrounding labor market paradigms and social network perspectives and found a correlation between teacher induction programs, the culture of a school system, the social networks teacher can formally or informally enter, and the teacher satisfaction and retention of that teacher by the school district. Social Network Perspective is rooted in human capital and the disciplines of sociology, anthropology, and economics. However, when applied to the education sector, patterns of links and interactions between individuals and groups can be studied and recognized. Through the analysis of social network perspective, Baker-Doyle (2010) found that the "Characteristics of teachers' social networks directly influence their decision to teach or stay in a certain location" (p. 7).

März and Kelchtermans (2020) purported that networking and collaboration provide the opportunity to exchange knowledge and be accepted by their peers, thus leading to retention. Their qualitative analysis involved document searches, social network diaries, and semi-structured interviews with six teachers and inductees with zero to three years in the profession. März and Kelchtermans' findings demonstrated a propensity for new teachers to seek informal networks of peers. They also determined that the participants found great value in school external and non-teaching networks they formed as part of their first few years of teaching.

Teacher Support Systems

Rhodes (2019) defined teacher support as systems that strengthen teachers while building their competencies. Teacher support systems are constructed to assist educators with designing lessons and assessments, instructional strategies, and classroom

management systems. With higher teacher efficacy and satisfaction comes higher teacher retention levels (Betoret, 2006; Klassen et al., 2009).

Induction

The Kansas State Department of Education defines teacher induction as an orientation period within the first six weeks of employment by the newly hired teacher (KSDE, 2022c). Moreover, induction programs provide mental and emotional support to novice teachers (Perry, 2011). According to Ingersoll (2012), in 2008, over 90% of first-year teachers across America reported participating in an induction program, up from only 50% in 1990.

Gschwend and Moir (2007) researched the New Teacher Center at the University of California, Santa Cruz's formative assessment system, which requires newfound induction programs to be an effective catalyst for building collective efficacy and advancing communities of practice. They defined the components of a high-quality induction program, including high-quality, carefully selected, and expertly trained mentors, using reflective practices measured against teaching standards. Gschwend and Moir also found that comprehensive induction programs must be targeted to the specific landscape of the new teacher. High school algebra teachers might need a different induction program than their elementary peers. Effective programs must allocate time for the new teachers and their mentors to set professional goals and reflect on the progress toward those goals.

Benjamin (2008) found that additional skills training is required for new-to-service special education teachers in his qualitative study of 10 compensated participants in Hawaii. All participants had completed their third year as a special education teacher

and received minimal to no induction support. Only one of the ten participants reported a potential change in induction practices in their district. Those induction practices included learning routine procedures at the beginning of the year. This practice led to improved focus on the professional experience of new-to-the-profession special educators.

Following the semi-structured interviews, Benjamin (2008) found that stress was cited by all 10 participants. Stress-relieving factors discussed by the participants included counseling from school and outside therapists, breathing exercises, and turning to their faith. All participants reported that their stress waned as their years of service expanded. Participants expressed that their preservice learning did not prepare them for their time in the classroom, lending to the stress of the profession. Each participant reported that an induction program would have closed the gap between pre-service and in-service responsibilities.

Spiller (2018) reviewed the responses of 2,412 teachers from a large district in northeast Texas by exploring historical data and results from a school climate survey conducted annually. The purpose of the study was to determine factors that affected teacher retention and then make recommendations on implementing the key factors found. Spiller determined a need to invest professional capital in purposeful induction programs and mentoring programs for novice teachers and professional learning communities and collaboration for veteran teachers. Spiller found this need to be greater if the teacher was considered a minority or of ethnic descent.

Eyre (2021), through case studies of five special education teachers of students with intellectual and developmental disabilities in Washington, found isolation among

special education teachers. These teachers did not have teacher induction or mentoring programs as part of their new teacher support. The purpose of the study was to determine how and why experienced teachers create their own identities as a protective factor to extend their longevity in the field of education. Early career teachers benefitted from expert advice that provided context-specific feedback. Also, mentorships increased self-efficacy and agency beyond their pre-service preparation, field experiences, and experiences outside of education.

School and Organizational Factors

Many factors related to teacher retention are found in the field of education. Among those are professional perception, building culture, professional responsibility, mentoring, and peer coaching. These factors, termed aspect variables in this study, supported the component variables of mentoring, peer coaching, induction, and professional learning communities (Rhodes, 2019).

Professional Perception

Wallace (2021) cited five strategies for the retention of employees in any industry. Each of the five strategies surrounded concepts of communication and professional perception. Wallace's five strategies for retention of employees included mentoring, professional development, discussions on resiliency, discussing personal feelings, and career advancement opportunities within the workplace. Wallace stated, "Understanding the reasons that people leave is the first step to keeping others from joining them" (para. 5).

Emmett et al. (2021) cited research conducted through the McKinsey group, where 800 employees were surveyed on a wide variety of topics and found nine elements

to encourage positive professional perception. The three overarching areas were social, work, and organizational experience. Under each were three concepts that boosted retention rates. The three concepts under social experience were people and relationships, teamwork, and social climate. The three concepts under work experience were work organization, work control and flexibility, and growth and rewards. The last three concepts under organizational experience were purpose, technology, and physical environment.

Emmett et al. (2021) found companies that provided a stable, secure work experience had a 52.9% increase in employee engagement. Regarding trusting relationships, employment engagement rose to over 55%. Finally, when it came to social inclusion, engagement rose by over 50%. Emmett et al.'s (2021) findings provided evidence that the professional perceptions of the workplace have a direct and substantial relationship with employee engagement.

The feeling of respect is cited numerous times in research as contributing to current education dissatisfaction. MetLife sponsored the 2011 Survey of the American Teacher: Teachers, Parents, and the Economy. In the 2011 MetLife survey, 77% of the teacher respondents perceived their communities respected them, and 55% of those same teachers were very satisfied with their current job assignments (EdWeek Research Center, 2022). The number of teachers who perceived communities respected them in the spring of 2022 had fallen to 46% of those surveyed.

EdWeek Research Center (2022) cited the media, parent pushback, and student interactions as the main factors for the feelings of disrespect. Also noted was the lack of creativity and autonomy in the classroom. "Sadly, it feels like the good times are gone

with people [who rarely set foot in a classroom] making crucial decisions that affect teachers and students" (EdWeek Research Center, 2022, p. 17). Only 45% of teachers surveyed in 2022 said they would recommend the teaching profession to their younger selves (EdWeek Research Center, 2022).

Building Culture

A 2021 study of more than 40,000 teachers, 2,066 administrators, and 4,547 other certified staff was conducted by Tennessee Public Schools and the Tennessee Education Research Alliance at Vanderbilt University (Tennessee Education Research Alliance, 2021). The purpose of the annual study was to "empower stakeholders and decision-makers across the state to better meet the needs of teachers" (Tennessee Education Research Alliance, 2021, p. 2). The researchers suggested that a school culture led by a competent administrator was a determining factor in positive school culture, thus enhancing teacher retention. Continual increases in school climate and culture satisfaction are attributed to strong administrators who create positive work cultures. This feat is accomplished by encouraging educators to stay in their current roles by ensuring favorable work conditions, collegiality, and student achievement. Researchers found that fostering collaboration and creating a broad sense of ownership in the educational environment lowered teacher turnover rates.

In a study of Pakistani education, Saeed et al. (2021) posed 48 close-ended and 12 open-ended questions. The results of this mixed-methods study involving a group of 24 teachers provided a culture of collaboration and mutual trust that empowered different stakeholders to create a shared vision. This study was conducted due to a shortage of more than 60,000 teachers in the province of Punjab. Saeed et al. attributed the shortage

of teachers to non-functioning schools and cited that one in five teachers quit their jobs for many reasons, such as lower wages, family, and school culture. Overall, Saeed et al. determined that a positive culture led to high-quality professional standards and, in turn, a collaborative culture that led to teacher retention.

In 2022, Church and Simmering released the findings from their 60-question survey with over 18,000 respondents from Kansas as part of the Kansas Teacher Retention Initiative. They profiled drivers of engagement and teacher satisfaction. The top educational factor for retention was the relationship between the teacher, their colleagues within the school, and their administrator.

Heubeck (2022) cited a human resource expert in Arizona who conducts stay interviews mid-year with staff a district does not want to lose. This interview can provide information on why those teachers choose to stay. Feedback from the interview can be used to ensure that those interviewed continued job retention. Beck, a human resource administrator in the Maricopa County school district, stated that the interviews began in 2019. In the 2020-21 school year, 94% of teachers were retained. In the first three years, a 90% retention rate was found using the stay interview, while other districts across Arizona only saw a 20-30% retention rate. Using Beck's research, Heubeck encouraged the intentionality of district leaders to build on the comments of teachers interviewed to create a school culture heavy on teacher engagement.

Professional Responsibilities

Professional responsibilities are related to the ethical and community values educators must uphold to ensure the welfare of their students, their profession, and their colleagues (Umpstead et al., 2013). Each state can codify professional responsibilities as

part of the teacher licensure process. Kansas cites 10 standards surrounding learner development, learning differences, learning environment, content knowledge, content application, assessment, planning for instruction, instructional strategies, professional learning and ethical practices, and leadership and collaboration (KSDE, 2022c). National organizations such as the Council for Exceptional Children (2022) also have standards for professional practice surrounding initial special education preparation, practice-based professional standards, and special education professional leadership.

Hall and Gilles (2022) surveyed five levels of experienced teachers in the private and public sectors in all 50 states and the District of Columbia. This survey helped to determine whether the attrition rate was different between the experience levels. While testing the reason for attrition among 22 factors, Hall and Gilles found relocation as a primary reason for teachers ages 20-29. This demographic reported leaving the profession following taking classes outside of education, indicating a possible disconnect between expectations of the components of the teaching profession and expectations of security. This "begs the question if teachers were oriented to the realities of teaching prior to entering the profession" (Hall & Gilles, 2022, p. 12). In comparison, veteran teachers cited retirement, lack of advancement, and salary as the primary reason for leaving education.

Mentoring

"Mentors are experienced role models who can enhance the professional development of peers and aspiring or less-experienced individuals, using one-on-one coaching techniques" (McCampbell, 2002, p. 63). Veteran teachers, paired with novice teachers, guide discussion, self-reflection, and analysis of student work to improve lesson

delivery. Mentors should be competent regarding district standards, assessment, and expectations for teaching pedagogy (Coneia & McHenry, 2002)

Perry (2011) surveyed 64 first- and second-year special education teachers in Maryland who completed a year of mentoring utilizing the Mentoring Questionnaire for Induction Year Special Education Teachers developed by Whittaker in 1998. Perry found no statistically significant correlation between the type of mentor (if the mentor was a general or special educator to the special education inductee) and their intent to stay in the role of a special educator. Perry found that the components of the teacher induction program, such as mentoring and ongoing professional development, were contributing factors to the high retention rate of 94.8% of teachers surveyed who intended to stay in their special education assignment for the following school year.

