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The peer-reviewed *IALS Journal* is published once a year and addresses key issues facing today's laboratory and university-affiliated schools. Articles offer perspectives on educational trends, including topics such as the history and future of lab schools, innovations in curricula and programs, lab school administration, and teacher education. The journal includes articles grounded in evidence-based classroom practices, action research, and theoretically based quantitative and qualitative scholarship.

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MESSAGE FROM THE EDITOR

We are proud to present the fifteenth volume of the *International Association of Laboratory Schools Journal*, a space devoted to scholarship, research, and innovation in laboratory schools around the world. For this volume, we have compiled a collection of seven articles that reasserts our commitment to disseminating and advancing best teaching practices and underpins our mission to improve student learning at our member schools and beyond.

Consonant with Vygotsky's Sociocultural Theory, multiage classrooms provide students with multiple opportunities to interact, collaborate, and learn from their peers and teachers. While the benefits of multiage classrooms are well known, preservice teachers often find themselves unaware of the challenges that such a classroom setting may pose when it comes to meeting grade-level standards and implementing accommodations and modifications for students. In "Evolution of the Perception of Multiage Classrooms Through the Lens of University Elementary Teacher Candidates," Laura M. King explores the progression of student teachers' perspectives about multiage classrooms as they completed their clinical experiences at Horace Mann Laboratory School. Furthermore, King's study presents some of the implications and opportunities that her findings may have for teacher preparation programs, curriculum development, and pedagogical beliefs about multiage classrooms.

Keely Cline and Riley Foster address the importance of seeing children as human "beings" rather than human "becomings," or adults-to-be, in "A Qualitative Study of Teacher Candidates' Views about Children's Agency." In the light of Gurdal and Sobring's (2019) study on children's perceptions of their own agency, the authors set out to explore how a group of teacher candidates would respond in a hypothetical situation where a child attempts to exercise agency in the classroom. In view of the fact that Gurdal and Sobring's findings revealed that children expected to be reprimanded if they attempted to exercise their agency in a teacher-pupil relationship, Cline and Foster inquired into the parallels between the students' expectations and the teacher candidates' perspectives on children's agency. Their study concludes with a discussion of the value and importance of their findings to the laboratory school community.

Although College Career Readiness (CCR) skills are often prioritized at the secondary school level, Lori Blake argues that fostering such skills at a much earlier age could potentially bolster students' performance at the high school

and postsecondary levels and enrich their academic experiences throughout their school years. In "We're on Our Way: Building College and Career Readiness Skills in Preschool Through Self-Regulation Development Guided by Age-Appropriate Learning Experiences," Blake presents educators with a series of lessons that are aimed at building self-regulation skills from an early age. The author posits that striking a balance between teacher-directed and child-initiated experiences, along with didactic and play-based experiences, provides for a fertile classroom environment where children develop essential skills for academic and life success. The article closes with comments and reflections from the four teachers who participated in the study, as well as recommendations from the author for implementing the lessons that are presented in the study.

While analyzing books in a classroom setting may allow for a rich learning experience, Cline et al. propose that study abroad programs could provide for a deeper and more nuanced connection to the characters, themes, and settings found in literature. Travelling to the places that served as a source of inspiration to an author allows students to engage in literary discussions beyond classroom walls and presents an opportunity to strengthen peer relationships and develop a more profound understanding of course content. In line with this view, "Parallel Stories of Narnia: Study Abroad Travels to Ireland Inspired by Children's Literature" delves into the advantages of study abroad programs by documenting the experiences of twelve students from Northwest Missouri State University. With C.S. Lewis' *The Lion, the Witch, and the Wardrobe* (1950) as the focus of their trip, the participants embarked on an adventure to Ireland that helped cultivate relationships with their peers, inspired their love for literature, and equipped them with the motivation and skills to offer high-quality literacy education to their students as future teachers.

Reading, understanding, and enjoying Shakespeare may pose multiple challenges to adolescent readers, who are often daunted by the linguistic features of Early Modern English, the rigor of iambic pentameter, and the intricacies of plot and character development in many of the bard's plays. In the face of such challenges, it is the educator's task and duty to employ innovative strategies to motivate students and pique their interest. In "Scavenging for NFCs," Michael Báez suggests enlisting the help of Near Field Communication (NFC) tags as part of the discussion of a literary text. After reading William Shakespeare's *Twelfth Night*, students exited the classroom in small groups with smartphones on hand to engage in a

scavenger hunt that had them search and scan NFC tags that their teacher had placed throughout campus. The tags included literary analysis questions and riddles that hinted at the location of the next tag. As part of the study, the author inquired into the participants' opinions and overall assessment about the experience through a Likert scale questionnaire. The article concludes with recommendations for how teachers, administrators, and other school personnel can reap the benefits of NFC tags in different school settings.

An educator's impact on a student's growth and development goes well beyond teaching content and skills. In "Collaborative School Partnership: Research to Practice Model With Social Validity and Fidelity," Stansberry et al. provide an overview of a collaborative laboratory school partnership between a private institution of higher education and a public school district that centered on improving student attendance and enhancing school climate. By combining the efforts of faculty members from the University of St. Thomas and the administrative staff at Maxfield Elementary School, teachers implemented a "positive greetings at the door" initiative that sought to nurture a welcoming school environment. This collaborative project not only presents an ideal opportunity to bridge theory and practice in a laboratory school setting but also has the potential to yield long-term positive results for students, teachers, and the school community at large.

This volume concludes with an overview of a case study conducted at Kilby Laboratory School in Alabama titled "Elevating Literacy Through Evidence-Based Practice: A Case Study in Innovation at Kilby Laboratory School." In their article, Bolton et al. explain how the implementation of Evidence-Based Literacy Instruction (EBLI) propelled a significant improvement in the skills of oral reading fluency, handwriting, phonemic awareness, spelling, and writing for a group of first-grade students. Besides presenting some of the most salient results of their pilot project, the authors share the broader implications of their case study for teachers and school leaders who seek to aid student learning through innovative and research-based practices.

Once more, we are honored to share the work of our distinguished colleagues with the *IALS Journal* readership. It is our hope that their contributions inspire educators, researchers, and administrators around the world to strive for excellence in their future endeavors and motivate other authors to submit their research and writing for publication in future volumes of our journal.

Roberto E. Olmeda Rosario, PhD
Editor

Evolution of the Perception of Multiage Classrooms Through the Lens of University Elementary Teacher Candidates

Laura M. King

NORTHWEST MISSOURI STATE UNIVERSITY

“This [multiage classroom experience] allowed me to see another side I had not learned about before, so it was nice to have that experience.”

—Teacher Candidate

Introduction

Laboratory schools have a long tradition of serving K-12 students in affiliation with colleges and universities, offering clinical field experiences for teacher candidates in educator preparation programs (IALS, 2019; Ramos, 2025). Additionally, one of the expectations of laboratory schools is to engage in educational experimentation and research (Frasier et al., 2023). While preparing teacher candidates for various educational constructs, preparation for multiage classrooms is often absent from most educator preparation programs and materials, despite research supporting multiage education as a pedagogy that encourages individualized learning and improved social-emotional development (Fatima et al., 2024; Little, 2001; Teszenyi, 2023).

Research on the evolving perceptions of elementary teacher candidates in multiage classrooms within university-based laboratory schools in the United States is lacking. This bounded, qualitative case study explored the perceptions of 14 teacher candidates participating in a four-week clinical experience in a university-based laboratory school. Data collection was conducted through surveys, interviews, and a researcher’s journal, and then analyzed at multiple data collection points using open coding to achieve triangulation. Four central themes emerged from the data: positive experience, challenges in practice, professional growth, and pedagogical beliefs. Findings suggest that immersive experiences in multiage classrooms can challenge preconceived ideas of classroom instruction, support professional development, and deepen the understanding of individualized instruction.

This study contributes to the limited body of literature on clinical experiences in multiage classrooms and offers implications for educator preparation programs to consider in broadening teacher candidate pedagogical perspectives. Despite the known benefits of multiage education, teacher candidates

are often underprepared to navigate its unique challenges. Designing and implementing accommodations is consistently cited as one of the most difficult tasks for preservice teachers (Fogarty, 1999; Darling-Hammond, 2016). Multiage classrooms, by their nature, demand that teachers differentiate instruction to meet a broader range of developmental levels, providing a valuable context for developing these skills. Additionally, multiage classrooms are more common than often assumed—especially in rural or low-enrollment districts (Song et al., 2009; Black, 2022)—further justifying the need to prepare future teachers for these environments.

Multiage Classroom Background and Context

Multiage classrooms are the purposeful grouping of children from two or more grade levels (Bacharach et al., 1995; Black, 2022). Frequently, these groupings occur due to the need to respond to district financial needs or decreasing class sizes. Combining grade levels may help districts to offset the shortage of qualified teachers. Multiage classrooms can also be implemented for pedagogical reasons to meet the needs of learners (Cozza, 2017; Daniel & Terry, 1995; Fatima et al., 2024; Goodlad & Anderson, 1987; Miller, 1990; Stone, 2004).

Data suggest that mixed-grade classrooms are a regular feature in many public school systems, particularly in rural and under-resourced settings where enrollment numbers may not support single-grade sections (Fatima et al., 2024; Song et al., 2009). Despite their prevalence, many teacher candidates graduate with little or no experience in these environments, leaving them unprepared for multiage positions. The lack of targeted preparation contributes to challenges in accommodating diverse student needs, implementing differentiated instruction, and understanding developmental continuums—skills essential for effective multiage teaching (Fatima et al., 2024). Embedding multiage experiences into teacher education programs provides a structured opportunity to build these competencies.

Multiage education once dominated the American education system with one-room schoolhouses until the 1600s (Aina, 2001; Black, 2022; Carter, 2005; Daniel & Terry, 1995). During the 18th century, increased immigration, urbanization, the

introduction of child labor laws, and educational reform led to the introduction of compulsory education for children in public schools (Daniel & Terry, 1995; Hirschman & Mogford, 2009). In addition to the political influences, a significant factor in maintaining a single-grade system is the socialization individuals receive regarding educational norms from the age of five, as well as the continued reinforcement of these norms throughout their lives in the current educational system (Eisner, 2003). Individuals have come to expect the image of same-age peers, desks in rows, and ceremonies marking the transition from one grade level to the next as symbols of quality education (Teszenyi, 2023; Veenman, 1996).

Research confirms that there are no statistically significant differences in academic achievement between multigrade and single-grade classrooms. However, evidence suggests that multigrade classrooms offer more benefits for the affective domain (Black, 2022; Fatima et al., 2024; Kappler & Roellke, 2002; Katz, 1995; McClellan & Kinsey, 1997; Miller, 1990; Song et al., 2009). The benefits and challenges of multiage education have been extensively studied (Fatima et al., 2024; Song et al., 2009); however, one crucial viewpoint often overlooked is the perspective of university elementary teacher candidates (Black, 2022; Little, 2001). In this study, access to multiage classrooms in a laboratory school provided a compelling opportunity to gain additional insight into the perceptions of multiage classrooms through the lens of university elementary teacher candidates.

