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Letter From the Editor

May 30, 2025

It was almost exactly 11 months ago that I met with Dr. Robin Magruder, Dean of the School of Education, and Dr. Joseph Early, Director of Scholarship and Creative Research, both of Campbellsville University, to discuss launching a new journal. I thank them both for the guidance and encouragement that they provided all along the way. The vision that we developed was of a journal with a wide scope of topics, nationwide presence, no fees, rapid decision times, and significant feedback provided regarding submissions that were not accepted. I view that feedback to help develop emerging scholars as nearly important as publishing articles.

Our vision also included the first edition of the journal being published in November of 2025, but here we are in May, a full six months ahead of schedule. I can't say that it was an easy 11 months as the journal needed a name, submission guidelines, a peer review process, a peer review team, a website, an editing process, cover art, and a template for the contents. I can say that it has been rewarding. Assisting me along the way was my small but diverse and wonderful peer review team:

- Dr. Debbie Azevedo, University of the Pacific (California)
- Dr. Sharon Hundley, Campbellsville University (Kentucky)
- Dr. Michael Hylen, Anderson University (South Carolina)
- Dr. Elisha Lawrence, Campbellsville University (Kentucky)

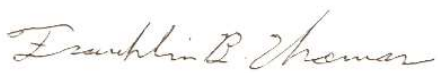
Our initial call for submissions went out to 998 scholars, at least a few from each U.S. state. We are currently accepting submissions for the second edition planned for late 2025, so consider this our first method of making that call if you are interested. I will conclude with a quick preview of the articles in the first edition. If there's a theme, it would have to be "something for everybody from pre-service teachers to school district CEOs."

The first article reviews relevant literature and follows the journey of a group of researchers from 2016 to 2024 in the creation and implementation of a project that equips pre-service teachers to create an online course and teach in an online setting. Moving from pre-service to continuing education, the next article analyzes an alternative approach to teacher rank change that uses field-based experience, research, and approved professional development.

The next three articles center on the classroom, with the first exploring the impact of a social-emotional learning (SEL) literacy curriculum on the English Language Arts (ELA) achievement of elementary-age students attending public, high-poverty schools. This is followed by an article that strengthens the connection between good behavior and academic performance while casting some doubt on the currently supported connection between locus of control and behavior. Rounding out the trio is an article that explores the very specific topic of math Response to Intervention and Instruction (RTI^2) in rural middle schools, drawing several important conclusions that add to a thin research base.

The articles conclude by climbing to the school district CEO level with an exploration of the experiences of school superintendents as they navigate their own contract negotiations. The results can guide superintendents and a variety of organizations. This first edition wraps up with an enticing review of the book *How to Know a Person: The Art of Seeing Others Deeply and Being Deeply Seen.*

Happy Reading,



Dr. Franklin B. Thomas, Editor
Journal of Advances in Education

An Evolution of Research on Online Teaching and Learning: Preparing Preservice Teachers for the New Digital Classroom

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Abstract

Technology has changed the K-12 classroom over the last 20 years, and as a result, educator preparation programs have had to increase their teaching of the use of technology in the classroom. This article reviews relevant literature and follows the journey of a group of researchers from 2016 to 2024 in the creation and implementation of the Technology Integration Project, which instructs preservice teachers to create an online course and teach in an online setting. This article includes changes made to the Technology Integration Project because of student data. It also includes future directions for technology instruction in schools of education.

Keywords: online teaching, online learning, digital classroom, preservice teachers

Introduction

Teaching in the K-12 classroom has changed over the past 20 years. The use of technology in classrooms has matured from playing computer games as a reward for good behavior to becoming a major part of the learning environment. Now more than ever, preservice teachers must be able to create online lessons with rich, robust, and engaging activities. During the 2020 pandemic, schools went online, and the world had to respond.

As a result of the changes in the K-12 learning environment, educator preparation programs had to react to ensure preservice teachers were able to meet the needs of the students they were preparing to teach. The addition of technology education is imperative as preservice teachers must leave their undergraduate education programs with the capability of using technology tools in their instruction since teachers are now being required to design interactive, online lessons and collect student data in both synchronous and asynchronous settings. The purpose of this article is to provide a summary of the research conducted by professors at one educator preparation program in Georgia, USA, identify key takeaways from that research, and offer ideas for future research in preparing preservice teachers to teach online.

Literature Review

Technology currently plays a vital role in the education process for students and their educators. The ability to navigate the constantly evolving landscape of information technology is essential for all teachers regardless of where they stand on the professional spectrum (Truesdell & Birch, 2013). As online learning becomes more prevalent in the future of education, having a technological skillset that can adapt is critical (Gilles & Britton, 2020). Having a strong foundation in technology will provide the tools necessary for a more robust scholastic experience. A more effective learning environment can be achieved by supplementing the materials being taught with additional digital and media resources (Judge & O'Bannon, 2008; Krumsvik, 2008; Voithofer et al., 2019).

Advancements in technology in our educational school systems have made it necessary for teachers to be prepared with the ability to adapt and change how they approach teaching and learning (Starkey, 2020). Upon graduation, preservice teachers must have confidence in their use of technology in teaching and learning and stay current with their skillsets in the ever-changing digital landscape (Kaufman, 2015). "Professional digital competence" (Starkey, 2020, p. 49) is the ability of the teacher to work in the context of a technology-driven school and education system. Excelling in technical teacher competencies is key to being able to "teach in a digitally infused context, manage digital learning environments, and carry out the broader professional work of being a teacher" (Starkey, 2020, p. 49).

COVID-19 Revealed Critical Skillset Needed for Teachers

With the onset of the COVID-19 pandemic, schools in the United States and around the world had to quickly move into alternative education strategies, shifting from face-to-face instruction to online digital remote delivery. Even with advances in educational technology over the past several decades, educators, students, and parents were thrust into a new learning environment that posed many challenges (Dhawan, 2020). When K-12 schools across the United States closed unexpectedly, many teachers found themselves scrambling to effectively convert lessons to an online format and develop strategies for quality distance education (Francom et al., 2021).

The emergency learning transition forced teachers with little or no online instruction experience to turn their lessons into digital formats within a few days or weeks (Thomas & Kolb, 2020). This was the first experience many teachers had with teaching online. This unprecedented event has caused many administrators to re-evaluate professional development/continuing education offerings, placing more emphasis on digital instruction (Francom et al., 2021).

In unplanned, emergency situations, the opportunity for students to continue with their education online provides more than just academic progress (INEE, 2004). The continuity, stability, and connectivity of the experience gives students hope and optimism (Francom et al., 2021). While many businesses shut their doors and only limited essential activities were allowed, schools did not have such luxury. Schools had to be able to continue offering education to their student bodies. This created apprehension among teachers due to unfamiliarity with remote learning and the technological challenges it presents (Leech et al., 2020). Teachers had varying levels of comfort with the utilization of technology outside the classroom, making it imperative that their school system administrators offer future professional development. Such technology courses offer confidence in remote instruction, higher quality education, and increased learning outcomes (Leech et al., 2020).

While teachers were learning about online instructional platforms, they were also tasked with assisting students with the adjustment to a new instructional delivery method (Cardullo et al. 2021). This experience has shown administrators how important it is to have quality technical support, professional development offerings with an emphasis on digital instruction, and ample opportunities for teachers to practice and gain confidence using online learning management systems (Cardullo et al., 2021). The skills and competencies needed to be successful in this new approach to education had not been fully developed nor available to teachers during their preservice training (Pulham & Graham, 2018). Educators had to handle the stresses and anxieties of these unknowns on top of being able to engage students and teach the course material as tasked. They had to become instructional designers in this new setting, creating new tools while learning new skillsets to tackle these obstacles. Teachers became students themselves, having to research and master video conferencing and complex digital learning platforms for this new classroom framework. Once proficient, teachers then had to instruct students on how to access the new classroom environment. This has added to the workload of the already challenging education profession (Huck & Zhang, 2021).

There were some common challenges teachers experienced during this shift to online learning, such as difficulties with technology, communication, and assessment (Kraft et al., 2020; Trust & Whalen, 2020). Teachers also reported difficulty finding/utilizing digital tools, communicating/engaging with their students, and adjusting course materials to the new remote experience (Jalongo, 2021). To minimize these challenges and to help teachers feel confident and prepared, they must feel their instructional technology needs are met, have adequate training in technology delivery, and receive support from their administrators (Kaden, 2020). Those who were most confident in their remote teaching skills reported work environments with supportive school leadership, collaboration with colleagues, and professional development instruction (Kaden, 2020).

Because recent circumstances required the urgent need to move to online education, school leaders and their teachers

had to be able to shift and act quickly. As a result, many schools are now offering a more fluid learning experience via both in-person and eLearning. When it comes to their education, students have more choices and independence than they have had in the past. This new way of teaching and learning will require ongoing investments in technology infrastructure with constantly adjusted curriculum/protocols to produce creative and more effective methods for educating our students (Kaden, 2020).

Although advances in technology over the past few decades laid a foundation for this period of transition to remote learning, much had to be created, developed, and implemented to make this type of educational delivery successful. Therefore, it is essential that teacher professional development and preservice teacher education preparation keep up with ever-changing technological advancements in teaching and learning. Both teachers and students alike are now more than ever dependent on technology for successful education experiences in today's world (Bergeson & Beschorner, 2021).

COVID-19 Forced Educator Preparation Programs to Reimagine Teacher Preparation

During the COVID-19 pandemic, teacher preparation programs faced many hurdles. Field or practicum experiences required for institutional accreditation generally involve a host school and host classroom teacher (Holt, 2021). Opportunities for observation and even teaching experiences give preservice teachers hands-on practice for their future positions in the teaching profession. Few schools remained open for in-person instruction during this time, and even those that did would not allow outside visitors. To gain this important practical experience, it was necessary to shift these field experiences to a virtual/online setting. Preservice teachers who had technology instruction were better equipped. The challenges caused by the pandemic emphasized the importance of preparing all preservice teachers to teach virtually (Holt, 2021).

The pandemic of 2020 not only impacted how students in our K-12 schools were being taught but also how professors in higher education institutions were able to prepare future educators for success. For example, the education faculty at Virginia Tech made it a priority to ensure preservice teachers continued to experience a sense of community during the synchronous meetings and asynchronous assignments. They did this by adapting assignments, so students worked together as a team, ensuring communication lines were established, and encouraging the building of positive relationships (Bradley & Fogelsong, 2021). Likewise, professional development for teachers needed to change to an online format as well (Scott & Huffling, 2022).

Creating a plan that would allow preservice teachers to complete field/practice teaching experiences during this time was a priority for the University of Nevada. Virtual environments were created to give preservice teachers experience and opportunities to demonstrate competency as teachers. To do this, teacher education faculty established a process they called CASE-consistency, access, supervision, and evaluation. A variety of possible teaching and learning scenarios were introduced through CASE, giving preservice teachers insight and preparation for online learning (Quinn & Paretti, 2021).

Teacher educators at the University of West Georgia adjusted field experiences to include assignments focusing on digital instruction. Preservice teachers created an online science learning activity that could be done remotely and interviewed cooperating classroom teachers to get a better

understanding of the challenges faced during the sudden shift to remote learning (Gilles & Britton, 2020). They created videos to share with classmates of reflections/lessons learned from their cooperating teachers/online teaching experiences and explained how they approached the online science learning activity, what went well, and what they would do differently. By redesigning the remaining assignments, teacher educators provided preservice teachers valuable insight into how the pandemic was affecting educators and the necessity to adapt quickly (Gilles & Britton, 2020).

Why is Technology Education so Important in Teacher Preparation Programs?

Technological Pedagogical Content Knowledge (TPACK) is a term that describes the integration of Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK), and Pedagogical Content Knowledge (PCK) that was coined by Mishra and Koehler (2006); it requires the integration of Pedagogical Knowledge (PK), Technological Knowledge (TK), and Content Knowledge (CK) to effectively integrate technology into teaching and learning. Teachers must be experts in content knowledge, pedagogy, and teaching with technology. The demand for technology in education continues to increase as communication technology and technology-integrated learning has evolved. To assist teachers and preservice teachers in developing confidence and competence in using new digital media/tools, technical preparation should be included in professional development and preservice teacher preparation programs (Joo et al., 2018). Manokore & Kuntz (2022) found educators who had a higher level of TPACK were able to transition to the digital classroom with fewer complications than many of their peers when schools were forced to close because of COVID-19.

As digital access continues to increase throughout society, preparing preservice teachers to teach effectively with digital technologies and media should be central to initial teacher preparation (Mourlam et al., 2021). Preservice teachers should be well-versed in digital technologies and media. They should be able to integrate these resources into their curriculum upon entering the profession (Mourlam et al., 2021). Preservice teachers' attitudes and competence in using educational technology are greatly influenced by the teacher education program's approach and design of technology integration preparation (Kaufman, 2015; Koch et al., 2012; Nelson et al., 2019).

The number of students participating in online education options in K-12 school systems continues to rise, and preservice teacher education programs must prepare future educators to teach in virtual environments. Online teaching skills are not only necessary for teachers who teach fully online but also for in-person teachers in traditional schools to be prepared to infuse online offerings into their curriculum (Davis & Roblyer, 2005; DeNisco, 2013). Blended learning environments that utilize both in-person teaching practices and online learning tools are a natural result of constant technological advancement. The practice of integrating both approaches is likely to only increase and become an even more necessary skill set for educators as technology advances (Luo et al, 2017). Teachers who have technology skills are discovering that there are benefits and pedagogical potential for student learning by integrating technology into subject content (Judge & O'Bannon, 2008; Krumsvik, 2008).

Before the pandemic, many online college courses were based on text material

without much interaction/engagement between teachers and students. This type of online course made it difficult to build a sense of community that encourages involvement and participation (Bradley & Fogelsong, 2021). If professors and students connect with one another in various ways, socially, cognitively, and through the instructional learning environment, there is a much stronger likelihood that the students will feel engaged and connected, which can lead to more favorable performance outcomes (Ornelles et al., 2019).

Preservice teachers must have an awareness of possible technological limitations that may come into play as part of their course delivery and design. Having firsthand knowledge of the potential technological obstacles in the actual school districts where they will work, will give preservice teachers the confidence they need to be successful (Tondeur et al., 2016; Voithofer & Nelson, 2021).

Need For Integration of Technology into Educator Preparation Program (EPP) Courses

Traditional EPP instruction in technology has been provided through stand-alone courses and workshops (Mishra & Kohler, 2006; Shofner, 2009), resulting in isolated knowledge of technology tools rather than an in-depth understanding of best practices for technology integration. The constant changes in technology, coupled with an emphasis placed on what technology resources are available rather than how various forms of technology can be integrated into content instruction often results in preservice teachers' inclusion of technology into teaching as a means of meeting a lesson component requirement rather than true integration (Mishra & Kohler, 2006).

In the past, on rare occasions, schools were forced into eLearning to fill gaps in educational instruction. This eLearning may have come about due to events like prolonged inclement weather or outbreaks of illness. With this practice, some students have shown confidence with Learning Management Systems (LMS), thus making the transition to remote instruction easier to tackle (Lieberman, 2020). Also, many schools in the United States had protocols in place to offer eLearning avenues intermixed with normal in-person schedules.

Even such limited exposure to remote instruction proved helpful as online learning was thrust upon K-12 teachers with little time to adjust. Being able to switch between in-person and online learning effortlessly as circumstances arise is crucial. Whether the instruction is remote or in person, teachers remain at the center of the educational process, and they “contribute with their professional, moral, and pedagogical-psychological qualities to the outcome of this process” (Velichová et al., 2020, p. 1639).

Although today's EPP students may be made up of more digital natives than previous generations, they frequently experienced traditional models of instruction in their own learning experiences, and thus, they possess a traditional view of instruction (Cheon et al., 2012). "The use of technologies still seems to remain bound to a set of basic teaching and learning activities, whereas the more advanced and complex pedagogical activities are significantly less frequent" (Brun & Hinostroze, 2014, p. 235). A study by Instefjord and Munthe (2017) measured the digital competency of preservice teachers and addressed challenges teacher educators face in preparing them for a digital future. The teacher educator’s ability to instruct students on how to use digital tools while explaining the ethical responsibilities involved with social media, to promote learning with digital technology, to use

interactive whiteboards and other digital media, and to act as a role model to encourage technology in the classroom increases digital competency in preservice teachers (Starkey, 2020). More than 650 preservice teachers in Norway responded to survey questions relating to their perceptions of digital emphasis in their teacher education programs and rated questions on a six-point scale ranging from (1) strongly disagree to (6) strongly agree. A mean score between one and 2.9 was considered low, a mean score between three and 4.9 was considered average, and a mean score over 4.9 was considered high (Instefjord & Munthe, 2017). Of the nine questions on the survey, three were low-scoring, and six were in the average range. There were no questions on the survey in which preservice teachers answered in the high range. The findings of the study reinforce that it is vital for teachers to develop the ability to integrate digital/technological resources into their practice to create a successful learning experience. This lack of personal experience in technology-rich classrooms results in a greater need for EPPs to model and scaffold the technology integration that they wish to see their graduates employ in their own classrooms.

After the move to online learning, public K-12 teachers in Minnesota were sent surveys to give the administration a better understanding of the level of preparation teachers felt they had before the rapid shift to online teaching. Of teachers who responded, 78% indicated that they had no experience with distance learning prior to COVID-19. When asked if their preservice teacher education programs offered preparation for online teaching, 78% responded that they had no preparation for online teaching. For teachers to be effective in distance learning, preservice teacher preparation programs must provide instruction in online technology and pedagogy skills and create opportunities for distance learning clinical experiences (Champa et al., 2020). "With the increasing demands for online teachers and the reality of the possible necessity given the most recent pandemic experience, preservice teacher programs have a responsibility to provide teacher candidates with 21st century experiences in both brick and mortar and online environments" (Champa et al., 2020, p. 61).

The COVID-19 pandemic was very disruptive to educators and their students. Even so, it did show that our educational leadership was able to be creative and adapt to this new landscape of remote learning quickly. It will be of utmost importance to continue to incorporate this method of education in the teaching profession moving forward (Eady et al., 2021). Preservice teacher training programs have had to develop strategies to train new educators in remote learning instruction. "New teachers must be prepared in their teacher education programs to serve the rapidly growing number of online students and have the pedagogy skills for the blended learning models of the future" (Kaden, 2020, p. 11).

Solutions: One College's Answer to the Need for Technology Integration in Teacher Education

Due to the increasing popularity of online courses and programs, a researcher at a small university in Georgia, USA began to research the preference of in-service teachers for online versus face-to-face classes. Cooper et al. (2014) polled in-service teachers in online classes and found that although end of course grades revealed that face-to-face students had much higher grades than online students ($p = .005$), the online students rated their course much higher than did face-to-face students ($p = .013$). The results of this study yielded information regarding specific variables

students rated higher for their online classes than their face-to-face classes and visa-versa. Variables such as intellectually challenging and stimulating, thinking critically about the subject, connecting what they learned to other experiences, and learning to use multiple resources to enhance learning were among the ones cited by students as better in the online class. For the face-to-face class, students more highly rated the instructor's preparedness for class, ability to explain concepts well, timely feedback, and enthusiasm. These results prompted more research into online teaching and learning.

Cooper et al. (2017) explored the use and modeling of various technology tools for teaching with their undergraduate preservice teachers to prepare these candidates to teach in the 21st century. The exploration included 14 technology tools that were integrated into various methods courses at the undergraduate level with preservice teachers. Several of the teacher candidates discussed how they were able to utilize the tools modeled for them in their own field placements. One tool, Padlet, was cited by many students as a particularly useful tool in their own teaching practice. Students also found VideoScribe, Kahoot, and Quizlet to be beneficial in their teaching practice (Cooper et al., 2017).

Additionally, Cooper et al. (2017) presented the theoretical framework that is the basis for the researchers' continued work. This TPACK framework continued to ground the work in subsequent studies presented here. Through the use and modeling of the 14 tools that the study explored; the researchers aimed to develop preservice teachers' Technological Pedagogical Knowledge (TPK). The results of this study indicated that preservice teachers "increased their technological pedagogical knowledge (TPK) as they learned to use a variety of technology tools (see Table 1; Note: Technology tools have been updated since the first publications.) for K-12 teaching and learning" (Cooper et al., 2017, p. 55).

Table 1

Summary of Technology Tools

Technology Tool	Technology Tool Description	Use of Technology Tool in Courses
ClassHook	ClassHook is a website that allows teachers to type in a concept that he/she wants to teach or choose a subject area to search for video clips to use in instruction. The videos are tagged by topic, subject, and grade level.	ClassHook was used in a jigsaw activity. A group of preservice teachers investigated ClassHook and how it could be used with a variety of subjects and grade levels and then shared their ideas with the rest of the class.

Technology Tool	Technology Tool Description	Use of Technology Tool in Courses
Easel.ly	Easel.ly is an infographic generator. It has several preloaded infographics to choose from or you can create your own.	Easel.ly was used by students to create infographics for various ages and stages of child development. Each group of teacher candidates was given a different age range, and they created an infographic of the stages of cognitive, physical, and emotional development that occurs for their groups' age range.
Edpuzzle	Edpuzzle can be used to create interactive videos. Audio and questions can be added to either a video from a variety of sources such as YouTube, or you can upload your own video. Students are not able to continue with the video until they have responded to the embedded questions.	Edpuzzle was used to introduce differentiation. Questions were added at various points in the video to allow for class discussion.
FlipQuiz	FlipQuiz is a way for teachers to create fun and engaging review games for their students by creating their own game boards.	Flipquiz was used in a jigsaw activity. A group of preservice teachers investigated Flipquiz and how it could be used with a variety of subjects and grade levels and then shared their ideas with the rest of the class.
Emaze	Emaze is an online presentation tool.	Emaze was used for groups of teacher candidates to create presentations on the history of special education.
Kahoot	Kahoot is an assessment tool in which students respond to polls or quizzes in a competitive fashion. Students gain points by how fast they choose the correct answer to a question. Students play the game using a technological device.	Kahoot was used as a formative assessment for several topics in the course: educational theorists, classroom management, cultural diversity, etc. Teacher candidates also created their own Kahoot to use with students in their field lessons.
Funbrain	Funbrain is an online site that allows teachers to search for games, videos, and books by grade level.	Funbrain was used in a jigsaw activity. Preservice teachers investigated how it could be used with subjects and grade levels and then shared their ideas with the rest of the class.

Technology Tool	Technology Tool Description	Use of Technology Tool in Courses
iRubric	iRubric is a website where teachers can search, create, and share rubrics	iRubric was used in a jigsaw activity. A group of preservice teachers investigated iRubric and how it could be used with a variety of subjects and grade levels and then shared their ideas with the rest of the class.
Padlet	Padlet is a way to add online sticky notes to an electronic bulletin board. It can be used by an individual or collaboratively as a class.	Padlet was used to ask teacher candidates to respond to the prompt: What do you think of when you hear the words Flipped Classroom? Padlet was also used to gather and organize collections of children's literature by genre and potential teaching use. Individual teacher candidates developed personal Padlets of fifty pieces of children's literature.
Moovly	Moovly can be used to create animated videos. Teachers can choose from prepopulated ideas, upload photos of their own, and also add audio files.	Moovly was used to create an animated video to introduce preservice teachers to Zoom, an online conferencing tool.
Nearpod	Nearpod creates a way for teachers to engage students in their presentations. Teachers can add different types of files, websites, photos, videos, and various types of questions. Students do not need an email account to attend the presentation.	Nearpod was used to present information on Google tools and Chrome extensions and how they can be used in the classroom. Pre-service teachers answered questions periodically throughout the presentation.
QR Code Generator	QR Code Generator is an online website that creates a QR code for any web address, document, video, etc.	A QR Code Generator was used for teacher candidates to create QR codes for a variety of resources related to each of the following exceptionalities: Intellectual Disabilities, Learning Disabilities, Attention Deficit Hyperactivity Disorder, Emotional Behavioral Disorder, Autism, Speech and Language Impairments, Hearing Impairments, Visual Impairments, and Physical Disabilities.