Mathur et al. (2013) concluded that mentors found value in the reflective aspect of mentoring while the mentee found benefits in increasing knowledge regarding classroom, building, and district practices. Despite the underwhelming number of teachers currently satisfied with their job, Mathur et al. found that teachers reported they most likely sought solace from one another. In the open-ended portion of the survey, teachers reported they felt their colleagues were “there for me in a positive way” (Mathur et al., 2013, p. 8). The survey results indicated that 92% of teachers would naturally turn to a mentor in their first two years of service.

Hanushek et al. (2016) utilized data sets on teachers and students gathered through the Texas Education Agency beginning in 1989. This study focused on students and their teachers in Grades 4-8 who completed the Texas Assessment of Academic Skills during the 1996-1997 and 2000-2001 school years. Hanushek et al. suggested that

a focus on mentoring and peer feedback has a direct correlation with teacher efficacy, professional development, and retention. When looking at the effects of teacher turnover in a large urban district in Texas, Hanushek et al. found an increase in test scores by 0.12 standard deviations following participation in mentor programs focused on teacher efficacy. In contrast, general professional development programs failed to demonstrate that level of effectiveness.

Mentor Selection

Smith et al. (2005) tested 38 mentor traits and functions using a Delphi panel of nine mentor administrators. This panel was tasked with listing, ranking, reviewing, and negotiating a final list of characteristics. The nine-member panel was then tasked with determining the level of importance utilizing a five-level Likert-type scale response system from not important to essential. Only characteristics with six or more 4s or 5s listed were included in the final scale the Delphi panel then approved. These items were then placed into a survey and distributed to 285 participants.

Smith et al. (2005) found wisdom to be of less value to the mentee than respectability and sensitivity. A factor analysis of the Delphi panel also demonstrated the need for three mentor behaviors: trainer, activist, and support. Training was defined as providing modeling, coaching, and as a visionary for the pair. Activists act as a sponsor and intervene on behalf of the mentee when necessary. Support is just that, championing professional development and validating self-efficacy. Smith et al. also found that the psychosocial aspect of mentorship is more important than the mentor's parallel career function. Mentees valued respectability traits of honesty, integrity, and high morals over the competency traits of professional competence and organizational savvy. Smith et al.

recommended that the organization should select a formal mentor assigned as part of the induction process utilizing respectability and competency traits.

Traditionally, most mentors in education are selected due to experience. However, in Kansas, mentors must only hold a professional license and have completed three years of successful teaching experience to be a mentor (KSDE, 2015). Ingersoll and Strong (2011) found it was not the mentor's years of experience but the depth of the mentoring program that impacted teacher retention. "Programs that are more comprehensive, or longer, or include more depth of support appear to be better" (Ingersoll & Strong, 2011, p. 228).

Nichols (2019) found that mentors, while interested in similar topics and work responsibilities, should not be in a supervisory role over the mentee. Informal mentoring may utilize a self-selection process where the mentee selects a mentor for themselves based on the mentee's preference. In Kansas, mentors do not have to hold the same license, teach at the same grade level, or in the same subject; however, it is recommended that the mentor is selected for the mentee based on a needs assessment conducted on the first day of the mentee's contract (KSDE, 2021b). KSDE recommends three years of mentoring for new-to-the-profession teachers; only two are required (KSDE, 2021b).

Mentor Training

Kyle et al. (1999) stated that for mentoring to be successful and improve the performance and efficacy of the mentee, mentors must receive formal training. Sowell (2017) found that mentors require continued training in relationship building, classroom management, and instructional practices to maintain their effectiveness. "While most

mentors have experience teaching and differentiating instruction, they have little experience mentoring adults, and many feel unqualified to do so" (Sowell, 2017, p. 133).

Gagen and Bowie (2005) cited a lack of experienced teachers as a reason for needing high-quality mentoring programs. They frequently found that the mentee is hired to replace who would have been an experienced and quality mentor due to attrition. "Many districts provide no training for mentors because they assume the mentors' experience will suffice. Indeed, most experienced teachers from any department will know how to access school services and adhere to school rules and routines" (Gagen & Bowie, 2005, pp. 41-42).

Mentor training is an effective resource to assist a mentor with the unspecified guidelines typical in a mentoring program. Providing the mentor with the expectations of their mentorship and the guidelines to follow positively impacts the relationship and outcome of the mentee/mentor relationship and staff retention (Gagen & Bowie, 2005). State licensing agencies may require mentor training; however, they are not specific about the type or quality of the training.

The Kansas State Department of Education provides guidance on mentor training. Each mentor is provided initial and ongoing training to help develop both the mentor and the mentee simultaneously. The initial phase of training includes seven components. The components include:

- learning to observe, coach, and give constructive feedback to peers, including strategies for self-reflection;
- utilizing best instructional practices, classroom management, and organization;

- dealing with difficult or resistant people and conflict resolution;
- enhancing communication skills and building relationships;
- clarifying mentor's roles and responsibilities;
- practicing time management; and
- developing knowledge of school/district policies and procedures, including student assessment, curriculum, guides, and supplemental resources. (KSDE, 2021b, p. 5).

During the ongoing phase of the mentor training prescribed by KSDE, the mentor will undergo nine different topics in training. Professional development focused on the following topics:

- addresses the mentor's role;
- develops strategies for building relationships with new teachers;
- develops skills for observation of a new teacher's practice, assessment of needs, and strategies to address those needs;
- teaches coaching language and practice;
- provides additional strategies for guiding new teachers to use reflection in their practice;
- skills for guiding new teachers in using various types of formative assessment to focus instruction and differentiate for student needs;
- guides new teachers in how to collect and analyze various types of student data to show evidence of learning;
- guides new teachers in their use of content standards when planning lessons/units;

- skills in using the professional education standards as a measure of assessing teacher practice. (KSDE, 2021b, p. 6).

Peer Coaching

Goker (2006) described peer coaching as 'the process of two teachers working together in and out of the classroom to plan instruction, develop materials, and watch one another work with students" (p. 240). In Goker's study, two groups of student teachers, the experimental and the control groups, participated in their practicum exercises during the last semester(s) of their preservice work. Each group had the same support during the induction period, except that the experimental group had the addition of feedback related to their performance, not only from the authority overseeing their preservice work but also from their peers. The immediate feedback from the peer coaching conference indicated that the learner-centered nature of peer coaching, in which questioning and expressing ideas between the teacher and their peer, improved learner autonomy and self-directed learning.

Unlike formal mentoring programs, peer coaching is a phenomenon where the new teacher seeks out peers to form a reciprocal relationship where both parties can help each other find the insight they are seeking through a question-and-answer process (Eblin, 2021). Peer coaching is based on collaboration, observation of one another, and engaging in reflective dialogue. Showers and Joyce (1996) described peer coaching as a pair of teachers who observe one another. Feedback is not purposefully given, however. Peer coaching can also involve co-planning and reflection on their practice and their impact on student achievement and behaviors.

Clark et al. (2022) used student achievement data from the state assessments, coaching data, and the Classroom Assessment Scoring System in 107 elementary schools to determine how much video coaching would effectively improve student achievement scores. The two models utilized a national peer coaching foundation to provide coaching to the 353 fourth- and fifth-grade teachers. The two models, one with five coaching cycles and one with eight coaching cycles, were then compared to data to determine the best model for peer coaching. Clark et al. found the five-cycle video coaching model to be the most effective in terms of student achievement. The five-cycle video peer coaching improved student achievement in English language arts content by three percentile points. This achievement is equivalent to two extra months of instruction prior to the state assessment.

Professional Learning Communities

Morrissey (2000) indicated that professional learning communities define themselves. Morrissey (2000) suggested that a school is where professionals come together in a self-created community to learn from one another. DuFour et al. (2016) characterized professional learning communities as teacher collaboration linked by shared goals and a commitment to how students learn rather than what they learn. Further, educators are less effective when they work in isolation. Therefore, the collective must work together to address issues to impact student learning and hold each other accountable for the efficacy of their lessons. Lastly, DuFour et al. (2016) focused on the results-based evidence to determine the level of efficacy and determine students needing extended support to reach mastery.

Collaboration

Education Secretary Miguel Cardona, speaking at the March 2020 Association for Supervision of Curriculum Development conference, implored administrators to create a culture of collaboration for teachers by embedding time in the schedule to communicate, share ideas, and discuss problems (Namahoe, 2022). During his briefing, Cardona stated it was time to go beyond traditional relationships. He encouraged talking about success and being a cheerleader for districts. He also felt educators need to hold each other accountable to avoid easy work and complacency.

Pugach et al. (2009) discussed the importance of collaboration between special education teachers and their general education counterparts to improve teacher efficacy and student achievement. Their meta-analysis of the research focused on the collaboration of special education teachers within the first five years of their teaching career. Pugach et al. (2009) found that principals are the primary influence over a positive, collegial culture in a building, increasing collaboration and promoting shared decision-making.

De Lay and Washburn (2013) found, through a phenomenological qualitative study in central Florida of mid-career teachers, that collaboration is a crucial component of professional development that expands a teacher's awareness of and access to knowledge, skills, and resources. Collaboration is also a socialization tool to promote collegiality that "removes the barrier of classroom walls and connects teachers in various contexts according to common professional interests" (De Lay & Washburn, 2013, p. 114). Collaboration can be spontaneous or routine, promoting lasting relationships and improving school culture.

Marcotte (2021) identified 102 schools in rural New Hampshire, of which 46% of the districts participated in at least one survey administration. The inequities of professional development in rural areas of the state were factors in improving innovation and the retention of qualified teachers in rural schools. The results of Marcotte's study indicated statistical significance, with a mean score of 2.79 out of five. The results indicated that timely professional development should be delivered to teachers, even in a remote model. Teachers should also have a voice in the professional development they receive.

Will (2022), when writing about Patrick Harris, a Detroit teacher who authored the book "The First Five," stated that administrators must create a culture of reflection and a strengths-based perspective. Harris conceded that teachers should be able to come together and have vulnerable conversations about their classroom experiences and assist administrators in creative decision-making to ensure things are fair and equitable. Harris also cited "Teacher Twitter" as a resource to assist teachers with collaboration, communication, and a platform for innovative ideas.