Vygotsky's Sociocultural Theory

Examining an underlying theory when conducting research helps the researcher align their beliefs with best practices in education. Additionally, investigating theory allows the researcher to make sense of seemingly isolated observations (Galvan & Galvan, 2017; Proulx & Inzlicht, 2012). The researcher examined the foundational underpinnings for this investigation through the constructivist lens of Vygotsky's Sociocultural Theory. Understanding how children develop their thinking enables educators to make informed instructional decisions, allowing children to reach their full learning potential (Darling-Hammond, 2016; Blake & Pope, 2008). The tenets informing this study include the significance of culture, language, and social interaction in the learning and development process.

Vygotsky's sociocultural theory proposes the importance of social experiences in shaping knowledge construction (Fatima et al., 2024; Jaramillo, 1996; John-Steiner & Mahn, 2003; Kalina & Powell, 2009). Vygotsky theorized that knowledge acquisition initially occurs through dependence on social interactions with others who have more experience and later

through psychological internalization within the child (John-Steiner & Mahn, 2003; Haenen et al., 2003). An example of this phenomenon is the acquisition of language. A child first encounters language by interacting with others who use language, and later, the child begins to imitate and construct language independently (John-Steiner & Mahn, 2003).

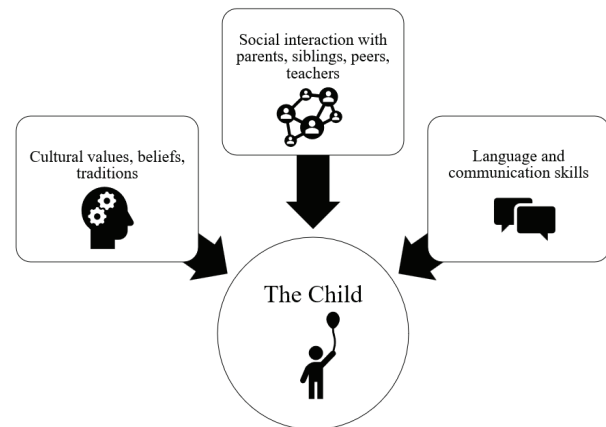


Figure 1. Vygotsky's Sociocultural Theory

Significance of Culture. In sociocultural theory, knowledge acquisition is mediated through culture (Teszenyi, 2023; Vygotsky, 1978). Vygotsky believed cultural tools are passed to others in three ways: copying others, remembering instructions, and collaborative learning (Vygotsky, 1978; Zhou & Brown, 2015). Furthermore, Vygotsky emphasized that culture influences human mental functioning and behavior as a complex integrated relationship between cultural elements and personal development (Mahn, 1999; Vygotsky, 1978; Zhou & Brown, 2015).

Role of Language. According to Vygotsky (1978), language development is essential to a child's cognitive growth. Vygotsky believed that children first utilize external speech to role-play through tasks and elicit help from others before eventually developing inner speech, which enables them to solve problems independently (Vygotsky, 1978). Younger children may benefit from interacting with older children who display more complex and practical problem-solving skills, while both groups benefit from oral discourse in solving problems together (Wojniak, 2015). Language and shared experiences are crucial to the successful implementation of scaffolding as a learning tool in multiage classrooms (Blake & Pope, 2008).

Role of Social Interaction. Social interactions enable learners to rely on others with more experience while gradually assuming responsibility for their learning and participating in collaborative learning (John-Steiner & Mahn, 2003; Kalina & Powell, 2009; Teszenyi, 2023). Multiage classrooms provide children with social opportunities to observe and imitate a range of competencies (Katz, 1995). Both older and younger

children benefit from the opportunities to work through navigating social difficulties, developing leadership skills, and imitating appropriate social skills (Bacharach et al., 1995).

Vygotsky conceptualized the zone of proximal development (ZPD) to explain how children learn through scaffolding (Goodman, 1985; Kalina & Powell, 2009; Teszenyi, 2023). ZPD involves scaffolding learning to allow children to stretch to the next level of understanding and internalize new concepts (Blake & Pope, 2008; Hewitt, 2008; John-Steiner & Mahn, 2003; Kalina & Powell, 2009). Opportunities for scaffolding in multiage classrooms occur with the teacher and multiage peers (Cozza, 2017; McClellan, 1994).

Research Study Context

The Horace Mann Laboratory School (Horace Mann) stands on the Northwest Missouri State University campus, serving children in prekindergarten through sixth grade, and is a tuition-assisted private school with an enrollment of 95 students. Northwest Missouri State University is a state-assisted, four-year regional university founded in 1905 as a teacher's college. The university has since expanded its degree programs and now serves approximately 10,000 students, with the most prominent numbers majoring in education, business, and agriculture. Since 1906, Horace Mann has been a hallmark of the university and its teacher training program, providing an on-campus clinical teaching environment for university teacher candidates while also serving local children in prekindergarten through sixth grade. Additional objectives include demonstrating effective teaching methods, hosting educational tours and professional development, and conducting educational research.

Horace Mann introduced multiage classrooms in the late 1980s by combining the fifth and sixth grades with one master-level teacher and one associate teacher, aiming to manage declining enrollment in those grade levels (N. Farlow, personal communication, January 1, 2024). In 2015, in response to faculty pedagogical shifts, Horace Mann expanded its multiage approach by combining its third and fourth grades into a multiage classroom with one master-level teacher and one associate teacher. Further expansion occurred in 2016 with the creation of a multiage classroom for first- and second-graders, led by two master-level co-teachers. The kindergarten at Horace Mann has remained a single-grade classroom with one master-level teacher. However, in 2021, Horace Mann piloted a new Transitional Kindergarten program with a master-level teacher to serve children entering kindergarten the following year with opportunities built into the day to have multiage experiences with the current kindergarten classroom.

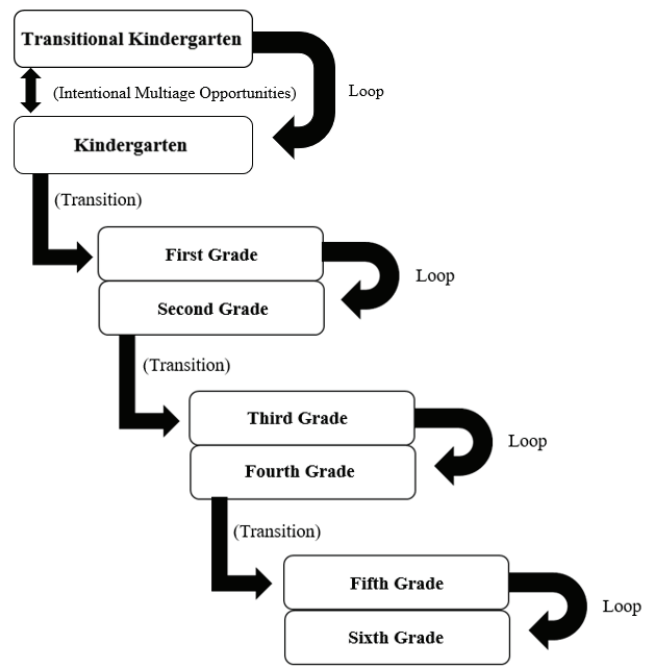


Figure 2. *Student Progression Through Multiage Classrooms at Horace Mann Laboratory School*

The Horace Mann faculty worked closely with their families in the formation and implementation of the multiage classrooms, hosting educational nights to collaborate and examine questions. While the teacher candidates worked closely with the Horace Mann faculty in the classrooms during the semester of their assigned field experiences, they had limited interaction in the formation of the multiage classrooms. The researcher in this study became interested in learning more about the perceptions of teacher candidates regarding the multiage classrooms at Horace Mann and the evolution of their pedagogical understanding of instructional practices in these classrooms.

Methods

The central research question guiding this case study was the following: What are the perceptions of elementary teacher candidates regarding multiage classrooms at a university-based laboratory school? The associated sub-questions guiding this study include (a) What are the perceptions of elementary teacher candidates regarding academic achievement in multiage classrooms? (b) What are the perceptions of elementary teacher candidates regarding social-emotional learning in multiage classrooms? (c) What, if any, impact does multiage training have on elementary teacher candidates' perceptions of multiage classrooms?

Research on the perceptions of elementary teacher candidates in multiage classrooms in university-based

laboratory schools is lacking. Additionally, further research is needed on the evolution of perceptions among elementary teacher candidates in multiage classrooms within laboratory schools. Participants in this study included three cooperating teachers with experience teaching in a multiage classroom at Horace Mann Laboratory School (Horace Mann) and 14 elementary teacher candidates from Northwest Missouri State University (NWMSU) who were completing junior-level clinical experiences at Horace Mann.

The researcher was embedded in the study setting as an insider researcher. An insider researcher conducts research within a social group or organization (Greene, 2014; Smyth & Holian, 2008), creating a need for the insider researcher to balance the insider perspective with safeguards to ensure the accurate collection and reporting of data. Therefore, the insider researcher employed the assistance of a peer researcher not affiliated with the study to help gather and analyze the data.

Qualitative research methods were employed to gather the perceptions of elementary teacher candidates regarding multiage classrooms at Horace Mann. Data collection methods employed in this study included surveys, interviews, and a researcher's journal, serving as multiple sources of data collection (Creswell, 2016; Krueger & Casey, 2015). Making meaning of data requires a researcher to sort, categorize, interpret, and analyze (Merriam & Tisdell, 2016). Multiple data collection sources afford the advantage of developing converging lines of inquiry for triangulation, increasing the likelihood of more accurate results (Yin, 2014). Data collection occurred in three stages to gather the perceptions of elementary teacher candidates (Krueger & Casey, 2015).

Surveys. The researcher employed a series of cross-sectional surveys to examine the perceptions of elementary teacher candidates regarding multiage classrooms at three key points in time. The first survey, referred to as the pre-training survey, was administered before candidates received any information or training related to multiage classrooms. Following an informational session on multiage education, the post-training survey was administered to measure any immediate changes in perceptions resulting from the training. After completing a four-week field experience in a multiage classroom setting, candidates completed a third post-course survey. This final survey aimed to capture how their perceptions evolved after applying what they learned in a real classroom environment. Cross-sectional surveys offer a snapshot of attitudes or beliefs at specific points in time, providing data that can guide future training and implementation efforts (Fink, 2017). A selection of closed-ended questions used a five-point Likert scale to measure candidates' responses. Additionally, the survey included a set of open-ended questions that allowed the researcher to gather information that respondents could elaborate on in their

responses. These types of responses permit the researcher to categorize and interpret the answers. Researchers use qualitative data to derive meaning and provide information, which may lead to further questions that inform the research (Creswell, 2014).

Given the researcher's dual role as both course instructor and school administrator, a peer researcher without any course affiliation was tasked with administering the cross-sectional surveys. This peer researcher re-administered the survey after the multiage training and the four-week practicum experience in the multiage classrooms at Horace Mann. While participation in the multiage training was mandatory for the elementary teacher candidates, they had the option not to participate in the surveys, as indicated in the consent form. Participants who did not complete pre- and post-surveys were excluded from the study.

Interviews. Since the primary researcher was also the school's administrator, the peer researcher interviewed the cooperating teachers who taught at Horace Mann Laboratory School (Horace Mann). The researcher supplied the peer researcher with a semi-structured interview protocol to guide the discussion. The semi-structured interview format allowed the researcher to discuss predetermined topics while also allowing for the exploration of added information provided by the interviewee (Merriam & Tisdell, 2016). Recording the interviews served to preserve the actual words of the participants, providing a verbatim transcription for review through member-checking to improve accuracy in reporting (Seidman, 2013).