Technology Tool	Technology Tool Description	Use of Technology Tool in Courses
Pear Deck	Pear Deck allows students to join an online interactive presentation. Teachers can embed various types of questions, videos, and text within the presentation, and students can join in through their Gmail accounts.	Pear Deck was used to present information on data analysis tools. The students answered questions related to how they can use Excel as a data analysis tool.
Plicker	Plickers allows teachers to create formative assessments and collect student data without the use of expensive clickers. The teacher simply prints Plicker cards that students use to answer questions and then scans the cards with an app to quickly see how many of the students chose the correct answer.	Plickers was used to have teacher candidates answer questions related to videos they watched. Teacher candidates were also shown explicitly how to set up Plickers for potential use in their own field placements.
Quizlet	Quizlet can be used to create online flashcards. The information on the cards can be read to students, and they can play several games to interact with and learn the content.	Quizlet was used as a way for teacher candidates to collaborate with the use of technology tools. Each group of teacher candidates was given a list of technology tools that can be used to investigate differentiation. They had to add their technology tools and explain how each could be used for differentiation to a flashcard in Quizlet. All teacher candidates could access the flashcards and therefore had access to all the technology tools and uses without having to create all the flashcards themselves. This activity was like an online jigsaw strategy.
Remind	Remind is an online messaging tool. Teachers can ask his or her students to join a class and send text announcements, voice messages, pictures, and documents to students. Students can also have individual conversations with teachers and peers.	Remind was used to "remind" preservice teachers of upcoming assignments, what they needed for class, and any schedule changes. Preservice teachers were able to ask questions and get a quick response from his or her teachers.

Technology Tool	Technology Tool Description	Use of Technology Tool in Courses
ThingLink	ThingLink can be used to create interactive pictures. Students can pin pictures, text, videos, and websites to a picture to create a repository of information.	Thinglink was used for groups of teacher candidates to create interactive pictures for each of the following exceptionalities: Intellectual Disabilities, Learning Disabilities, Attention Deficit Hyperactivity Disorder, Emotional Behavioral Disorder, Autism, Speech and Language Impairments, Hearing Impairments, Visual Impairments, and Physical Disabilities. Each group provided information on the definition of the exceptionality, how it is diagnosed, its characteristics, a video, and an additional piece of information of their choice.
Formative	Formative can be used to create an online chat room. Students can share ideas and answer questions. Reponses can be seen in real time.	Formative was used to allow teacher candidates to respond to the question: What are some characteristics of students who are gifted and talented?
weetDeck	TweetDeck makes it possible to customize your viewing space with the Twitter content you want to see using columns. These columns can change as little or as often as you want and are the core of getting TweetDeck to work for you.	TweetDeck was used to help teacher candidates organize the information gleaned on Twitter into meaningful units to follow streams in a more organized manner. Teacher candidates were required to build columns to follow the course hashtag, two hashtags related to children's literature, and a minimum of two regularly scheduled Twitter chats in which they participated.
Storyjumper	Storyjumper is an online tool that allows students to write their own stories. Students can use a variety of props as well as upload their own pictures.	Storyjumper was used as a presentation tool. Preservice teachers wrote a story to explain the following exceptionalities: Intellectual and Learning Disabilities, Attention Deficit Hyperactivity Disorder, Emotional Behavioral Disorder, Autism, Speech/Language Impairments, Hearing and Visual Impairments, and Physical Disabilities.

Technology Tool	Technology Tool Description	Use of Technology Tool in Courses
VideoScribe	VideoScribe can be used to create animated videos. Users can add text and audio files.	Videoscribe was used by an instructor to create a video presentation of an interview with an elementary and a middle school gifted teacher.
Web Whiteboard	Web Whiteboard is an online interactive whiteboard. Teachers can invite students to join, share a link, and save what they create.	Web Whiteboard was used in a jigsaw activity. A group of preservice teachers investigated Web Whiteboard and how it could be used with a variety of subjects and grade levels and then shared their ideas with the rest of the class.

The Technology Integration Project

Cooper et al. (2019) built upon the 2017 study with another study that had the aim of determining if preservice teachers' TPACK was developed through participation in and completion of an online project. This project, *The Technology Integration Project,* instructed the preservice teachers to create an online module using a Learning Management System with the following components:

- Design instruction specific to a content area and related to a specific grade level.
- Include at least three technology tools to teach the content; one must be a video of the preservice teacher teaching content.
- Relate the technology tools to the 2016 International Society for Technology in Education (ISTE) standards for students and the 2016 Technology Integration Matrix Table of Student Descriptors.
- Develop and build at least one quiz, one assignment with a rubric, and one discussion board.

As an additional piece of the project, "the preservice teachers were also required to facilitate the online module they created to two peers and be a student in two peers' online modules and reflect on the pros and cons of teaching and being a student in an online class" (Cooper et al., 2019, p. 55). Qualitative data collected in the form of class discussions and written feedback from students led the researchers to conclude that the preservice teachers in the study "not only built technological pedagogical knowledge (TPK) by learning how to use appropriate technology tools for different types of instruction but also developed TPACK" (Cooper et al., 2017, p. 55) because they were required to use their technical pedagogical knowledge (TKP) with their content knowledge (CK) to facilitate an online lesson to their peers. Based on the data, the online project was considered successful in developing preservice teachers' knowledge and skills on how to select and use appropriate technology tools for their content, grade level, and teaching approaches.

In addition to these first three studies, Cooper et al. (2020) examined preservice teachers' technology integration self-efficacy (TISE) before and after the completion of the *Technology Integration Project*. In this study, the researchers, with permission from its authors, Horvitz et al. (2015), used a modified version of the *Examining Faculty Attitudes Toward Online Teaching* survey and administered it to

preservice teachers in one undergraduate institution's elementary, special, and secondary education programs both before and after completing the *Technology Integration Project*. The results of this study indicated that the *Technology Integration Project* served to strengthen preservice teachers' TISE as most preservice teachers who took the pre-survey responded more positively to the post-survey. Among the areas where preservice teachers felt stronger on the post-survey were their knowledge of how to teach online, "getting through to the most difficult students, controlling disruptive behavior, motivating students, having clear expectations for student behavior, getting students to believe that they can do well, and responding to difficult questions from students" (Cooper et al., 2020, p. 4). Furthermore, these preservice teachers, after two semesters of their education courses, felt they "would be able to establish routines, gauge comprehension, promote critical thinking, foster creativity, get students to follow the rules and meet deadlines, improve student understanding, and convey expectations, standards, and rules" (Cooper et al., 2020, p. 4).

Cooper et al., (2020) published the article, *Preparing Teacher Candidates to Teach Online: A Case Study of One College's Design and Implementation Plan*. This article describes the detailed three-phase plan for developing preservice teachers' technology knowledge and skills, which is the *Technology Integration Project* that was originally presented and described in the 2019 study above. The article sought to present an overview of one educator preparation program's comprehensive design and plan for preparing preservice teachers to integrate technology into their daily instruction, as well as how to teach K-12 students online. It was found that "Based on grades, presentations, and student discussion, over the course of three semesters, the preservice teachers enhanced their knowledge of technology tools and online learning" (Cooper et al., 2020, p. 134). Additionally, preservice teachers "further enhanced their TPK" and "developed their TPACK" (Cooper et al., 2020, p. 135) because they were required to use their technical pedagogical knowledge (TPK) with their content knowledge (CK) to teach an online lesson to their peers.

More recently, Cooper et al., (2024) sought to evaluate the implementation of the *Technology Integration Project* and its impact on increasing preservice teachers' TPACK. For this study, the authors' permission was granted to use the survey (see Appendix) that was developed in the article, TPACK*: The Development and Validation of an Assessment Instrument for Preservice Teachers* (Schmidt et al., 2009). According to Cooper et al., (2024) "the online survey results indicated that over the course of four semesters, preservice teachers developed strong TPACK" (p. 4) and "were becoming emerging technology teacher leaders" (Cooper et al., 2024, p. 16). Additionally, most of the survey questions that received the highest responses, "agree" or "strongly agree," were in relation to the preservice teachers' ability to select technologies to use in their classrooms that enhance their teaching practice, serve as a teacher leader in assisting others in their school or district in how to use technology, and choose the technologies that best support the content of their lessons.

The Evolution of the *Technology Integration Project*

When the *Technology Integration Project* was first designed (see Table 2), it was designed by a single professor who had over 13 years of online teaching experience. This professor created all the needed pieces and worked collaboratively to prepare the other faculty members who would teach each part of the project. Faculty members

who were charged with teaching aspects of the project were provided with training sessions from the lead professor. Instructional technology resources, assignment materials, and examples were included in that training. Table 2 depicts the objectives of the project and indicates in which semester a particular aspect of the project occurred.

Table 2

First Iteration of the Technology Integration Project

Objectives	Semester 1	Semester 2	Semester 3	Semester 4
Develop a working knowledge of foundational educational technology terms	X			
Explore curriculum and standards	X			
Create online instruction in an LMS, including the use of technology tools, an assignment with a rubric, a quiz, and a discussion board	X			
Record video teaching content	X			
Completion of a peer's online module (in the second iteration was changed to Critique peer's course)		X		
Provide and receive constructive feedback		X		
Analyze peer data in an LMS setting (in the second iteration was changed to Compare and contrast LMS data analysis to Excel data analysis features)			X	
Plan and deliver instruction using technology			X	X
Assess student learning using technology			X	X
Collect data on impact of instruction				X
Collect and analyze data to create online lessons				X

After the first year of implementation, the second semester assignment changed from having students complete a peer's online module, as the material was too easy for the peers and did not provide valid data to be analyzed in semester three, to a peer review of the online module. In the third semester, instead of analyzing the data from their peer "students", the preservice teachers examined the data analysis tools provided in an LMS versus those available in Excel (see second iteration notes in Table 2).

As time progressed and faculty teaching assignments changed, more and varied faculty were teaching courses that involved embedded assignments that were part of the *Technology Integration Project,* and with more student feedback, it was decided to split the first part of the project between two courses instead of just one first semester course (see Table 3). This allowed the preservice teachers more time to develop quality online instruction in an LMS.

Table 3

Third Iteration of the Technology Integration Project

Project Objectives	Semester 1
Develop a working knowledge of foundational educational technology terms	Course 1
Explore curriculum and standards	Course 2
Create online instruction in an LMS, including the use of technology tools, an assignment with a rubric, a quiz, and a discussion board	Course 2

After another year, faculty evaluation survey results were reviewed, and it was discovered that not all professors felt comfortable teaching the technology instruction that was embedded in their courses. Therefore, an educational technology seminar was developed that would house the first year (two semesters) of *the Technology Integration Project,* and it would be taught by professors with expertise and experience in teaching with and about technology.

Digital Age Teaching Seminar

The *Digital Age Teaching Seminar* was the name of the newly designed course that was born out of several rounds of student and faculty feedback from the *Technology Integration Project*. The *Digital Age Teaching Seminar* was designed to give preservice teachers experience with the infusion of educational technology into the K-12 curriculum. Preservice teachers engage in activities and projects designed to impart a practical understanding of the knowledge and skills required to teach in the digital age classroom. Preservice teachers also gain firsthand experience in developing their own online course and integrating technology into classroom activities to create learning environments that address the needs of diverse learners. Additionally, preservice teachers explore productivity tools, educational software, and web-based information and reflect on what constitutes effective teaching in an online learning platform. This course is designed as an online course, with both asynchronous and synchronous components. This course seeks preservice teachers to meet six learning outcomes, which are as follows:

- Identify and describe guidelines to address ethical and security

issues related to the use of computers and the Internet in the context of teaching and learning.
- Develop a working knowledge of and apply the 2016 International Society for Technology in Education (ISTE) standards for educators and students.
- Define and apply key educational technology terms as they are used in teaching and learning.
- Develop an online learning module for K-12 classroom use that incorporates quality content.
- Explore current software available for teachers, including software that is discipline-specific, and use software to enhance teaching and learning.
- Use computer-based technology to enhance teaching and learning by exploring and evaluating their usefulness for elementary, middle, and high school age students' learning.

Preservice teachers are assessed on the above stated learning outcomes through a variety of activities and assignments, including: (1) weekly class participation in collaborative, small, and whole group discussions and in-class activities (polls/surveys, game-based vocabulary reviews, etc.); (2) reading responses and quizzes— read and answer questions based on the assigned course text, Doug Lemov's, *Teaching in the Online Classroom: Surviving and Thriving in the New Normal* (2020) as well as other assigned course readings surrounding relevant topics such as the privacy and safety concerns of online learning, copyright law, learning differences and inclusion in the online learning environment, and assessing online learning with rubrics; (3) a technology tool analysis and peer review assignment where preservice teachers explore an assigned or chosen technology tool, practice using it, and present its usefulness and relevance to K-12 learning and then peers review each other's presentations to add to their overall repertoire of tools; (4) a technology demonstration project and peer review in which students create an online lesson in an LMS including: the use of technology tools, an assignment with a rubric, a quiz, and a discussion board, and critique a peer's course (parts of the pre-existing *Technology Integration Project*); and (5) a distance learning lesson plan where preservice teachers are charged with designing a lesson that is meant to be delivered entirely online utilizing both asynchronous and synchronous components.

Pilot data from the first group of special, elementary, and secondary education preservice teachers who completed the new *Digital Age Teaching Seminar* in fall 2021 and spring 2022, indicated a preference for either an asynchronous course format or a mixture of asynchronous and synchronous learning. There was a slightly higher preference for asynchronous learning. Flexibility as to when they can complete their coursework and being able to move at one's own pace were the most common reasons stated for the preference for the asynchronous format. Opportunities to ask questions, speak to classmates, and face time with the professor were reasons stated for preferring a mixture of both asynchronous and synchronous formats. The majority also reported that they did in fact download and regularly use BrightSpace Pulse (a mobile application that helps students manage their courses with a calendar, announcements, and information about assignments and grades) to view course announcements, notifications, content, assignments, and check on their grades. The overall feedback from preservice teachers on the course was

positive, and they enjoyed taking the course and learning more about teaching digitally.

In spring 2023, the *Digital Age Teaching Seminar* was included in the middle grades' education program, and they were surveyed as well. Their responses were in line with the previous student responses. Now that several instructors with expertise in technology have taught the class and now that this course is taken in all programs (special, elementary, middle, and secondary education preservice programs), course instructors plan to meet and discuss possible revisions, deletions, and/or additions to course content and course format based on data collected.

Conclusion

Gone are the days of chalkboards and erasers being clapped after school; even whiteboards are being traded for Smartboards. Students carry tablets rather than books, and in each student's hand, you will find a cell phone instead of a pencil. As technology changes, teachers must change their methods of instruction. To that end, the faculty of educator preparation programs must be able to understand and teach preservice teachers how and when to implement technology into instruction. Preservice teachers must know how to design an online class, teach in a synchronous and asynchronous format, and collect and use data from the online courses they teach. Researchers have tested different methods for teaching technology instruction to preservice teachers and will continue to do so, as there is only one thing certain about technology instruction: change. This research has provided insight into what is working regarding how to prepare preservice teachers to teach online. It has also guided continuous quality improvement and curriculum revisions for the EPP. The *Technology Integration Project* described throughout the research can provide other teacher educators with a model for their own programs so they can prepare their preservice teachers for the digital-age classrooms they will soon be stepping into. Future research directions will provide meaningful data and additional insight into how EPPs can continue to develop their teacher candidates' knowledge and skills for 21st century teaching.

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Appendix

Novice Teacher TPACK Survey

1. Please indicate if you completed the D2L Project at GGC.
- Yes
- No

2. Please choose from the options below.
- I am a student teacher.
- I am a classroom teacher.

3. Please indicate the semester and year that you graduated from GGC.

4. Please indicate your gender.
- Male
- Female

5. Please indicate your race/ethnicity.
- White
- Asian
- Hispanic
- African American
- Mixed Race
- Native American
- Other

6. Please indicate your age.

7. Please indicate your areas of teacher certification.

8. Please indicate your highest educational degree.

9. Please indicate your number of years of teaching.

10. Please indicate the grade levels you have taught.

11. I can teach lessons that appropriately combine mathematics, technologies, and teaching approaches.
- Strong Agree
- Agree
- Neither Agree or Disagree
- Disagree
- Strongly Disagree

12. I can teach lessons that appropriately combine literacy, technologies, and teaching approaches.
- Strongly Agree
- Agree
- Neither Agree or Disagree
- Disagree
- Strongly Disagree

13. I can teach lessons that appropriately combine science, technologies, and teaching approaches.
- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly disagree

14. I can teach lessons that appropriately combine social studies, technologies, and teaching approaches.
- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly disagree

15. I can select technologies to use in my classroom that enhance what I teach, how I teach, and what students learn.
- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly disagree

16. I can use strategies that combine content, technologies, and teaching approaches that I learned about in my coursework in my classroom.
- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly disagree

17. I can provide leadership in helping others to coordinate the use of content, technologies, and teaching approaches at my school and/or district.
- Strongly Agree
- Agree

- Neither Agree nor Disagree
- Disagree
- Strongly disagree

18. I can choose technologies that enhance the content for a lesson.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly disagree

19. Please indicate how what you have learned from the D2L project at GGC has helped you in your teaching.

20. Please indicate the technology tools that you have used with students.

(Schmidt et al., n.d.)

Continuing Education Options: A Retention and Recruitment Strategy

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Abstract

This quantitative study analyzed data gathered from P-12 educators who participated in a continuing education option (CEO) as part of a state-endorsed rank change program. The 12 to 18-month CEO professional learning experience is designed to allow educators to grow in their profession and achieve a rank change through field-based experience, research, and approved professional development. The research examined the teachers' experience with the CEO program and confidence in their ability to implement strategies and make instructional impacts on student outcomes. Innovative delivery methods that support work-based learning opportunities provide educators with authentic experiences beyond traditional modes of learning throughout the span of their careers. Collaboration between states, school districts, and institutions of higher education to develop certifications, additional avenues for increased salaries based on specializations, and incentives for educators to engage in continuing education options could increase the retention of highly qualified educators.

Keywords: continuing education option (CEO), retention, recruitment, professional learning, teacher shortage

Introduction

In a time when teacher shortages are prevalent, lower enrollments persist in traditional educator preparation provider (EPP) programs while the demand for an educator's ability to navigate a dynamic and diverse student landscape increases. This environment has led to the need for a magnified focus on continuous learning. Many districts have been forced to fill classroom vacancies with emergency certified educators, long-term substitutes, or piecemealing schedules to cover gaps left by a lack of qualified candidates. What can districts, departments of education, and EPP's do to support educators in the field that will increase positive impacts on student achievement, provide opportunities for districts to support educators with salary increases, and provide strong, embedded professional learning to promote longevity in the classroom?

In Kentucky, educators are classified based on a rank system. Table 1 describes the requirements for the four common teacher ranks in the Commonwealth of Kentucky. For Kentucky educators, rank and years of service are factored into their salary schedule. A Rank I teacher will top out on the pay scale according to years of experience. Teacher earning power is factored into teacher retirement payments, so many educators earning a Rank I have a multiplier effect. Rank changes have historically been achieved through institutions of higher education, but in recent years, a focus on alternative methods has been more pronounced, such as the Continuing Education Option (CEO) Plan II.

Table 1

Teacher Ranks in Kentucky

Requirements for Rank in the Kentucky Education System			
Rank I Teacher	Rank II Teacher	Rank III Teacher	Rank IV Teacher
Hold Regular Certification	Hold Regular Certification	Hold Regular Certification	Hold Emergency Certification
Hold a Rank II	Hold a Rank III	Approved 4-year degree or equivalent	Earned required number of college credits or equivalent training experience
Master's degree or CEO certification or initial certification from National Board for Professional Teaching Standards	Master's degree or CEO certification or initial certification from National Board for Professional Teaching Standards		

CEO Plan II is one way an educator can earn a rank change in the Commonwealth of Kentucky. According to the Kentucky Educational Professional Standards Board (EPSB) (2018a), a CEO program:

> supports teachers in achieving a Rank I or Rank II through individualized research-based, job-embedded professional development plans. A teacher may use the CEO for achieving Rank I or Rank II, but not both. Rank change through the CEO process is only recognized in Kentucky, and though it is not a master's degree, it does meet statutory requirements for continuing education (KRS 161.095). (section "Purpose of CEO")

This experience is a combination of synchronous and asynchronous learning. It embeds professional learning for the educator with the support of a coach. In addition, the educator is involved in an action research project that demonstrates learning through an instructional unit. The program is connected to either Kentucky Teacher Standards or Kentucky Teacher Leader Model Standards, based on the focus of the CEO program. Districts, groups of districts, and Kentucky institutes of higher education are allowed to submit a CEO Plan II proposal and, if approved, offer a CEO Plan II for rank change (EPSB, 2019).

Purpose

The purpose of this study was to investigate the relationship of how educators who have participated in continuous education opportunities (CEO) view their professional learning experience compared to that of higher education and traditional professional learning opportunities. In particular, the researchers sought to identify: (a) the impact teachers attributed to student learning as a result of their participation in a CEO program, (b) how teachers perceive learning from a CEO program compared to a traditional professional learning opportunity, and (c) how teachers perceive learning from a CEO program compared to traditional EPPs.

The findings from this study will serve as a starting point for districts, EPPs and state departments to collaborate to find more effective ways to support educators and students.

Literature Review

National Teacher Shortage

According to the U.S. Department of Education, all 50 states experienced teacher shortages in 2022-2023, especially among special education teachers, science teachers, and math teachers. To adjust to this critical issue, districts increased class sizes, canceled courses, added duties to currently employed teachers, and hired people who were not qualified to fill the open positions, with 34% of new teachers not having certification in the area they were hired in the 2020-21 school year. All of these options likely led to adverse effects on students' learning (Darling-Hammond et al., 2023).

The Learning Policy Institute (LPI) released a report, The Federal Role in Ending Teacher Shortages, which shared actions the federal government could initiate to develop a nationwide strategy for teacher recruitment, preparation, support, and retention (Darling-Hammond et al., 2023). Seven key areas are listed below.

Increased Compensation

State/local levels determine teacher salaries; however, federal actions could include incentives to states and districts to raise salaries, provide tax credits and/or housing subsidies, and offer financial aid to eliminate education debt.

Debt-free Teacher Preparation to Strengthen Recruitment

Expanding service scholarships and loan forgiveness programs to cover the cost of educator preparation at both the undergraduate and graduate levels, including workforce "learn and earn" apprenticeships, could incentivize candidates to enter the teaching profession.