Professional Development and Instructional Strategies

Wood and McQuarrie (1999) defined professional development, beyond the traditional workshop or inservice, as "learning by doing, reflecting on the experience, and then generating and sharing new insights and learning with oneself and others" (p. 10). Part of the professional learning community is the exchange of instructional strategies to improve student achievement and teacher efficacy. Borko (2004) suggested that artifacts of lessons enable teachers to examine each other's instructional strategies and student achievement and collaborate on improved methodologies.

Morrissey (2000) explained that instructional strategies promoted by professional learning communities also could be a focus of academic improvement work. The collection of and reflection on student achievement data lends itself to determine if the instructional strategies effectively promote student achievement and teacher efficacy. Moreover, a shared vision of the instructional strategies as part of the continuous improvement cycle allows staff to reflect on student needs and address their instructional practices in addressing those needs (Morrissey, 2000).

Pugach et al. (2009) discussed three purposes for professional development in special education. The first was to raise awareness of new laws or procedural changes associated with IEP development. The second was to address critical educational issues such as cultural or disability differences. The third purpose was to provide educators with new skills or educational strategies for academics and behaviors.

Lindsay et al. (2021) conducted similar research as Morrissey in Michigan. The researchers examined teacher retention rates and teacher supports. No research had been conducted previously in Michigan on teacher retention. Results of the survey were used to create the state's *Top 10 Strategic Education Plan*, which examined student access to quality teachers across the state, despite the demographics of the local education association. Lindsay et al. specifically targeted ways the Michigan Department of Education could prioritize teacher supports to improve teacher retention.

To answer four research questions, Lindsay et al. (2021) examined teacher certification, employment records, and data from a survey administered by the Michigan Department of Education from September 18 to October 12, 2020. The researchers sampled teachers in the first three to five years of their teaching career on the awareness

of induction supports along with enrollment data in Michigan. The analysis of questions one and four focused on the retention rates and the demographics of the districts in Michigan operating between the 2013-2014 school year and the 2018-2019 school year. Questions two and three were based on the responses from 539 Michigan participants in 2020. Respondents to the survey were from 305 of the 788 districts in Michigan.

Lindsay et al.'s (2021) findings showed an average median retention rate of 86.6%. Teachers younger than 60 and identified as Caucasian demonstrated the highest retention rate. Suburban or rural districts showed almost a 10% higher average retention rate of 85.7% than those in urban areas of 75.9%. Similarly, teachers who worked in districts with a lower percentage of economically disadvantaged students showed a higher retention rate, between 11-16 points higher than those with a higher economically disadvantaged student population. Surprisingly, responses to the survey found that less than 10% of the respondents cited compensation, housing assistance, or benefits associated with teaching high-needs subjects or students as the reason they remained with their local education agency. Teachers in smaller agencies also cited fewer instances of teacher supports such as mentoring, peer coaching, and professional development for their beginning teachers.

Lindsey et al. (2021) reported, "Respondents in the local education agencies with the lowest percentages of economically disadvantaged students were more likely than respondents in local education agencies with the highest percentages to report the presence of supports for new teachers" (p. 10). Teacher supports included mentoring, supportive communication, and professional development for new teachers. Districts where teachers were assigned mentors had a 2.2% higher retention rate than districts that

did not offer mentoring programs. Similarly, agencies that provided regular supportive communication saw a 1.3% higher retention rate than those that did not offer this support. Districts with new teacher induction programs showed a 1.4% increase in teacher retention than districts that did not offer a new teacher induction program.

Summary

The evidence is clear; efficacy cannot be achieved in isolation. The support educators require may vary by experience, engagement in support programs, and training. The methods that the researcher used to determine the best combination of component and aspect variables to predict teacher retention are provided in Chapter 3.

Chapter 3

Methods

This study was designed to explore the correlation between the assigned aspect variables of each component variable and the relationship with the retention of special education teachers. The study also explored the best model for predicting the retention of special education teachers from the director's perceptions of the inclusion of the component variables. The researcher aimed to examine the relationship between aspects of teacher support programs and the retention of special education teachers from districts, interlocals, and cooperatives. This chapter includes the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations.

Research Design

According to Lunenburg and Irby (2008), quantitative studies are designed to test theories developed to explain educational phenomena. Creswell and Creswell (2018) defined correlational research as the inquiry into the degree of association between two or more variables or the investigation or analysis of two or more variables. The research design for this study was a quantitative correlational design using hierarchical multiple regression. Tanner (2012) described multiple regression as a method to "allow the value of a criterion variable to be predicted by two or more predictor variables due to a correlation between the criterion variable and each of the predictors" (p. 307). In this study, multiple regression was used to predict teacher retention from the inclusion of the aspect variables (instructional strategies, professional responsibilities, collaboration, building collaboration, and mentor training) within each component variable (mentoring,

peer coaching, induction, and professional learning communities) to explore the retention of special education teachers.

Selection of Participants

The population for this study was current district, interlocal, and cooperative directors of special education from across Kansas. These directors served in their position during the 2021-2022 school year. The researcher used the Kansas Educational Directory (KSDE, 2021a) to identify district, interlocal, and cooperative directors. The sample included those directors who chose to participate in the study by completing the survey.

Measurement

Rhodes (2019) authored a questionnaire to gather data on teacher retention in rural Nebraska as part of his dissertation. Permission was obtained from Rhodes to utilize and ultimately modify the survey to the current researcher's focus on retaining special education teachers from districts, interlocals, and cooperatives across Kansas. A copy of the correspondence between Rhodes and the researcher can be found in Appendix A.

Rhodes (2019) examined four teacher support program composite variables (mentoring, peer coaching, induction, and professional learning communities). This researcher has changed the name from composite to component variables to label the four teacher retention support programs. Rhodes then examined the component variables that support each of the composite variables. This researcher changed the name from component variables to aspect variables to describe the elements of each variable (instructional support, mentor training, collaboration, building culture, and professional responsibilities). The aspect variables are put together in various configurations to provide measurements of each of the component variables (see Figure 1, p. 5). The

researcher also measured three retention variables based on the number of staff who retired, the number who resigned, and the number who either retired or resigned.

The survey items were initially designed by Rhodes (2019) to "determine whether an association exists between the four independent variables (induction programs, mentoring, peer coaching, and professional learning communities) and one dependent variable (teacher retention) as they apply to rural Nebraska public schools" (p. 32). Rhodes also looked to see if there was an aspect variable within each composite variable (mentoring, peer coaching, induction, and professional learning communities) that predicted the quality of teacher support. This researcher adapted the items to garner the Kansas special education director's information to determine what districts should focus on when building a special education teacher support program. Rhodes' survey consisted of items related to the frequency of teacher support programs, the quality of teacher support programs, and agreement with statements regarding professional development programs during the 2017-2018 school year. Items related to program quality were omitted from this study to decrease subjectivity. Items related to frequency and quality were changed to inclusion statements regarding teacher support programs.

Rhodes (2019) completed a validity check of the items by sending a draft of the survey to an expert panel of three individuals with a letter explaining the data collection process and the purpose of the study. These individuals were asked to provide feedback regarding the clarity and appropriateness of each survey and complete the survey online. The expert panel review resulted in no changes to the survey.

Rhodes determined the reliability of the survey instrument using Cronbach's Alpha analysis to determine the internal consistency and correlation. Rhodes used the

analysis conducted to assess the strength of the correlation between the items among the aspect variables and among the component variables (see Table 1). Rhodes determined the internal reliability was strong with coefficients of 0.70 or higher, which is considered acceptable in social science research work. Through analysis, Rhodes found that no items required removal from the survey as individual item removal did not result in an improvement to the internal reliability.

Table 1

Cronbach's Alpha for Aspect Variables

Variable	N	Cronbach's Alpha	Number of Items
Instructional strategies	83	0.901	12
Professional responsibilities	83	0.687	4
Building culture	83	0.783	4
Collaboration	83	0.740	5
Mentor training	83	0.826	3
Quality	83	0.737	4
Professional Learning Community	83	0.858	8
Peer coaching	83	0.895	8
Mentoring	83	0.883	8
Induction	83	0.878	8

Note. This table shows the Cronbach's Alpha statistical evaluation of the internal reliability of the tested items. Adapted from *Teacher Support Systems in Rural Nebraska Schools: Components that Impact Teacher Retention*, by T. Rhodes, 2019, p. 55 (https://www.ncsa.org/sites/default/files/dissertation-files/RhodesTodd.pdf).

For the current study, items were grouped by the aspect variables used to measure each of the component variables specified in RQ1-RQ4 and then grouped by the component variables specified in RQ5 (See Tables 2-5). Questions relating to the quality or frequency of the inclusion of the component and aspect variables in teacher retention programs were purposefully omitted from this study. Therefore, a peer review was conducted to determine the quality and thoroughness of the survey questions.

Four experts were queried, with two responding to a request for feedback on each of the 33 survey items (see Appendix B). Question 14, relating to IEP development, was added to the survey based on the feedback. Clarification was also added to three of the existing survey items.

Once approved by the expert review panel, the survey containing 33 Likert-type items was sent out to current special education directors of districts, cooperatives, and interlocals, across Kansas. The researcher used the survey to determine the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the variables (instructional strategies, mentor training, professional responsibilities, collaboration, and building culture) that are used to calculate the occurrence of mentoring, peer coaching, induction, and professional learning communities. The best combination of teacher support programs, mentoring, peer coaching, induction, and professional learning communities were the factors reviewed. Below is the explanation of the use of each item in the survey.

In Table 2, the items related to mentoring in RQ1 and RQ5 and how each survey item measures the aspect variables of instructional strategies, professional responsibilities, building culture, collaboration, and mentoring are presented.

Table 2

Survey Items Used to Measure Agreement About Mentoring in RQ1 and RQ5

Component (RQ)/Aspects	Survey Item
Mentoring (RQ1 & RQ5)	
Instructional Strategies	5. As part of our mentoring program, special education mentors and new special education mentees discuss instructional strategies.
Professional Responsibility	6. As part of our mentoring program, special education mentors and new special education mentees discuss the importance of improving the practice of teaching.
Building Culture	7. The special education mentor and special education mentee's values and beliefs are significant variables in our mentoring.
Collaboration	8. The special education mentor-mentee relationship is a significant variable in our mentoring program.
	9. An effective component of our mentoring program is assignment of special education mentor and special education mentee roles.
Mentor Training	10. An effective component of our mentoring program is special education mentor training through an adopted mentor curriculum
	11. An effective component of our mentoring program is formal special education mentoring training.

Presented in Table 3 are the items related to peer coaching in RQ2 and RQ5 and how each survey item measures the aspect variables of instructional strategies, professional responsibilities, collaboration, and peer coaching are presented.