Researcher Journal. Qualitative data collection involves observing, recording, and analyzing ordinary aspects of the environment (Merriam & Tisdell, 2016). According to Merriam (2009), ethnographers often maintain a fieldwork journal as an introspective record capturing ideas, thoughts, and theories. Field notes facilitate the construction of detailed, rich descriptions of the study context. The researcher utilized a daily journal to capture data in the form of field notes from the environment during the study, including the training of elementary teacher candidates. Additional field notes were collected during weekly seminar meetings with the elementary teacher candidates and while observing them during their clinical hours in the multiage classrooms.

The researcher employed the constant comparative method of data analysis to analyze the responses of elementary teacher candidates. This method allows for data analysis as it is collected, informing the subsequent research process. The researcher employed textual analysis methods to code the data, as suggested by Creswell (2016). The diverse types of data collected ensured saturation and triangulation, which Merriam and Tisdell (2016) offer as a method supporting the validity of

the qualitative analysis. The first step of analysis involved open coding. Open coding is the process of identifying concepts of the data or concepts (Merriam, 2009) initially. Merriam (2009) recommends developing categories based on the code. Lastly, Kuckartz (2014) suggests using selective coding, where the researcher examines connections between categories to narrow down themes. Seidman (2013) suggests that validity in qualitative methods is assessed through triangulation, while Yin (2014) proposes several types of triangulation, including data, evaluator, perspectives, and methods. To ensure reliability and minimize the impact of bias, the researcher utilized an equally trained peer to code the data for cross-checking (as discussed in Creswell, 2014).

Findings

The elementary teacher candidates reported an increase in their knowledge of multiage classrooms following the multiage training session and their experience in the laboratory school. The researcher utilized data collected from surveys, interviews, and the researcher's journal to gain a deeper understanding of the perceptions of elementary teacher candidates in the multiage classrooms at Horace Mann Laboratory School (Horace Mann). Four main themes emerged from the data on the elementary teacher candidate perceptions: positive experience, challenges in practice, professional growth, and pedagogical beliefs. Table 1 presents data on the four main themes related to the teacher candidates' perceptions. Table 2 illustrates how teacher candidates' perceptions evolved throughout their multiage experience.

Positive Experience

Teacher candidates overwhelmingly reported having a positive experience working in the multiage classrooms at Horace Mann. Many commented on the collaboration among age groups and appreciated the opportunity to work in a new classroom structure. One teacher candidate commented, "This [multiage classroom experience] allowed me to see another side I had not learned about before, so it was nice to have that experience." Another teacher candidate commented, "I loved it. I forgot actual grades/ages for a while." Support from the cooperating teacher in the classroom was also cited in seminar discussions among the teacher candidates as a valuable resource for meeting the needs of the elementary students.

Interviews with the cooperating teachers revealed that the teacher candidates expressed a lack of confidence in the first few days of working in the multiage classroom. However, once the teacher candidates began building relationships and planning lessons for the elementary students, their confidence

levels grew. This data is consistent with teacher efficacy, which refers to teachers' confidence in their ability to guide students to success (Kleinsasser, 2014).

Challenges in Practice

While teacher candidates enjoyed the environment, they still expressed reservations about meeting all the grade-level standards appropriately. Seven of the 14 teacher candidates in the post-course survey commented that they would not want to teach in a multiage classroom in the future, despite the positive comments noted regarding social-emotional benefits, cooperation among age groups, and the inclusive aspect of providing accommodations and modifications. Discussions among the teacher candidates in the weekly seminar included questions about the viability of going against the traditional structure of single-grade classrooms. The discussion included what they experienced in single-grade classrooms, what they thought parents would expect, and concerns about meeting learning standards for two grades. Post-survey comments from the teacher candidates included, "I liked the multiage experience but wouldn't do it again. Just not for me," and "It was interesting, but I personally don't see myself doing multiage."

Meeting standards was also noted in the interviews with the cooperating teachers. One cooperating teacher explained, "The biggest hurdle was helping them [teacher candidates] see the big picture in looking at the standards. Rather than focusing on one individual standard but seeing how they go together to support skill levels and meet learners where they are." Another commented, "We had to help them overcome the preconceived bias of where they felt children should be based on their age. So, understanding how standards work and flow from one grade to the next, so that you can follow the child's development to be moving along that continuum continuously."

Professional Growth

As teacher candidates gradually develop a sense of themselves as teachers through coursework and clinical experiences, reflection on their interactions helps them focus on the skills and qualities they contribute to the profession (Garza et al., 2016). In this study, the teacher candidates reported increased confidence in learning how to make accommodations and modifications for students. They noted the importance of being flexible in lesson planning and intentionally using data to drive instruction. Teacher candidate comments included, "I learned that I need to be flexible and adjust with all students, especially if they need accommodations/modifications," and "It helped me grow

in realizing every student learns differently and at different times.” Additionally, “This experience helped me become a better educator. I am so thankful.”

In their interviews, the cooperating teachers also stated that the teacher candidates felt more confident in making instructional decisions for their students using assessments and data. They also noted an increased understanding among teacher candidates of the importance of building relationships with students. Although relationship building is essential in any classroom, understanding students’ social-emotional development is particularly important for meeting the needs of learners in multiage classrooms (Stone, 2004). Multiage classrooms shift the focus from meeting the needs of an entire group to emphasizing the needs of each learner (Goodlad & Anderson, 1987; Policano & Davies, 1994; Stone, 2004).

Pedagogical Beliefs

Teacher candidates require the ability to deconstruct their experiences and examine their developing beliefs to foster their professional development (Garza et al., 2016). In seminar discussions, the teacher candidates discussed how, in a multiage classroom, they had to rely on their assessments to build their lesson plans. They also discussed the need to build accommodations and modifications into their lesson plans and be flexible in implementing them. These observations led to further discussion on how these concepts apply to any classroom rather than relying on a child’s grade level to make assumptions about their academic needs.

Furthermore, the teacher candidates discussed the importance of social-emotional development and noted that the multiage classroom seemed more inclusive for students at various levels of achievement. Some specific comments included, “Multiage is inclusive for all because everyone isn’t expected to be at the same level,” and “It helped me grow in realizing every student learns differently and at different times. You have to meet kids where they are in their development.”

While most teacher candidates reported wanting to teach in a traditional single-grade classroom, some preferred the multiage structure: “I think that children can learn more from one another with the diversity of age and knowledge.” However, the consensus from the data collection on the teacher candidates’ perceptions indicated that the multiage classroom informed their thinking on how they would work with students in any classroom structure.

Table 1: Elementary Teacher Candidate Perception Themes of Multiage Classrooms at Horace Mann Laboratory School

Theme	Response Frequency	Categories Included
Positive Experience	37	Enjoyed the multiage opportunity Interesting dynamic Valuable learning experience Felt like any other classroom Aided in becoming a better educator Benefitted from working with the students in multiage groupings Collaborative environment
Challenges in Practice	25	Lingering questions about meeting grade-level standards Complexity of meeting multiple age group needs Single-age classrooms as the dominant culture, not like public school
Professional Growth	23	Increased confidence in using accommodations and modifications Flexibility in meeting student needs Importance of being intentional in lesson planning based on data Better understanding of multiage
Pedagogical Beliefs	16	Social-emotional benefits Greater understanding of using assessment data rather than age to plan lessons Inclusive environment Appreciation for multiage concept even in the event of a single grade preference

In addition to open-ended questioning in the teacher candidate surveys, identical 5-point Likert scale survey questions were also used in the pre-and post-multiage surveys, as well as the post-course survey. The 5-point Likert scale included the responses *strongly agree*, *agree*, *neutral*, *disagree*, and *strongly disagree* (as discussed in Fink, 2017). Likert scales provide a method for measuring a participant’s attitude, offering reliability and validity to a research study (Joshi et al., 2015).

Table 2: Elementary Teacher Candidate Evolution of Perceptions of Multiage Classrooms at Horace Mann Laboratory School

5-Point Likert Scale Survey Questions	Pre Training Survey	Post Training Survey	Post Course Survey
1) I feel knowledgeable about multiage classrooms.	43%	93%	100%
2) I feel comfortable teaching in a multiage classroom.	29%	29%	64%
3) I feel that multiage classrooms are beneficial to a child's academic success.	29%	43%	43%
4) I feel that multiage classrooms benefit a child's social-emotional learning.	50%	86%	67%
5) After graduation, I would accept a teaching position in a multiage classroom where I was the only teacher.	21%	36%	65%
6) After graduation, I would accept a teaching position in a multiage classroom where I was a co-teacher.	50%	57%	57%

Note: Percentages represent a combination of agree and strongly agree responses on a 5-point Likert scale.

The teacher candidates' perceptions of their knowledge of multiage classrooms increased from the pre- to post-training surveys, with 100% of teacher candidates feeling knowledgeable. The data also shows a notable increase in feeling comfortable teaching in a multiage classroom after completing the four-week teaching experience.

In both areas, perceptions of academic and social-emotional benefits in a multiage classroom grew. Perceptions of academic growth grew slightly, moving from 29% in the pre-survey to 43% beneficial in the post-survey and post-course survey. The perceptions of social-emotional benefits increased from 50% on the pre-training survey to 86% on the post-training survey. Interestingly, though, this number dropped to 67% on the post-course survey. In reviewing the open-ended questions on the post-course survey, a teacher candidate commented that an older student became discouraged when a younger student knew the answer while they were struggling to understand it. It is not definitive if this contributed to the drop in perception of social-emotional benefit, but it may have been a factor and something to consider in future research.

Perceptions of accepting a position as the only teacher in a multiage classroom increased after their teaching experience in this setting. Perceptions of accepting a position and teaching with a co-teacher remained consistent, with a slight decrease at the end of the course. It is unclear whether this perception was related to the operation of the multiage classrooms or simply a personal preference for teaching alone.

Recommendations

This study successfully gathered teacher candidates' perceptions about multiage classrooms at the Horace Mann Laboratory School (Horace Mann) and documented how these perceptions evolved during their four-week multiage experience. However, a limitation of this study is the short data

collection period and the focus on a single cohort of teacher candidates in the elementary education program. Repeating the conditions of this study in future elementary teacher candidate cohorts at Horace Mann during the fall and spring seven-week clinical experiences would offer more data collection opportunities. Furthermore, expanding the participants to include the early childhood teacher candidates would also allow for a more comprehensive analysis of teacher candidate perceptions of multiage classrooms at Horace Mann. The increased data collection over time could confirm or disprove the study's results, providing more opportunities for scholarly dissemination through conference presentations and journal publications. Recommendations for program improvement at Horace Mann are offered in the following areas:

1. Continue to utilize the multiage classroom education tool to orient teacher candidates to the pedagogical understanding of multiage classrooms. The data in Table 2 revealed a notable increase in teacher candidate understanding of multiage classrooms. As teacher candidates continue to complete clinical experiences at Horace Mann, this is relevant in helping them build a better understanding of the classroom structure to inform their work with the laboratory students.
2. Implement pre- and post-course surveys to monitor teacher candidate perceptions of multiage classrooms as a continuous improvement tool. The School of Education conducts surveys of teacher candidates' perceptions during their student teaching experiences outside of Horace Mann. Allowing teacher candidates to share their perceptions after completing an experience at Horace Mann would offer more timely information to maintain continuous improvement efforts.