Improved Preparation by Expanding High-Retention Pathways

The effectiveness of a teacher and the probability of retention are greatly impacted by the preparation received. Improvements made in teacher preparation programs by promotion of models such as residency programs, Grow your Own programs, and other programs that build capacity could lead to increased preparation and enhanced retention.

High-quality Mentoring

Research indicates that beginning teachers who are not provided quality mentoring are twice as likely to leave the profession. Induction support delivered by expert veterans can lead to higher retention. Matching grants could be provided to states and districts to implement research-based induction models.

Creation of Collegial Environments that Encourage Collaboration

When educators expand and share their skills and expertise with others, effectiveness among colleagues is promoted, which in turn leads to retention. Strengthening professional learning that is job-embedded can be funded through Title II-A and Title III of the Elementary and Secondary Education Act, as well as federal incentives to attract expert teachers such as those certified by the National Board for Professional Teaching Standards.

Redesign of Schools to Support Teaching and Learning

Teachers are likely to remain in educational environments where they believe they can have success. This success with students relies on strong relationships among students, educators, and families. Applying 21st-century approaches can better support teaching and learning for systemic change.

Rethink School Accountability

The reauthorized Elementary and Secondary Education Act - Every Student Succeeds Act - better measures school quality and equity with a focus on improvement, which lessens punitive metrics that prohibit educators from entering schools with high needs. The federal government could also increase Title I allocations, which are dispersed based on poverty levels, to recruit, prepare, support and retain a diverse workforce aimed at reaching all learners (Forsht, 2023).

Teacher Shortages in Kentucky

According to a report by the Kentucky legislature's Office of Education Accountability (OEA), the teacher shortage is growing more severe. Teacher shortages have long existed in Kentucky; however, since 2019, the condition has escalated. The consistent theme is the lack of funding and the impact on teacher salaries and working conditions (Bailey, 2023). With teacher salary being a strong indicator of teacher shortages, many districts have increased pay to be more competitive and to recruit and retain a teaching workforce. Once recruited to the profession, working conditions play a major role in retention. After the pandemic, concerns about student behavior and other stressful factors have been attributed to teacher turnover. The federal ESSER funding allowed districts to compensate teachers; however, that opportunity is ending, which will cause additional financial challenges for districts (Kentucky Legislative Research Commission, 2023).

To address teacher salaries, districts have increased starting salaries, ranging from 3% to 22% from 2014 to 2023. The

lowest starting salary was reported at approximately $34,000, with the highest being over $45,000. Ironically, OEA reported that when comparing earnings after leaving the teaching profession, 65% of teachers were making $5,000 more than when they transferred to the private sector. Many superintendents and principals stated that benefits and quality of life for teachers could also be possible causes of the teacher shortages. Additionally, teacher turnover was associated with working conditions as indicated by the Impact KY Working Conditions Survey (Kentucky Legislative Research Commission, 2023).

Federal funding through the Elementary and Secondary School Emergency Relief (ESSER) Funds, along with the Support Education Excellence in Kentucky (SEEK) program funds, have assisted districts in providing financial support to recruit, retain, and support teachers, as well as funding additional certified and classified positions to assist with academic challenges/deficits that exist as a result of the pandemic. The ESSER funds, $13.2 billion allocated by Congress through the Coronavirus Aid Relief on March 27, 2020, had to be spent by September 30, 2024, so that source of funding has now come to an end (U.S. Department of Education, 2025) During 2023, these resources were able to fund over 2,300 certified positions and over 1,500 classified positions. Once funds were no longer available, schools lost this extra assistance. Additionally, since enrollment, as measured by average daily attendance (ADA), has declined since 2020, SEEK funding has proportionately decreased. Each of the 171 districts in Kentucky had lower attendance rates in 2023 than in 2019 (Kentucky Legislative Research Commission, 2023). The level of funding is 27% less than it was in 2008, resulting in average teacher pay failing to keep up with inflation (Bailey, 2023). In 2024, Kentucky was ranked 40th in the country with an average teacher salary of $54,574 (NEA, 2024).

In 2023, over 10% of teachers throughout Kentucky did not return to the profession. This was the highest percentage experienced during the 2014-2023 observation period. There has also been an increase in the number of teaching candidates who have pursued alternate routes to certification, including emergency certification. In 2023, there were nine options in Kentucky for alternative certification, with the most common being Option 6, comprising nearly 80% of alternate certificates between 2020 and 2023. Option 6 allows a candidate who has a bachelor's degree to teach while pursuing a post-baccalaureate program to earn a teaching certificate. Additionally, twenty partnerships were developed for the Option 9 program, which allowed school districts to partner with a college or university to develop a program allowing participants to earn initial teacher certification and a bachelor's degree while working at a school/district in a non-teaching (classified) role (Kentucky Legislative Research Commission, 2023).

The greatest barrier identified was the lack of qualified candidates, especially in certain content areas. More than 80% of respondents reported no available/satisfactory applicants in the area of physics, over 70% reported no candidates for chemistry or high school math, and between 50% and 60% reported no candidates for world languages, Earth science, middle school science, biology, and information technology (Kentucky Legislative Research Commission, 2023).

There have been efforts to reduce the teacher shortage including new teacher pathways, support for new teachers, innovative recruitment strategies, increased

pay, and scholarships for aspiring educators. Some districts have increased their rank change pay scales and have allowed teachers to change their rank twice during a school year. Some reimburse teachers for tuition, provide signing bonuses, and offer to compensate for relocation costs. For some difficult-to-fill positions, such as a high school math teacher, one district offered a $10,000 stipend (Kentucky Legislative Research Commission, 2023).

The teacher shortage has other indirect impacts on the quality of education. Almost 80 districts reported that they retained certified staff that would have previously been terminated or non-renewed in previous years, prior to the teacher shortage, totaling over 300 positions. Therefore, teachers with poor performance are able to remain in the schools, which in turn impacts the teaching and learning of students (Kentucky Legislative Research Commission, 2023).

Rank Change Impacts on the Teacher Shortage

Due to the dire state that Kentucky school districts experienced regarding teacher shortages, the Education Professional Standards Board (EPSB) approved a waiver that removed the requirement for teachers to earn Rank II status. The intent of this move was to allow districts more flexibility in recruiting and retaining teachers. Previously, to move to Rank II, teachers were required to complete an approved master's degree program by the second renewal of the candidate's five-year professional certificate. While it was anticipated that many educators would continue to pursue the rank change to increase their salary, the flexibility allows the teachers to make that choice and complete it on their own timeline (Kentucky Teacher, 2018).

In 2019, the EPSB approved amendments to 16 KAR 8:020 to create a pathway for additional rank change programs. Rather than earning a rank change through the completion of a master's program, the continuing education option (CEO) through CEO, Plan II allowed districts, groups of districts, and Kentucky institutions of higher education to submit CEO Plan II programs to the EPSB for approval. The proposals included the following components: a rationale for educators' professional growth needs in content knowledge, instructional practice, and/or leadership skills, with supporting evidence such as district data aligned to the comprehensive improvement plan; identified standards for program completion from the Teacher Leader Model Standards or Kentucky Teacher Standards; eligibility requirements; justification for program completers; letter of support from the district superintendent, director, or dean; estimated time commitment; high-quality research-based resources; program staff and credentials; and details of the capstone action research project and how it meets identified standards and positively impacts learning outcomes for candidates and students, including rubrics, sequence of targets of professional growth, and publication requirements (Education Professional Standards Board, 2019).

The CEO Plan II option has attracted many candidates because it is a cost-effective program that is often offered at a lower cost than the typical master's degree program. Many institutions of higher education have allowed prior learning experience from professional learning, such as the CEO, to provide credit toward graduate programs, leading to future rank changes and/or certificates, endorsements, or degrees (Kentucky Rank Advancement Academy, n.d.). Educators who have successfully completed CEO Plan II programs have provided candidates the opportunity to gain rank changes through

job-embedded experiences with mentor support (Education Professional Standards Board, 2019).

Job-Embedded Professional Learning

Professional learning in p-12 institutions is a commonly understood practice used to support educators in order to increase knowledge, adjust practices, and improve learning environments to better address the needs and outcomes of students (Hattie, 2011). Several studies have found that improved content knowledge and practice has had a positive impact on student outcomes (King & South, 2017; Kennedy, 2016). A school is better apt to support high levels of student achievement and positive student outcomes when it emphasizes intentional and focused learning for teachers along with rigorous instructional objectives (Little, 2012). However, not all professional learning is created equal, and as a result, the impact of lower-quality professional learning can create unequal results. A common issue with professional learning is the disconnectedness participants feel from the reality of their daily work. In addition, educators exposed to professional learning with limited content, engagement, and/or administrative support tend to feel professional learning is a waste of time (Berrett et al., 2015). The CEO Plan II has overcome these barriers through the job-embedded professional learning design.

Effective professional learning supports an educator in many of the same ways effective classroom instruction supports a student. Teachers need to have the opportunity to construct understanding, feel prepared and confident in the content and skills being addressed, and need to be afforded the opportunity to build upon skills over time. These effective learning experiences can provide teachers enhanced self-efficacy, a critical step in the professional learning process (Lowell & McNeil, 2022; Morris & Pryor, 2024).

Little (2012) describes four pillars that provide reasons for schools to prioritize professional learning for teachers: collective efficacy; increased content, skill, and disposition of teaching force; increase in professional learning communities within the school day; and increase in retention to the teacher profession. Collective teacher efficacy is defined by Hattie as the ability of the group of educators to believe they can make a positive difference in the lives of their students (Visible Learning, 2018). Collective teacher efficacy was more predictive of elementary students' math and reading achievement than gender, ethnicity, and even socio-economic status (Goddard et al., 2000).

Teacher Self-Efficacy

Teacher self-efficacy (TSE) is rooted in social cognitive theory and has often been associated with positive student outcomes. Just like collective teacher efficacy, it is based on the belief that (in this case, a singular teacher's belief in themselves) the teacher can produce positive outcomes for students, even among the most challenging and complex student needs. Henson (2001) noted that students who have teachers with high levels of TSE outperform students in other classrooms. Additionally, teachers with high levels of TSE often exhibit the following behaviors/beliefs: (a) support inclusionary practices for students with individualized education plans (special education), (b) experiment with instructional practices seeking continuous improvement, and (c) commitment to effective professionalism. Through the completion of the CEO capstone project, the educator applies research-based practices to positively impact student outcomes, which leads to higher levels of TSE.

Professional Learning Design

Professional learning plays a large part in many plans to improve outcomes for students and the school community. Hiring

strong teacher candidates is a common goal for schools; however, teachers need to continuously grow in their professional role to account for the ever-changing demands created by complex social, behavioral, and academic needs of students. Professional learning provides the avenue for educators to learn more over time about their content, students, and pedagogical practices in order to make more informed decisions regarding impact on student outcomes (Little, 2012).

Bates and Morgan (2018) identified seven elements from a meta-analysis of 35 studies that aid developers and implementers of professional learning in seeking impactful experiences for teachers. The following elements are key to quality professional learning: (a) content-focused, (b) active learning, (c) supports collaboration, (d) models effective practices, (e) coaching support, (f) feedback, and (g) sustained exposure/duration. All of these are components required of an approved CEO Plan II program.

An attribute of the CEO Plan II program is its ability to embed learning through the on-going work of the educator. A teacher's content knowledge is widely understood to be critical for positive student outcomes, but it alone is not sufficient. How teachers embed learning structures within the content is paramount, and this combination of content knowledge and content-specific strategies is critical in creating meaningful professional learning experiences (Bates & Morgan, 2018). Pedagogical content knowledge, which includes a teachers' understanding of student learning and content knowledge, is complex due to the dynamic nature of the content topic, teacher, and context (diverse student population, time of day, prior knowledge, etc.). Professional learning should incorporate content knowledge that supports professional practice, instructional strategies, and reflection (VanDriel & Berry, 2012).

In addition to ongoing and embedded learning, the CEO Plan II program incorporates an active learning approach with the content presented. Active learning in professional learning settings is critical to engaging teachers with the content. Allowing educators to spend time implementing ideas and applying their learning improves the conditions that support educator growth. Engagement through collaborative learning processes is also an important design feature of professional learning that is evidence-based. Another evidence-based structure is the use of modeling, the intentional learning strategy demonstrated by educators to show a new idea, process, or skill (Salisu & Ransom, 2014). Short and Hirsh (2020) emphasized a specific type of professional learning style that incorporates many of the features of curriculum-based professional learning. This form of professional learning leverages modeling, experiential learning, teacher understanding of purpose, and repeated exposure over time as essential elements to implement impactful shifts in professional beliefs.

Methodology

The purpose of this quantitative study was to investigate the relationship of how current educators who have participated in a continuing education opportunity (CEO) viewed their professional learning experience compared to that of higher education and traditional professional learning opportunities. In particular, the researchers sought to identify: (a) the impact teachers attributed to student learning as a result of their participation in a CEO program, (b) how teachers perceived their learning from a CEO program compared to a traditional professional learning opportunity, and (c) how teachers perceived their

learning from a CEO program compared to traditional EPPs.

Participants

All participants included in the research study were current educators in grades K-12. All participants were volunteers who completed the Qualtrics online survey. This research specifically looked at two school districts that allocated ESSER funds for educators to participate in a continuing education opportunity (CEO). This research did not intentionally exclude or seek out participants based on gender, race, ethnic background, or age, as these demographics were not collected.

Participants had the opportunity to share the link with fellow educators. While the researchers did not collect IP addresses, Qualtrics prevented multiple submissions from the same IP address. It was possible, though unlikely, that a single participant submitted multiple responses.

Prior to the data collection process, received IRB approval was obtained. Participants were informed that participation was voluntary and there would be no compensation for their time or participation. While anonymity was not guaranteed, measures were taken to protect privacy. Data was aggregated upon collection and no personally identifiable information was collected.

Of particular interest were two schools within the university's service area. A contact from the school districts was used to share the survey link. These two schools represented both a county and city school, and both used ESSER funding to support educators by paying for their CEO program. School districts represented in this research had an average economically disadvantaged student population of 66.8% (Kentucky Department of Education, 2023). The communities in this service area dealt with economic concerns, having a 53.7% workforce participation rate, the fourth lowest workforce participation rate in Kentucky. In addition, Kentucky's per capita income in 2022 was reported at $52,109 compared to $65,423 per capita income for the U.S., a gap that has continued to widen (Kentucky Center for Statistics, 2023).

Survey and Data Analysis

The survey (see Appendix) consisted of questions regarding participation in a CEO program and the teacher experience including: beliefs, application, and perceived impact on student learning. The survey consisted of 13 questions, six questions related to demographics and three questions were comparison questions regarding the CEO program to other types of training/professional learning experience, including EPPs. Other questions included professional growth, student impact, and the program experience related to support. Additionally, Dr. Tschannen-Moran's Teacher Sense of Efficacy Scale (2001) was used to gain insights into teachers' beliefs relative to various school activities, including pre- and post- CEO program participation.

Once the survey was completed, Qualtrics XM data analysis tool, Stats iQ, was used to support description and analysis of the data. Only responses that indicated approval to use the data for research and that indicated participation, either current or completed, in a CEO program were used. No identifiable information was retained. Descriptive statistics were used to provide an overview for results. A Chi-Squared test was performed when two category variables were compared.

Results

Demographics

All participants were current educators, teaching in K-12 classrooms in Kentucky (N=24). Twenty-one participants were pursuing a Rank I and three were

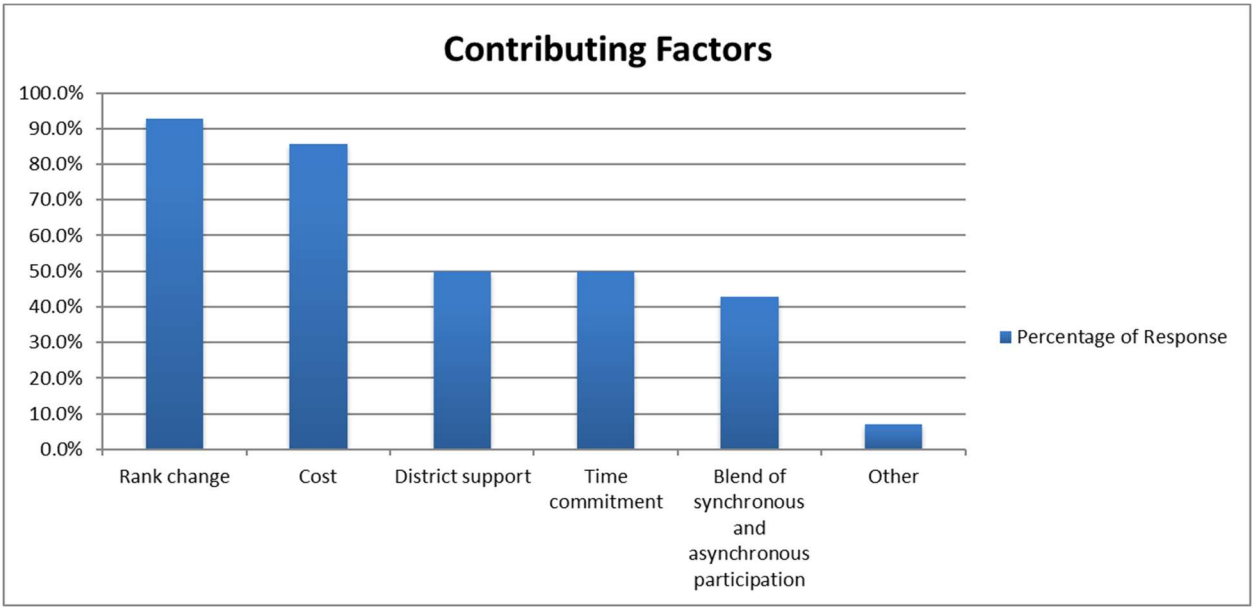
pursuing a Rank II. Of the 24 participants, 12.5% described themselves as Pre-K, 54.2% as elementary school teachers, 4.2% as middle school teachers, and 29.2% as high school teachers. Participant experience included 14 educators with 13-22 years of teaching experience, six educators with 6-12 years of teaching experience, and four educators with 0-5 years of teaching experience.

Factors for Choosing a CEO Program

Of the educators surveyed, when asked to select all contributing factors for choosing a CEO program that applied, rank change and cost were overwhelmingly the two most predominant factors. Figure 1 displays the breakdown of all factors contributing to teachers' decisions to participate in a CEO program.

Figure 1

Contributing Factors for Choosing a CEO Program



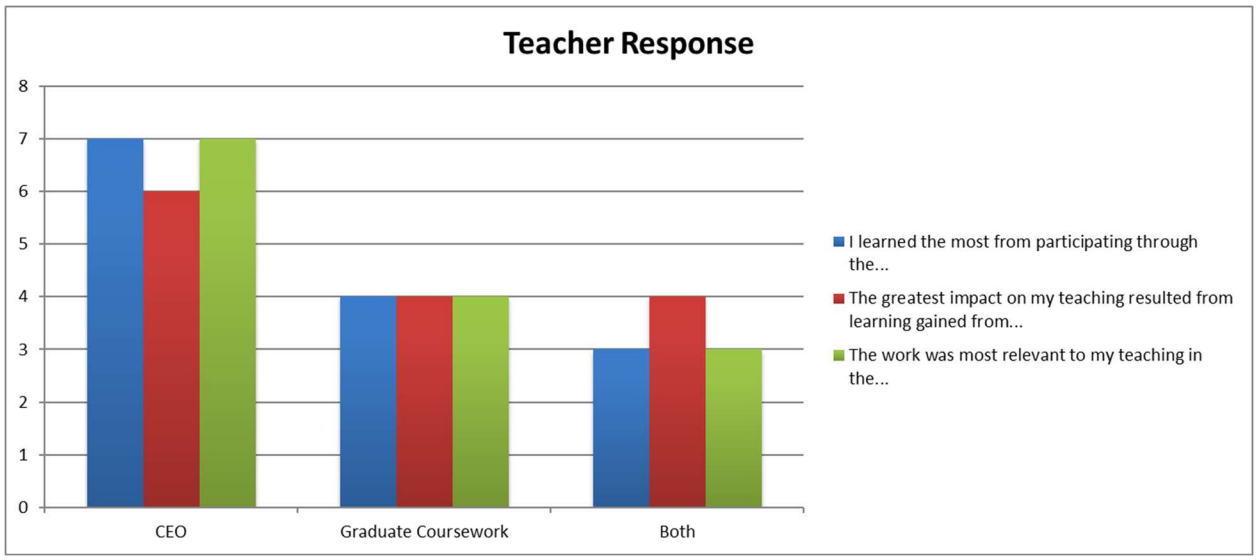
Alternate Text: This graph illustrates the factors that led to candidate participation in a CEO program: 91% rank change, 85% cost, 50% district support, 50% time commitment, 41% synchronous/asynchronous blend, and less than 10% other.

Finding 1

Participants were asked to compare the CEO program to other graduate work/training they had experienced and indicate which learning opportunity they preferred, given a series of statements. The candidates indicated their preference as follows: CEO, Graduate Coursework, or Both. Participants indicated, "I learned the most from…" CEO (N=7), Graduate Coursework (N=4), and Both (N=3); "The greatest impact on my teaching resulted from learning from…" CEO (N=6), Graduate Coursework (N=4), and Both (N=4); and "The work was most relevant to my teaching in the …" CEO (N=7), Graduate Coursework (N=4), and Both (N=3). Figure 2 shows the distribution of responses. Candidates preferred a CEO program over graduate coursework.

Figure 2

Teacher Preference Response: CEO vs Graduate Coursework



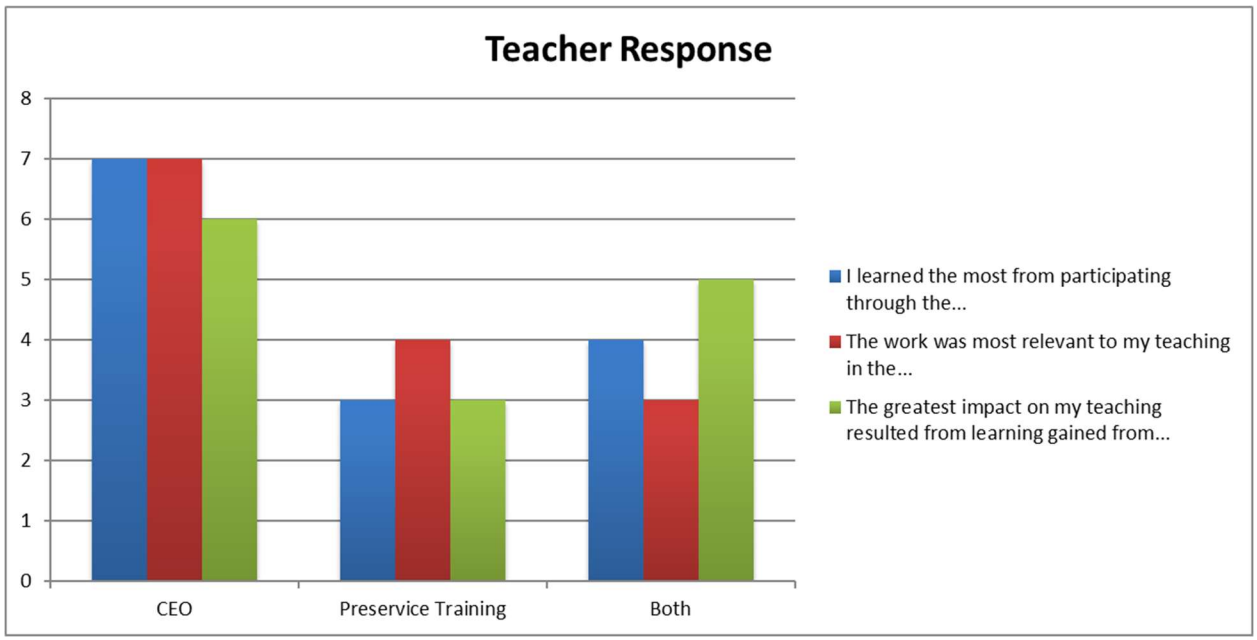
Alternate Text: This graph illustrates teachers believed they learned the most from a CEO program, the CEO program had the greatest impact on their teaching and was most relevant to their teaching. This was in comparison to both graduate coursework or a combination of both CEO program and graduate coursework.