Table 3

Survey Items Used to Measure Agreement About Peer Coaching in RQ2 and RQ5

Component (RQ)/Aspects	Survey Item
Peer Coaching (RQ2 & RQ5)	
Instructional Strategies	12. As part of our peer coaching program, special education teachers are provided feedback on their instructional practice.
	13. As part of our peer coaching program, special education teachers are provided professional development on lesson design and planning.
	14. As part of our peer coaching program, special education teachers are provided professional development on IEP design and implementation.
	16. As part of our peer coaching program, new special education teachers observe one another in classroom settings.
	17. As part of our peer coaching program, new special education teachers are provided professional development on instructional strategies.
Professional Responsibility	15. As part of our peer coaching program, new special education teachers reflect on their instructional practice.
Collaboration	18. An effective result of our peer coaching program is our special education teacher's ability to reflect on the feedback provided on instructional improvements.
	19. An effective result of our peer coaching program is our special education teacher's ability to communicate with and collaborate with all stakeholders.

In Table 4, the items related to induction in RQ3 and RQ5 and how each survey item measures the aspect variables of instructional strategies, professional responsibilities, building culture, and induction are presented.

Table 4

Survey Items Used to Measure Agreement About Induction in RQ3 and RQ5

Component (RQ)/Aspects	Survey Item
Induction (RQ3 & RQ5)	
Professional Responsibility	20. Our program for the induction of new special education teachers includes explanations of the professional responsibilities of special education teachers.
	24. Our program for the induction of new special education teachers reminded new special education teachers of their professional responsibilities.
Instructional Strategies	21. As part of our special education teacher induction program, new special education teachers are provided professional development on assessment.
	22. Our program for the induction of new special education teachers provided professional development on lesson design and planning.
	23. Our program for the induction of new special education teachers provided professional development on the implementation of instructional strategies.
Building Culture	25. Our program for the induction of new special education teachers includes support for collaboration.
	26. The goals and expectations of our new special education teacher induction program are clearly communicated to new special education teachers.

In Table 5 are the items relating to RQ4 and RQ5 and how each survey item measures the aspect variables of professional development, instructional strategies, building culture, collaboration, and induction are presented.

Table 5

Survey Items Used to Measure Agreement About Professional Learning Communities in RQ4 and RQ5

Component (RQ)/Aspects	Survey Item
Professional Learning Community (RQ4 & RQ5)	
Professional Development	27. As part of our professional learning community, special education teachers are provided professional development on curriculum development.
Instructional Strategies	28. As part of our professional learning community, special education teachers are provided professional development on instruction.
	29. As part of our professional learning community, new special education teachers are provided professional development on assessment.
	30. Our professional learning community has a primary focus on improving student achievement.
Building Culture	31. Our professional learning community has developed shared norms and values.
Collaboration	32. Our professional learning community includes reflective dialogue.
	33. Our professional learning community includes support for collaboration.

To ensure directors across the state reported the same data, the researcher asked for enrollment and employment data from two specific reports KSDE requires as part of the timely and accurate reporting of statistics yearly. The first data point is the enrollment data required for the December 1 count. This report details the enrollment data for the number of students enrolled and served under IDEA on December 1 each year (KSDE, 2022 a). The second data point was the employment data submitted as part of the April Categorical Aid report. This report defines the number of special education staff for

reimbursement purposes. These two reports ensure conformity across the state when looking at enrollment and employment points (KSDE, 2022b).

Data Collection Procedures

A research proposal was submitted to the Baker University Institutional Review Board (IRB) on April 4, 2022. The IRB approval letter was received on April 10, 2022 (See Appendix C). The researcher used the Kansas Educational Directory to identify Kansas district, interlocal, and cooperative directors. Upon approval from the IRB board, data was collected by sending the survey electronically to the special education directors of districts, cooperatives, and interlocals, across Kansas on May 24, 2022. A three-week window was provided as part of the introduction letter (see Appendix D). On May 31, 2022, the president of the Kansas Association of Special Education Administrators also sent the survey to directors of districts, cooperatives, and interlocals across Kansas.

The email indicated to participants that their participation was voluntary and that all responses would remain anonymous. Anonymity was ensured as no personal information was collected regarding the participant. The researcher also assured that participation in the study was voluntary and could be ended without repercussion. Informed consent was noted upon completion and submission of the survey. Participation in the study could cease at any time or participants could choose not to answer any individual item. Survey answers were combined with all other survey answers to ensure privacy and reduce risk to those participating in the study.

At the end of week two, an email was sent to the directors, reminding them of the importance of their participation in the study (see Appendix E). The software allowed respondents to remain anonymous. Survey submissions were accepted from May 25,

2022, to June 24, 2022. A reminder email was sent to all participants on June 15, 2022, reminding them of the importance of their voluntary participation (see Appendix F). Due to a lack of responses, the request was again submitted on June 24, 2022, to request additional directors to respond.

Data Analysis and Hypothesis Testing

Quantitative analysis of the data gathered from the survey involved converting the data into numbers. Research questions one through four explore the correlation between the assigned aspect variables of each component variable and the relationship with the retention of special education teachers. Research question five explores the best model for predicting the retention of special education teachers from the director's perceptions of the inclusion of the component variables. The researcher downloaded the survey results to SPSS Statistics Faculty Pack 27 for Mac to analyze the data. Each research question is listed below, followed by an analysis paragraph describing the statistical process.

RQ1

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the aspect variables (instructional strategies, professional responsibilities, building culture, collaboration, and mentor training) that are used to calculate the occurrence of the component variable, mentoring?

A multiple regression analysis was conducted to address RQ1. Hierarchical multiple regression was chosen for the hypothesis testing because it involves finding the best prediction or explanation of a numerical dependent variable from one or more independent variables. The dependent variable, retention of special education teachers,

was predicted from the best combination of the independent variables, directors' perceptions of the inclusion of the aspect variables (instructional strategies, professional responsibilities, building culture, collaboration, and mentor training) used to calculate the occurrence of mentoring. The hierarchical regression was performed by entering the independent variables into the model one at a time in the order of the strength of their correlation with retention. The level of significance for the model, model improvement, and variable inclusion in the model was set at .05.

RQ2

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the aspect variables (instructional strategies, professional responsibilities, and collaboration) that are used to calculate the occurrence of the component variable, peer coaching?

A multiple regression analysis was conducted to address RQ2. Hierarchical multiple regression was chosen for the hypothesis testing because it involves finding the best prediction or explanation of a numerical dependent variable from one or more independent variables. The dependent variable, retention of special education teachers, was predicted from the best combination of the independent variables, directors' perceptions of the inclusion of the aspect variables (instructional strategies, professional responsibilities, and collaboration) used to calculate the occurrence of peer coaching. The hierarchical regression was performed by entering the independent variables into the model one at a time in the order of the strength of their correlation with retention. The level of significance for the model, model improvement, and variable inclusion in the model was set at .05.

RQ3

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the aspect variables (professional responsibilities, instructional strategies, and building culture) that are used to calculate the occurrence of the component variable, induction?

A multiple regression analysis was conducted to address RQ3. Hierarchical multiple regression was chosen for the hypothesis testing because it involves finding the best prediction or explanation of a numerical dependent variable from one or more independent variables. The dependent variable, retention of special education teachers, was predicted from the best combination of the independent variables, directors' perceptions of the inclusion of the aspect variables (professional responsibilities, instructional strategies, and building culture) used to calculate the occurrence of induction. The hierarchical regression was performed by entering the independent variables into the model one at a time in the order of the strength of their correlation with retention. The level of significance for the model, model improvement, and variable inclusion in the model was set at .05.

RQ4

What is the best model for predicting the retention of special education teachers from the directors' perceptions of the occurrence of the aspect variables (professional development, instructional strategies, building culture, and collaboration) that are used to calculate the occurrence of the component variable, professional learning communities?

A multiple regression analysis was conducted to address RQ4. Hierarchical multiple regression was chosen for the hypothesis testing because it involves finding the

best prediction or explanation of a numerical dependent variable from one or more independent variables. The dependent variable, retention of special education teachers, was predicted from the best combination of the independent variables, directors' perceptions of the inclusion of the aspect variables (professional development, instructional strategies, building culture, and collaboration) used to calculate the occurrence of induction. The hierarchical regression was performed by entering the independent variables into the model one at a time in the order of the strength of their correlation with retention. The level of significance for the model, model improvement, and variable inclusion in the model was set at .05.

RQ5

What is the best model for predicting the retention of special education teachers from the director's perceptions of the occurrence of the component variables (mentoring, peer coaching, induction, and professional learning communities)?

A multiple regression analysis was conducted to address RQ5. Hierarchical multiple regression was chosen for the hypothesis testing because it involves finding the best prediction or explanation of a numerical dependent variable from one or more independent variables. The dependent variable, retention of special education teachers, was predicted from the best combination of the independent variables, directors' perceptions of the occurrence of the component variables (mentoring, peer coaching, induction, and professional learning communities). The hierarchical regression was performed by entering the independent variables into the model one at a time in the order of the strength of their correlation with retention. The level of significance for the model, model improvement, and variable inclusion in the model was set at .05.

Limitations

Limitations are factors that "may have an effect on the interpretation of the findings or the generalizability of the results" (Lunenburg & Irby, 2008, p. 133). The limitations of this study were unavoidable and have influenced the quality of the research. Any of these factors are beyond the researcher's control.

1. The size and geographic location of some Kansas districts, interlocals, and cooperatives may limit their ability to provide the teacher support component variables associated with this study. Therefore, the responses might skew the results of this study.
2. The differences among the employment structures in a district, interlocal, and cooperative limit the study's participants' perspective based on the organizational structures. Personal experiences and motivators may substantially change the participants' opinions of this study.
3. The number of special education directors who had submitted their resignations before the end of the 2021-2022 school year might have limited the number of participants who completed the survey.
4. To some degree, the data is only as accurate as the day of reporting by the special education director.

Summary

The research methods defined in Chapter 3 helped the researcher determine what factors or component variables district leadership should focus on when building a retention and induction program for new special education teachers. The researcher examined the relationship between the aspects of teacher support programs and the retention of special education teachers from districts, cooperatives, and interlocals based on the special education director's level of agreement with the items in the survey. In this chapter, the methodology and purpose of the study were described and linked to the research questions. Included in this chapter were the research design, selection of participants, measurement, data collection procedures, and the description of the data analysis. The reliability and validity of the survey were also detailed, along with the limitations of this study. Chapter 4 includes the descriptive statistics and the results of the multiple regression analysis.