3. Increase opportunities to review the developmental trajectory of the Missouri Learning Standards to build teacher candidate knowledge of the big picture of learning strands across grade levels. The teacher candidates and cooperating teachers identified this as a hurdle during the clinical experience. Building this more profound understanding of the standards would help inform the teacher candidates' practice during their clinical experience, their work in student teaching, and their teaching careers.

In addition to program improvement at Horace Mann, there are opportunities for greater implications in the scholarly community for expanding the literature on teacher candidate perceptions of multiage classrooms in laboratory schools, and the implications this research might add to the implementation of teacher preparation programs, curriculum development, and challenging pedagogical beliefs in how to meet the academic and social-emotional well-being of elementary students. Partnering with other laboratory schools that employ multiage classrooms would allow researchers to examine the evolution of teacher candidate perceptions in a variety of contexts. Challenging preconceived perceptions of teacher candidates could enable researchers to develop coherent coursework that aligns with clinical experiences, informing stakeholders and practitioners in teacher preparation programs. Additionally, it would facilitate further research into teacher training and curriculum development to support multiage learning in schools interested in employing non-traditional classrooms that want to offer both academic and social-emotional benefits for elementary students.

Conclusion

Research indicates that students in multiage classrooms experience both academic and social-emotional benefits (Black, 2022; Cozza, 2017; Daniel & Terry, 1995; Goodlad & Anderson, 1987; Miller, 1990; Stone, 2004). However, political and symbolic systems have influenced most elementary classrooms in the United States to consist of single-grade structures (McClellan, 1994; Pratt, 1986). This study's findings offer insight into the teacher candidates' perceptions of the multiage classrooms at Horace Mann Laboratory School, indicating markedly positive experiences and views on academic and social-emotional benefits for students.

Additionally, this study provided an opportunity to examine the evolution of teacher candidate perceptions of multiage classrooms. Preparing teacher candidates for their careers in education is one of the responsibilities of a laboratory school in an educator preparation program (IALS, 2019). Providing

learning opportunities that teacher candidates find valuable and assist in their growth is of great concern in maintaining the viability of laboratory schools. As teacher candidates complete their coursework, offering them multiple lenses will help them examine their preconceived perceptions and belief systems based on their school experiences (Fajet et al., 2005).

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Author's Biography

Laura M. King, Ed.D. is an assistant professor in the School of Education at Northwest Missouri State University. Her academic interests include university laboratory schools, multiage classrooms, early childhood education, and foundational literacy skills.

A Qualitative Study of Teacher Candidates' Views About Children's Agency

Keely D. Cline and Riley Foster

NORTHWEST MISSOURI STATE UNIVERSITY

"We envision a world where every child enjoys learning experiences that prioritize their well-being and development, respect their rights and diverse needs, and position them as active, engaged participants in their education." (IALS, n.d., Our Mission section)

The vision of the International Association of Laboratory Schools, quoted above, reflects a view that children should have agency in their own learning. In this article, we present a qualitative study focused on teacher candidates' views about children's agency, describing themes and assertions based on responses to a vignette portraying a child's attempt to exercise agency in the school setting. The discussion includes a special focus on implications for professionals associated with laboratory schools.

Children's Agency

Agency has been defined as "the state of being active, usually in the service of a goal, or of having the power and capability to produce an effect or exert influence" (APA, n.d., Definition 1). Manyukhina and Wyse (2021) further delved into addressing the question, "What is children's agency?" by identifying three important, interrelated elements:

The first is the personal sense of agency: individuals' belief in their ability to act independently and exercise choices. However, having a *sense* of agency is not enough for the *exercise* of agency. The second essential element is for learners to have real opportunities to exercise their agency. However, such opportunities will not be realised if individuals do not feel capable of acting upon them. When opportunities are genuinely offered and consciously recognised by learners they become *affordances*, the third element. It is affordances, not just opportunities, that are crucial prerequisites for the exercise of agency. The importance of these three elements means that agency is best defined as a 'socially situated capacity to act'. (para. 3)

It is significant to consider that the three interconnected components of agency identified by Manyukhina and Wyse (2021)—sense, opportunity, and affordance—interact within classrooms. Sociocultural contexts such as national or institutional norms may influence adults' perceptions and practices related to these components of children's agency; this applies to laboratory school settings.

Adults' views about children's agency reflect their broader conceptualizations of children and childhood (e.g., James & James, 2004, 2008; Norozi & Moen, 2016). Two conceptualizations of children include seeing children as human "beings" versus as human "becoming" (e.g., White, 2002). Viewing children as human beings recognizes and respects children's current perspectives and behaviors (Kehily, 2004). Viewing children as human beings—viewing the child as an "adult-in-the-making" (Kehily, 2004, p. 5)—values the "future adults" (Seaford, 2001; p. 457) that children will become over who they are in their current life stage. Traditional views of children as "not-yet-adults or becoming adults" suggest that young people are incapable of acting rationally and thus need adults to act on their behalf (Jerome & Stakey, 2022, p. 439). However, those views have been challenged as captured by Oswell (2013):

The long twentieth century is, and has been, undoubtedly the age of children's agency. Children are not simply seen to be, but seen, heard and felt to do. Children are not simply beings, they are more significantly doing. They are actors, authors, authorities and agents. They make a difference to the world we live in. Over the period from the late nineteenth century up until now, in the early twenty-first century, children's capacity to do has intensified and the areas in which they are able to do have proliferated. (p. 3)

Manyukhina and Wyse (2021) asserted that while a substantial amount of research has examined teacher agency, there is a need for more research focused on children's agency in relation to school curriculum. While they did not specifically focus on children's agency in relation to school curriculum, Gurdal and Sorbring (2019) explored 10-year-old

Swedish children's perceptions of their own agency in different relationship contexts, including peer, parent-child, and teacher-pupil relationships. Children were provided with vignettes reflecting situations in which they could attempt to exercise agency corresponding with each relationship context and asked, "(1) what would happen if they acted by refusing or resisting a request from the other person in the relationship; and (2) how he or she would react if agency were blocked or refused by the other person" (Gurdal & Sorbring, p. 4). The vignette constructed for the teacher-pupil relationship context was:

It is raining cats and dogs outside and you are supposed to have a break in school. During the break earlier that day you were outside so most of the children's clothes were still wet. You do not want to go out, but your teacher says you must. You refuse to go out. What would happen if you said that you want to vote about going out or not? What would you do if your teacher said that you must go out and that's final? (Gurdal & Sorbring, p. 4)

Across the relationship contexts, children's responses represented two broad categories: (1) expecting their attempts to exercise agency to be *suppressed* (including being *ignored* and *reprimanded*) by the other person, and (2) expecting their attempts to exercise agency to be *supported* (including being *acknowledged but not rewarded*, *taken into account*, and *rewarded*) by the other person. Of the three relationship contexts, children perceived having the least agency in the teacher-pupil relationship context. This was the only context in which children expected their attempts to exercise agency to be reprimanded. It was also the only context in which they did not expect their attempts to exercise agency to be rewarded. Gurdal and Sorbring's study provides insight about children's perceptions about their own agency in school versus other settings.

The Current Study

With the International Association of Laboratory Schools' vision including positioning children as "active, engaged participants in their education" (IALS, n.d., Our Mission section) in mind, we propose that it is important for laboratory school educators to consider teacher candidates' views about children's attempts to exercise agency in classrooms. We suggest that focusing on this setting has the potential to be particularly impactful given that the laboratory school community plays a significant role in shaping the future of education. Accordingly, the purpose of this study, conducted at a university with a laboratory school, was to explore teacher candidates' views

about children's agency in classroom settings through these research questions:

1. How do teacher candidates report they would respond in a hypothetical situation in which a child shows agency in the school setting by resisting or initiating demands?

We adapted the teacher-pupil context vignette presented to children in Gurdal and Sorbring's (2019) study to be administered to teacher candidates in our study. Whereas Gurdal and Sorbring asked children how they thought their teachers would respond in the hypothetical situation presented in a vignette, we instead asked teacher candidates how they would respond as teachers in the same hypothetical situation. With this mind, we asked:

2. Do we observe parallels between children's responses in Gurdal and Sorbring's (2019) study and teacher candidates' responses in our study? Specifically, do the teacher candidates in our study report that they would respond in the ways that children in Gurdal and Sorbring's study expected their teachers to respond (in relation to the themes of suppressing and supporting children's attempts to show agency identified by Gurdal and Sorbring)?
3. Do teacher candidates' conceptualizations of children's agency in the school setting appear to differentiate between perceiving children as human beings versus human becoming?

Methods

Participants

Data were collected as part of a larger survey study focused on teacher candidates' perceptions of childhood and social issues. All participants were pursuing degrees through Northwest Missouri State University's School of Education which also includes the Horace Mann Laboratory School and Leet Center. Whereas 101 teacher candidates completed the survey, the research presented in this article focuses only on the 95 teacher candidates who provided a response to the open-ended question about children's agency that was part of the survey that could be analyzed. Of the six teacher candidates who were excluded from the analyses presented here, five provided no response to the open-ended question (i.e., left it blank) and one responded with the single word "yes" which was not sufficient to interpret and analyze.

Demographic information collected from the teacher

candidates included age, gender, and race. Ages ranged from 19-55 years. The majority of the 95 teacher candidates reported being female (89 of the teacher candidates) and White (86 of the teacher candidates). Four teacher candidates did not respond to the questions focused on gender or race.

The teacher candidates were asked to report if they were studying at the undergraduate or graduate level, with undergraduates also being asked to report their class standing. The majority of the teacher candidates reported being undergraduate students (three freshman, 15 sophomores, 47 juniors, and 22 seniors) while only five reported being graduate students. Three teacher candidates did not respond to the question focused on undergraduate or graduate status and class standing.

The teacher candidates were also asked to report their major. Of the undergraduates who reported their majors: 54 were early childhood education, 19 were elementary education, and two were special education. There were an additional two undergraduates double majoring in early childhood education and special education and an additional 10 undergraduates double majoring in elementary education and special education. Three of the undergraduates did not report their major. The five graduate students all reported being in the early childhood education master's program.

Data Collection and Analysis

Teacher candidates first signed an informed consent statement (electronically), and then completed a web-based survey that included various measures and questions. The analyses presented in this article are focused on responses to the open-ended question about children's agency included in the survey. This question asked teacher candidates to read and respond to a scenario adapted from the teacher-pupil context vignette in the study by Gurdal and Sorbring (2019):

Imagine you have your own classroom. (Or if you already have your own classroom, consider it). It is raining cats and dogs outside and your class is supposed to have an outdoor recess. During the outdoor recess earlier in the day some of the children's clothes got wet. One of the students said they do not want to go outside because of the rain, but you said the class needs to have outdoor recess. This child says they want to have the class vote about going outside. How would you respond?

Informed by guidance on qualitative research methods offered by Creswell and Guetterman (2025), we (the two researchers) independently analyzed the text data, coding

each teacher candidate's response line-by-line, and looking for meaning through interpretation. We each narrowed our codes down into more manageable numbers of categories and then met to discuss. In discussing our codes, we discovered that there was almost total agreement in terms of what we had independently identified as most significant and compelling in the text data. We came to consensus on the identification of five main themes which we have listed and described below. When possible, we used in vivo codes, phrases from the teacher candidates, in labeling themes (Creswell & Guetterman, 2025; Saldaña, 2021). Manning (2017) explained that "In vivo coding is championed by many for its usefulness in highlighting the voices of participants and for its reliance on the participants themselves for giving meaning to the data" (Abstract). Relying on the teacher candidates' language allowed us to highlight their voices and more deeply consider their perceptions of children's agency influenced by foundational ideas about childhood.