Finding 2

Participants were asked to compare the CEO program to their preservice training experience and indicate which learning opportunity was preferred, given a series of statements. The candidates could indicate they preferred CEO, Preservice Training, or Both. Participants indicated, "I learned the most from…" CEO (N=7), Preservice Training (N=3), and Both (N=4); "The greatest impact on my teaching resulted from learning from…" CEO (N=6), Preservice Training (N=3), and Both (N=5); and "The work was most relevant to my teaching in the …" CEO (N=7), Preservice (N=4), and Both (N=3). Candidates preferred a CEO program over Preservice Training. Figure 3 shows the distribution of responses.

Figure 3

Teacher Preference Response: CEO vs Preservice Training



Alternate Text: This graph illustrates teachers believed they learned the most from a CEO program, the CEO program had the greatest impact on their teaching and was most relevant to their teaching. This was in comparison to both preservice training or a combination of both preservice training and graduate coursework.

Finding 3

The researchers asked participants a series of questions related to student outcomes and teacher efficacy, pre-CEO and during/post-CEO, instructing them to mark one of the following responses to each question: “quite a bit,” “some influence,” “great deal,” “very little,” or “nothing." When comparing the pre- to during/post-responses to like questions, no statistically significant relationships were found except when looking at the question, “How much can you use a variety of assessment strategies?”. Table 2 shows the results of the teachers’ responses to this question. This statistically significant relationship was found by performing a chi-square test of independence, χ^2 (4, N = 11) = 13.4, p = .0093, suggesting that the observed association was unlikely to have occurred by chance. The effect size, as measured by Cramer's V, was .782, indicating a large effect size (based on common thresholds for Cramer's V: small ≥ 0.1, medium ≥ 0.3, and large ≥ 0.5). Given the small sample size (N = 11), caution should be taken in generalizing these results. Six candidates perceived their ability to use a variety of assessment strategies grew from pre-CEO to during/post-CEO.

Table 2

Teacher Efficacy: Pre CEO vs During/Post CEO

Teacher Belief: "How much can you use a variety of assessment strategies?"				
Pre-CEO Responses		During/Post CEO Responses		
		Some Influence	Quite a Bit	Great Deal
Some Influence	n=4	0	4	0
Quite a Bit	n=3	1	0	2
Great Deal	n=4	0	0	4

Note. The response categories of "Very Little" and "Nothing" were not selected by any respondent.

Finding 4

The researchers asked participants about their perception of student impact as a result of their participation in a CEO program. Figure 4 shows the distribution of the responses. Overwhelmingly, teachers indicated that their participation did have a positive impact on student outcomes and teacher collaboration.

Figure 4

Teacher Perception of CEO Impact

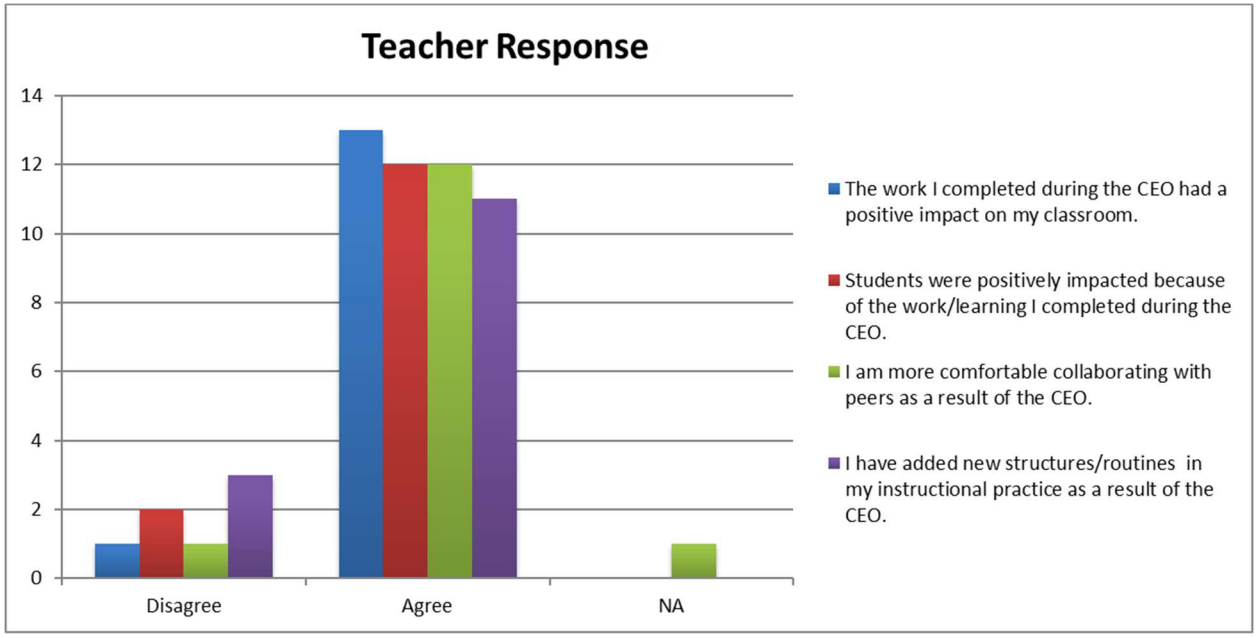


Figure 4 (continued)

Alternate Text: This graph illustrates teachers' belief that the work completed in the CEO program had a positive impact on their classroom and their students, increased teachers' confidence in collaborating with peers, and increased exposure to new structures and routines in instructional practice.

Discussion

This research study investigated the relationship of how current educators who had participated in a continuing education option (CEO) rated their professional learning experience compared to that of higher education and traditional professional learning opportunities. In particular, the researchers sought to identify: (a) the impact teachers attributed to student learning as a result of their participation in a CEO program; (b) how teachers perceived their learning from a CEO program compared to a traditional professional learning opportunity; and (c) how teachers perceived their learning from a CEO program compared to traditional EPPs.

EPP Recruitment

Overwhelmingly, educators preferred a CEO program over graduate coursework. Candidates selected CEO programs because of affordability and the ability to earn a rank change. These two conditions speak to an educator's focus on cost savings and earning potential. The Learning Policy Institute (LPI) highlighted increased compensation and debt-free teacher preparation in their report as a tool to strengthen teacher recruitment (Darling-Hammond et al., 2023). As EPPs navigate enrollment declines and increased costs to educate students, CEO programs might offer a win-win opportunity by providing a cost-efficient model for initial graduate students and a pathway to completion of graduate work for EPPs. When an EPP offers a CEO program that connects with additional degree attainment, they are providing a cost-efficient pathway for candidates. For educators looking to stay in the teaching profession, earning a Rank I is important to maximize pay and retirement benefits in the Commonwealth of Kentucky. Kentucky educators are currently allowed one CEO program to earn a rank change, indicating a combination of CEO rank change and graduate degree as an affordable option to earn both Rank II and Rank I educator status. This would allow the candidate to maximize their salary within their district's pay scale. In turn, candidates can complete both Rank II and Rank I within an EPP which helps generate enrollment in graduate programs.

District Teacher Retention

The high cost of teacher turnover and a continuing teacher shortage continue to plague school districts. Induction programs have been shown to help districts effectively combat teacher turnover by having a positive impact on new teacher job satisfaction, retention, and performance (Ingersoll & Strong, 2011). Support for new teachers within the first several years of their development is critical to reducing the rate of teacher turnover (Morris, 2023). CEO programs have shown positive results in impacting student achievement, increasing collaboration between peers, and providing support to candidates. The findings of this research indicate the positive potential CEO programs have in helping to shape teacher efficacy, a critical disposition for teachers that has shown positive impacts on student outcomes (Goddard et al., 2000). Districts that include CEO programs as part of their induction program, paired with collaboration with EPPs, can create mutually beneficial partnerships. Districts can

provide ongoing, job-embedded training and support for induction programs, and EPPs can create a continuation of learning for their newly graduated teacher force, truly creating a continuing education pathway for the EPP.

Departments of Education

Education departments attempting to address teacher retention through rank change options, like Kentucky's CEO Plan II program, might consider factors such as affordability, district collaboration, and time commitment. Collaboration with institutes of higher education by allowing a hybrid of graduate level coursework and professional learning modules might provide increased support and participation from EPPs. In addition, it could also help support further degree attainment within the field.

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Appendix

CEO Survey

The following questions were administered for this qualitative research study.

Start of Block: CEO Participant

Q1 I am currently enrolled or I have completed a Continuing Education Option (CEO)

o Yes, I am currently enrolled in a CEO (1)

o Yes, I have finished a CEO (3)

o No I am not enrolled in nor completed a CEO (4)

Q2 I give consent to use my responses for future research with the understanding demographic information to include name, position, or places of employments will be kept anonymous and confidential.

o Yes. I give permission for my responses to the following survey to be used for future research. (1)

o No. I do not give permission for my responses to the following survey to be used for future research. (2)

Q3 Please select what level you predominantly work with.

o Elementary (1)

o Middle (2)

o High (3)

o Pre-K (4)

Q4 How many years have you been teaching?

o 0-5 years (5)

o 6-12 years (6)

o 13-22 years (7)

Q5 I am pursuing/pursued a CEO to earn a rank:

o One (1)

o Two (2)

CEO System Quality:

Q6 Compare the CEO program to other professional development training you have experienced, indicate which learning opportunity you prefer

	Program			
	CEO (1)	OTHER Professional Development (2)	Both (3)	NA (4)
I learned the most from participating through the... (1)	o	o	o	o
The work was most relevant to my teaching in the... (2)	o	o	o	o
The greatest impact on my teaching resulted from learning gained from... (3)	o	o	o	o

Q7 Compare the CEO program to other preservice coursework/training you have experienced, indicate which learning opportunity you prefer

	Program			
	CEO (1)	Preservice Training (2)	Both (3)	NA (4)
I learned the most from participating through the... (1)	o	o	o	o
The work was most relevant to my teaching in the... (2)	o	o	o	o
The greatest impact on my teaching resulted from learning gained from... (3)	o	o	o	o

Q8 Compare the CEO program to other graduate level coursework/training you have experienced, indicate which learning opportunity you prefer

	Program			
	CEO (1)	Graduate Coursework (2)	Both (3)	NA (4)
I learned the most from participating through the... (1)	o	o	o	o
The work was most relevant to my teaching in the... (2)	o	o	o	o

The greatest impact on my teaching resulted from learning gained from... (3)	o	o	o	o

Q9 Rate your growth through this program.

	Program		
	Developing (1)	Proficient (2)	Distinguished (3)
Before I started the CEO, I would rate my understanding of the content covered in the CEO as: (1)	o	o	o
I currently rate my understanding of the content covered in the CEO as: (2)	o	o	o
Before I started the CEO, I would rate my application of the content covered in the CEO as: (3)	o	o	o
I currently rate my ability to apply the content covered in the CEO as: (4)	o	o	o

Q10 Please indicate your stance on the following statements:

	Student Impact		
	Disagree (1)	Agree (2)	NA (3)
The work I completed during the CEO had a positive impact on my classroom. (1)	o	o	o
Students were positively impacted because of the work/learning I completed during the CEO. (2)	o	o	o
I am more comfortable collaborating with peers as a result of the CEO. (3)	o	o	o
I have added new structures/routines in my instructional practice as a result of the CEO. (4)	o	o	o

Q11 The coaching support I received through the CEO program was:

o Beneficial (1)

o Adequate (2)

o Not beneficial (3)

Q12 What factor(s) contributed to your selection of the CEO program (select all that apply)

- ☐ Cost (1)
- ☐ District support (2)
- ☐ Blend of synchronous and asynchronous participation (3)
- ☐ Time commitment (4)
- ☐ Rank change (5)
- ☐ Other (6)

Educator Challenges:

Q17 This question is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each 12 statements below based on your thinking prior to participating in the CEO Plan II and then after/during completing the CEO Plan II.

	Pre CEO					During/Post CEO				
	Nothing (1)	Very Little (2)	Some Influence (3)	Quite A Bit (4)	Great Deal (5)	Nothing (1)	Very Little (2)	Some Influence (3)	Quite A Bit (4)	Great Deal (5)
How much can you control disruptive behavior in the classroom? (1)	o	o	o	o	o	o	o	o	o	o

How much can you motivate students who show low interest in school work? (3)	o	o	o	o	o	o	o	o	o	o
How much can you do to get students to believe they can do well in school work? (5)	o	o	o	o	o	o	o	o	o	o
How much can you do to help your students value learning? (7)	o	o	o	o	o	o	o	o	o	o
To what extent can you craft good questions for your students? (9)	o	o	o	o	o	o	o	o	o	o
How much can you do to get children to follow classroom rules? (11)	o	o	o	o	o	o	o	o	o	o

How much can you do to calm a student who is disruptive or noisy? (13)	o	o	o	o	o	o	o	o	o	o
How well can you establish a classroom management system with each group of students? (15)	o	o	o	o	o	o	o	o	o	o
How much can you use a variety of assessment strategies? (17)	o	o	o	o	o	o	o	o	o	o
To what extent can you provide an alternative explanation or example when students are confused? (19)	o	o	o	o	o	o	o	o	o	o

How much can you assist families in helping their children do well in school? (21)	o	o	o	o	o	o	o	o	o	o
How well can you implement alternative strategies in your classroom? (26)	o	o	o	o	o	o	o	o	o	o

The Impact of a Social-Emotional Learning Curriculum on English Language Arts Achievement

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Abstract

This study explored the impact of a social-emotional learning (SEL) literacy curriculum on the English Language Arts (ELA) achievement of elementary-age students attending public, high-poverty schools. Schools classified as high-poverty schools have more than 75 percent of the students eligible for free or reduced-price lunch. The subjects for the study consisted of students attending 10 elementary schools in the Miami Dade Public School System, all having been designated as "persistently lowest-achieving" by the Education Transformation Office of the Florida Department of Education. Nine of the 10 schools had free or reduced-price lunch populations over 90%, with some schools as high as 99%, and all were classified Title 1. The results revealed that there was a statistically significant difference between the numbers of students scoring proficient or above on the state ELA standardized exam in the schools using a SEL-based literacy curriculum program versus those using a traditional curriculum.

Keywords: social-emotional, literacy, English Language Arts, at-risk

Introduction

Today's public schools are exceedingly focused on the academic achievement of students, as seen by an ongoing emphasis on standardized testing and initiatives such as No Child Left Behind and Race to the Top. However, schools have an equally important role in guiding healthy, well-rounded students, which not only includes students' academic abilities but their social and emotional development as well (Jacobson, 2018). Students who lack the knowledge and ability to deal with social, emotional, and mental health issues often turn to risk-taking behaviors leading to a lack of academic success in school (Weissberg et al., 2015). For that reason, many experts have recommended that schools implement a social-emotional learning program within the curriculum with an equal emphasis placed on it as academic success (Armstrong, 2016). According to the Collaborative for Academic, Social, and Emotional Learning (CASEL)(2024), successful implementation of social-emotional learning (SEL) strategies in schools has been documented as playing a role in improving academic achievement and school connectedness.

Literature Review

One of the greatest impacts of SEL is its positive influence on students' attitudes. Children who have strong SEL skills are able to maintain more positive relationships with peers and adults due to increased awareness of pro-social behavior, which leads to a reduction in aggressive behaviors towards others (CASEL, 2024), resulting in more time spent in school and the classroom. In addition, the mental health of students is strengthened as they are able to make emotionally strong decisions through effective problem-solving. Effective problem-solving skills correlate with student ability to achieve academically.

When SEL is addressed at a school level, positive student behavior and relationships increase and positively influence school connectedness (Wilkins et al., 2023). The consistent patterns in the interactions, relationships, behavior, and thinking of the teachers, administrators, staff, and students (Wilkins et al., 2023; Schonert-Reichl, 2017; Jones & Bouffard, 2012) can define school climate and culture. There are several benefits to a positive school climate and overall connectedness. Relationships between students and staff are stronger, leaving students feeling safe and comfortable in their learning environment. There are fewer behavioral issues, such as bullying and delinquency. Lastly, there is a reduction in emotional stress that leads to depression and social withdrawal (Center for Social and Emotional Education, 2010).

Because social and emotional deficiencies can hinder a student's chance of success in the classroom, the potential impact of social-emotional learning on academic achievement is heightened. Academic and SEL skills are thought to develop and operate together because SEL skills increase students' capability to learn. Students with strong SEL skills set high academic goals for themselves and have the self-discipline, self-confidence, motivation, and organization to obtain them. They can utilize problem-solving skills, higher-order thinking skills, and critical thinking skills to address obstacles and become better decision-makers when it comes to schoolwork. These same skills follow students into adulthood and careers. Effectual SEL skills provide these future adults with the work habits, values, and abilities necessary for postsecondary education, careers, and becoming responsible citizens (Dymnicki et al., 2013; Yoder, 2014).

Experts in SEL agree that simply implementing strategies and lessons on

social-emotional learning is insufficient for success. SEL needs to be well-executed, with several key factors in place. They include explicit teaching of the skills, integration of skills within the curriculum, and time for application of skills (Wilkins et al., 2023; Schonert-Reichl, 2017; Weissberg et al., 2015).

Just as students need to be taught math and reading strategies, students need explicit instruction regarding SEL. For this systematic learning process to occur, there needs to be established policies and guidelines, involved school leaders, and ongoing professional development for teachers and administrators (Weissberg et al., 2015). With a natural partnership between SEL and academic success, SEL skills should be naturally incorporated into the curriculum (Schonert-Reichl, 2017; Weissberg et al., 2015).

In addition to teaching SEL skills, students need to be given the opportunity to apply and practice them. This includes daily interactions within the classroom as well as in the halls, lunchroom, playground, and special areas. The goal is for students to use SEL skills "as part of their daily repertoire of behaviors" (Durlak et al., 2011, p. 408). School staff and faculty should recognize students who use SEL skills as a way to reinforce and promote learning. Incorporation of skills is most efficiently done in safe and nurturing learning environments (CASEL, 2024; Weissberg & Cascarion, 2013)

According to the National Center for Education Statistics (NCES) (2020), high-poverty schools are defined as "public schools where more than 75 percent of the students are eligible for free or reduced-price lunch (FRPL)" (p. 1 endnote). While research reflects the positive benefits of SEL on all children, there is a specific need in high-poverty schools. Data reflects that the many challenges teachers face in high-poverty schools are at higher rates than for their counterparts in medium and low-poverty schools. For example, according to the NCES (2020), students from high-poverty schools scored lower than students from low-poverty schools in both reading and math on fourth and eighth-grade assessments. In addition, dropout rates are much higher at high-poverty schools and districts.

Research reveals that, due to their behavioral and emotional growth, students attending high-poverty schools implementing comprehensive SEL programs showed more improved social skills and higher grade point averages than students in similar schools not participating in SEL (Murray & Malmgren, 2005). A study conducted on teachers' attitudes and perceptions of SEL by Bridgeland et al. (2013) demonstrated that teachers in high-poverty schools reported more positive student-teacher relationships and stronger student academic performance. These skills will follow them into adulthood, with the possibility of a continued and lasting impact on poverty levels.

Method

Research Question

This study sought to explore the impact of implementing an SEL literacy-based curriculum on the academic achievement in English Language Arts (ELA) of elementary-age students attending public, high-poverty schools. Because the focus of this research study was on SEL learning in high-poverty schools, the ten elementary schools chosen for the study had a greater than 75% free and reduced lunch rate, with some schools as high as 99%, and all were classified Title 1. The SEL literacy curriculum program chosen for this study was the *Cloud9World's Elementary Core* program.

Accordingly, the research question investigated in this study was "what is the impact of a SEL literacy-based curriculum on academic achievement in ELA in high poverty public elementary school settings?" Of note, the schools chosen for inclusion in this study were classified as persistently low achieving schools by the Education Transformation Office (ETO) of the Florida Department of Education. All ten schools are part of the Miami-Dade Public Schools system.

Research Design

For this study, a quasi-experimental matched-pair research design using archival data was utilized. This approach, using a non-equivalent groups design, established a control group and treatment group based on school decision to implement or not implement the *Cloud9World* curriculum. While random assignment is the optimal procedure for establishing equivalence of groups on both measured and unmeasured characteristics that may be associated with outcomes, it was not practical for this study due to the use of archival data. Thus, any post-intervention differences between groups in outcomes were evaluated using statistical analysis measures that adjust for baseline equivalence factors.

The primary threat to demonstrating the causal effects of treatment in the study could easily have been selection bias by the researchers conducting the study. If left to researcher discretion, it is quite possible that those schools whose students already had a low rate of academic success or other impacting factors would have been selected as treatment schools. Treatment schools were selected simply because they elected to implement the *Cloud9World* program school-wide. This was important because it would be quite possible that administrators would specifically assign the SEL curriculum only to those teachers whose students demonstrate a propensity towards academic success or whose students were already reading at a higher level.

The use of archival data prior to the COVID-19 Pandemic was to allow the researcher to gather and evaluate results from four consecutive years (2015-2016 through 2018-2019) of implementation. An additional fifth year of data (2014-2015) was collected for establishing baseline equivalence. Additionally, after the pandemic had subsided and schools returned to in-person classes, grant funding was discontinued, and some schools were not able to afford the continuation of the initiative due to associated costs. Hence, Year One data (2014-2015) served as the pretest component of the research project, while Year Five data (2018-2019) served as the posttest.

This study proposed to compare two approaches for addressing academic achievement in ELA of third through fifth-grade students attending elementary schools in an urban setting. The first approach, assigned to the treatment group, used the literacy-based curriculum developed by *Cloud9World Corp*. This curriculum specifically focuses on assisting students with academic growth in literacy while instilling in them behaviors associated with positive social-emotional growth.

For the control group, no specified treatment was applied. To that effect, the strategy was consistent with traditional literacy instructional techniques used in schools for addressing academic growth in literacy. As no specific curriculum was assigned to the control group, individual schools chose to use materials other than those of the treatment schools.

Subjects

The subjects for the study consisted of students attending 10 elementary schools in the Miami Dade Public School System. As stated previously, these schools had all been designated as "persistently lowest

achieving" by the ETO. During the first school year of implementation of the treatment (2015-2016), 2,073 students were enrolled in grades K-5 in the treatment schools, while 1,989 were enrolled in K-5 in the control schools. The breakdown, per group, of the demographics by race is as follows: Treatment schools (n = 2,073) – White (0.4%), Black (92.6%), Hispanic (6%) and other (1.2%); Control schools (n = 1,989) – White (1.4%), Black (68.3%), Hispanic (26%) and other (4.2%). Additionally, 91.4% of the students in the treatment schools qualified for free or reduced lunch, while 97.1% of the control school students did.