Chapter 4

Results

The purpose of this study was to determine the best models for predicting the retention of special education teachers from the special education director's perceptions of the inclusion of aspect variables (instructional strategies, mentor training, professional responsibilities, collaboration, and building culture). An additional purpose of this study was to explore the best combination of component variables (mentoring, peer coaching, induction, and professional learning communities) to aid in the retention of special education staff. Chapter 4 is a report of the analyses conducted. This chapter includes the descriptive statistics, an explanation of the issues related to the sample size, and the additional analyses conducted to support the study.

Descriptive Statistics

The Special Education Director Survey was emailed to 72 special education directors of districts, cooperatives, and interlocals. Of the 72 participants surveyed, 23 responded to the survey. A response rate of 31.94% was determined to be insufficient for developing the multiple regression models planned for this study. One respondent was removed from the sample due to a lack of answers to all 33 questions.

The first four questions in the survey were used to summarize the respondent's district demographics. The first survey question was a report of the December 1 count of students enrolled in the director's district, cooperative, or interlocal with special education services as of December 1, 2021. The second question required the respondents to provide the number of non-supervisory special education staff employed during the 2021-2022 school year based on their reported April Categorical Aid report. The third

requested the number of non-supervisory licensed special education staff who resigned due to retirement following the 2021-2022 school year. The fourth question requested the number of non-supervisory licensed special education staff who resigned for reasons other than retirement following the 2021-2022 school year.

Frequencies determine the value of how often a variable occurs. A percentage is how often that value occurs as compared to the entire data set. All percentages should add up to 100 (Australian Bureau of Statistics, 2022). The frequencies and percentages for the district demographics are presented in the tables below.

In Table 6, student enrollment, based on the December 1 count, was categorized into five groups. The largest number of organizations (district, cooperative, interlocal) enrolled between 500 and 999 special education students. One organization enrolled the largest number of special education students (N = 21,846).

Table 6

Frequencies and Percentages for the Students Enrolled During the 2021-2022 School Year (N = 23)

Student enrollment	*N*	*%*
0-499	4	17.4
500-999	8	34.8
1,000-1,999	5	21.7
2,000-4,999	5	21.7
5,000 or more	1	4.4
Total	23	100.0

In Table 7, non-administrative special education staff employed during the 2021-22 school year are categorized into four groups. The largest number of staff (10) were from districts that employed between 50 and 99 special education staff. One organization employed the largest number of special education staff (*N* = 435).

Table 7

Frequencies and Percentages for the Non-Administrative Staff Employed During the 2021-2022 School Year (N = 23)

Staff employed	*N*	*%*
0-49	4	17.4
50-99	10	43.5
100-199	5	21.7
200 or more	4	17.4
Total	23	100.0

In Table 8, staff who retired at the end of the 2021-2022 school year are categorized into six groups. The largest cohort of non-administrative staff who retired was three special education staff per school district. One organization employed the largest number of special education staff who retired following the 2021-2022 school year ($N = 12$).

Table 8

Frequencies and Percentages for the Non-Administrative Staff Who Retired at the end of the 2021-2022 School Year (N = 23)

Staff retired	*N*	*%*
0	3	13.0
1	4	17.4
2	4	17.4
3	7	30.4
4	1	4.4
More than 4	4	17.4
Total	23	100.0

In Table 9, the number of special education staff who resigned at the end of the 2021-2022 school year is categorized into four groups. The largest cohort of special education staff who resigned was 10. One organization reported the largest number of special education staff resigning ($N = 55$).

Table 9

Frequencies and Percentages for the Non-Administrative Staff Who Resigned at the end of the 2021-2022 School Year (N = 23)

Staff resigned	*N*	*%*
0-9	10	43.5
10-19	8	34.8
20-29	2	8.7
30 or more	3	13.0
Total	23	100.0

In Table 10, the descriptive statistics for each aspect variable are categorized by their corresponding component variables. The mean and standard deviation are reported for the directors' agreement about their organization's inclusion of the teacher support programs, as measured by each aspect variable. The aspect variable of collaboration under mentoring (M = 4.37) and mentor training (M = 3.13) is associated with the mentoring component of the programs. The aspect variable of instructional strategies under peer coaching (M = 3.78) and professional responsibilities' (M = 3.48). The aspect variable of professional responsibilities under induction (M = 4.20) and instructional strategies (M = 3.54). The aspect variable of professional development under professional learning communities (M = 3.52) and collaboration (M = 4.04).

Table 10

Descriptive Statistics for the Aspect Variables (N = 23)

Aspect variable	*M*	*SD*
Mentoring		
Instructional strategies	4.00	0.67
Professional responsibilities	3.96	0.82
Building culture	3.74	0.92
Collaboration	4.37	0.48
Mentor training	3.13	0.80
Peer coaching		
Instructional strategies	3.78	0.46
Professional responsibilities	3.48	0.59
Collaboration	3.61	0.71
Induction		
Professional responsibilities	4.20	0.49
Instructional strategies	3.54	0.78
Building culture	3.93	0.48
Professional learning communities		
Professional development	3.52	0.90
Instructional strategies	3.84	0.56
Building culture	3.74	0.69
Collaboration	4.04	0.42

In Table 11, the descriptive statistics for each of the four component variables (mentoring, peer coaching, induction, and professional learning communities) are reported for the 23 respondents. The mean and standard deviation were calculated for each component. The highest mean (M = 3.84) was reported for special education teachers' level of agreement about the inclusion of the program components induction and professional learning communities in their districts

Table 11

Descriptive Statistics for the Component Variables (N = 23)

Component variable	*M*	*SD*
Mentoring	3.84	0.42
Peer coaching	3.70	0.44
Induction	3.84	0.50
Professional learning communities	3.84	0.40

In Table 12, the descriptive statistics for retention percentages based on staff retirement, resignation, and both were reported. The mean, standard deviation, minimum, and maximum are reported for each component. The highest retention percentage is reported for special education staff who resigned (*M* = .97*)*.

Table 12

Descriptive Statistics for Retention Percentage Based on Staff Retirement, Resignation, and Both (N = 23)

Retention variable	*M*	*SD*	*Minimum*	*Maximum*
Retired	0.97	0.03	0.88	1.00
Resigned	0.89	0.06	0.75	0.98
Both	0.86	0.06	0.69	0.96

Hypothesis Testing

One common rule of thumb for estimating sample size is a requirement that there be at least 10 observations for the data set for each of the independent variables in a multiple-regression analysis. Maxwell (2000) claimed that this rule of thumb tends to underestimate the required sample size. Maxwell also suggested that estimation of the needed sample size based on the power of the analysis or effect sizes tends to produce inaccurate sample sizes. Therefore, Maxwell suggested a new method for estimating sample size using the equation below and zero-order correlation coefficients (i.e., the correlations between each of the individual independent variables and the dependent variables). The estimate of *N* in the equation below is based on lambda, the statistical power of the test; *R*, the population multiple correlation coefficient squared; rho, the

semi-partial correlation coefficient squared; and *p*, the number of independent variables in the model

$$N = \frac{\lambda(1-R^2)}{\mathrm{P}^2\Upsilon(X_j \cdot X_{(-j)})} + p - 1 \qquad (1)$$

Wilson Van Voorhis and Morgan (2007) also explained the rules of thumb for estimating sample size for several statistical techniques. They claimed that "the general rule of thumb is no less than 50 participants for a correlation or regression with the number increasing with larger numbers of independent variables" (Wilson Van Voorhis & Morgan, 2007, p. 48). These authors cited Green (1991), who suggested the following equation for estimating sample size. Green claimed *N* should be greater than 50 + 8m (where m is the number of independent variables for the regression model).

Based on the 10:1 ratio rule of thumb, the sample size would need to be at least *N* = 50 for a model predicting retention from the component variable, mentoring, having five aspect variables (predictors). Based on Maxwell's equation and predicting retention from the five independent variables, the sample size would need to be at least 419 (Maxwell, 2000). Based on Green's model, with five predictors, the sample size would be estimated at 90. With an *N* = 23 in the current study, none of the multiple regression models were feasible as the sample size could not produce sufficient statistical power. Therefore, instead of attempting to construct the hierarchical multiple regression models, Kendall's tau correlation coefficients as indices for the nature of the relationship between retention and each of the component and aspect variables were calculated and evaluated.

Additional Analyses

To determine the strength and significance of the relationship between special education directors' perceptions of the inclusion of each of the aspect variables and the retention of special education teachers, a Kendall's tau correlation was calculated for each of the retention variables (retention based on retirement, resignation, and both). The level of significance was set at .05 for each of the correlations. Table 13 displays the Kendall's tau coefficients and their respective *p* values for each of the aspect variables used to calculate each of the component variables (mentoring, peer coaching, induction, and professional learning communities). The results of the analysis of the Kendall's tau correlation coefficients indicated that there are no statistically significant relationships between the special education directors' perceptions of the inclusion of each of the aspect variables in the calculation of the teacher support program component variables and the retention of special education teachers.

Table 13

Kendall's Tau Correlations and Test Statistics for Aspect Variables (N = 23)

	Retention					
	Retired		Resigned		Both	
Aspect Variable	τ	*p*	τ	*p*	τ	*p*
Mentoring						
Instructional strategies	-.040	.818	.213	.213	.179	.294
Professional responsibilities	.243	.152	.082	.627	.154	.362
Building culture	-.130	.435	-.048	.773	-.105	.525
Collaboration	-.129	.436	.064	.697	-.064	.697
Mentor training	-.158	.330	.198	.221	.126	.436
Peer coaching						
Instructional strategies	.022	.892	.056	.724	.039	.807
Professional responsibilities	.064	.717	-.053	.763	-.042	.089
Collaboration	.004	.978	.043	.786	.052	.745
Induction						
Professional responsibilities	.190	.261	-.005	.976	.055	.745
Instructional strategies	.202	.209	.057	.723	.065	.682
Building culture	-.021	.900	.135	.416	.052	.755
Professional learning communities						
Professional development	-.130	.449	.134	.431	-.016	.925
Instructional strategies	-.041	.801	.163	.315	.100	.539
Building culture	.152	.375	-.146	.392	-.166	.328
Collaboration	-.129	.442	.099	.554	.069	.679

To determine the strength and significance of the relationship between special education directors' perceptions of the occurrence of each of the component variables (mentoring, peer coaching, induction, and professional learning communities) in the teacher support programs and the retention of special education teachers, a Kendall's tau correlation was calculated for each of the retention variables (retention based on retirement, resignation, and both). The level of significance was set at .05 for each of the correlations. Table 14 displays the Kendall's tau coefficients and their respective *p* values for each of the component variables. The results of the analysis of the Kendall's tau correlation coefficients indicated that there are no statistically significant relationships between the special education directors' perceptions of the occurrence of each of the component variables in the teacher support programs and the retention of special education teachers.