Findings

Presented here are the five overarching themes:

"My Classroom, My Rules" versus "I'm Not the Queen"

The teacher candidates' responses to the vignette illustrated a wide range of views about teacher-child dynamics and classroom management styles. Baumrind's (1973, 2013) conceptualizations of parenting styles based on the dimensions of warmth and control have been adapted for considering teaching styles (as cited in Atilas et al., 2022). Atilas et al. described the authoritarian teaching style (which is low on warmth and high on control) as being the strictest, characterized by a focus on children's obedience to authority without them having a sense of self-control for themselves. Alternatively, the authoritative teaching style (which pairs high warmth and control) involves balancing conforming to teachers' expectations with children's needs for developing autonomy. The teacher candidates in our study expressed views that spanned across this authoritarian-authoritative teaching styles spectrum.

At the most extreme authoritarian end, one teacher candidate responded, "I would say that they are not in charge of my classroom. While I would not have an outdoor recess if it was raining outside, I would expect my students to do as I say. My classroom, my rules." In this case, the hypothetical child from the vignette would have actually experienced the outcome they desired (i.e., to not have to go outside). However, the teacher candidate wanted to make very clear to the child that this was the teacher's decision to make and that what she decided was in no way impacted by the child's preference;

children would be expected to obediently follow and not question the teacher's authority.

Related, another teacher candidate explained,

I wouldn't let them vote because as the teacher I know what's best for all students in the class. I would just tell that student that maybe another time we can vote but for today we are going to stay inside.

This response seemed less rigid than the previous one. It suggested that the teacher candidate may have been open to voting about other issues in the future. Nonetheless, she made it clear that the decision about recess was her decision to make without acknowledging the child's preference (which again, in this case was actually the same as the teacher's decision). While the teacher candidate did not seem entirely opposed to children exercising agency in some situations, her description also seemed to portray children as "not-yet-adults or becoming adults" (as opposed to human beings in the present, in the here and now) who lack the capability to act rationally (Jerome & Stakey, 2022, p. 439)

At the other end of the teaching style spectrum, some teacher candidates' responses reflected more authoritative views. These individuals were not focused on having absolute authority but rather viewed themselves as sharing power in the classroom. The following teacher candidate response captured this most succinctly: "I would allow a class vote, children deserve to have an opinion in the classroom. I'm not the queen of the room, we're partners."

Similarly, another teacher candidate reflected,

I would tell the student that they have the right to want to be able to vote. I do not want to be the only person in charge within my classroom. My students will indeed have the right to do what they think is best for themselves and others. I would have the class all vote on whether or not they want to have indoor or outdoor recess.

While the above quotations illustrate the most contrasting views on teacher-child power dynamics in the classroom, many teacher candidates' responses suggested careful consideration of how to balance respecting children's agency with maintaining the teacher's authority in their classrooms. One teacher candidate explained,

I think that if children are allowed to take a vote and have a say in the decision making they should be able to participate in that. Overall, the teacher is in charge and makes the final decision but students

should have a voice in the classroom and should be heard.

Another teacher candidate suggested,

I would respond by saying that is a great idea from the student but the teacher gets to make the final decision in the classroom. There are other instances where students can vote on smaller choices but this decision is for the teacher. The teacher can then explain why it is important for students to go outside for recess and the benefits from it.

This response shows that while the teacher candidate would not allow a vote in this situation, she was still open to the idea of class decisions being made democratically. Also, consistent with an authoritative teaching style, she paired her decision with an explanation and communicated that the children's opinions are valued and preferences taken into consideration.

When considered collectively, the teacher candidates' responses demonstrated a range of views about expectations for teacher-child dynamics and approaches to classroom management. This included in relation to authoritative versus authoritarian teaching styles and views as well as views about children as human beings versus as human beings.

The "Brave" and "Remarkable" Child

Some of the teacher candidates' responses moved beyond just acknowledging or taking into account the child's attempt to exercise agency. These teacher candidates expressed that the child taking the initiative to make their own ideas and preferences known was worthy of praise and honor. One teacher candidate said, "I would be proud of the fact that they are standing up for their feelings and wanting to take action, I would let the class vote." Another teacher candidate stated, "it is very remarkable that a child would suggest having a class vote and that should be honored that they wanted to use their voice."

Even further emphasizing valuing children as agents of change in their own classrooms, one teacher candidate expressed, "I would say yes to this child taking the initiative to change something they don't agree with."

This idea was further developed by another teacher candidate who portrayed the child from the vignette as a leader bravely elevating the voices of their previously unheard peers:

So if this one child was brave enough to come to you and express his feelings, there is a good chance that other kids in the class are feeling the same way. Being able to have a class vote will help each

child have a voice and create a more inclusive classroom community.

Teacher candidates' descriptions of the child from the vignette as being brave, remarkable, and worthy of praise and honor contrast with Gurdal and Sorbring's (2019) finding that children in their study did not expect their attempt to exercise agency in the classroom to be rewarded by teachers. While there were a range of views expressed by the teacher candidates, at least some reported that they would not only acknowledge or take into account the child's perspective, but that they would be inspired to make the classroom a more democratic setting in which children would be further encouraged to show agency. These reports reflected a view of children as human beings whose current capabilities were respected.

A "Teaching Moment"

Another theme that emerged from the responses was that several of the teacher candidates seemed to view the child's proposal to vote to determine whether or not the class went outside as a "teachable moment," a concept popularized by Robert Havighurst (1952, as cited in Walker, 2022, p. 23). Adults can take advantage of situations in which unplanned—yet sometimes immensely valuable—opportunities to help children learn about concepts arise. These teacher candidates envisioned the situation offering a way for the children to learn about and gain hands-on experience related to social studies and character development topics.

Teacher candidates explained that following the child's lead to have a vote could open up an opportunity to learn about government, as captured by this response: "I would have the class vote and make it a teaching moment about how our government system works."

A similar idea was captured by another teacher candidate who also viewed the activity as an opportunity to help children learn about how voting allows people to have a voice:

I would let the class vote because it is a great way that you can teach the students about how government works and how it is good to have a vote about some things because it allows everyone to feel that their voice is being heard.

Another teacher candidate also incorporated how children could learn about voting being related to good citizenship: "I would let them vote as a way of teaching government and how voting makes you a good citizen."

Yet another teacher candidate captured how the particular situation could offer the class a chance to learn about voting

in a context outside of politics: "I think that having class votes are a good way for everyone to feel like they have a part and are being represented. It is also a good way to teach students about voting without it being political." To provide context to this quotation, campaigning and elections for the 2024 U.S. presidential primaries were taking place in the same time frame as when data for this study were collected.

The above quotations express how teaching about voting and government could help the children in their educational experiences and lives in the present, reflecting a view of children as human beings in the here and now. However, some other teacher candidates' responses were more focused on how teaching children about the democratic process and society now will prepare them for when they will be active participants in the future. These views reflect a view of children as human beings over time. This perspective can be interpreted from this teacher candidate's response: "I would let them have their vote. This would allow them to practice skills they will need to learn about in a democratic society."

Another teacher candidate explained,

In my classroom we do take class votes, so I would respond very positively. In society we take votes all of the time, this is preparing them in a way, and also teaching them to think of someone besides themselves.

A separate message that some teacher candidates thought could be demonstrated through a class vote was teaching children how to accept the results of a vote without getting upset if the outcome is not what they hoped. One teacher candidate said,

I would allow the class to do a vote, but before I will tell the students. We will do a majority vote and which ever [sic] wins we will do that, but there will be no fuss/fighting over which we do or next time I will automatically decide what we do.

Another teacher candidate also discussed teaching children about the idea of majority rule and respecting the decision of the majority group: "I would make sure to explain though that you can't throw a fit if you don't win. We just have to do whatever the majority is."

Further demonstrating the idea that letting the class vote could teach children how to deal with not getting what they wanted, a teacher candidate explained,

I would say that it is a great idea to have the class vote. It teaches the children about voting and also

how to deal with not always getting what you want. Then the children also feel more valued in your classroom because you took their opinions into consideration and let the class decide.

As captured by the above quotations, some teacher candidates demonstrated their ability to recognize “teachable moments.” They saw opportunities for children to learn about government, voice, citizenship, and character. Some teacher candidates seemed more focused on children as citizens contributing to their classroom communities in the here and now, whereas other teacher candidates seemed more focused on children practicing to be future citizens.

Teacher Agency

Another theme that emerged was that several of the teacher candidates expected that there might be limitations restricting their own sense of agency (as teachers) which could in turn influence the range of options they would have in responding to children’s attempts to exercise agency in the classroom. Factors that could influence their own sense of agency as teachers included school policies, administrators, and parents.

The way that this teacher candidate prefaced her response shows an expectation that she may not always have the agency to make decisions about her own classroom:

Assuming that I would be in authority to make this decision here, I would allow the class to take a vote. I want to create an environment students feel apart [sic] of. And that means that when I feel it will not impact our learning, students can have a say.

Another teacher candidate simply responded to the question/vignette with, “Depends on the school’s policy.” Related, the following teacher candidate’s response provided more depth about how she expected school policies to possibly dictate how much agency teachers have to make decisions:

I would likely vote against having outdoor recess if it is raining that hard. However, if it was mandatory per the school, I would acknowledge the child’s desire to hold a vote and offer them another recess-related vote to use the next day. For example, extra 5 minutes tomorrow or extra 10 minutes on Friday.

The idea of agency being impacted by the school was also reflected in this teacher candidate’s response about what is allowable: “I would accept their vote as long as an indoor recess is allowed.” This next response suggested the teacher candidate

expected that the school administrators to have the final say, but she anticipated that the administrators would be receptive to the children’s attempts to exercise agency:

I think that the students should be able to vote on whether or not they want to go outside, if they are uncomfortable with getting wet then I think they should be allowed to have a say. Unless the school administrators say that all students have to be outside, but I’m sure if the students explained the situation then they would be understanding.

Teacher candidates also expressed that parents may influence teacher agency in the classroom. One example of that is reflected in this response: “Realistically I probably wouldn’t let the class go outside. The parents might be mad if their kid comes home in soaking wet clothes. But I don’t know, maybe I would let the kids vote.”

Some teacher candidates’ responses illustrate that while they want to support children’s agency, they know that there may be constraints due to contextual factors. These include limitations to their own agency as teachers, which are imposed by school policies and administrators’ and parents’ expectations.

“Nobody Wants to be Wet for the Rest of the Day”: Culturally Influenced Views about Weather

The final theme we describe is one we did not anticipate as we designed our study but that is nonetheless unsurprising upon further consideration. We found that close to a quarter of the teacher candidates in some way emphasized the weather described in the vignette.

In some cases, the idea of discomfort caused by the weather was a motivating factor for the teacher candidates allowing the children to vote, such as captured by this response: “I would let the class vote on outdoor or indoor recess because they should get a say if they want to go outside and get drenched from the rain or stay inside and dry.” Similarly, another teacher candidate expressed, “I would let them vote because if there isn’t a single student in the class who is comfortable going outside for recess, then there is no reason to.” Teacher candidates also empathized with the students, as reflected in this response: “They should have the vote. I wouldn’t want to go outside in the rain either.”