During the fourth school year of the study (2018-2019), 1,902 students were enrolled in grades K-5 in the treatment schools, while 1,783 were enrolled in K-5 in the control schools. The breakdown, per group, of the demographics by race during the fourth year is as follows: Treatment schools (n = 1,902) – White (1.0%), Black (87.8%), Hispanic (10.3%) and other (0.8%); Control schools (n = 1,783) – White (1.1%), Black (71.9%), Hispanic (28.7%) and other (0.7%). Additionally, 86.8% of the students in the treatment schools qualified for free or reduced lunch, while 97.8% of the control schools.

Variables and Treatments

The independent variable in this study is the curriculum applied in each school**.** The use of the literacy-based curriculum developed by *Cloud9World Corp* was assigned to the treatment group. To reiterate, this curriculum was specifically designed to assist student growth in literacy while addressing behaviors associated with positive social-emotional growth. No specified treatment was applied to the control group. Individual schools assigned to the control group utilized materials not associated with the SEL-specific curriculum.

The treatment curriculum was first introduced to the treatment schools during full-school faculty and staff presentations at each school during required meetings. The dates and times of these meetings varied between August and September as each school elected to start with its first set of character strengths. Prior to the implementation of the intervention, schools were tasked with selecting eight character strengths from a list of 30 provided by *Cloud9World* (see Appendix) that as a school, they wanted to focus on. As such, it is possible not all schools focused on the same set of character strengths. Additionally, schools were permitted to change character strengths annually to account for students who were promoted to the next grade level.

Representatives of *Cloud9World* conducted school faculty training sessions to introduce each school to the curriculum materials. During these sessions, faculty and staff members were given opportunities to review each character strength being introduced in the coming year (one strength per month) and the books associated with the curriculum. After the initial review, best practices of the immersion rollout process were discussed. These face-to-face introduction sessions took place at the start of every school year during the study to ensure that newly hired teachers had a working knowledge and understanding of the program, and that every staff member was familiar with the character strengths they would be incorporating as part of instruction throughout the year.

A counselor in each of the treatment schools was designated as the point person if problems arose. As part of continuous follow-up, every trimester, a *Cloud9World* representative visited each school counselor to join him or her in evaluating implementation fidelity through the process of walk-throughs, answering questions, and

introducing any new support materials. Together, the counselor and the *Cloud9World* representative examined program data each year to confirm the fidelity of the implementation of the initiative.

Although problem behaviors were tracked, the dependent variable of interest for this study was student academic achievement in literacy. As such, only the academic achievement data reported was analyzed. Data regarding academic achievement was collected using standard achievement school report forms for reporting assessment data.

Data Collection and Variables

Test data collection formally began during the first year of implementation of the curriculum during the 2015-2016 school year and was completed at the culmination of the 2018-2019 school year. As stated previously, data from the 2014-2015 school year was collected to establish baseline equivalence.

At the completion of each school year, students in grades three through five were given a state mandated standardized assessment regarding English Literacy Achievement (ELA). The corresponding ELA results of each designated school in the study was made available to the administration through the Florida Department of Education (FLDOE) School Reporting System. The data from these reports was made available for this study for each year of the study's duration.

As stated above, the dependent variable in this study is academic achievement in ELA as measured by such tests. The reports made available for this study reflected the percentage of students meeting proficiency or above in ELA on the assessment. While individual student scores were not made available, the overall outcomes of each individual school in the study were made available. This allowed the data to be analyzed holistically.

While the use of end-of-year state standardized tests to evaluate student improvement year to year has come into question due to the difference in student populations from one to the next, this study chose to utilize them due to a focus on the longitudinal impact of the treatment curriculum. For example, the students in kindergarten during year one of the study were those in third at the conclusion, demonstrating the impact on grade level results of the program over time. Similarly, first graders were in fourth grade, and second graders were in fifth. This is important to note, as the elementary curriculum is grade level focused between lower (between grades one and three) and upper (between grades four and five) elementary.

Initial statistical analysis of the data was performed using descriptive statistics on various variables and factors associated with either student demographics or ELA outcomes. A Cohen's *d* analysis was performed to evaluate baseline equivalence during the first year of implementation. An ANCOVA test was used to adjust for covariates that may impact any post-intervention differences between groups in outcomes.

Results

To answer the research question proposed in this study, a number of statistical tests were utilized. The data collected were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were first generated. The descriptive statistics assisted in describing and summarizing the data to provide a better understanding of the distribution of the variables. The descriptive statistics run on the Free and Reduced Lunch Count for the control schools (M =

386.3, *SD* = 124.6) and the treatment schools (*M* = 379.0, *SD* = 50.9) revealed the means of the two groups to be similar but the standard deviation to be quite greater for the control group. Similarly, the descriptive statistics run on the Minority Count for the control schools (*M* = 391.0, *SD* = 136.0) and the treatment schools (*M* = 413.0, *SD* = 70.5) revealed the means of the two groups to be not very far apart but the standard deviation to be quite greater for the control group.

This data was used for the purpose of evaluating baseline equivalence via a Cohen's *d* test. Specifically, a Cohen's *d* test was run on these two separate variables, Free and Reduced Lunch Count and Minority Count, as these characteristics may have an impact on outcomes associated with the treatment. As stated previously, the purpose of these tests was to help determine effect-size during the first year of implementation.

The results of these tests indicate a moderate effect when evaluating Free and Reduced Lunch Count numbers (Cohen's *d* = 0.08) when compared with Cohen's guidelines (moderate effect, $0.05 \leq d \leq 0.25$) and Minority Count numbers, as defined by the United States Census Bureau (Cohen's *d* = 0.20). These findings reveal that a statistical adjustment is required to satisfy baseline equivalence. According to the What Works Clearinghouse Group (n.d.), utilizing an ANCOVA analysis to evaluate the data in such cases is recommended.

To evaluate the ELA achievement data, both descriptive statistics and t-tests were run. Descriptive data were used as an initial analysis tool to evaluate frequencies and mean differences between the control group and treatment group during the four-year period. Table 1 shows the mean results from the descriptive statistics run on ELA proficiency data for the 2014-2015 school year. Table 2 reflects the same for the 2018-2019 school year for the same ten schools. Students are given a level rating based upon the results of their exams. Levels range from 1 (Poor) to 5 (Exemplary), While the hope is for students to score at a Level 5 rating, Level 3 (Progressing) and Level 4 (Proficient) are considered acceptable. Hence, student results were divided by those scoring in Level 1 or 2 and those scoring Level 3 or above.

Table 1

ELA 2014-2015 Mean Proficiency Results

	Control Schools			Treatment Schools		
	# of Students	# of Students (Level 3 and Above)	% of Students (Level 3 and Above)	# of Students	# of Students (Level 3 and Above)	% of Students (Level 3 and Above)
			Third Grade			
	50	9	18.0%	72	27	37.5%
	113	41	36.3%	89	29	32.6%
	50	14	28.0%	57	25	43.9%
	54	13	24.1%	55	19	34.5%
	54	12	22.2%	86	32	37.2%
Total	271	89	25.7%	359	132	37.1%
			Fourth Grade			
	34	11	32.4%	70	30	42.9%
	97	35	36.1%	91	43	47.3%
	43	22	51.2%	52	21	40.4%
	53	15	28.3%	41	13	31.7%
	40	6	15.0%	60	30	50.0%
Total	267	89	32.6%	314	137	42.5%
			Fifth Grade			
	29	7	24.1%	63	35	55.6%
	76	21	27.6%	63	36	57.1%
	45	11	24.4%	46	12	26.1%
	66	26	39.4%	56	22	39.3%
	43	15	34.9%	78	35	44.9%
Total	259	80	30.1%	306	140	44.6%

Table 2

ELA 2018-2019 Mean Proficiency Results

	Control Schools			Treatment Schools		
	# of Students	# of Students (Level 3 and Above)	% of Students (Level 3 and Above)	# of Students	# of Students (Level 3 and Above)	% of Students (Level 3 and Above)
			Third Grade			
	47	15	31.9%	94	37	39.4%
	49	15	30.6%	63	31	49.2%
	60	19	31.7%	46	28	60.9%
	69	24	34.8%	40	18	45.0%
	40	7	17.5%	74	47	63.5%
Total	265	80	29.3%	317	161	51.6%
			Fourth Grade			
	38	17	44.7%	78	47	60.3%
	55	19	34.5%	49	32	65.3%
	52	22	42.3%	40	21	52.5%
	63	15	23.8%	47	24	51.1%
	31	10	32.3%	56	40	71.4%
Total	239	83	35.5%	270	164	60.1%
			Fifth Grade			
	33	10	30.3%	79	43	54.4%
	60	26	43.3%	74	31	41.9%
	46	13	28.3%	45	23	51.1%
	50	20	40.0%	30	15	50.0%
	44	20	45.5%	78	45	57.7%
Total	233	89	37.5%	306	157	51.0%

Tests for Normality

One of the more common errors in statistical analysis is the assumption that the data follows a normal distribution; in other words, the researcher assumes that the populations from which the samples come are normally distributed. To avoid this error, using SPSS, a Shapiro-Wilk test was conducted on pretest and posttest data to check for normality on the total student populations of the control and treatment schools. The results of the test indicate that both sets of data follow a normal distribution $W(6) = .898$, $p = .364$ for the pretest groupings and $W(6) = .918$, $p = .494$ for the posttest groupings.

ELA Achievement Data

To evaluate the ELA achievement data, both descriptive statistics and ANCOVA tests were conducted. The descriptive data from these reports were first evaluated to see if there were any noticeable differences in the

means between the two groups. A review of the pretest results did reflect a noticeable difference between the Control Group and the Treatment Group. Still, a review of the posttest data appeared to reveal a much larger increase in the Treatment Group numbers than the Control Group as a whole and on two grade levels, third and fourth.

Subsequently, an ANCOVA was run, accounting for any interaction effects of the two categorical variables: Free and Reduced Lunch (FRL) Count and Minority Count. First, to control for any impact socioeconomic status may have, the FRL Count data was set as the covariate, with treatment set as the fixed factor and posttest results as the dependent variable. The results of this analysis revealed a statistically significant difference [$F(1,28) = 15.8$, $p < .001$] between the treatment and control group outcomes while adjusting for socioeconomic status as measured by Free and Reduced Lunch Count numbers.

Similarly, an ANCOVA test was run to control for any impact of Minority Count, which was set as the covariate, with treatment set as the fixed factor and posttest results as the dependent variable again. The results of this analysis reveal a statistically significant difference [$F(1,28) = 41.60$, $p < .011$] between the treatment and control group outcomes while adjusting for minority status as measured by Minority Count numbers.

These tests were followed by a series of t-tests to determine where key differences may have occurred. The first was an independent samples t-test between the control and treatment groups to determine if there were any statistically significant differences in the first-year results. The results of this analysis revealed that there was a significant difference between the two groups at baseline, $t(28) = -3.6$, $p = .001$. Second and third paired samples t-tests were performed, analyzing the change in results between the pretest and posttest for the Control Group and Treatment Group, respectively. The outcome of the t-test on the Control Group pre and posttest data revealed that there was no statistically significant difference between the two tests, $t(28) = -1.47$, $p = .151$. By contrast, the results of the t-test on the Treatment Group pre and posttest data revealed that there was a statistically significant difference between the two tests, $t(28) = -3.97$, $p = .001$. One final independent samples t-test was conducted between the posttest results of the two groups. The results of that test revealed once again a statistically significant difference between the two groups' outcomes, $t(28) = -6.52$, $p = <.001$.

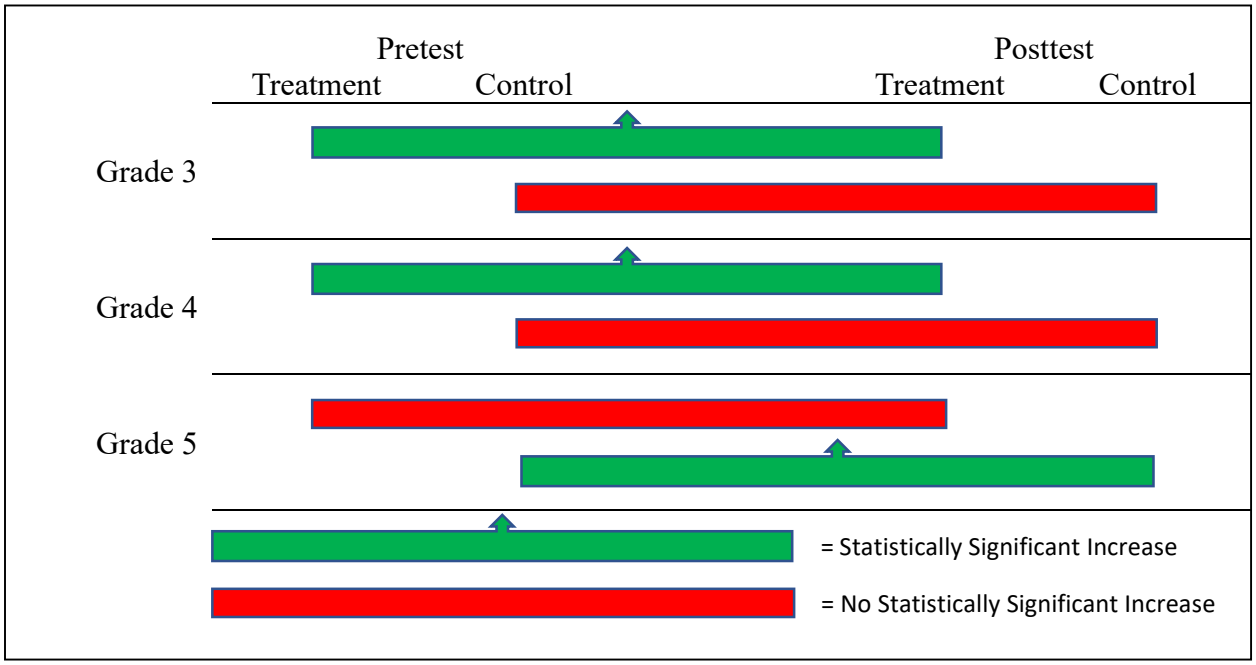
To expand on these findings and based upon a review of the descriptive statistics, a second series of t-tests were conducted to evaluate the data by grade level. The findings of the initial six t-tests were interesting (see Figure 1). In this series, the pretest and posttest results of each grade level within each group were evaluated. The results revealed no statistically significant differences in pretest and posttest percentages for the following groups: 3rd-grade control group ($t(4) = -0.906$, $p = .208$); 4th-grade control group ($t(4) = -0.585$, $p = .294$); and 5th-grade treatment group ($t(4) = -0.941$, $p = .199$).

By contrast, the results revealed statistically significant differences in pretest and posttest percentages for the other three groups: 3rd-grade treatment group ($t(4) = -3.589$, $p = .011$); 4th-grade treatment group ($t(4) = -11.386$, $p = .0001$); and 5th-grade control group ($t(4) = -2.791$, $p = .024$). Accordingly, one final t-test was conducted. The pretest data of the 5th-grade control and treatment groups was analyzed. The results of this test demonstrated a statistically significant difference between the two 5th-grade groups' outcomes, $t(4) = -2.90$, $p = .0022$, with the treatment group having

significantly higher percentages. This suggests that the high pretest percentages of the 5th-grade treatment group had an impact on improvement numbers.

Figure 1

Data by Grade Level



Alternate Text: Statistically significant increases were found between pretest treatment and posttest treatment in grades three and four and between pretest control and posttest control in grade five. No statistically significant increases were found between pretest control and posttest control in grades three and four and between pretest treatment and posttest treatment in grade five.

Discussion

Findings

This study identified the impact of a literacy-based social-emotional learning curriculum initiative on ELA academic achievement over a four-year period. Statistically significant effects were observed, which suggest that providing students attending an urban elementary school program with a high minority and free and reduced lunch population with literacy-based character development learning opportunities can be an effective tool for raising student academic achievement.

Limitations and Future Directions

A couple of limitations to this study should be addressed. First, the process by which the participating schools were selected did not allow for randomization of subjects. By the nature of the program, all students attending a participant school were considered part of the study. An ill effect of this action was that the two grouping student population sizes were slightly imbalanced prior to the implementation of the study. Second, new hires annually may have made the implementation of the literacy curriculum less fluid. Due to the nature of teacher turnover and the impact on classroom climate, the consistent

implementation of the treatment curriculum may have been somewhat difficult.

Also, the use of end of year standardized test data is a limitation as the year-to-year grade level populations change significantly. Additionally, this study was limited to numbers and percentages of students achieving proficiency or not on such tests on a macro level. Individual treatment and control group schools were not evaluated independently, only collectively. It may potentially benefit future studies to narrow down the sample groups to one grade level and track their achievement rates over time.

Conclusions

This study sought to answer a question about the impact of a literacy-based, social emotional learning curriculum on ELA academic achievement in urban elementary schools classified as "persistently lowest-achieving" schools. Specifically, the study evaluated the use of the *Cloud9World* literacy curriculum program on improving student achievement on the end-of-year grade-level assessment required by the state. An analysis of the data demonstrated that the impact of the program on student achievement in ELA on these assessments was statistically significant.

In interacting with staff and students, overall satisfaction with the use of the program was discovered in the treatment schools. Additionally, though not part of the study specifically, administrators and teachers found the program to be beneficial in opening doors for dialogue leading to a better understanding of positive social skills. Subsequently, these dialogues lead to expanded opportunities for redirecting student problem behavior.

The findings of the data and conversations support research literature on the benefits of inclusion of instruction aimed at the growth of students in social-emotional learning (e.g., CASEL, 2024; Wilkins et al., 2023; Weissberg & Cascarion, 2013: Jones & Bouffard, 2012). Additionally, the results of this study indicate that the implementation of a literacy-based curriculum may be associated with improved academic achievement.

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Appendix

List of Character Strengths Curriculum Provided by Cloud9World

- Gentleness
- Commitment
- Creativity
- Patience
- Citizenship
- Tolerance
- Courage
- Gratitude
- Responsibility
- Individuality
- Confidence
- Kindness
- Integrity
- Generosity
- Cooperation
- Love
- Humbleness
- Honesty
- Respect
- Compassion
- Acceptance
- Perseverance
- Loyalty
- Self-control
- Joyfulness
- Forgiveness
- Determination
- Unity
- Wisdom
- Humor

Student Behavior: Internal Versus External Reinforcement, and Academic Performance

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Abstract

Human services professionals are increasingly integral to K-12 school environments, offering support for students' social, mental, and behavioral needs. As the involvement of these professionals grows, there is a pressing need for further research to deepen our understanding of the interplay between students' personalities, academic performance, and behavioral issues. This study explored the relationship between locus of control, academic functioning, and discipline issues among high school seniors. The analysis revealed a statistically significant negative correlation between academic test scores and discipline referrals, highlighting a link between academic performance and behavioral issues. Contrary to initial hypotheses, no significant relationships were found between locus of control and either discipline referrals or academic performance. These findings underscore the critical role of reducing behavioral referrals to enhance academic instructional time. They also highlight the complex nature of student behavior and academic achievement, suggesting that factors beyond locus of control contribute to these dynamics.

Keywords: academic achievement, school discipline, locus of control, internal versus external reinforcement

Assessing the relationship between locus of control, academic functioning, and discipline issues among high school seniors is crucial for promoting a positive learning environment and supporting students' overall social, mental, and behavioral development (Kumaravelu, 2018; Suraj et al., 2023). Understanding how students perceive their ability to influence outcomes, whether they attribute success or failure to internal factors or external circumstances, can help identify specific elements that impact factors associated with student learning and the learning environment (Kumaravelu, 2018; Miller et al., 2003; Suraj et al., 2023). By examining this relationship, human services professionals can implement targeted interventions that foster a sense of personal responsibility, resilience, and motivation, ultimately leading to improved interventions focused on students' personalities, academic performance, and behavioral issues.

Many school systems face financial challenges in hiring and retaining school counselors and other mental health support staff (Langreo, 2023; Murphy & Kim, 2023). To address these gaps, numerous school districts collaborate with local mental health agencies to provide comprehensive counseling, emotional support, and social services to students grappling with mental health issues (Hollingsworth, 2024; Laird, 2024; Langreo, 2023). Funded by grants (U.S. Department of Education, 2022) or through billing insurance, these agencies alleviate financial pressures on school districts, allowing them to reallocate resources to other critical areas (Hollingsworth, 2024; Laird, 2024). Such partnerships not only augment the resources available to school districts but have also enriched the roles of human services professionals, who are now better equipped to understand and meet their clients' diverse and dynamic needs.

The school environment, with its myriad pressures, including peer interactions, academic demands, and social challenges, can be particularly daunting for students struggling to adapt (Broderick & Blewitt, 2019; Lambie et al., 2019; Murphy & Kim, 2023). These struggles manifest in various forms of academic distress (Gargiulo & Bouck, 2018), with some students internalizing their stress, leading to anxiety, depression, or even suicidal ideation (Feldman, 2021). Such students might withdraw, becoming less visible to support staff or seek help through social networks or formal counseling services (Demaray et al., 2005; Suldo et al., 2014). Conversely, students who externalize their distress often engage in aggressive behaviors, bullying, or argumentativeness. Often, these students find themselves being disciplined, which may include losing privileges at school, receiving a referral to the office, being suspended, or being expelled (Gargiulo & Bouck, 2018; Murphy & Kim, 2023; U.S. Department of Education, n.d.). Recent trends also indicate a troubling increase in such disciplinary measures among high school students, which not only impacts their academic success but also correlates with heightened risks of future legal entanglements (Flaherty & Weist, 1999; Murphy & Kim, 2023). These trends underscore the critical need for a deeper understanding of the factors influencing student behavior and academic outcomes.

Review of Literature

Behavior Problems in Schools

Discipline and behavior problems in America's public schools represent a significant challenge, being both widespread and detrimental to the educational environment. Such issues not only compromise student learning but may also escalate into more severe behavioral

problems (Lambie et al., 2019; Marchant, 2004). The United States Department of Education (n.d.) reported that, out of the 49 million students enrolled in public schools, 3.5 million were subjected to in-school suspensions, another 3.45 million faced out-of-school suspensions, and 130,000 were expelled. Furthermore, the National Education Association (NEA) has highlighted the extensive impact of these disciplinary actions, noting that students in the United States lose approximately 18 million days of instruction annually due to suspensions (Kiema, 2016). It is critical to acknowledge that poor academic performance is not a direct cause of problematic behaviors. Instead, there is a complex interplay where students exhibiting behavioral issues and receiving discipline referrals are more likely to experience academic deficits (Kremer et al., 2016; Putnam et al., 2005). Recent studies have begun to unpack the multifaceted nature of this issue, exploring how factors such as school climate, teacher-student relationships, and access to mental health services influence student behavior and disciplinary outcomes (Cornelius-White, 2007; Thapa et al., 2013). For instance, research indicates that positive school climates and strong, supportive teacher-student relationships are inversely related to the occurrence of disciplinary actions (Cornelius-White, 2007). Moreover, access to comprehensive mental health services within schools has been shown to mitigate behavior problems, thereby reducing the need for disciplinary actions (Anyon et al., 2016).