Table 14

Kendall's Tau Correlations and Test Statistics for Component Variables (N = 23)

	Retention					
	Retired		Resigned		Both	
Component Variable	τ	*p*	τ	*p*	τ	*p*
Mentoring	-.029	.852	.102	.506	.078	.613
Peer coaching	.004	.979	.008	.957	.033	.831
Induction	.269	.092	.000	1.000	.052	.744
Professional learning communities	.000	1.000	.091	.557	.033	.831

Summary

Due to a low response rate of $N = 23$, the planned multiple regression models could not be used for the hypothesis testing. A Kendall's tau correlation coefficient was calculated and evaluated to determine if there is a statistically significant relationship between each of the aspect variables for each component and each of the four teacher retention measurements as hypothesized to address RQ1 through RQ4. A Kendall's tau coefficient was also calculated and evaluated to determine if there are statistically significant relationships between the special education directors' perceptions of the occurrence of each of the component variables in the teacher support programs (mentoring, peer coaching, induction, and professional learning communities) and the retention of special education teachers as hypothesized to address RQ5. Chapter 5 contains a study summary, the findings related to the literature and implications for future research.

Chapter 5

Interpretation and Recommendations

This study examined the correlation between teacher support program variables and special education teacher retention in Kansas. The study was based on special education director's perceptions of the aspect variables and the occurrence of the component variables associated with teacher support programs. The study specifically looked to uncover the factors supporting the retention of special education teachers. This chapter contains a study summary, the findings related to the literature, and the conclusions.

Study Summary

This section provides a study summary, including an overview of the problem associated with special education teacher retention in Kansas. The study's purpose and a review of the study's methodology are outlined along with the major findings. The study findings provide information regarding special education teacher retention and teacher support to increase teacher retention from the perspective of special education directors.

Overview of the Problem

Carter-Thomas and Darling-Hammond (2019) found that teacher dissatisfaction can be linked to many factors, including educator shortages. In the fall of 2019, Kansas Commissioner of Education Watson (2019) reported 186 unfilled special education vacancies to start the school year. These vacancies were either not filled or filled by someone not licensed appropriately to fill the position (Watson, 2019). KSDE (2021c) reported 205.42 full-time special education positions were left unfilled two years later, in May 2021.

Purpose Statement and Research Questions

The purpose of the study was to determine the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the teacher support program aspect variables (instructional strategies, professional responsibilities, collaboration, and building culture) used to calculate the occurrence of mentoring, peer coaching, induction, and professional learning communities) in teacher support programs. The current study was specifically designed to uncover the best model for predicting teacher support program aspect and component variables promoting the retention of special education teachers. Five research questions were posed to address the purpose of the study.

Review of the Methodology

The research design for this study was a quantitative correlational design using hierarchical multiple regression. The researcher intended to use multiple regression to predict teacher retention from the inclusion of the aspect variables (instructional strategies, professional responsibilities, collaboration, building collaboration, and mentor training) within each component variable (mentoring, peer coaching, induction, and professional learning communities) and the frequency of the occurrence of the component variables. Unfortunately, the *n* size was insufficient to conduct the multiple regression analyses that were planned to address the research questions. Due to the low number of responses to the survey, Kendall's tau was chosen to evaluate the strength and the direction of each of the relationships between an aspect or component variables and each of the four measurements of retention.

The population for this study was the district, interlocal, and cooperative directors of special education from across Kansas who served in their position during the 2021-2022 school year. Rhodes's (2019) survey was utilized as a framework for the survey, though alterations were made to fit the purpose of the study. A validity check of items was conducted by an expert panel of three former special education directors. Data were collected by sending a 33-question survey electronically to the special education directors of districts, cooperatives, and interlocals, across Kansas on May 24, 2022, through July 8, 2022.

Major Findings

The results of the additional analyses indicated there was no correlation between the independent variables, directors' perceptions of the inclusion of the aspect variables (instructional strategies, professional responsibilities, building culture, collaboration, and mentor training) used to calculate the occurrence of the component variables (mentoring, peer coaching, induction, and professional learning communities and the three measures of retention. The researcher looked at the retention variables associated with supporting the retention of special education teachers. No statistical significance was found between the two groups or the combination of both. The small sample size negated the ability to determine the best model for predicting teacher support program aspect and component variables promoting retention of special education teachers due to the inability to conduct multiple regression calculations.

Findings Related to the Literature

Borman and Dowling (2008) conducted a meta-analysis of more than 150 studies involving teacher attrition and retention. The results of their analysis determined commonalities among the findings from the 150 studies, which included teacher satisfaction associated with networking ideas, regular and supportive communication, and various teacher support measures. As early as 2005, research related to teacher job satisfaction and retention showed that 62% of teachers surveyed were satisfied with their job. However, by 2012, the same survey found that job satisfaction had dipped to 39% (Harris Interactive, 2012). In 2022, the survey's authors found that the number has almost doubled to nearly 44% of teachers likely or fairly likely to leave the teaching profession, with only 12% being very satisfied with their current teaching assignments (Merrimack College, 2022).

The findings of the current study reflected the perceptions of directors of special education rather than teachers. Their survey responses were much different from those reported by Borman and Dowling (2008), the Harris Interactive Group (2012), and Merrimack College (2022). The current study found no statistically significant correlations between teacher support programs and teacher retention.

Rhodes (2019) found a number of factors to be related to teacher retention in Nebraska. Among these are instructional strategies, building culture, professional responsibility, mentoring, and peer coaching. These factors support the component variables of mentoring, peer coaching, induction, and professional learning communities. In contrast, the current study found no correlation between the aspect variables of teacher support in special education teacher retention.

Church and Simmering (2022) surveyed 20,000 Kansas educators, with 18,427 educators completing the survey. Similar to the planned analysis of the current study, Church and Simmering utilized a multiple regression study to determine the level of engagement, a driver for educator retention. Those drivers that received the highest engagement were opportunities to receive professional feedback to assist in the growth and the quality of professional development. Of the teachers responding to the survey, 16% indicated they were more likely or very likely to leave the educational profession, 12% were more likely to move to a new district to teach, and 14% indicated they were likely to retire in the next year. That means 30% of those surveyed would leave education altogether in the following two to three years. The findings of the current study were based on the directors' perceptions of the teacher support variables. However, the director's comments in the current study were much different than the comments made by teachers in the Church and Simmering study.

Baker-Doyle (2010) conducted a meta-analysis of current research surrounding labor market paradigms and social network perspectives. They found correlations between teacher induction programs and teacher satisfaction and retention of that teacher by the school district. In contrast to the Baker-Doyle study, no correlation was found between teacher induction programs, building culture, or peer coaching was found to support teacher retention and any of the three retention measurements.

Following the review of 2,412 responses by teachers from a large district in northeast Texas, Spiller (2018) determined factors that affect teacher retention. Spiller determined a need to invest professional capital in purposeful induction programs, mentoring programs for novice teachers and professional learning communities, and

collaboration for veteran teachers. Spiller found this need to be greater if the teacher was considered a minority or of ethnic descent. In contrast to the Spiller study, no comparison was found in the teacher retention support variables of induction, mentoring, and professional learning communities and teacher retention in the current study. In contrast to the studies previously cited, this research found no correlational evidence between the teacher support efforts of districts through mentoring, peer coaching, induction, and professional learning communities.

Conclusions

Understanding the implications for teacher retention influences success for students and districts across Kansas. While the findings of the current study present few implications for action related to special education teacher retention, a number of recommendations for future research that can contribute to the literature on special education teacher retention are discussed. This section includes the implications for action, the recommendations for future research, and the conclusions.

Implications for Action

More extensive studies (Borman & Dowling, 2008; Church & Simmering. 2022; Harris Interactive Group, 2012; Merrimack College, 2022; Spiller, 2018) have found significant relationships between teacher support programs and teacher retention. This study narrowed the focus to special education teachers in Kansas. The current study focused on the perspective of directors of special education from districts, interlocals, and cooperatives across the state's perception of the occurrence of components of teacher support programs. The findings of the current study provided some evidence that an increased focus on current teacher support practices surrounding mentorship, peer coaching, induction, and professional learning communities may not have the impact

expected in retaining special education teachers. Therefore, other teacher support measures need to be explored.

Districts must work to redefine, with their teaching staff, the supports necessary to ensure teacher satisfaction. According to the participants in the current study, teacher support programs no longer appear to be the prime factors in special education teacher retention. Districts could commission study groups to explore teacher needs, including caseload sizes, perceived workload, compensation, and benefits. Districts also need to determine how to support teachers' physical and mental well-being, as well as explore avenues to keep them safe.

Recommendations for Future Research

The lack of teacher retention and job dissatisfaction is not a new phenomenon. However, the results of this study did not indicate a correlation between the directors' perceptions of teacher support and retention. The need for qualified special education teachers has reached crisis levels. In the current study, special education directors in Kansas provided their perceptions of special education teacher retention based on teacher support variables. The insufficient sample size to conduct the multiple regression study impacted the initial methodology planned for the study. Therefore, recommendations for future research follow.

Expanding the current study to states across the Midwest would allow for a larger sample size. Researchers must ensure consistency in terminology across states for teacher support programs. Future studies could also utilize the same survey and administer it to special education teachers of districts across a large geographic area to determine if the perception of the special education teacher differs from that of the directors. With a larger

sample size, researchers should double-check the reliability of the aspects and components compared to Rhodes' initial work.

Data gathered through the current study illuminated the disparity in the size of districts across Kansas. Future studies should examine the ratio between enrollment and teacher allocations per district, as well as outliers in the data. The significant difference between the size of the districts and the magnitude of the teacher supports should also be considered for future research. Additionally, a different survey quantifying the intensity of teacher support could be utilized in various settings.

Finally, a qualitative study comprised of teacher interviews could be conducted to determine why teachers stay or choose to leave a district or the profession. This sample would provide the teachers' perceptions, not just the directors. Expanding a qualitative study to include suggestions for teacher support programs would provide the body of literature with current teacher retention support needs.

Concluding Remarks

The factors influencing teacher retention have been found, through research, to surround job satisfaction. However, the components of teacher retention related to satisfaction are vast. Narrowing the scope to the component factors supporting mentoring, peer coaching, induction, and professional learning communities and their supporting aspect variables (instructional strategies, professional responsibilities, collaboration, building collaboration, and mentor training) was intended to provide directors of special education and school districts focused strategies to implement immediately in support of special education teacher retention. The findings associated with teacher attrition remain unclear. The financial and learner achievement implications

each time a teacher leaves a school, a district, or the profession have a ripple effect touching students, stakeholders, and the profession at large. With hundreds of openings across Kansas annually, this is not a focus education can afford to disregard.