In other cases, the teacher candidates did not even entertain the idea of letting the children vote, making the executive decision that staying inside was what was best, such as captured by this response:

I would not give the students an option. We would have indoor recess. By going outside, there could

be a few outcomes. All the students would get wet, it could cause illness by playing outside in the rainy (and likely cold) day, and finally, students would most likely complain and be upset the rest of the day because they are cold.

Another teacher candidate brought up the idea of common sense:

I would allow them to vote and hope that the common sense displayed by this child wins out. This would keep me from being an idiot and taking the kids outside while it is raining and would prevent a room of miserable and distracted children that are soaking and uncomfortable for the rest of the day. Not to mention preventing the load of parent emails I will receive for ignoring what was best for the kids.

We noticed that this response also showed that the teacher candidate was mindful of parents' reactions, related to the discussion of teacher agency from a theme described above.

The study from which we adapted our vignette was conducted by Swedish researchers with Swedish children in Swedish school settings (Gurdal & Sorbring, 2019). Spending time outdoors in all types of weather has been documented as a cultural value commonly embraced in Sweden as reflected in this excerpt from the book *There's no such thing as bad weather: A Scandinavian Mom's secrets for raising healthy, resilient, and confident kids (from friluftsliv to hygge)* by Swedish-American author Linda Åkeson McGurk (2017):

'What's so special about Sweden is that we have a long-standing agreement that it's good for children to be outside regardless of the weather, so that's not something teachers need to discuss with the parents,' says Eva Kätting, director of studies for the master's program outdoor environment education and outdoor life at Linköping University. This is often not the case in other countries and cultures. 'When I've worked with Turkish teachers, for example, they tell me that the parents become furious if they take the children outside in the rain. They'd rather keep them home than allow it.' (McGurk, pp. 162-163).

McGurk went on to suggest that, in Scandinavian culture, the ability to cope with a range of types of weather is viewed as helping children build resilience.

The positive views about being outdoors in all types of

weather that McGurk (2017) described as being common in Scandinavian culture contrast sharply with the negative views and reservations about spending time outdoors when it is raining shared by the U.S. teacher candidates (in their responses) in our study. The following teacher candidate response captures how societal perspectives about children being outdoors during a range of types of weather are reflected in U.S. school policies and practices:

I don't see why this would be a big deal since most schools/classrooms are prepared to have indoor recess. Additionally, most schools don't allow classes to go outside while it's raining or storming, so I would assume there should already be a plan in place for this.

Many of the teacher candidates had concerns about the weather. In at least some cases, this appeared to influence how the teacher candidates thought they should respond. This emphasizes that contextual factors and cultural expectations may influence how educators conceptualize and approach opportunities for children to practice agency.

Conclusion

Beliefs guide practices. With that in mind, we return to the idea of adults' beliefs about children's agency reflecting their broader conceptualizations of children and childhood (e.g., James & James, 2004, 2008; Norozi & Moen, 2016). What conceptualizations about children and childhood did the teacher candidates in our study communicate through their responses to the vignette about children's agency? Based on the themes identified, we observed a wide range of conceptualizations of children as human beings versus human becomings, including as these related to views about teacher-child dynamics. We can consider how this might translate into practice. Imagine the potential differences in children's opportunities to exercise agency (and related, the classroom climate) in a setting in which the teacher is guided by the view, "my classroom, my rules" versus the view, "I'm not the queen." We assert that professionals associated with laboratory schools - from classroom teachers and administrators to faculty teaching courses for teacher candidates - have the opportunity to model for and engage teacher candidates in dialogue about the significance of children's agency and how to support affordances in classrooms.

We gain additional insight when we consider the findings of our study in relation to those of Gurdal and Sorbring (2019) in their study. Consistent with what children in Gurdal and Sorbring's study expected of their teachers, some of the teacher candidates in our study said they would respond in ways

that would suppress the child's agency (i.e., ignoring, and if we consider the negativity infused in the responses of some teacher candidates' answers, possibly even reprimanding). However, the responses of teacher candidates in our study included more supports of the child's agency than the children in Gurdal and Sobring's study expected of their teachers. Some teacher candidates' responses could be described as not only acknowledging and taking into account the child's attempt to exercise agency (as the children in Gurdal and Sobring's study expected), but actually rewarding the child's attempt by praising the child for being brave for using their voice. Some teacher candidates even indicated that they would respond by trying to provide more opportunities for children to be involved in decision making in a democratic manner. This contradicted expectations of the children in Gurdal and Sobring's study who did not anticipate being rewarded.

The focus on "teachable moments" to help children learn about topics such as government, citizenship, voice, and accepting election results led us to make a connection to a previous study conducted by one of the authors (Cline et al., 2019). The focus of that study was to explore how teachers and families from the Horace Mann Laboratory School perceived the 2016 U.S. presidential election and subsequent presidency. One of the themes that emerged from that study was that teachers at the laboratory school had the autonomy to choose how to approach teaching about government and related topics. A second grade teacher in that study explained:

And we ended up doing a "Bearcat Island" [note: the Bearcat is the university/school mascot] instead of the actual election. Well, even before the election even happened, because we wanted to talk about how voting worked, why you would vote, different types of ways of voting. And so they ... we discovered this island, now we are going to have to come up with what we are going to do here. What is our island going to look like? Why is it important to have rules here? Then we had to elect a leader and we picked two people that were made up that they had to choose from and talked about the reasons, what their platforms were for voting So we talked about why that worked. And so when we were talking about the actual election, we went back to that. And talked about why ... people vote for a candidate based on their ideas and their points of view and what they believe in. So we talked about those things but we didn't go into details of what either candidate in the actual election believed. But just ... that is why people would vote for one or the other. (pp. 567-568)

We saw a parallel between the approach of the laboratory school teacher (from the previous study) and the responses of some of the teacher candidates in the current study. The laboratory school teacher used a creative approach to teach about the process of elections that she felt would be comprehensible to her students while avoiding challenges associated with the polarized nature of the actual 2016 U.S. presidential election. Similarly, some teacher candidates from the current study explained how they would naturally thread teaching about government-related topics into an everyday moment (not related to national politics) that just happened to arise. As previously discussed, some teacher candidates went even further in explaining that they would respond to the hypothetical situation in the vignette by striving to incorporate more opportunities for children to engage in democratic experiences (i.e., making decisions by voting) in the classroom.

Importantly, the laboratory school teacher from the previous study described above (Cline et al., 2019) had the agency to be able to make her own curriculum decisions. This reinforces the significance of some of the teacher candidates from the current study showing their awareness that their decision-making opportunities may be constrained by school policies and administrators as well as how parents might respond. This nuance brings to light the challenges that new teachers may face in implementing their pedagogical beliefs into practice. This is relevant for both teacher education - including in laboratory school settings - and educational policy.

In reflecting on our study, we want to recognize that there are limitations including limited diversity in regards to some demographic characteristics (e.g., predominately White, female undergraduate students) which restricts generalizability. Furthermore, the reasons why and implications of missing data (i.e., six participants of the larger study being excluded due to not providing a codable answer to the open-ended question with the vignette; four participants not responding to the demographic questions about race and gender) are not understood. Another limitation is that we only considered teacher candidates' responses to a single vignette. The nature of the vignette (focusing on having outdoor recess when it is raining) was interpreted through the teacher candidates' own cultural lenses. Offering a vignette focused on a different example of a child attempting to show agency may have elicited different responses. Additionally, collecting data through an interview or focus group in which we could have asked for more detail and clarification may have allowed us to more deeply explore the teacher candidates' perspectives. Despite the limitations, we assert that the findings of our study provided interesting insight into how the teacher candidates conceptualized children and childhood and viewed teacher-child dynamics and children's agency.

Taken together, we suggest that the findings of our study have value for the laboratory school community. Laboratory schools have a rich history on which to build, and the work in which they are presently engaged can make today's - and tomorrow's - world a better place. Laboratory school professionals make a difference through the experiences they offer to the children in their classrooms and through the work they do with the teacher candidates who will be tomorrow's teachers. We invite laboratory school professionals to consider: What opportunities to practice agency are experienced by children in laboratory school classrooms? What messages do teacher candidates receive about children's agency through their university courses and time spent in laboratory school settings? Are these experiences and messages truly guided by and consistent with the International Association of Laboratory Schools' (n.d., Our Mission section) vision of the world as a place "where every child enjoys learning experiences that prioritize their well-being and development, respect their rights and diverse needs, and position them as active, engaged participants in their education"? Returning to the description offered by Oswell (2013) about the "age of children's agency" starting in the twentieth century, it is important to recognize and support children as "actors, authors, authorities and agents" and to validate that, "They make a difference to the world we live in" (Oswell, 2013, p. 3). By living out the International Association of Laboratory Schools' vision - and including today's teacher candidates in the journey - the laboratory school community can build on their rich history, supporting today's children, and playing a role in paving the way for a future in which children are further empowered to be active agents in their own learning and beyond.

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Authors' Biographies

Keely D. Cline, Ph.D. is an associate professor in the Division of Behavioral Sciences in the School of Health Sciences and Wellness at Northwest Missouri State University. Her academic interests include early childhood development, parent-child book reading, home and school settings as contexts for development, and using children's literature in college level education. She values opportunities to collaborate with educators at the laboratory school at Northwest Missouri State University and facilitating study abroad programs focused on child development and play.

Riley Foster received her B.S. degree in psychology from Northwest Missouri State University. As an undergraduate student she was a member of Psi Chi, as well as a research assistant, and presented at the Midwestern Psychological Association Conference. Riley is currently working towards her master's degree in school psychology at Emporia State University.

We're on Our Way: Building College and Career Readiness Skills in Preschool Through Self-Regulation Development Guided by Age-Appropriate Learning Experiences

Lori Blake

CENTRAL CONNECTICUT STATE UNIVERSITY

Self-regulation skills, such as emotional competency, perseverance, problem-solving, communication, and collaboration, are essential for academic and life success. These skills develop over time and can greatly impact children's learning experiences and contribute to their development of college and career readiness skills. Therefore, the sooner children can begin to develop these skills, the better. However, teachers have limited time, both for planning and in time during the day, for adding "more." They need learning experiences that are embedded into the existing experiences that occur so that they can be implemented in a regular manner, increasing the likelihood of impacting not only children's behaviors but teachers' as well. This is important as it is a premise of this study that if self-regulation skills are at the forefront of teachers' minds, they will more easily and more effectively encourage and teach children to use such skills, even when they are not engaging in lessons specifically designed to build self-regulation.

To help determine how self-regulation learning experiences connected to College and Career Readiness skill building can be introduced effectively into the curriculum and what strategies help teachers to consistently build this skill, two programs participated in this study. Together, we explored the impact of implementing carefully curated lessons designed to build self-regulation skills closely connected to College and Career Readiness, such as emotional competence, attention and focusing skills, communication and expression of ideas, cooperation skills, and problem-solving skills. Specifically, this article aims to share the experiences from this study. The story below is a brief account from one of the learning experiences that took place.

It is 10:45 a.m. and it is the beginning of center time in Mrs. M's classroom. The children have just read a story on the rug together and have now entered choice centers. During this time, small-group experiences also take place. A group of five children gathered with Mrs. M at a table in the center of the classroom to work on their artistic representations of a book they were reading this week called *The Color Monster* (Llenas, 2012).

Mrs. M began, "Remember the other day we read this book?"

Children nodded and one answered, "Yes, I read it again too."