The 2020-2021 *Civil Rights Data Collection* report offered compelling statistics on school discipline; the report revealed that 786,000 total K-12 students received an in-school suspension, and 638,700 received an out-of-school suspension at least once (U.S. Department of Education Office for Civil Rights, 2023). These students exhibited a significantly higher likelihood of involvement with the juvenile justice system in the subsequent year. Alarmingly, 75% of students identified with an educational disability experienced suspension or expulsion at least once. Research underscores the gravity of these disciplinary actions: just one suspension in ninth grade markedly elevates the risk of high school dropout, with each additional suspension amplifying that risk by 20% (Balfanz et al., 2014). While suspensions might be seen as mere correlates rather than causative factors in student outcomes, the American Psychological Association (2014) has found no evidence that suspension, expulsion, or zero-tolerance policies lead to improved student behavior or heightened school safety. On the contrary, such punitive measures are associated with an increased likelihood of future behavioral issues, academic struggles, student detachment, and dropout rates.

Schools routinely collect data on office referrals for student discipline problems, yet this information often lacks the detail necessary for understanding and improving individual student behavior or reducing disruptive incidents effectively. The early identification of behavioral issues and subsequent intervention are crucial for preventing the escalation of such problems (Eklund et al., 2009; Glascoe, 2000; Pas et al., 2011). Children who exhibit disruptive behaviors upon school entry, including oppositional and aggressive tendencies, face a heightened risk of enduring social and academic challenges. These early behavioral difficulties, coupled with failures in developing positive peer relationships, are linked to a spectrum of later social adjustment issues, including school dropout, delinquency, teenage pregnancy, substance abuse, violence, and criminal activities (Ali

et al., 2019; Eklund et al., 2009; Murphy & Kim, 2023; Rusby et al., 2007).

Statewide Testing/High Stakes Testing

High-stakes testing is a pivotal element in today's educational system, utilized to make critical decisions about students, educators, schools, and districts (Burchbuckler, 2013; Croft et al., 2016). These tests serve as a mechanism for accountability, aiming to ensure that students are part of effective educational environments and are instructed by competent teachers (Marchant, 2004; Munoz, 2024). The term "high-stakes" refers to the significant consequences linked to test outcomes, including sanctions, penalties, funding adjustments, and crucial academic decisions like college admissions, grade promotion, or graduation for students, as well as financial incentives for educators (Marchant, 2004; Munoz, 2024). One such high-stakes test is the ACT, which is widely utilized for college admissions decisions. In 2023, 1,386,000 students took the ACT making it the most widely used high-stakes test utilized in the U.S. (Adams, 2017; National Center for Education Statistics, 2024). The high-stakes testing movement can be traced back to the 1980s, following the publication of *A Nation at Risk*, which criticized the lack of rigorous standards in public schools across the United States. This led to a concerted effort to reinforce curriculum fundamentals, set high standards, and implement accountability measures (Munoz, 2024). The No Child Left Behind Act (NCLB) marked a significant milestone in this journey, aiming to provide all children, irrespective of their backgrounds or challenges, with the opportunity to receive a high-quality education. NCLB introduced mandatory annual testing from grades three through eight with state achievement tests. This act was later succeeded by the Every Student Succeeds Act (ESSA), which continued to link student performance on standardized tests to sanctions for schools failing to achieve adequate yearly progress.

The role of testing in education is multifaceted. According to the American Psychological Association (2014), measuring student learning is a fundamental process in enhancing the nation's educational standards. Tests should be integrated into a broader system that promotes equitable educational opportunities and advancement for all students. When utilized appropriately, tests represent one of the most reliable and objective methods to assess student performance, offering valuable insights to educators about individual student progress and the effectiveness of teaching strategies and curriculum materials (Neukrug & Fawcett, 2020). Under ESSA, school districts are mandated to measure student performance rigorously and hold schools and educational systems accountable for these outcomes.

To navigate the complexities of high-stakes testing, it is essential to consider the broader implications of these assessments on educational equity and student well-being. Research suggests that while high stakes testing aims to improve educational outcomes, it may also exacerbate stress among students and teachers and contribute to narrowing the curriculum to focus primarily on testable subjects (Au, 2007; Berliner, 2011). Furthermore, the emphasis on standardized testing has raised concerns about its impact on teaching practices and the marginalization of students from diverse backgrounds (Darling-Hammond, 2010; Kozol, 2005).

In light of these challenges, there is a growing call for a more holistic approach to assessment that includes multiple measures of student learning and development (Popham, 2011; Schneider & Hutt, 2014).

Such an approach would not only provide a more comprehensive picture of student achievement but also foster an educational environment that supports all aspects of student growth and development.

Locus of Control

Understanding behavior necessitates considering both individual dispositions and environmental contexts (Rotter, 1966). Rotter's social learning theory posits four primary components that shape behavior: behavior potential, expectancy, reinforcement value, and the psychological situation. This theory underscores the significant influence of social context or environmental factors on behavior rather than attributing behavior solely to individual psychological factors (Rotter, 1966). A notable strength of Rotter's framework is its integration of specific and general constructs, thereby leveraging the advantages of each. In this model, every general construct is mirrored by a specific counterpart, ensuring that a corresponding cross-situational generalized expectancy exists for each situation-specific expectancy. Within the ambit of social learning, locus of control is conceptualized as an individual's overarching belief about the sources of reinforcement in life, whether these are internal or external to oneself (Bandura, 1986; Haggbloom et al., 2002; Rotter, 1966). Individuals with a pronounced internal locus of control perceive their own actions as the primary determinant of reinforcement, attributing success or failure to personal efforts. Conversely, those with an external locus of control attribute outcomes to factors beyond their control, such as luck, chance, or other influential individuals, perceiving little correlation between their efforts and the outcomes. Historical research has indicated gender differences in locus of control, with men typically exhibiting a higher internal locus of control than women. However, subsequent studies have observed a shift towards a stronger external locus of control across genders since the initial research into this construct (Sherman et al., 1997).

Locus of control remains a critical element in student self-development, influencing academic outcomes and personal growth. Interventions designed to enhance internal locus of control can significantly benefit students (Kumaravelu, 2018; Suraj et al., 2023). Students who attribute success to internal factors are more likely to anticipate future successes, whereas those who attribute failure to internal factors may foresee future failures unless they believe in their capacity to effect change (Mali, 2013; Shepherd et al., 2006). This attribution style influences not only academic achievement but also students' general approach to challenges and opportunities.

Empirical studies have consistently found an internal locus of control to be a positive predictor of academic achievement, while an external locus of control tends to predict poorer academic outcomes (Kremer et al., 2016; Kutanis et al., 2011; Mali, 2013; Shepherd et al., 2006). For instance, Miller et al. (2003) explored the perceptions of control among adolescents with chronic behavior problems, comparing the locus of control between students in regular and alternative schools. Their findings revealed that students in alternative settings exhibited a stronger external locus of control, suggesting that behavioral issues may be linked to how students perceive their ability to influence their environment. Furthermore, Bartel (1971) investigated the relationship between locus of control and academic achievement among children from varying socioeconomic backgrounds. The study found no initial differences in locus of control between lower and middle-class children in early grades. However, by the sixth grade, significant disparities emerged, indicating that school experiences and

interactions play a crucial role in shaping children's locus of control over time. This evolution suggests that educational environments significantly influence the development of locus of control, impacting students' responses to and interactions with their surroundings.

This study further explores the intricate relationship between academic achievement, school discipline referrals, and students' locus of control. By identifying these dynamics, the research seeks to contribute to the development of more effective strategies for supporting at-risk students, thereby enhancing educational outcomes and reducing disciplinary incidents.

Methodology

Hypotheses

This study tested the following hypotheses: (1) ACT scores are inversely correlated with discipline referrals; (2) ACT scores are inversely correlated with Rotter scores, with internalizers having statistically higher ACT scores; (3) The number of discipline referrals is inversely correlated with Rotter scores, with internalizers having fewer discipline referrals.

Participants

Participants for this study included 84 high school seniors from a rural high school in southern Illinois. The convenience sample included 46 males (55%) and 38 females (45%) in the sample. The age of the participants ranged from 17 to 18. The average ACT score for the sample was 21.27, with a standard deviation (*SD*) of 5.14. ACT scores ranged from 12 to 24. The average number of discipline referrals was 5.76 (*SD* = 8.94). The average locus of control score (described below) for the sample was 11.29 (*SD* = 3.7) and ranged from 3 to 19, which is consistent with earlier research (Rotter, 1966).

Instrumentation

Rotter's locus of control instrument, known as the Internal-External Scale, served as the locus of control measure. This measure is comprised of 29 questions in which the participant circles the statement with which they agree. Each question contained only two statements to choose from; respondents selected either A or B. Of the 29 questions, 23 items are scored. The total is then tallied with a high score indicating an external locus of control and a low score indicating an internal locus of control (Rotter, 1966; Kurt et al., 2012).

Rotter provided information on the initial reliability and validity of the locus of control scale. Rotter reported corrected split-half reliabilities of .65 for males and .79 for females (Rotter, 1966). Rotter felt that the nature of the scale resulted in underestimates of its internal consistency. Test-retest reliability in various samples with one- and two-month intervals ranged from .49 to .83 (Rotter, 1966). Rotter's scale has been broadly used in American contexts as well as in other cultures around the world (Domino & Domino, 2006; Lange & Tiggemann 1981; Huizing, 2015). Based on research, the locus of control scale transitions into other cultures. Cross-cultural research estimates of internal consistency had a mean of .66 and a median of .69, with results as high as .93 and as low as -.40. Test-retest reliability estimates ranged from .53 to .86 with a mean of .66 and a median of .64 (Huizing, 2015).

Procedures

The study was reviewed and approved by the IRB as exempt based on the use of preexisting data. The data for the sample were part of a prior larger study conducted by the school district. All data were collected by school personnel and archived for additional analysis. Permission to utilize this archived data was obtained from the school district, teachers, and school

principal. The researcher explained the nature and purpose of the project as well as the benefits, risks, and voluntariness of the study. No personally identifying information was maintained for this study. All data were uploaded to SPSS for further analysis.

Results

Pearson correlations were used to measure the relationship among all three variables of interest (locus of control, ACT scores, and discipline referrals). This analysis was followed by point-biserial correlations after dichotomizing each of the variables into a high group (above the mean) and a low group (below the mean) or quartiles. The common .05 level of probability was adopted as an indication of statistical significance.

To test the first hypothesis, a Pearson correlation was computed, which resulted in a statistically significant moderate negative correlation of r (82) = -.38, p = .001. This statistically significant association means that, as ACT scores increase the number of discipline referrals decreases and vice versa. To test the second hypothesis, a Pearson correlation was computed, which resulted in no significant association between ACT scores and the Rotter locus of control scale, r (82) = -.09, p = .864. To test the third hypothesis, a Pearson correlation was computed, which resulted in no significant association between the Rotter locus of control scale and discipline referrals, r (82) = .04, p = .718. These results are summarized in Table 1.

Table 1

Correlation matrix for ACT, Rotter, and Discipline Referrals

	ACT	Rotter	Discipline
ACT	---	-.09*	-.38**
Rotter		---	.04***

*p = .864. **p = .001. ***p = .718

In an effort to further analyze any possible associations among the three variables, the ACT, Rotter, and discipline referrals were split at the mean or into quartiles, thus creating dichotomous variables from the continuous variables. Chi-Square analyses were then computed to test for proportionality. However, no statistically significant results were discovered. Specifically, when analyzing proportionality between the ACT (above the mean and below the mean for the sample) and the locus of control raw score (also split at the mean), the resulting chi-square was insignificant, χ^2 (1, N = 84) = .310, p = .577). Similarly, when splitting the locus of control scale into quartiles, the resulting chi-square was not significant, χ^2 (3, N=84) = .807, p = .848). Lastly, a chi-square of proportionality between the number of discipline referrals and the locus of control scale was similarly not significant, χ^2 (1, N = 84) = .040, p = .842). Overall, only the first hypothesis was supported.

Discussion

This study's findings reveal a significant inverse relationship between ACT scores and discipline referrals among high school seniors, aligning with prior research that underscores the link between academic performance and behavioral issues (Kiema, 2016; Whisman & Hammer, 2014).

This correlation suggests that behavioral problems may detract from educational engagement, subsequently impacting academic achievement. However, it's crucial to note that the correlational nature of this study precludes definitive conclusions about causality between academic achievement and behavioral issues.

Unexpectedly, our analysis did not find a significant association between locus of control and either academic performance or discipline referrals. This outcome diverges from previous studies that identified locus of control as a predictor of academic functioning and behavior (Kutanis et al., 2011; Shepherd et al., 2006). The lack of correlation in our study suggests that locus of control may not consistently influence academic and behavioral outcomes across different populations or settings. This inconsistency raises questions about the stability of locus of control as a construct for predicting academic and behavioral outcomes, suggesting the need for further research to explore alternative personality constructs that might more reliably predict these outcomes. The absence of expected correlations between locus of control and academic or behavioral measures in this study could be influenced by several factors. For instance, the effectiveness of academic programming, tutoring, and instructional strategies at the participating school might have contributed to relatively uniform academic performance among students, thereby reducing the variability needed to detect significant correlations. Similarly, effective classroom interventions or a low incidence of behavior warranting disciplinary referrals could explain the lack of association between locus of control and behavior problems.

Implications for Human Services Professionals in K-12 Schools

The correlation between decreased academic performance and increased behavioral issues underscores the importance of early intervention strategies to mitigate behavior problems, supporting the body of research linking behavioral issues to academic challenges (Ali et al., 2019; Lambie et al., 2019; Murphy & Kim, 2023). Given the growing role of human services professionals in schools, there is a unique opportunity to implement systematic screening and intervention processes. By identifying students at risk of maladaptive behaviors at strategic points throughout the academic year, schools can provide targeted support, such as counseling or group interventions, to address potential issues before they worsen.

The findings of this study also highlight an imperative for human services professionals to delve into alternative theoretical frameworks and personality constructs beyond locus of control. Variability in the predictive value of locus of control across different studies signals a need to adopt a broader lens when examining the psychological underpinnings of student success. It suggests that a singular focus on locus of control may not suffice to fully understand or influence the academic and behavioral trajectories of students. Adopting a multi-construct approach allows for the development of more nuanced and adaptable intervention systems. For example, interventions based on resilience theory could focus on strengthening students' ability to bounce back from setbacks (Masten, 2001), while those grounded in theories of motivation could aim to enhance students' intrinsic desire to learn and succeed (Ryan & Deci, 2000). Similarly, incorporating emotional intelligence into intervention strategies could help students better manage their emotions and navigate social challenges, potentially reducing behavioral issues and improving academic engagement (Brackett et al., 2011). This approach not only

broadens the scope of potential interventions but also aligns with the increasingly recognized importance of addressing the whole child in education, encompassing emotional, social, and cognitive development alongside academic achievement.

Limitations and Future Research

The current study is subject to several limitations that affect its generalizability. Primarily, the constrained sample size poses a significant limitation. Expanding the sample would not only enhance statistical power but also allow for a broader examination of behavior and academic functioning across a more diverse set of participants. Additionally, there was variability in how teachers interpreted and applied policies regarding office referrals for disciplinary actions. For instance, some teachers exhibited a higher degree of classroom management, preferring to address behavioral issues internally, while others were more inclined to refer students for even minor infractions. This variability introduces a potential selection bias, as there is no standardized criterion for what constitutes an office referral.

Given these limitations, future research in this area should aim to replicate this study with a larger and more diverse sample to strengthen the findings and enhance their applicability. Moreover, it is crucial for future studies to seek ways to standardize the criteria for discipline referrals across teachers. Engaging school leadership in developing and implementing behavioral training programs, as well as clearly defining policies for office referrals, could mitigate some of the observed inconsistencies. Such initiatives could help align teachers' thresholds for behavioral infractions, ensuring that referrals are made more uniformly and only for significant issues, thereby reducing the potential for bias in disciplinary actions.

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Certified Educators' Perceptions of Math Response to Instruction and Intervention Implementation in Rural Tennessee Middle Schools: A Qualitative Study

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Abstract

Response to Instruction and Intervention (RTI^2) implementation presents unique challenges in rural middle schools, particularly in mathematics instruction. While extensively studied at the elementary level and in reading instruction, limited research exists on math RTI^2 implementation at the middle school level, especially in rural settings. This qualitative interpretive study examined certified educators' perceptions of math RTI^2 implementation in rural Tennessee middle schools. Data was collected via a questionnaire from 25 certified educators across nine rural Tennessee districts who provided math instruction during designated intervention time. Through systematic coding and analysis, three primary benefits emerged: improved academic performance on state assessments, increased student confidence and skill mastery, and advantages of small-group instruction. Key barriers included non-math certified teachers leading intervention groups, time and resource constraints, and student engagement challenges. Results indicate a critical need for enhanced professional development and support systems, particularly for non-math-certified educators tasked with providing math intervention. These findings contribute to the limited literature on rural middle school math intervention and provide insights for improving RTI^2 implementation in similar settings.

Keywords: response to intervention, mathematics instruction, rural education, middle school education, teacher perceptions

Background

The implementation of Response to Instruction and Intervention (RTI^2) emerged from the 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA), which permitted its use as an alternative to the IQ-Achievement discrepancy model for identifying students with specific learning disabilities (IDEA, 2004). Educational leaders also chose RTI^2 because it met the federally mandated guidelines of No Child Left Behind (2002), which required schools to use evidence-based teaching practices for all students (Fuchs, D. & Fuchs, L. S., 2017; Sanger et al., 2012).

Tennessee's approach to RTI^2 evolved beyond the traditional three-tiered model focused solely on special education eligibility. In 2014, state leaders restructured the framework to emphasize instructional opportunities for all students (Berkeley et al., 2020). This shift aimed to create a comprehensive system supporting academic growth while maintaining the capability to identify students with specific learning disabilities.

Statement of the Problem

While researchers have extensively examined reading interventions and RTI^2 at the elementary level, limited information exists on math RTI^2, particularly in middle schools (Bouck & Cosby, 2018; Ciullo et al., 2016). Fuchs et al. (2007) recognized this narrow focus on math instruction and intervention research, a trend that has continued. The implementation of RTI^2 in Grades 6-8 presents unique challenges, including questions about:

- appropriate instructional personnel selection
- optimal intervention duration
- scheduling logistics
- assessment methods for tier placement
- support for non-tiered students during intervention time

Significance of the Study

This research addresses a significant gap in the literature regarding math RTI^2 implementation in rural middle schools. While RTI^2 is intended for all educational settings, most research has focused on medium and large school districts (Bailey, 2014). Furthermore, the prevalence of non-math certified teachers providing math intervention highlights the need to understand educator perceptions and experiences in this context.

Research Questions

This study addressed two primary research questions:

RQ1: What were the perceptions of certified educators who taught math intervention or instruction during core extension time about the benefits, if any, of math Response to Instruction and Intervention (RTI^2) in rural Tennessee middle school districts?

RQ2: What were the perceptions of certified educators who taught math intervention or instruction during core extension time about the barriers, if any, of math Response to Instruction and Intervention (RTI^2) in rural Tennessee middle school districts?

Literature Review

Educational leaders chose RTI as an alternative framework method to the IQ Achievement Discrepancy Model after the 2004 reauthorization of the IDEA (IDEA, 2004). Leaders chose RTI because it met the

federally mandated guidelines of NCLB (2002), which stated schools should use evidence-based teaching practices for all students (Deno et al., 2009; Fuchs, D. & Fuchs, L. S., 2017; NCLB, 2002; Sanger et al., 2012; Swanson et al., 2012). Educators implemented the multitiered prevention system of RTI as it "integrates increasingly intensive instruction and, at each layer, employs assessment to identify students who are inadequately responsive and who therefore require intervention at the next, more intensive layer in the system" (Fuchs, L. S. & Fuchs, D., 2006, p. 621). Ideally, RTI could be utilized as a framework to prevent long-term academic failure and not solely be used for identifying and serving students with disabilities (Fuchs, L. S. & Fuchs, D., 2006). Researchers defined RTI as a prevention model of multitiered instruction (Bouck & Cosby, 2018; Bouck et al., 2019; Dennis, 2015; Dobbins et al., 2014; Donovan & Shepherd, 2013; Fuchs et al., 2007). The Tennessee Department of Education (TDOE) developed its own framework called Response to Instruction and Intervention (RTI^2).

Bailey (2014) found no consistent approach to RTI^2 implementation even though many schools received the same training for RTI^2. Researchers noted the implementation of RTI^2 in Grades 6-8 was met with questions and concerns from educators such as who should teach the interventions, duration of interventions, how to schedule time for interventions, and the most reliable form of assessment to determine tier placement for students (Bouck & Cosby, 2018; Bouck et al., 2019; Ciullo et al., 2016; Faggella-Luby & Wardwell, 2011; Fuchs et al., 2010; Prewett et al., 2012). Although researchers reported all educators had a role in the delivery of high-fidelity instruction during RTI^2 implementation, teachers found the hiring of non-qualified personnel as RTI^2 coaches and core extension instructors as a major concern in the implementation process (King, 2011; TDOE, 2013). Robinson et al. (2013) noted rural school districts faced problems recruiting and retaining highly effective teachers and providing evidence-based instruction due to a lack of funding.

Methodology

Research Design

This study employed a qualitative interpretive methodology to examine educators' perceptions of math RTI^2 implementation. This approach was particularly appropriate for understanding educators' perspectives on RTI^2 implementation, as it allowed for rich, detailed responses about their experiences and challenges with implementing math intervention in rural middle schools.

Participants and Setting

The study utilized purposeful sampling followed by snowball sampling to identify qualified participants across rural Tennessee school districts. Initial participants were selected based on three primary criteria: current certification as educators in rural Tennessee districts, active involvement in delivering math instruction during RTI^2 intervention time, and current teaching assignments in Grades 6-8. This sampling approach yielded 25 certified educators from nine rural Tennessee school districts.

The participant pool represented a diverse range of teaching certifications and assignments. Of the 25 participants, twelve (48%) held math certification, while thirteen (52%) were certified in other subject areas, including science, English language arts, physical education, history, and special education. This distribution reflected the reality in many rural schools where non-math-certified teachers are often called upon

to provide math intervention. Regarding RTI^2 teaching assignments, seventeen participants (68%) worked with non-tiered groups, six (24%) taught Tier II groups, and two (8%) led Tier III groups.

Data Collection

Data collection proceeded through a carefully designed multi-step process. The primary instrument was a questionnaire developed through extensive review of existing literature on RTI^2 implementation and refined through expert feedback and pilot testing. Five educators participated in the pilot study, providing valuable feedback that led to the clarification of questions and the addition of key definitions, particularly regarding non-tiered students.

The final questionnaire comprised five open-ended questions designed to elicit detailed responses about implementation experiences, two multiple-select questions addressing specific aspects of RTI^2 practice, and a demographics section. The instrument also included space for additional comments, allowing participants to share insights beyond the structured questions. The questions were as follows:

1. Do you currently deliver math instruction during core extension at the middle school level?
2. What tier do you primarily provide instruction for? Choose one:
    A. Non-tiered students (i.e., students who do not receive Tier II or Tier III services but still receive math instruction during core extension)
    B. Tier II
    C. Tier III
3. What does math core extension look like in your school? (Examples: Who provides the instruction? Do all students participate in core extension?)
4. What benefits for teachers or students, if any, have you seen since math core extension was implemented in your school?
5. What barriers for teachers or students, if any, have you seen since math core extension was implemented in your school?