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Appendices

Appendix A: Permission Email for Utilization of Dr. Rhodes' Questionnaire

Subject: Re: Dissertation Survey: Request to use and alter
Date: Thursday, February 10, 2022 at 10:29:37 AM Central Standard Time
From: Dawn E Gresham
To: Rhodes, Todd
CC: Susan Rogers

Thank you so much for allowing me to utilize your work. I am super excited to move forward on this project.

From: Rhodes, Todd <todd.rhodes@goswedes.org>
Sent: Thursday, February 10, 2022 9:28 AM
To: Dawn E Gresham <DawnEGresham@stu.bakeru.edu>
Cc: Susan Rogers <Susan.Rogers@bakeru.edu>
Subject: Re: Dissertation Survey: Request to use and alter

Good Morning,

You may certainly use my survey and make the appropriate changes that you see fit.

Best Regards,

Dr. Todd Rhodes
Superintendent of Schools
Gothenburg Public Schools
1322 Avenue I
Gothenburg, NE 69138
(308)-537-3651, ext. 4105
todd.rhodes@goswedes.org

On Wed, Feb 9, 2022 at 4:57 PM Dawn E Gresham <DawnEGresham@stu.bakeru.edu> wrote:

> Dr. Rhodes,
>
> Good Afternoon. As part of my dissertation process through Baker University in Kansas, I came across your study entitled "Teacher Support Systems in Rural Nebraska Schools: Components That Impact Teacher Retention." The topic of teacher retention is of high value to me, and I would like to request to incorporate your survey in my dissertation. However, based on my specific interests, I would need to change a few components and seek your agreement.
>
> I am a Director of Special Services in Derby, Kansas. I have been in the field of special education since 1995. Therefore, I would like to use your work to survey other directors of special education in Kansas on teacher retention. That is the first aspect that would need to be altered. The second would be that special education is delivered through three different models in Kansas: an interlocal, a cooperative, or a district, such as mine. Therefore, I would need to change the wording to include those three types of delivery service models.
>
> Would you consider allowing me to use and alter your survey in such a manner? I am happy to speak on the matter by phone if you prefer. My number is 316-516-6158. You can also verify the

validity of my employment in Derby by searching our website. Here is a direct link to the page on which my informa+on is listed. I have cc'd my disserta+on advisor, Dr. Susan Rogers, as well.

I greatly appreciate the considera+on,

Dawn Gresham

Appendix B: Expert Panel Feedback

Question	Expert Panel Feedback	Avg. Score
5	This statement is clear to me. I like the question	4
6	This statement is clear to me	4
7	I think this question needs a bit more clarity. You might want to give an example or description of what you mean by values and beliefs (on educating students in SPED service? That all students can learn? That SPED staff have more difficult jobs than general education teachers? I like the question	2
8	This statement is clear to me I like the question	4
9	This statement is clear to me I like the question	4
10	This statement is clear to me I like the question	4
11	This statement is clear to me I like the question	4
12	This statement is clear to me I like the question	4
13	What about instructional coaching for development of a compliant IEP and the IEP process?	3.5
14	This statement is clear to me I like the question	4
15	This statement is clear to me I like the question	4
16	I like the question	4
17	This statement is clear to me I like the question	4
18	This needs a bit more clarity. (With other special education teachers? With the mentor? With colleagues and administration? With Parents? With all stakeholders? I like the question	3.5
19	The word 'reminded' is a bit nebulous. Would a better word be clarified or outlined? I like the question	3.5
20	This statement is clear to me I like the question	4
21	This statement is clear to me I like the question	4
22	This statement is clear to me I like the question	4
23	This statement is clear to me I like the question	4

24	This statement is clear to me I like the question	4
25	4 I like the question	4
26	I think IEP development is essential to the mentoring of special education teachers I would also include some aspect of the mentoring process of whatever you would call the paperwork (IEPs and forms) that are required and prove to be a great headache for new staff and all staff. The IEP is also the roadmap for all that comes after as far as instruction and planning. Just a thought on what I would want help with from my mentor.	2
27	4 I like the question	4
28	4 I like the question	4
29	4 I like the question	4
30	4 I like the question	4
31	4 I like the question	4
32	4 I like the question	4

Appendix C: IRB Letter of Approval

Baker University Institutional Review Board

April 10th, 2022

Dear Dawn Gresham and Susan Rogers,

The Baker University IRB has reviewed your project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.
6. If this project is not completed within a year, you must renew IRB approval.

If you have any questions, please contact me at npoell@bakeru.edu or 785.594.4582.

Sincerely,

Nathan Poell, MLS
Chair, Baker University IRB

Baker University IRB Committee
Sara Crump, PhD
Nick Harris, MS
Christa Hughes, PhD
Susan Rogers, PhD

Appendix D: Email to Participants

Dear Special Education Administrator:

My name is Dawn Gresham. I am a Director of Special Services in a suburban school district in Kansas and a current doctoral student at Baker University. The name of my study is entitled A Common Thread: Characteristics of Teacher Retention in Special Education. The purpose of my study is to determine the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the variables (instructional strategies, mentor training, professional responsibilities, collaboration, and building culture) that are used to calculate the occurrence of mentoring, peer coaching, induction, and professional learning communities? The best combination of teacher support programs, mentoring, peer coaching, induction, and professional learning communities were the factors reviewed.

Your participation is entirely voluntary. You may choose to stop your participation in the study at any time. You may also choose not to answer an individual item without repercussion. This survey's completion and subsequent submission indicate your consent and permission to use the information provided. Privacy is tantamount; therefore, your answers will remain confidential, and your participation will remain anonymous. Your answers will ultimately be combined with those of other participants, and all information will be shared in summary, not individually. This process ensures there are no risks associated with your participation.

This three-part survey consists of 33 questions, with four requesting demographic information specific to your district and the balance being multiple-choice. You will need the following information to begin the survey.

1. What was your December 1 count for enrolment in the 2021-2022 school year?
2. As reported in your April Categorical Aid report, how many non-supervisory licensed special education staff were employed during the 2021-2022 school year?
3. How many non-supervisory licensed special education staff resigned from their teaching position due to retirement following the 2021-2022 school year?
4. How many non-supervisory licensed special education staff resigned from their teaching position for reasons other than retirement following the 2021-2022 school year?

Survey participation should take no longer than 15 minutes to complete. Please click the link to complete the survey by June 24, 2022. https://forms.gle/qkuRKy5aHB7S2mMU7

Thank you for your interest, time, and participation in this study. If you have questions regarding your participation in the study, the survey items, or would like a copy of the results of the study, please contact me via email at dawnegresham@stu.bakeru.edu, by phone at (316) 516-6158, or by contacting my major advisor, Dr. Susan Rogers at srogers@bakeru.edu.

Sincerely,
Dawn E. Gresham
Baker University Doctoral Candidate

Appendix E: Follow-Up Emails to Participants

Just a reminder, if you have not completed the survey request below, it will be available until June 24, 2022.

Dear Special Education Administrator:

My name is Dawn Gresham. I am a Director of Special Services in a suburban school district in Kansas and a current doctoral student at Baker University. The name of my study is entitled A Common Thread: Characteristics of Teacher Retention in Special Education. The purpose of my study is to determine the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the variables (instructional strategies, mentor training, professional responsibilities, collaboration, and building culture) that are used to calculate the occurrence of mentoring, peer coaching, induction, and professional learning communities. The best combination of teacher support programs, mentoring, peer coaching, induction, and professional learning communities were the factors reviewed.

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This three-part survey consists of 33 questions, with four requesting demographic information specific to your district and the balance being multiple-choice. You will need the following information to begin the survey.

1. What was your December 1 count for enrolment in the 2021-2022 school year?
5. As reported in your April Categorical Aid report, how many non-supervisory licensed special education staff were employed during the 2021-2022 school year?
6. How many non-supervisory licensed special education staff resigned from their teaching position due to retirement following the 2021-2022 school year?
7. How many non-supervisory licensed special education staff resigned from their teaching position for reasons other than retirement following the 2021-2022 school year?

Survey participation should take no longer than 15 minutes to complete. Please click the link to complete the survey by June 24, 2022. https://forms.gle/qkuRKy5aHB7S2mMU7

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Sincerely,
Dawn E. Gresham
Baker University Doctoral Candidate

From: Dawn E Gresham <DawnEGresham@stu.bakeru.edu>
Sent: Friday, June 24, 2022 5:19 PM
To: Dawn E Gresham <DawnEGresham@stu.bakeru.edu>
Subject: Re: Survey: Please Complete by June 24, 2022

Thank you to those who have responded to the survey.

Currently, I do not have enough respondents for a valid sample. If you have not yet submitted your survey and would still like to participate, I am extending the deadline for another two weeks, to July 8, 2022.

Thank you for considering submitting your data for this important research.

Dawn

From: Dawn E Gresham <DawnEGresham@stu.bakeru.edu> Date: Wednesday, June 15, 2022, at 2:03 PM To: Dawn E Gresham <DawnEGresham@stu.bakeru.edu> Subject: Survey: Please Complete by June 24, 2022

Just a reminder, if you have not completed the survey request below, it will be available until June 24. 2022.

Dear Special Education Administrator:

My name is Dawn Gresham. I am a Director of Special Services in a suburban school district in Kansas and a current doctoral student at Baker University. The name of my study is entitled *A Common Thread: Characteristics of Teacher Retention in Special Education.* The purpose of my study is to determine the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the variables (instructional strategies, mentor training, professional responsibilities, collaboration, and building culture) that are used to calculate the occurrence of induction, mentoring, peer coaching, and professional learning communities. The best combination of teacher support programs, induction, mentoring, peer coaching, and professional learning communities were the factors reviewed.

Your participation is entirely voluntary. You may choose to stop your participation in the study at any time. You may also choose not to answer an individual item without repercussion. This survey's completion and subsequent submission indicate your consent and permission to use the information provided. Privacy is tantamount; therefore, your answers will remain confidential, and your participation will remain anonymous. Your answers will ultimately be combined with those of other participants, and all information will be shared in summary, not individually. This process ensures there are no risks associated with your participation.

This three-part survey consists of 33 questions, with four requesting demographic information specific to your district and the balance being multiple-choice. You will need the following information to begin the survey.

1. What was your December 1 count for enrolment in the 2021-2022 school year?
1. As reported in your April Categorical Aid report, how many non-supervisory licensed special education staff were employed during the 2021-2022 school year?