Mrs. M continued, "Oh great. Well, today we are going to be doing this book for small group. Let's re-read it to remind us of what happens."

As they were about to read, a child shared, "Mrs. M, I feel happy today."

"You do—that's so wonderful," Mrs. M replied.

As they were reading, children were engaged in pointing to the pictures, commenting on what they saw, counting items. "Oh, you subitized," said Mrs. M. One child sitting near Mrs. M stroked each page as she read, and when they arrived on a page depicting rain, he said, "Just like today."

After they finished the quick re-reading, Mrs. M began to flip through the book, and upon landing on the red page, shared, "I've seen this before, I have felt it and I have seen it. Remember in your journals this week you were so mad because you wanted to go to the playground and you wrote about it." The children nodded.

Continuing to flip through some pages and stop occasionally, she stopped on the page covered in brown and asked, "I wonder what another word for fear might be?" "Scared," some replied.

On the green page for calm, she took a deep breath as she continued, slower, "Let's take a look, he is so calm, sitting here." And she sighed out. They sighed along with her.

When arriving on a page with multiple tabs to pull and uncover another emotion, children wanted to participate in the reading of this page. "I want to pull a tab," one child explained, "Me too," said another.

Mrs. M said, "Ok, you each can pull a tab." Then, going around the table to the five children, they each pulled a tab and as they did, they mentioned the emotions revealed when unveiled. As they did, they added a tonal cue with it.

In a deep rolling voice, "angry," in a high-pitched voice, "happieee," and so on until all emotions were revealed.

They finished the book reading at about 10:55 when Mrs. M said, "I want to show you some work from your friends who did

this yesterday, because they did some really good work.” Then, she showed the five children one drawing of a black monster, then a gray one for sadness, then there was a pink one, and another pink, then another.

“What do you notice?” she asked.

“Lots were feeling loved,” someone said.

There was one creation that had two colors. “He had two ideas,” one child explained, “he was feeling happy and sad at the same time.”

“I feel that way sometimes,” another said.

“Me too,” said Mrs. M, “like when I am happy to be at school but also tired and wanting to be home.”

After reviewing, analyzing, and reflecting on the previous children’s work, they looked at the feelings cards Mrs. M had available on the table. They briefly went through them and matched the feeling with facial expressions, tone of voice, and emotions.

“I think you’ll know this one,” she said, “ready.” She held up the card for ‘surprised,’ and three children exclaimed, “Surprised!” Next up, excited. One child said, “Like when you go to the moon,” and Mrs. M replied, “Well yes, though I might feel excited *and* scared if I were going to the moon. What about you?” He nodded affirmatively, then said, “I am going to be an astronaut.” Another shared, “I am going to be an ‘OT’ and a construction worker!”

Now it was time to begin their creations. Using the special markers, the children began to draw the emotions they had in the moment. As they were drawing, various children asked to see some of the previous children’s work again, referencing what they had seen and commenting on if it was similar or different to what they were doing. One child noted, “This is the same color, but I am drawing me and my mom.”

Another child asked to see the first page of the story as a reference to his creation. Mrs. M showed the book to him. He said, “I am going to draw this, with the monster and the color. See, I have the monster here (pointing to his picture) because he is bigger and the colors are coming off him.”

Once they drew their characters, they received paints to make their emotions. Paints were given in small white plastic bowls, with small-medium sized brushes. One child chose blue, another pink, another yellow, and finally, rainbow.

One child said to another (while looking at their picture), “I give your painting 5 stars!” and he held up the number 5 with his hand. Mrs. M agreed, “Wow, that’s a lot. How come?” “Because I see she is happy.” The child who was validated said, “Thank you,” and then moved onto her next activity.

As children were finishing up, one said, “I also need yellow, I need all the colors for my painting.”

Mrs. M commented on how the children were concentrating as they were creating their pictures. Each child spent the

amount of time they wanted, some shorter than others, and at 11:04 the second child was done and ready for their next experience, the third was finished soon after at 11:05.

“I’m done.”

“Let’s take a look at what you are feeling.”

“Happy!” she explained as she began to carry her drawing to the drying rack.

At this point, children came up to the table and asked to read this book. Mrs. M noted that it has been a favorite for the children since they read it Monday this week. As a child was looking at the book, while standing at the table, she said, “I am looking forward to my violin concert.” Mrs. M replied, “Oh, there’s a word for that, it’s excited!” The child smiled and said, “Yes!”

At this time, another child finished their creation and shared it with Mrs. M, “This is me and my friend, and we are pink because she is my friend. We play dolls. I like the pink. I like the blue too but this is only pink.”

A child drew herself and then the monster. She added many colors and described the many colors and feelings depicted in the painting before she went to hang it on the drying rack and choose her next learning experience.

A child who came up to the table was stroking the delicate parts of the book, “I like this page,” she said. “I like how gentle you are being with it,” Mrs. M shared. She commented to a child still working, “I see a monster in your picture, and I see the colors coming into the monster.”

Then, she turned to Mrs. M and said, “I am feeling embarrassed.”

“Really, why?”

“Because I have a headache.”

“Hmm, I don’t think you need to be embarrassed that you have a headache. Are you maybe feeling sick?” Mrs. M asked, then said, “Let’s feel your head... cool as a cucumber, do you think playing in the water table might help to make you feel better? Perhaps to calm down?”

“Yes!” she exclaimed and she went to the table, quietly.

As the final child finished at 11:15, he came over to me and explained, “Remember, this is the first page of the story, this is the color monster, and this is the girl, and here is the pink behind the ear, you can’t really see it but this is why I also drew this line leading into the head.” I responded, “Wow, are you really proud of this?” “Yes,” he replied. I said, “You worked really hard on this,” and he agreed, heading off to hang his hard work up to dry. Children helped to remove items from the table with Mrs. M, and by 11:20, the experience was cleaned up and the children had chosen their next experiences.



Figure 1. *"I Am Loved."*

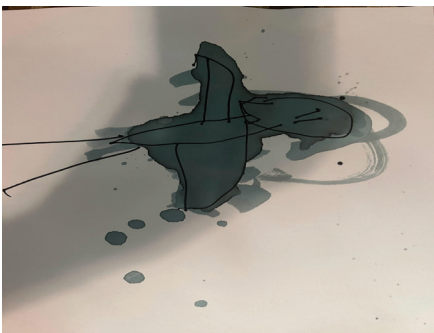


Figure 2. *"I Am Sad."*



Figure 3. *"The Monster Is Everything."*

Engaged in one of the lessons developed for this study, the children in this vignette are attending and focusing extensively, analyzing their and others' work, reflecting on their work, and sharing their ideas. The children engaged in continued discussions about emotions and intentionally determined what to create for their paintings. They determined when enough was enough and it was time to clean up and move on. They were able to share ideas, analyze each other's work, and reflect on their own while working closely with their teacher.

These skills are typically associated with older students who are using refined skills to complete academic tasks. However, as we see here, the preschoolers are actively engaged and applying these skills to their work in meaningful ways as they choose and color emotions with paints associated with the story they read. Could these skills, typically associated with older students as we begin to think about them becoming college and career ready, already be in motion as early as the preschool years? Our study suggests that the answer is resoundingly affirmative.

The Significance of Self-Regulation as it Connects to College and Career Readiness

Self-regulation skills are a significant factor setting apart those who complete high school and college successfully and those who meet workforce standards with greater success (Pintrich, 2004; Conley, 2014; Welch et al., 2017; Zimmerman, 1990). Self-regulation is not a new concept. Self-regulation is a complex set of skills, comprising cognitive, psychological, and social emotional domains of development and over the years, it has been shown to have strong connections to academic success (Blair & Diamond, 2008; Liew, 2012; Wilder-Smith et al., 2024). Learners, both younger and older, who are developing self-regulation skills are more likely to be academically successful using behaviors that lead them to plan for and set goals in their learning, stay on task to complete their goals, and assess their progress (Pan et al., 2019; Ricciardi et al., 2021; Zimmerman, 1990). Self-regulated learners have the capacity to regulate their impulses and become independent learners, using extended time management, working memory, attention and focus capabilities, and emotional regulation, problem-solving, collaboration, and communication to affect their behaviors (Bailey & Jones, 2019; Blair & Diamond, 2008; McClelland & Cameron, 2011; Pintrich & De Groot, 1990; Zimmerman, 1990).

These skills lend themselves to the ability to put forth more energy and focus into academic tasks that are required in work and school settings, including postsecondary education. Researchers have even gone so far as to say self-regulation skills are some of the more important skills that lead to academic success. The College and Career Readiness (CCR) literature supports this notion. CCR is defined by the American College

Testing Association as having the skills required to engage in college level (2 or 4-year, trade, or technical school) coursework without needing remedial preparation (ACT, 2018). The National Association of College and employers go a step further and identify key competencies that also are needed for college and career readiness. Those competencies include critical thinking and problem-solving, oral and written communications, teamwork and collaboration, digital technology, leadership, professionalism and work ethic, career management, and global and intercultural fluency (NACE, 2018).

Whether or not students have built the skills to be college and career ready has traditionally been measured on performance tasks in core academic subjects such as mathematics and English/language arts. However, there seems to be a growing consensus in the United States that students need to be better prepared for the next steps after high school graduation and that we need to be looking beyond just proficiency in academic skills (Green et al., 2023). There are many postsecondary and high school programs that work to build college and career readiness skills specifically. But, why start there and play catch up? Beginning in much younger years would likely aid not only in students' readiness for advanced content and application at the high school and postsecondary levels, but would it not also positively aid in children's academic experiences throughout their PreK-12 years?

Therefore, it is the premise of this study that children should be given consistent opportunities, beginning in early childhood, to build the self-regulation skills closely connected to college and career readiness. Standards already exist for learning that, when compiled intentionally, are available for early childhood educators to design learning experiences that will set the foundation for skill development. In addition, researchers suggest that high-quality early childhood experiences contribute to preparing young children to have greater overall academic and life success well beyond the time spent in the early childhood classroom (Rimm-Kaufman et al., 2000). Therefore, it is a logical assumption to preclude that specifically focusing on building self-regulation skills would positively add to young children's evolving development of CCR.

The Study

To explore how preschool teachers engage young children in developing the critical CCR skills, the author, an early childhood professor, conducted this study with two nearby early childhood programs. These programs often serve as fieldwork sites for early childhood students as well as research sites for early childhood faculty; therefore, the teachers were selected through convenience sampling (Tisdell, 2025), and data were collected using three qualitative methods. In order to focus

specifically on the self-regulation skills closely connected with CCR, only data pertaining to communication/collaboration, focus/attention, memory/reflecting, and problem solving were documented.

This study began as a descriptive single case study and evolved into a descriptive multiple case study over the course of one year. Descriptive case study research, intending to describe a phenomenon in its real-world context, contributes greatly to our understanding of individuals, groups, and organizational phenomena and is a commonly used research method in education (Yin, 2018). In this case, the goal was to collect data on teachers' reports of how the implemented focused lessons impacted children's behaviors as well as their (the teachers') thinking about implementing self-regulation building experiences into the day. In addition, another goal was to glean if teachers felt the lessons were easily embedded into their already prescribed and busy days.