The data collection process began after securing IRB approval. Initial contact was made with ten purposefully selected educators who met the study criteria. Through snowball sampling, these participants recommended additional qualified educators, expanding the participant pool. Participants received the questionnaire through a secure online platform and were given a two-week response window. Data collection continued until reaching saturation point, where new responses no longer yielded novel insights.

Data Analysis

Analysis followed a systematic three-stage coding process designed to identify and refine themes within the data. The first stage involved open coding, where initial review of all responses led to identification of recurring concepts and development of preliminary categories. During this phase, particular attention was paid to specific examples and experiences shared by participants regarding both benefits and challenges of RTI^2 implementation.

The second stage employed axial coding, where related concepts were grouped into broader categories. This process revealed connections between various aspects of RTI^2 implementation, such as the relationship between teacher qualification and perceived implementation effectiveness. The final stage, selective

coding, integrated these categories into core themes directly addressing the research questions.

Results

Analysis of participant responses revealed distinct patterns regarding both the benefits and challenges of math RTI^2 implementation in rural middle schools. The findings aligned clearly with the study's two primary research questions, illuminating both successes and obstacles in current implementation practices.

Research Question 1: Perceived Benefits

The analysis revealed three primary categories of benefits associated with math RTI^2 implementation. The first significant benefit, reported by 28% of participants, centered on improved academic performance. Educators consistently noted increases in end-of-year assessment scores, with several specifically mentioning recovery to pre-COVID achievement levels. As one teacher explained, "Our scores have increased back to what they were prior to COVID-19" (Participant 11). This academic improvement manifested not only in standardized test scores but also in classroom-based assessments and daily mathematical performance.

The second and most frequently cited benefit, mentioned by 36% of participants, involved student growth and confidence. Teachers observed significant improvements in students' mathematical self-efficacy and willingness to engage with challenging material. One particularly illustrative response came from Participant 15, who noted, "Math core has benefited many students as far as building up of basic skills that they need in order to feel successful in the Tier I classroom. These students feel more confident when they successfully master a skill." This growth in confidence appeared to correlate with improved classroom participation and willingness to attempt more challenging mathematical tasks.

The third benefit category, cited by 24% of participants, focused on instructional advantages, particularly those associated with small-group instruction and individualized attention. Teachers reported that the RTI^2 framework allowed them to provide more targeted instruction and respond more effectively to individual student needs. As Participant 2 explained, "The ability for every single student to receive some sort of small group tiered instruction is something that I, in turn, see the benefits of in my own math classroom." This structure enabled teachers to identify and address specific skill gaps while providing appropriate challenges for students at all achievement levels.

Research Question 2: Perceived Barriers

The study also revealed several significant challenges in implementing math RTI^2 effectively in rural middle schools. The most prominent barrier, identified by 40% of participants, concerned staffing and qualification issues. The practice of assigning non-math-certified teachers to lead intervention groups emerged as a particular concern. Participant 17 articulated this challenge clearly: "Not all teachers are good at math so being able to help students could be a problem. I have heard other teachers complain about not understanding math enough to help." This situation appeared particularly problematic in rural schools where staffing options were often limited.

Time and resource constraints emerged as the second major barrier, mentioned by 20% of participants. Teachers expressed concern about balancing intervention time with core instruction requirements. The increased planning demands associated with intervention groups created additional strain on already busy schedules. One teacher's response captured this tension: "The time required each day

for RTI² is time taken away from class instruction" (Participant 14). This challenge was exacerbated by limited planning time and resources typical in rural school settings.

Student engagement issues constituted the third significant barrier, cited by 24% of participants. Teachers reported difficulties maintaining student motivation and participation, particularly among Tier II students. As Participant 23 observed, "A large percentage of students in Tier II are there based on lack of effort, not a learning barrier. The pattern is clearly seen by grades 7 and 8." This observation suggests a need for strategies specifically designed to engage middle school students in intervention activities.

Discussion

The findings from this study provide significant insights into the implementation of math RTI^2 in rural middle schools, revealing both encouraging successes and persistent challenges that warrant careful consideration.

The reported improvements in academic performance align with previous research by Dulaney (2012), suggesting that RTI^2 can effectively support struggling students when implemented with fidelity. However, these findings extend beyond previous work by highlighting the particular importance of student confidence and engagement in middle school mathematics. The emphasis participants placed on increased student confidence represents a particularly noteworthy finding, as it suggests that well-implemented RTI^2 programs can address both academic and affective aspects of mathematical learning.

The prevalence of non-math certified teachers leading intervention groups emerges as a critical challenge requiring immediate attention. While previous research by King (2011) identified staffing challenges in rural schools, these findings suggest this issue may be more acute in middle school mathematics, where content expertise becomes increasingly crucial. The situation raises important questions about the preparation and support needed for non-math-certified teachers tasked with mathematical intervention.

The time and resource constraints identified by participants reflect systemic challenges in rural education settings. However, these findings suggest these constraints may have particular significance in middle school mathematics, where the complexity of content and the importance of foundational skills for future academic success create additional pressures. The scheduling challenges and increased planning demands reported by participants indicate a need for innovative approaches to time management and resource allocation in rural middle schools.

Implications for Practice

The findings from this study suggest several important implications for educational practice, particularly in the context of rural middle school mathematics instruction. The high percentage of non-math-certified teachers leading intervention groups necessitates a comprehensive approach to professional development and support. Schools and districts must develop targeted training programs that address both mathematical content knowledge and pedagogical strategies specific to middle school intervention. These programs should extend beyond traditional workshop models to include ongoing mentorship and collaborative learning opportunities.

The success of small group instruction reported by participants suggests that schools should prioritize creating and maintaining these instructional arrangements, even in the face of staffing and scheduling challenges. This might

involve creative scheduling solutions and the development of flexible grouping strategies that maximize the use of available personnel while ensuring students receive appropriate support. The establishment of mentor relationships between math-certified and non-math-certified teachers could provide crucial support for those less comfortable with mathematical content while building institutional capacity for effective intervention.

The student engagement challenges revealed in this study indicate a need for middle school-specific intervention strategies that acknowledge the unique developmental needs of adolescent learners. Schools should consider developing intervention approaches that incorporate real-world applications and technology integration while maintaining rigorous mathematical content. The reported increase in student confidence suggests that intervention programs should explicitly address both academic skills and mathematical self-efficacy.

Study Limitations

Several important limitations must be considered when interpreting the results of this study. The reliance on self-reported data through questionnaires, while allowing for broad participation across multiple districts, limited the ability to directly observe classroom practices and student-teacher interactions. The absence of classroom observations means that the relationship between reported practices and actual implementation remains unexplored.

The geographic scope of the study, confined to rural Tennessee, potentially limits the generalizability of findings to other contexts. While many of the challenges identified likely resonate with rural schools across the country, specific state policies and regional characteristics may influence both the implementation of RTI^2 and educators' perceptions of its effectiveness. The moderate sample size of 25 participants, though sufficient for qualitative insight, may not capture the full range of experiences in rural middle school math intervention.

Recommendations for Future Research

The findings of this study suggest several promising directions for future research in rural middle school mathematics intervention. A pressing need exists for investigation into effective professional development models for non-math-certified teachers who provide mathematics intervention. Such research should examine both content-focused training and pedagogical support, with particular attention to the unique challenges of rural school settings.

Longitudinal studies tracking student progress through middle school mathematics intervention programs would provide valuable insight into the long-term effectiveness of various intervention strategies. These studies should incorporate multiple measures of success, including not only academic achievement but also mathematical confidence and engagement. The positive findings regarding student confidence in this study suggest that affective factors deserve particular attention in future research.

Comparative studies examining implementation differences between rural and urban settings could illuminate how context-specific factors influence program effectiveness. Such research might identify successful strategies that could be adapted across settings while highlighting areas where rural schools require unique approaches. Additionally, investigation into successful scheduling and staffing models could provide practical guidance for schools struggling with resource allocation.

Research incorporating student and parent perspectives would provide a more complete picture of intervention effectiveness. While this study focused on educator perceptions, understanding how students experience mathematics intervention and how parents view its impact could inform program improvements. Such research might particularly examine the relationship between student engagement and intervention effectiveness, a concern highlighted by participants in this study.

Conclusion

This study contributes significant insights to the limited literature on math RTI^2 implementation in rural middle schools. The findings reveal both promising outcomes and substantial challenges that merit attention from educators, administrators, and policymakers. While improved academic performance and increased student confidence suggest the potential of well-implemented intervention programs, the prevalence of non-math-certified teachers leading intervention groups presents a critical challenge requiring immediate attention.

This investigation revealed three primary benefits of math RTI^2 implementation: improved academic performance on state assessments, increased student confidence and mathematical self-efficacy, and advantages of small-group instruction. Simultaneously, participants identified significant barriers, including staffing and qualification issues, time and resource constraints, and student engagement challenges. These findings illuminate the complex reality of implementing mathematical intervention programs in rural middle schools.

The results point to several essential elements for successful implementation: systematic professional development targeted to teachers' specific needs, strategic scheduling and resource allocation that maximizes instructional effectiveness, and intervention approaches specifically designed for middle school students. The challenges identified, particularly regarding teacher qualifications and student engagement, suggest that rural schools require targeted support and resources to implement RTI^2 effectively.

These findings have significant implications for educational policy and practice, particularly regarding teacher preparation and professional development. The success of mathematics intervention in rural middle schools appears to depend heavily on building capacity among all teachers involved in intervention delivery, regardless of their original certification area. As schools continue to refine their intervention programs, attention to both the academic and affective components of mathematical learning will be crucial for supporting student success.

Future research should build on these findings by examining specific intervention strategies, professional development approaches, and implementation models that can address the unique challenges of rural middle school mathematics instruction. By continuing to investigate and address these challenges, educators can work toward ensuring that all students receive effective mathematical support, regardless of their geographic location or school resources.

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An Exploration of Kentucky Superintendents' Experiences with Employment Contract Negotiations

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Abstract

This case study explores Kentucky school superintendents' experiences with employment contract negotiations. Through interviews, we examined the factors influencing these negotiations and the challenges superintendents encountered. The study specifically focuses on Kentucky, given our familiarity with the state's school districts. The primary research questions addressed were: (1) What are the experiences of superintendents when negotiating employment contracts? (2) What are the benefits of formal training in contract negotiations within a school superintendent certification program? Findings indicate a significant difference between initial and subsequent contracts, with superintendents often lacking formal training in negotiating initial contracts. Over time, superintendents relied on experience to navigate subsequent negotiations, primarily focusing on salary and benefits while also considering other influential factors. This research provides valuable insights for current and aspiring superintendents, educational boards, and policymakers in Kentucky and beyond, emphasizing the need for targeted training in contract negotiations.

Keywords: superintendent, contract negotiations, salary negotiations, benefit negotiations

School superintendents in U.S. public school districts shape student achievement outcomes and work with local boards of education to ensure effective governance. Superintendents serve as the chief executive officers of these districts, implement educational policies, manage budgets, and serve as instructional leaders (American Association of School Administrators [AASA], 2021). As of 2021, there are approximately 13,000 school districts across the United States, ranging from small rural districts to large urban systems. The diversity represented by these districts presents unique challenges for school superintendents (National Center for Education Statistics, 2017). Recent trends reveal an emerging pattern of superintendent mobility, with approximately 20% of superintendents changing positions annually and nearly 50% of superintendents leaving their districts within three years of their appointment (Grissom & Mitani, 2016). Factors contributing to this attrition include job stress, political pressures, and the demands of educational reform.

The tenure of public school superintendents in Kentucky is fraught with high-pressure decisions, high-stakes visibility, and a compelling need to navigate and reconcile the scrutiny and demands of a range of investors and observers. No doubt correspondingly, superintendent tenure is short, and turnover is high. In the state of Kentucky, from 2014 through 2023, there were 205 instances of superintendent turnovers, which is consistent with national averages. Of the 205 superintendent turnovers between 2014 and 2023, 65 (31.71%) of the incoming superintendents received higher annual salaries than the outgoing superintendent, 133 (64.88%) received lower annual salaries than the outgoing superintendent, and seven (3.41%) received the same salary as the outgoing superintendent.

Motivation for seeking the position and for presenting as an ideal candidate varies. Salary is neither a reason for seeking the role nor an incentive to overlook negative aspects of the position (Sharp et al., 2002; Pijanowski & Brady, 2009). Nonetheless, superintendent salaries, which are high relative to other district employees, are budgeted by the school board as compensation for the responsibilities of the role. There is a relationship between superintendent salary and tenure in the role (Grissom & Mitani, 2016). That means there is also a relationship – one that, to some degree, a school board can control – between superintendent salary and turnover (Grissom & Andersen, 2012).

Negotiation variables in a superintendent's employment contract include much more than base salary. The total compensation package often includes fringe benefits, which may include vacation days; annuity contributions; vehicle, housing, cell phone, and technology allowances; and reimbursement for insurance premium payments, retirement contributions, education expenses, travel expenses associated with professional development, and membership in civic and professional organizations. Other negotiation variables include the length of the initial contract term, the number of days worked, and the terms under which the contract can be renewed or re-negotiated.

This research explored Kentucky school superintendents' perceptions of employment contract negotiations, and their associated lived experiences in order to better understand what factors might be important in their employment decisions. We sought to answer the following research questions:

1) What are the experiences of superintendents when negotiating employment contracts?

2) What factors were most important for superintendents during contract negotiations?

Answering these questions provides useful information for current and aspiring superintendents, local boards of education, state and national school board associations, state legislatures, and other education advocacy or authorizing bodies in Kentucky, from where the data were collected, and beyond.

Literature Review

A literature review reveals more than 40 years of research devoted to developing our understanding of negotiations, including the seminal works *Get Paid What You're Worth* (Pinkley & Northcraft, 2003), *Negotiation Genius* (Malhotra & Bazerman, 2007), and *Getting to Yes* (Fisher et al., 2011). Negotiating individual employment contracts frames the terms of leadership across various sectors, including education, business, and healthcare. For public school superintendents in the United States, these contracts stipulate not only salary and benefits but also job expectations, evaluation criteria, and termination clauses. In a 2021 survey, nearly 60% of superintendents reported that their contracts did not adequately reflect their responsibilities (AASA, 2021). In the business world, executives negotiate contracts with compensation packages averaging one million dollars annually, many including performance incentives potentially increasing total compensation by 30% or more (Cascio & Boudreau, 2016). In healthcare, more than 80% of physicians negotiate their contracts, which often include key elements such as malpractice coverage and patient load expectations (Menger et al., 2020).

Very little available research focuses on the negotiation experiences of school superintendents, yet there are studies that examine the experiences of plastic surgeons, neurosurgeons, and others in the field of academic medicine (Berman & Gottlieb, 2019; Hollier et al., 2021; Menger et al., 2020; Sambuco et al., 2013). Similar themes emerge from those studies and include the importance of negotiation for future success and the need for training and assistance in contract negotiations. It is important to consider both the benefits and risks of negotiating because the "process impacts not only what deal terms the participants reach, but also how the participants act after an agreement has been reached" (Hart & Schweitzer, 2020, p. 156).

The literature is consistent in reporting that negotiation skills are critical to the success of executives and other professionals. Also true is that negotiation skills can be taught, practiced, and improved. When incorporated into a training program or professional development offering, learning basic negotiation strategies helps to overcome the imbalance in experience and maximize individual value (Menger et al., 2020). The benefits of formal training are numerous and one European research study found a "significant association between the time trainees spend in negotiation training programs and their negotiation performance" (El Shenawy, 2009, p. 192). While negotiation courses and workshops are routine in colleges in business and law, the literature review found few instances where this training was offered in school superintendent certification programs found in colleges of education.

Theoretical frameworks are useful for understanding the negotiation of employment contracts for public school superintendents. The Principal-Agent Theory considers the interests of superintendents (agents) with those of local school boards (principals) (Eisenhardt, 1989). The research seeks to suggest best practices and potential pitfalls in

employment contract negotiations to inform policies and practices in educational leadership training and certification programs. This study seeks to augment the Principal-Agent Theory as it pertains to educational leadership.

Research Methodology

We implemented a case study approach (Yin, 2003) to examine superintendents' experiences with contract negotiations. Interviews were the unit of analysis for both individual case analysis and cross-case analysis. Interviews allowed us to elicit from participants what they experienced as they negotiated their employment contracts and what factors they believed were important in those experiences. Because of our proximity to and familiarity with school districts in Kentucky, the study focused on the experiences of superintendents serving in school districts in that state.

Participants

We used a purposive sampling technique (Flick, 2020) to recruit participants who could best inform us about the problem and answer the research questions. Purposeful sampling allows for the selection of participants possessing specific characteristics consistent with the research questions (Patton, 2015), which for this study included serving as a superintendent and participating in at least one contract negotiation. In this case study, a total of 205 superintendents met the inclusion criteria, as they had been hired as superintendents in Kentucky between 2014 and 2023 and negotiated at least one contract during that time. We interviewed 24 superintendents from this population, representing the diversity and experience of the population. The sample size of 24 participants is appropriate for qualitative research, providing a rich, in-depth understanding of the phenomena while remaining manageable for detailed analysis. Literature indicates a point at which no new information emerges, or saturation, is typically reached with smaller sample sizes in qualitative studies (Guest et al., 2006). By interviewing 24 superintendents, we captured a comprehensive range of perspectives and experiences that highlight the complexities of employment contract negotiations for public school superintendents in Kentucky, ultimately contributing to the broader context of superintendents nationwide. We emailed prospective participants using publicly available email addresses and conducted interviews as superintendents accepted the invitation to participate.

Participants served in school districts of varying sizes and from each region of the state. The majority of participants were male (n=21), although three female superintendents participated in the study. Table 1 includes information about the participants and their school districts. It was important to us to achieve a sample that included superintendents from different regions and districts sizes to gather a variety of experiences.

Table 1

Participant and School District Information

#	M/F	Internal or External Candidate	Region	Student Population				
				0-999	1000-2999	3000-4999	5000-9999	10000+
1	M	External	Central	X				
2	M	Internal	Central				X	
3	M	Internal	Central				X	
4	F	External	Central				X	
5	M	External	Western	X				
6	M	Internal	Southeastern		X			
7	F	External	Central		X			
8	M	Internal	South Central	X				
9	M	Internal	Central	X				
10	M	Internal	South Central		X			
11	M	External	Northern		X			
12	M	Internal	Western		X			
13	M	Internal	Southwestern		X			
14	M	Internal	Central					X
15	M	Internal	South Central		X			
16	M	Internal	Northwestern					X
17	M	External	Western	X				
18	M	External	Central			X		
19	M	External	Southeastern	X				
20	M	Internal	Central				X	
21	M	Internal	Central					X
22	M	External	Northwestern				X	
23	M	External	Southwestern		X			
24	F	External	South Central		X			

Interviews

We conducted semi-structured interviews with each participant to gather information about their individual experiences with contract negotiations. We developed the interview protocol with guidance from Blaha's (2022) work. Although Blaha focused on the experiences of female superintendents both in contract negotiations and their work as superintendents, we found aspects of the protocol useful for understanding the contract negotiation experiences of superintendents more generally. The full interview protocol is available in the Appendix. All interviews were conducted via Zoom, and we recorded the interviews with participants' permission, producing video recordings and transcripts of the interviews. We gave each participant a number to maintain confidentiality and replaced names with these numbers in transcripts and other materials.

Data Analysis

Throughout data collection, we conducted multiple rounds of data analysis

within and across interviews. After an initial review of transcripts, we wrote summaries and analytic memos for each interview, noting important aspects of the participant's experience with contract negotiation. Blaha's (2022) list of factors served as the basis for the initial identification of themes, though other themes emerged from questions asking participants to expand on their ideas and to provide their own important factors. These reviews led to the identification of additional themes in participants' experiences and factors identified as most important to their contract negotiations. We applied these themes across interviews to cluster the data and identify patterns in participants' responses related to different aspects of contract negotiations (Miles & Huberman, 1994).

Limitations

We recognize several limitations of this study. First, the design does not allow for generalizability to all superintendents or even the full population of superintendents in Kentucky. We did not use a random sample, although we attempted to include superintendents from a variety of contexts, including regions of the state and district size. Two areas in which the sample lacked representation were gender and race/ethnicity. While there are more male superintendents than female superintendents in Kentucky, we recognize that the experiences of the three female superintendents in the sample may not represent the experiences of all female superintendents. Additionally, none of the participants identified as Black or African American or Hispanic or Latino. While there are few superintendents in Kentucky who identify as Black or African American or Hispanic or Latino, the number is not zero. As a result, the study lacks the perspective of these demographic groups, which limits the findings and conclusions we can draw.

Second, the research relied on self-reported experiences. It is possible the participants might not accurately remember their negotiations, leading to inaccurate or incomplete data. It is also possible that participants might say what they assume the researchers want to hear, resulting in experiences that may not be genuine. While both circumstances were possibilities, we remain confident in the validity of our findings given the sample size and consistency of data across participants.

Findings and Analysis

For school superintendents, it is important to conduct a thorough assessment of any prospective school district by examining the salary of the current superintendent, other school and district leaders, and teachers in the district. It is also important to make salary comparisons with similar and surrounding school districts. Additionally, assessing the likelihood of community support they will receive based on negotiated salary and fringe benefits and their impact on culture and climate is important.

The data revealed several important findings regarding these superintendents' experiences with contract negotiation. First, there was a difference between initial contracts and subsequent contracts, which led to different outcomes. Additionally, the superintendents lacked training and preparation related to negotiating the initial contract; they used their experience to negotiate subsequent contracts, and they often negotiated around issues of salary and benefits while cognizant of other factors that might impact their contracts.

Initial Contracts

Nearly all the superintendents said they lacked negotiation experience and did not feel prepared to engage in negotiations when they first received an offer to be superintendent. Superintendent 7 expressed

this idea when she noted, "Prior to superintendent, there were no contract negotiations. I had none, because I was in education the whole time, so it was you work for the district and you're on the salary scale." This lack of experience with contract negotiation is because the superintendency is the only certified position within Kentucky school systems that is not on a salary schedule. Since all of these superintendents were first teachers and school or district-level administrators, they were not able to negotiate their contracts. Even participants who had previous roles in district administration expressed that they were not prepared for conversations about the initial contract. Superintendent 19 summed up the feelings of many participants when he said, "Really, I had no clue. Of course, I've worked in administration for probably 15 years… but I've never been part of this." The result in many cases was that the first contract did not benefit the participants as much as it could have or they may have liked. Superintendent 11 explained, "I just didn't have enough training to go through the process the first time correctly. So, my first contract was not my best contract. It was not even a good contract." Without training or preparation for the initial contract offer, these superintendents simply accepted what was offered to them.

Furthermore, some of the participants noted that they lacked knowledge about what could be negotiated. For example, Superintendent 12 shared, "Going into the first one I really had no knowledge of how a superintendent's contract would [or] should be or was structured… I just I didn't have that experience on, you know, how do I do this." Superintendent 23 echoed this idea:

> A lot of folks don't even know about whether it be a [Teachers' Retirement System] (TRS) match or family healthcare, or the benefits or non-benefits of cell phone reimbursement, or whatever it may be. All those things are new to people, different to people, especially if you're coming from the principalship.