2. How many non-supervisory licensed special education staff resigned from their teaching position due to retirement following the 2021-2022 school year?
3. How many non-supervisory licensed special education staff resigned from their teaching position for reasons other than retirement following the 2021-2022 school year?

Survey participation should take no longer than 15 minutes to complete. Please click the link to complete the survey by June 24, 2022. https://forms.gle/qkuRKy5aHB7S2mMU7

Thank you for your interest, time, and participation in this study. If you have questions regarding your participation in the study, the survey items, or would like a copy of the results of the study, please contact me via email at dawnegresham@stu.bakeru.edu, by phone at (316) 516-6158, or by contacting my major advisor, Dr. Susan Rogers at srogers@bakeru.edu.

Sincerely,
Dawn E. Gresham
Baker University Doctoral Candidate

Dawn Gresham [redacted] Tue, Jul 12, 2022, at 8:00 AM
To:

Good Morning!

I am reaching out to request data for my dissertation. If you have already responded to the survey, I thank you!

I am trying to build a multiple regression model to determine the best teacher support for retention in the area of special education. I will need at least 50 responses to be able to build a regression model. Right now, I have 14 responses. PLEASE, help a colleague and the profession out by submitting your survey today!

Dear Special Education Administrator:

My name is Dawn Gresham. I am a Director of Special Services in a suburban school district in Kansas and a current doctoral student at Baker University. The name of my study is entitled *A Common Thread: Characteristics of Teacher Retention in Special Education*. The purpose of my study is to determine the best model for predicting the retention of special education teachers from the directors' perceptions of the inclusion of the variables (instructional strategies, mentor training, professional responsibilities, collaboration, and building culture) that are used to calculate the occurrence of induction, mentoring, peer coaching, and professional learning communities. The best combination of teacher support programs, induction, mentoring, peer coaching, and professional learning communities were the factors reviewed.

Your participation is entirely voluntary. You may choose to stop your participation in the study at any time. You may also choose not to answer an individual item without repercussion. This survey's completion and subsequent submission indicate your consent and permission to use the information provided. Privacy is tantamount; therefore, your answers will remain confidential, and your participation will remain anonymous. Your answers will ultimately be combined with those of other participants, and all information will be shared in summary, not individually. This process ensures there are no risks associated with your participation.

This three-part survey consists of 33 questions, with four requesting demographic information specific to your district and the balance being multiple-choice. You will need the following information to begin the survey.

1. What was your December 1 count for enrolment in the 2021-2022 school year?
    1. As reported in your April Categorical Aid report, how many non-supervisory licensed special education staff were employed during the 2021-2022 school year?
    2. How many non-supervisory licensed special education staff resigned from their teaching position due to retirement following the 2021-2022 school year?
    3. How many non-supervisory licensed special education staff resigned from their teaching position for reasons other than retirement following the 2021-2022 school year?

Survey participation should take no longer than 15 minutes to complete. Please click the link to complete the survey by July 18, 2022. https://forms.gle/qkuRKy5aHB7S2mMU7

Thank you for your interest, time, and participation in this study. If you have questions regarding your participation in the study, the survey items, or would like a copy of the results of the study, please contact me via email at dawnegresham@stu.bakeru.edu, by phone at (316) 516-6158, or by contacting my major advisor, Dr. Susan Rogers at srogers@bakeru.edu.

Dawn Gresham

[redacted]

Appendix F: Special Education Director Survey

Special Education Director Survey :

Retention of teachers has become more and more difficult across the nation. Schools in Kansas are not exempt from this difficulty and, in some cases, find it more difficult to retain qualified special education teachers.

This survey collects information about Kansas school district's special education teacher retention statistics and selected special education teacher support models. This data will be used for research purposes to investigate the relationship between special education teacher retention and special education teacher support models. Your responses may also be used to guide future planning for your school district.

Please complete the survey. Results will be shared with interested directors at the conclusion of this research.

1. What was your December 1 count for enrollment in the 2021-2022 school year?

2. As reported in your April Categorical Aid report, how many non-supervisory licensed special education staff were employed during the 2021-2022 school year?

3. How many non-supervisory licensed special education staff resigned from their teaching position due to retirement following the 2021-2022 school year?

4. How many non-supervisory licensed special education staff resigned from their teaching position for reasons other than retirement following the 2021-2022 school year?
_____

Directions: Please rate your agreement with the following statements about your district/cooperative/interlocal four types of professional development program(s): mentoring, induction, peer coaching, and professional learning communities during the 2021-2022 school year.

Strongly Disagree (1), Disagree (2), Neither Agree or Disagree (3), Agree (4), and Strongly Agree (5).

5. As part of our mentoring program, special education mentors and new (to the profession or the district) special education mentees discuss instructional strategies.

6. As part of our mentoring program, new (to the profession or the district) special education mentors and new special education mentees discuss the importance of improving the practice of teaching.

7. The special education mentor and special education mentee's values and beliefs about educating students receiving special education services are significant variables in our mentoring.

8. The special education mentor-mentee relationship is a significant variable in our mentoring program.

9. An effective component of our mentoring program is assignment of special education mentor and special education mentee roles.

10. An effective component of our mentoring program is special education mentor training through an adopted mentor curriculum.

11. An effective component of our mentoring program is formal special education mentor training.

12. As part of our peer coaching program, special education teachers are provided feedback on their instructional practice.

13. As part of our peer coaching program, special education teachers are provided professional development on lesson design and planning.

14. As part of our peer coaching program, special education teachers are provided professional development on IEP design and implementation.

15. As part of our peer coaching program, special education teachers reflect on their instructional practice.

16. As part of our peer coaching program, special education teachers observe one another in classroom settings.

17. As part of our peer coaching program, special education teachers are provided professional development on instructional strategies.

18. An effective result of our peer coaching program is our special education teacher's ability to reflect on the feedback provided on instructional improvements.

19. An effective result of our peer coaching program is our special education teacher's ability to communicate with and collaborate with all stakeholders.

20. Our program for the induction of new special education teachers reminded new special education teachers of their professional responsibilities.

21. As part of our special education teacher induction program, new special education teachers are provided professional development on assessment.

22. Our program for the induction of new special education teachers provided professional development on lesson design and planning.

23. Our program for the induction of new special education teachers provided professional development on the implementation of instructional strategies.

24. Our program for the induction of new special education teachers includes explanations of the professional responsibilities of special education teachers.

25. Our program for the induction of new special education teachers includes support for collaboration.

26. The goals and expectations for our special education new teacher induction program are clearly communicated to new special education teachers.

27. As part of our professional learning community, special education teachers are provided professional development on curriculum development.

28. As part of our professional learning community, special education teachers are provided professional development on instruction.

29. As part of our professional learning community, special education teachers are provided professional development on assessment

30. Our professional learning community has a primary focus on improving student achievement.

31. Our professional learning community has developed shared norms and values.

32. Our professional learning community includes reflective dialogue.

33. Our professional learning community includes support for collaboration.

Appendix G: Framework for Scoring

Framework for Scoring

Strongly Disagree (1), Disagree (2), Neither Agree or Disagree (3), Agree (4), Strongly Agree (5)

Item	Component Variable	Aspect Variable	Item
5	Mentoring	Instructional Strategies	As part of our mentoring program, special education mentors and new (to the profession or the district) special education mentees discuss instructional strategies.
6	Mentoring	Professional Responsibility	As part of our mentoring program, special education mentors and new (to the profession or the district) special education mentees discuss the importance of improving the practice of teaching.
7	Mentoring	Building Culture	The special education mentor and special education mentee's values and beliefs about educating students receiving special education services are significant variables in our mentoring.
8	Mentoring	Collaboration	The special education mentor-mentee relationship is a significant variable in our mentoring program.
9	Mentoring	Mentor Training	An effective component of our mentoring program is assignment of special education mentor and special education mentee roles.
10	Mentoring	Mentor Training	An effective component of our mentoring program is special education mentor training through an adopted mentor curriculum.
11	Mentoring	Mentor Training	An effective component of our mentoring program is formal special education mentor training.
12	Peer Coaching	Instructional Strategies	As part of our peer coaching program, special education teachers are provided feedback on their instructional practice.
13	Peer Coaching	Instructional Strategies	As part of our peer coaching program, special education teachers are provided professional development on lesson design and planning.

Item	Component Variable	Aspect Variable	Item
14	Peer Coaching	Professional Responsibility	As part of our peer coaching program, special education teachers are provided professional development on IEP design and implementation.
15	Peer Coaching	Professional Responsibility	As part of our peer coaching program, special education teachers reflect on their instructional practice.
16	Peer Coaching	Instructional Strategies	As part of our peer coaching program, special education teachers observe one another in classroom settings.
17	Peer Coaching	Instructional Strategies	As part of our peer coaching program, special education teachers are provided professional development on instructional strategies.
18	Peer Coaching	Collaboration	As an effective result of our peer coaching program is our special education teacher's ability to reflect on the feedback provided on instructional improvements.
19	Peer Coaching	Collaboration	An effective result of our peer coaching program is our special education teacher's ability to communicate and collaborate with all stakeholders.
20	Induction	Professional Responsibility	Our program for the induction of new special education teachers clarified their professional responsibilities.
21	Induction	Instructional Strategies	As part of our special education teacher induction program, new special education teachers are provided professional development on assessment.
22	Induction	Instructional Strategies	Our program for the induction of new special education teachers provided professional development on lesson design and planning.
23	Induction	Instructional Strategies	Our program for the induction of the new special education teachers provided professional development on the implementation of instructional strategies.
24	Induction	Professional Responsibility	Our program for the induction of new special education teachers includes explanation of the professional of the professional responsibilities of special education teachers.

Item	Component Variable	Aspect Variable	Item
25	Induction	Building Culture	Our program for the induction of new special education teachers includes support for collaboration.
26	Induction	Building Culture	The goals and expectations for our special education new teacher induction program are clearly communicated to new special education teachers.
27	Professional Learning Community	Professional Development	As part of our professional learning community, special education teachers are provided professional development on curriculum development.
28	Professional Learning Community	Instructional Strategies	As part of our professional learning community, special education teachers are provided professional development on instruction.
29	Professional Learning Community	Instructional Strategies	As part of our professional learning community new special education teachers are provided professional development on assessment.
30	Professional Learning Community	Instructional Strategies	Our professional learning community has a primary focus on improving student achievement.
31	Professional Learning Community	Building Culture	Our professional learning community has developed shared norms and values.
32	Professional Learning Community	Collaboration	Our professional learning community includes reflective dialogue.
33	Professional Learning Community	Collaboration	Our professional learning community includes support for collaboration.