These and other participants believed that knowledge about what is and is not included in a superintendent contract, as well as what can and cannot be negotiated, would be important for aspiring superintendents. This sentiment echoes the literature that notes executive contracts are often about more than just compensation for their responsibilities and include the terms of their role as a leader (Fisher et al., 2011).

As a result of their lack of experience with contracts and negotiating, many participants were just glad to be offered the position and accepted what they were offered, even if it was a lower salary than their predecessor. For example, Superintendent 9 explained, "There was a contract proposed by the board and the board attorney, and I was eager to get the job and took it." He continued, "Like I said, the first one was more of a 'just glad to have it and where do I sign.'" Similarly, Superintendent 24 said, "I just felt like I was lucky enough to be offered the job, and whatever they offered me I was going to take irregardless [sic], and I knew that. So I just settled for whatever that was." For these and other participants, the important thing was that they were offered the position because they wanted to "get my foot in the door and prove myself" (Superintendent 8). They were not looking to negotiate the contract in any substantive way.

Additionally, some participants shared that they did not want to damage relationships with the school board or risk the offer if they attempted to negotiate. Superintendent 22 explained, "Getting your first superintendent job…you're thrilled to

get the job, and you don't want to push the board too much in terms of the negotiation." Superintendent 12 expanded on this idea, saying, "The last thing you want to do is go into your first contract and have the board members upset with you because you went in and asked for too much." Other participants echoed this idea of not wanting to "go too far to set off a bad tone" (Superintendent 17) or "upset the apple cart" (Superintendent 18) with the first contract. Many of the participants recognized they could establish a positive relationship with the board by accepting the initial contract, which could translate into better outcomes in a second or subsequent contract. Superintendent 18 summed up this idea, saying, "You don't want to make anybody upset in that process, but as you go along you can be a little more assertive with some of the things that you feel you are deserving." In this way, the lack of experience with contract negotiations turned from a negative into a positive because participants could establish a rapport with the school board and then negotiate better terms in the future.

Subsequent Contracts

Of the 24 participants, 20 said they received more than one contract, and nearly all the superintendents who received a second contract said they engaged in at least some negotiation. These superintendents explained that they felt more prepared and knowledgeable when it came to the second contract, while recognizing an opportunity in the second contract. Superintendent 2 noted, "The first contract's for them. The second contract's for you." This recognition and preparation often led to changes that benefitted them. Several key factors emerged from discussions of these negotiations, including the importance of mentors and consultants, training, salary and retirement, the influence of the school board, previous experience, and the context of the district.

Mentors and Consultants

Many participants explained they wanted to negotiate the second contract but needed assistance, which came from mentors or consultants. For example, Superintendent 1 said, "In the second one, I had a guy to go to… But you know I sought that out myself the second time because I knew I was lacking." Likewise, Superintendent 6 said, "The second one I probably did a little bit better job of asking for help, guidance, and probably doing a little bit more research about anything from cost to benefits." In many cases, these mentors were other superintendents or retired superintendents who offered their expertise about the process. Superintendent 17 explained, "The best training, of course, that I have, or the best background that I have, is just talking to other superintendents. Listening to what they have negotiated through… I got a lot of recommendations from the superintendent before." Similarly, Superintendent 23 noted:

> My previous superintendent shared with me, you know, like [Kentucky TRS] match, and some different things to think about… He referenced the [superintendent's name] of the world and people like that as resources… those are some people that you need to reach out to.

Other participants discussed hiring a consultant to assist them with negotiations. Superintendent 9 explained the usefulness of such an individual's assistance:

> I hired a consultant to help me look at the draft I created … Under the advice of my consultant, I started higher, a little bit higher, with these things than I would have settled for, and we were able to land in a spot that I felt good about and hopefully the board felt good about.

Both the mentors and consultants helped the participants feel more comfortable with negotiating and directed them to consider improvements to their contracts, particularly around salary.

Additionally, many of the participants shared that they participated in training specifically about contract negotiation with the Kentucky Association of School Administrators (KASA) and its Kentucky Women in Educational Leadership (KWEL) professional network. Participants found these trainings helpful, as these organizations offered opportunities for networking and collaboration. Superintendent 23 explained, "When you start going to these KASA meetings… you begin this conversation with other superintendents, and you find out things." However, participants also noted that they could only engage in the KASA and KWEL trainings after they had already received their first contracts. For example, Superintendent 7 noted, "I think the sessions that were held by KWEL… helped me think through some of the things that would have been nice to be in there had I had the opportunity to really negotiate." Superintendent 24 shared this sentiment, saying, "They've offered some contract negotiation courses, and I wish I had had that prior to going into this. I think it would have been very helpful." Superintendent 11 summed up this frustration when he said, "When you're in, you know, in puppy school, KASA, it's too late. You've already signed the contract." Therefore, while these experiences were beneficial for second and subsequent contracts, they did little to help with the initial contract.

Salary and Retirement

To better understand what aspects of the contracts were important to the participants and the impact those aspects had on negotiations, we asked participants to discuss factors that were important in their most recent contract negotiations. Initially, we left the question open for the participants to offer their own ideas; 20 participants said that salary was important to them as they negotiated their contracts. For example, Superintendent 19 said, "Salary is, of course, I hate to say it, first and foremost." However, salary was not as simple as it seemed since it was often connected to retirement. The retirement benefit calculation in Kentucky is based on the average of the five highest salaries, incentivizing superintendents nearing retirement to negotiate a salary that would raise their average salary. Of the participants who cited salary as an important factor, 11 of them specifically noted the impact of salary on their retirement benefits. For example, Superintendent 11 told the us:

> Pay was obviously a very important factor… that's the one line item that impacts your retirement more than any other line item. So that was my number one. Some of the benefits are great, but you know I was more interested in retirement.

The participants most frequently discussed the impact of salary on retirement when discussing their final contract, either their most recent one or one in the future. Superintendent 18 explained that his most recent contract was "going to be the one that was setting up my retirement." As a result, he was most focused on the salary because "that's really what it came down to was salary and the TRS piece." Superintendent 8 also negotiated his last contract, and he "learned from my past experience is that this is going to be more for me individually in securing a solid retirement."

On the other hand, some participants who had not yet reached their last contracts still focused on retirement. As Superintendent 4 explained:

> Looking at what do I need to ask for that's going to be the salary

> component versus what are going to be all of those extra or fringe type benefits that still impact your salary but they're not going be contributing to your retirement. I looked at how many years I would have until retirement.

Superintendent 14 concurred, saying that looking ahead, he "wanted to make sure that [the final] contract was fixed such that it would benefit me regarding [retirement]." Thus, for many of the participants, salary was important because they wanted to be compensated fairly and because it was the one aspect of the contract that would impact them even after they retired. Given the nature of the role, the experience and education necessary to become a superintendent, and the formula used to determine retirement benefits, it is not surprising that some combination of retirement and salary were important factors for these participants.

However, unlike findings from other research (Grissom & Mitani, 2016, Grissom & Andersen, 2012), there was not an indication from the participants that salary was related to how long they remained in the position. In fact, many of the participants noted that they were willing to accept a salary that was not as high as they might have liked but thought was fair because they wanted the position and/or to protect their relationship with the board.

Additional Participant-Suggested Factors

Participants offered two additional factors that were important in their most recent contract negotiation. Seven participants identified benefits other than salary, including health insurance, reimbursement for payments to retirement funds, and mileage reimbursement. The lack of training and knowledge about negotiations, as explained above, contributed to a lack of benefits in their initial contracts. Superintendent 14 noted, "I didn't know anything about the perks. Retirement reimbursement, health, I knew nothing… I had no idea you could do things like that." Likewise, other participants negotiated additional benefits in the second contract. Superintendent 12 noted that his predecessor had "health insurance and vision and dental taken care of", but he did not receive that in his initial contract. However, when he negotiated his second contract, he received "a pretty good package as far as all the fringes and insurance." Similarly, Superintendent 13 said, "The benefits were more important the second time around," and he "felt successful in the sense that we were able to put some clauses in of the benefits." In these and other cases, participants improved their contracts by negotiating benefits beyond salary after the first contract and once they knew it was possible.

Additionally, four participants mentioned community perceptions of the contract as important, particularly for participants who were raised and/or living in the districts in which they served. Superintendent 13 shared, "I was born here, graduated here. Good or bad, everybody knows me… I've always said no, I wasn't gonna ask for this huge salary or try to negotiate a huge salary." Superintendent 15 agreed, "That was one of my biggest worries, how the community was going to feel about my salary… if I was going to be at Walmart and they're going to say, 'There's that superintendent that makes that money.'" These participants worked with the board to "build in certain perks in the contract" (Superintendent 3). In this way, they found a compromise that would meet their needs and their community's needs and expectations.

Other participants discussed how these two considerations, non-salary benefits and community perception, intersected. For example, Superintendent 14 shared that he

negotiated contributions to a 401K retirement plan because he did not want to "stir up the local people with a big salary increase." Superintendent 21 shared, "Salary is the one that people see. You can have a fantastic contract with all of the benefits…and everybody's gonna say, 'How much does the superintendent make?'" However, if the salary is "something that they can tolerate" (Superintendent 21), then they are less likely to have an issue with the contract, making it better for the board. Thus, there was a recognition by the participants that they needed to avoid negative perceptions of their contracts by both the board and the community. Then, they worked with the board to find a way to compromise and balance their salaries with other benefits.

Other Factors

Additionally, we asked about eight specific factors that may have been important in their most recent contract negotiations (Blaha, 2022). Of these factors, the most frequently cited, from most to least important, were the school board, previous experience, age, and size of the district. Fewer than half of the participants said that time in the district, the previous superintendent's contract, and gender were important. Only one participant said individuals other than school board members were important to their negotiations, despite many of the participants discussing the role of mentors and consultants in preparing them for negotiations. Table 2 shows the full set of factors and which participants cited each factor as important to their negotiations.

Table 2

Factors Important in Negotiations

#	Age	Gender	Previous Experience	Time in District	Size of District	School Board	Outside Individuals	Previous Superintendent's Contract	Other Factors Offered by Participant
1	X								District finances
2			X		X	X		X	Retirement
3	X	X			X	X			Salary & community perception
4		X	X		X		X	X	Retirement
5	X			X	X	X			Salary & retirement
6	X			X	X				Cost of living
7		X				X			Desire for new position
8	X		X	X		X		X	Salary
9	X		X	X	X	X			Salary & benefits
10	X					X			Insurance & retirement reimbursement
11			X	X					Salary & retirement
12	X		X	X	X	X			Salary & retirement
13			X	X	X				Benefits other than salary
14	X			X	X	X			Retirement & community perception
15	X		X			X		X	Salary & benefits
16			X		X	X			Retirement
17			X	X				X	Community perception
18					X			X	Retirement
19	X		X		X	X			Salary, benefits, & retirement
20	X		X	X	X	X			Community perception & everyone satisfied with outcome
21	X		X		X			X	Retirement & benefits
22				X		X			Retirement & benefits
23	X		X			X			Retirement
24		X	X			X		X	Salary

The school board was an important factor for 16 of the participants, which is not surprising given the board's role in the hiring and negotiation process. These participants understood that school board members are elected from the community and are accountable for all aspects of the district, including financial responsibility. Superintendent 18 explained, "I think sometimes, boards, because their constituents may have a certain thing in mind… they don't want to get too far out there." Superintendent 11 echoed that idea, saying, "The biggest barrier to the board to even voting on something is the critiquing of the community that the system would be just fine without a superintendent by an element of the population." They also seemed to understand that the board was the principal to which they were responsible, and as such they were ultimately in the position to implement their agenda (Eisenhardt, 1989).

Another important factor was the participants' previous experience, particularly their successes as superintendents, which 15 participants cited as important. For example, Superintendent 16 explained, "I think the board felt like we were successful. I think you know, the relationship that we have, professional relationship that is, was one that they valued and I valued." Similarly, Superintendent 2 said, "I think this last time around there was an opportunity for them to have seen how I've done in the role, and that satisfaction level aided me, and any kind of negotiations that second time around." Superintendent 12 summed up this sentiment when he said:

> After you've been here for four years, and you are comfortable that you're gonna get that next contract… then you feel that, you know, maybe you do have a little more bargaining power because you are wanted to return for that second contract.

In Superintendent 22's case, the board rewarded his experience and outcomes even before the next contract negotiations. He explained:

> We've had really excellent growth and results, and the things that they've asked me to do we've done successfully. So, they rewarded that with outstanding evaluations, all exemplary evaluations, and that following year they increased my pay. I didn't ask them to do that, and they did it.

In these ways, experience and their records as superintendents became important leverage for negotiating. School boards often recognized positive outcomes and rewarded the superintendents with favorable contracts.

Age was another factor that over half of the participants said was important, and in their discussions, it was clear they considered age important because of retirement. For example, Superintendent 9 said, "Age mattered from my perspective for the retirement calculation, if you will, you know, still, not being at that retirement age." Likewise, Superintendent 2 shared that, "My age certainly played into the negotiation because I knew where that would factor in as far as turning 55, based on the TRS calculation rules of the advantage being 55." In Kentucky, retirees aged 55 or older have the potential to base their final average salary calculation on their highest three annual salaries versus their highest five annual salaries. However, there were participants who, like Superintendent 10, noted, "I think my age is very important, just for the simple fact for me is, I was not able, I'm not able to retire under one contract. I need multiple contracts." Thus, the participants' age could be a factor in what they negotiated – salary to increase their retirement benefits or other benefits to

improve their overall position if they were not yet ready to retire.

Finally, more than half of the participants (n=14) said that the size of the school district was a factor in their negotiations. Participants who worked in small districts noted that the size limited what they would expect in terms of salary and compensation. Superintendent 9 explained, "I know the size of our district. There's a price point that we can afford to pay for this position." Superintendent 5 agreed, saying:

> I mean, it's as a small district - less than a thousand. It's just hard to demand the same salary as a larger school district. I respect that … It's really hard to justify to your community, when you're a small community, a salary that is equal or higher than maybe some of the larger districts.

These participants and others recognized that with fewer students there were fewer financial resources available, which impacted the compensation they received. However, they were willing to accept that.

Other participants discussed the impact of the district size as it related to the geographic context of the district. Several participants said that they looked at the contracts, and specifically the salaries, of superintendents in comparable districts. These could be districts in the same region and/or those of similar size. Superintendent 4 explained, "I looked first at the districts that were adjacent… The second thing that I looked at were districts that were comparable in size across the state, and what those previous superintendent salaries were." Superintendent 10 noted that he looked at "the previous salaries of some surrounding superintendents," while Superintendent 12 specifically looked at the "fair market value of superintendents" in his region. On the other hand, some participants discussed comparable districts in terms of not only size, but other criteria as well. Superintendent 21 explained, "Look what we've done academically, facilities-wise, fiscally and therefore, comparably speaking, I didn't think that I necessarily needed to rise to the top of that, but I thought I should have been closer to the top on those." Similarly, Superintendent 5 shared that he tried "to make some comparisons to other small, high performing districts around the state and just to try to put myself in the best position possible for my future, my family's future." In this way, these participants used comparable districts to improve their own contracts and understood that they also had some leverage if they were doing well and were underpaid relative to their colleagues in comparable districts. Thus, the size of the district, and by extension the geographic context, served as either a limiting factor or a leveraging factor.

As mentioned above, fewer than half of the participants said that their time in the district and the previous superintendent's contract were important factors in their negotiations. However, even though few of them said these factors were important when directly asked about them, these factors appeared in other conversations. For example, some participants discussed their time in the district as part of their previous experience. Others discussed time in the district when discussing the size and context of the district. In these cases, they often noted that they lived in the district, had grown up in the district, and/or had children attending schools in the district. As such, they understood the community and possible perceptions of their salaries among their neighbors and friends. Similarly, although only ten participants said a previous superintendent's contract was a factor in their negotiations, these discussions were often linked to discussions of comparable districts and their superintendents' contracts.

Thus, although not many participants specifically named time in the district and previous superintendents' contracts as important factors, these factors were related to and part of discussions of other factors.

Conclusions

We explored the superintendents' perceptions of negotiating employment contracts and found that contract negotiations for these participants were multifaceted and involved several intersecting factors. Among the most important factors for these superintendents were salary, retirement, and their relationships with the school boards and communities. These factors make sense because the school boards, acting as principals, used these incentives for the superintendents (agents) to lead the districts. On the other hand, the outcomes the superintendents were able to achieve while leading the district influenced what they could ask of the board and what the board was willing to approve.

As Berman and Gottlieb (2019) found, individuals often prepare for negotiations through networking and consultation with third parties. This was the case for many participants, who had little experience with and knowledge of contract negotiations. Their initial experiences led them to learn about the process and prepare for their second and subsequent contracts through engagement with professional organizations, mentors, and consultants. These opportunities helped them identify their "ask" (Berman & Gottlieb, 2019), leading to more productive and successful negotiations. Additionally, Menger et al. (2020) advise individuals to know themselves, the market, and their prospective employers when entering negotiations. The participants of the current study shared they did this by studying the contracts of comparable districts and other superintendents. Again, this information and preparation often led to better contract outcomes for the participants.

Additionally, the participants noted the need to balance trade-offs, similar to the findings of Sambuco et al. (2013). For these participants, those trade-offs meant balancing their asks for salary and other benefits with maintaining and building positive relationships with the school board and the community. Several participants found that balance through improvements to benefits other than salary. Because salary is often the most public and scrutinized aspect of a superintendent's contract, such compromises helped maintain positive relationships between the participant and the board, the board and the community, and the participant and the community. As Hart and Schweitzer (2020) noted, the impact of negotiation can linger well beyond the point at which the parties agree, and for these participants, those relationships were important to maintain. As such, the outcome of the negotiations benefitted both the participants and the school boards.

Future Directions

Further exploration of the experiences of superintendents with contract negotiations would be beneficial. All the participants said that contract negotiation training would be beneficial for future superintendents. Further exploration of the specifics of that training would allow researchers and practitioners to explore the idea of training more deeply. Additionally, it would be beneficial to expand the population beyond Kentucky and to include a more diverse set of superintendents. As mentioned above, the voices of superintendents of color were missing from this study, but it is important to understand the role of race and ethnicity in negotiations to have a complete understanding of the process of contract negotiations for superintendents. Likewise, it would be

beneficial to further explore the experiences of women and the role of gender in contract negotiations. A deeper understanding of the experiences of diverse superintendents could lead to more and better training and better outcomes when negotiating contracts. Although the literature describes the relationship between salary and tenure (Grissom & Mitani, 2016), this did not emerge from our interviews. Nonetheless, this remains an important consideration for future research.

Implications

This study can inform state and national school board associations, state legislatures, and other education advocacy or authorizing bodies. It can influence and support the decision-making processes of local boards of education and provide useful context for current superintendents and those who might aspire to the role. Although superintendents' contract negotiations can be adversarial and involve intersecting and often competing priorities, preparation and willingness to maintain positive relationships can prove beneficial for all sides.

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Appendix

Interview Protocol

Thank you for agreeing to participate in this study. The purpose of the study is to understand your experiences negotiating your contract and the potential benefits of contract negotiation training in superintendent preparation programs. You have the right to choose not to participate, to not answer any specific question, and to stop the interview at any time. You will not lose any rights or benefits you would normally have if you choose not to participate or withdraw from the study.

Do you have any questions about the study or your participation in it before we begin?

1. How many years have you been superintendent?
2. Describe your employment contract negotiation experience prior to becoming a superintendent.
3. If you have negotiated more than one employment contract, how similar or different were those experiences? Why?
4. How did your previous experience (or lack of) affect your most recent negotiation?
5. When negotiating your most recent superintendent employment contract, what factors were important to you? Why?
6. How important was each of these factors and why (if factor was not mentioned in response to previous question):
    a. Your age? Your gender?
    b. Your previous experience? Your most recent position?
    c. Time spent in the district?
    d. Size of the district?
    e. School Board?
    f. People involved in the negotiation?
    g. Previous superintendents' salaries and compensation?
7. Describe your motivation to engage in or forego contract negotiations.
8. In which aspects of the negotiation experience did you feel successful? Why?
9. In which aspects of the negotiation experience did you feel unsuccessful? Why?
10. Describe any barriers that you encountered during the negotiation experience.
11. How prepared did you feel for your most recent negotiation? Why?
12. Was there anything from your past that made you more prepared for the negotiation?
13. Do you feel training on negotiation skills would have been helpful? Why/why not?
14. Do you feel training on negotiation skills should be included in the superintendent certification program curriculum?

Is there anything you would like to add regarding your negotiation experience?

How to Know a Person: The Art of Seeing Others Deeply and Being Deeply Seen

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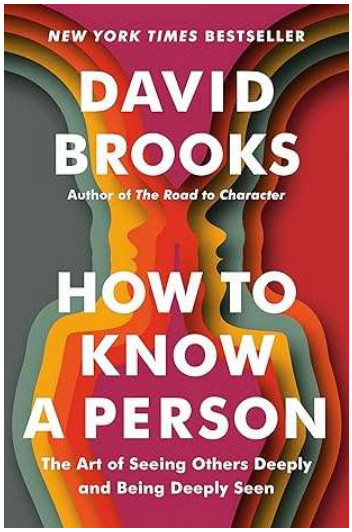

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In *How to Know a Person: The Art of Seeing Others Deeply and Being Deeply Seen* (2023), best-selling author and New York Times journalist David Brooks calls for a re-thinking of how much true influence we can have on others if we do not take the time to genuinely know them and hear their perspectives. In a time of distrust and uncertainty across our American culture, Brooks argues that perhaps a key part of the answer involves investing more in authentic relationship building. We need to go deeper than what has become the norm in an era of warp-speed rushing of work and play, business and worship, family and friendship.

Brooks' challenge is especially timely for the present-day university, as we need to look no further than in the mirror in identifying a key reason too many students either drop out of school, transfer, or come to the end of their higher education journey unfulfilled and wondering what actually is the call on their lives. Four or more years of expensive education—often missing the mark as too many courses fail to help the student learn to more fully explore their inner self by connecting with the professor and classmates in an incubator of generative intellectual but also relational space.

Brooks poses these questions as examples of inviting another person to engage in more than mindless politeness, even if thinking, "I don't want to be rude, but I need to get out of this conversation as fast as I can—I am extra busy today."

- "What crossroads are you at?"
- "What would you do if you weren't afraid?"
- "If you died tonight, what would you dread not doing?"
- "If we meet a year from now, what will you be celebrating?"
- "If the next five years is a chapter in your life, what is that chapter about?"

- “Can you be yourself where you are and still fit in?”
- “Tell me about a time you adapted to change.”
- “What’s working really well in your life?”
- “What are you most self-confident about?”
- “Which of your five senses is strongest?”
- “Have you ever been solitary without feeling lonely?”
- “What has become clearer to you as you have aged?” (Brooks, 2023, pp. 90-92).

How do we grow our college and university institutions in healthy ways? David Brooks would say a huge part of the solution is to start small. In our individual lives, at the end of the day, it comes down to one question: Did I really know, and without judgment listen to and authentically connect with the people in my life today? If we can answer in the affirmative, then that has been a life-changing day.

Brooks, D. (2023). *How to know a person: The art of seeing others deeply and being deeply seen*. Random House.