Sites and Demographics

The first site in this study was located in a suburban town in Connecticut approximately 20 miles from the capital, Hartford. The child development center that served as our first site serves children ages 0 to 5 years old. They have infant, toddler, and preschool classrooms. Their classrooms are state funded and most families receive tuition subsidies. The center is open all year round. For lead classroom teachers, this center looks to hire staff with a bachelor's degree in early childhood education (or related field) or higher. As with many early learning programs, they are struggling to attract and keep qualified staff, and this hiring goal is not always possible. The executive director penned a note to the Connecticut state government in 2022 highlighting this issue and raising awareness for increased state funding for early learning programs.

Most children in the center are from lower-income families who reside in town and who utilize state funds to pay for their preschool education. State funds such as Care 4 Kids and school readiness are typically used. It was anticipated a somewhat even distribution of males and females would be present in the participating classrooms. For this study, I sought two preschool classrooms with teachers willing to implement the lessons, keep a journal, and attend focus groups. The children were typical preschool-age, ranging from 2.9 to 5 years old.

The second site in this study was also located in a suburban town in Connecticut. This suburban town is approximately five miles outside Hartford. At this study's specific public school site, the student population is 512 across grades PK-5. Specifically, there are 80 preschool students at this site. The school enrolls 47% economically disadvantaged students who live in the town. The school looks to employ state-certified

teachers as their lead teachers in all classrooms, including preschool. Currently, 75% of full-time teachers at this school are Connecticut state certified. It was anticipated a somewhat even distribution of males and females would be present in the participating classrooms.

For this round of the study, two preschool classrooms with teachers willing to implement the lessons, keep a journal, and meet in focus groups were selected. The children were typical preschool-age, ranging from 2.9 to 5 years old. A more detailed description of the participants in this study is presented in Table 1.

Table 1: Specific Details of the Overall Participants During This Study

	First site	Second site
Number of lead teachers	2	2
Educational Levels/Years at their current place of employment	Teacher 1 Miss T: Associate degree in Early Childhood Education/ 10 years Teacher 2 Miss K: Bachelor's degree in Early Childhood Studies/5 years	Teacher 1 Miss M: Master's degree in Early Childhood Education/ 9 years Teacher 2 Miss P: Master's degree plus 30 additional credits in Early Childhood Education/3 years
Number of children in the classroom	Classroom 1: 15 Classroom 2: 9	Classroom 1: 16 Classroom 2: 16
Boys/Girls in the class	Classroom 1: 7/8 Classroom 2: 3/6	Classroom 1: 8/8 Classroom 2: 7/9
Age ranges in the classes	Classroom 1: 4-5 years Classroom 2: 3-4 years	Classroom 1: 3-5 years Classroom 2: 5 years

Methods

Throughout the duration of the study, the four participating lead preschool teachers engaged in a variety of activities. Over a 6 to 10-week time period, the teachers implemented carefully crafted lessons designed to focus on building the self-regulation skills associated with CCR. Then, to collect this data (a) we met twice to discuss self-regulation skills and the lessons; (b) the teachers kept a weekly journal recording the implementation

process, children's reactions, and their own observations of the lessons' impact; and (c) I conducted classroom observations to observe lesson implementation in the classrooms. Each classroom was observed three times for approximately 40 minutes during the course of their typical morning activities. In order to analyze the data, the transcripts of the meetings and classroom observations were openly coded (Tisdell, 2025) to identify times when self-regulation skills closely connected to CCR were encouraged by the teachers or the students.

The Lessons

The lessons for this study were developed using the blended framework in Figure 4 (Blake, 2018). They were designed to promote CCR through building self-regulation skills using an engaged and enthusiastic approach (Hyson, 2008; NAEYC, n.d.) that emphasizes age-appropriate, play-based teaching techniques and experiences.

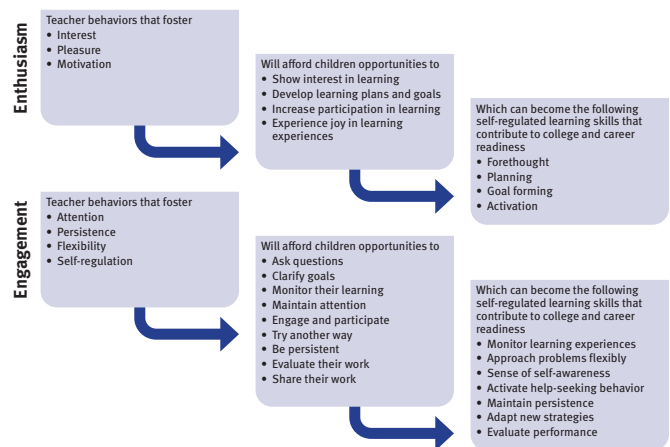


Figure 4. College and Career Readiness Through Engaged and Enthusiastic Learners Framework

The opportunities for learning described in the framework were utilized in this study due to their documented connection to CCR and were aligned to learning standards as outlined in the Connecticut Early Learning and Development Standards (CT ELDS) (CTOEC, 2014). Using a children's book to anchor each lesson, the lessons consisted of read-alouds, class discussion, and extended classroom center-based experiences.

The first site had the opportunity to implement 10 lessons while the second site implemented six. This difference was determined to be acceptable since both trials were seeking reports from the teachers on how they felt the lessons impacted the class, what they observed in the classroom as a result of the lessons, and their thoughts on the feasibility of adding these

lessons to their already busy schedules.

There were various experiences that built emotional competence, attention and focusing skills, communication and expression of ideas, working memory, cooperation skills, and problem-solving skills. Each lesson began with a read aloud using an anchor book to introduce the focus skill and involved the book being read one or two more times. Before each read, the teacher would briefly revisit what they discussed in the prior reading and encourage them to listen for something different this time around (i.e., “What happens when you hear?” or “This time pay attention to this character, and let’s see what they are feeling”). The concepts in the book were then reinforced throughout the week during center choice time and in small group experiences (such as with *The Color Monster* story at the beginning of this article).

Often, as situations arose, the teachers would reference the book and how the characters dealt with various circumstances. This was illustrated in the classroom during many classroom observations. One observation was during a problem that

occurred between two children in the block corner.

“Miss T,” a child called, “he is sad.”

Miss T came over to the child and, sitting down next to him, asked, “tell me what happened.”

The child proceeded to say that he wanted to use a truck that someone else was using. “And he won’t give it to me.”

“Ok, let’s figure this out,” she said.

Asking the other child to come over, Miss T stated, “We have a problem to solve, just like in our story, *What do you do with a problem?* We have to tackle it. Let’s talk about it.” Turning to the child who was sad, she said, “Can you ask him when he is finished, can you have a turn?” The child nodded, and said, “When you done, can I have the truck?” Upon receiving an affirmative head shake, he chose something else in the center in the meantime. Miss T remained close as they were resettling into their play. A few minutes later, the truck was brought over to the child who asked for it. Table 2 offers a list of some of the books used in this study and their corresponding CCR skills.

Table 2: Some of the Anchor Books Used in the Comprehensive Lessons and Their Corresponding CT ELDS and CCR Skills

Anchor Book	Self-regulation skills associated with College and Career Readiness	CT ELDS Developmental Domain: Learning Strand: Learning Progression (Learning Standard)
Jay, Mr. (2018). <i>Ricky the Rock that Couldn't Roll</i> (E. Wozniak, Illus.). New Paige Press, LLC.	Collaboration/Cooperation Problem Solving Communication	Cognition: Early learning experiences will support children to develop effective approaches to learning: Cooperation with Peers in Learning Experiences Cognition: Early learning experiences will support children to use logic and reasoning: Problem solving Language and Literacy: Early learning experiences will support children to use language: Expression of Ideas, Feelings, and Needs
Coulman, V. (2022). <i>Dragons on the Inside (and other big feelings)</i> (A. Colombo, Illus.). Spirit Publishing.	Emotional Competence Attention/Focus Attention/Focus Communication	Social & Emotional Development: Early learning experiences will support children to develop, express, recognize, and respond to emotions: Emotional Expression Cognition: Early learning experiences will support children to strengthen executive function: <i>Regulation of Attention and Impulses</i> Cognition: Early learning experiences will support children to develop effective approaches to learning: <i>Engagement with environment, people, and objects</i> Language and Literacy: Early learning experiences will support children to use language: <i>Expression of Ideas, Feelings, and Needs</i>
Yamada, K. (2016). <i>What do you do with a problem?</i> (M. Besom, Illus.). Compendium, Inc.	Problem Solving	Cognition: Early learning experiences will support children to use logic and reasoning: <i>Problem solving</i>

Anchor Book	Self-regulation skills associated with College and Career Readiness	CT ELDS Developmental Domain: Learning Strand: Learning Progression (Learning Standard)
Llenas, A. (2012). <i>The Color Monster, A Pop-Up Book of Feelings</i> (A. Llenas, Illus.). Union Square & Co., LLC.	Emotional Competence Communication Attention/Focus	Social/Emotional: Early learning experiences will support children to develop, express, recognize, and respond to emotions: <i>Emotional Expression</i> Language and Literacy: Early learning experiences will support children to use language: <i>Expression of Ideas, Feelings, and Needs</i> Cognition: Early learning experiences will support children to develop effective approaches to learning: <i>Engagement with environment, people, and objects</i>
Barrett, H. (2020). <i>The Tiny Baker</i> (A. Jay, Illus.). Barefoot Books.	Problem Solving	Cognition: Early learning experiences will support children to use logic and reasoning: <i>Problem solving</i>
Meiners, C.J. (2017). <i>Try and Stick with It</i> (M. Johnson, Illus.). Free Spirit Publishing.	Problem Solving	Cognition: Early learning experiences will support children to strengthen executive function: <i>Task Persistence</i>

As mentioned above, each lesson contained an anchor story for read-alouds, center-based experiences, and small group experiences. Below are examples of the types of

experiences utilized in this study. An example of a completed comprehensive lesson is at the end of this article (see Appendix A).

Emotional Competence

Read-Aloud Experiences

Teachers had many opportunities to build emotional competence with children during this study when they focused on feelings. One of the experiences designed to help children think about and understand their feelings was a read aloud with the book *Happy Sad Today*. At the onset of the reading experience, teachers asked, “Based on the title, what do you think the story will be about? They then read the story all the way through. At the end they asked:

“Who enjoyed that story?

What did you like about it?”

“Can you think of any times you felt two emotions at once?” and they recorded responses on chart paper.

Center-based Experiences

“My Emotions” memory game in the math center

Small group Experiences

1. Sing “If you’re happy and you know it,” adding in as many emotions as you can think of. Make a list of the emotions you all came up with.

Link to the online version of the song: <https://www.youtube.com/watch?v=M6LoRZsHMSs>

2. Sing the “A Scribble Spot” song. After, ask, what is one thing that makes you feel happy, sad, frustrated, alone, and so on.

Link to the online version of the song: <https://www.youtube.com/watch?v=0076ZF4jg3o>

Read *The Color Monster* in small groups with them in art and have *The Color Monster* book available in the center for children to look at, along with the Emotions Picture cards.

Using a black marker and paper, encourage the children to draw characters. Then, using paint, have them choose the colors of the emotions to paint. Save the children’s creations and ask them to tell you about the emotions they created. Take their dictation.

Attention and Focusing

Read-Aloud Experiences

Let the children know you are going to read a book about listening called *Listen and Learn* by Cheri Meiners and why it is important.

Ask, “what are some ways we can focus in our class?”

Make a list of their responses (title the chart paper “How do we focus in our class?”)

After, say, “while we read, listen for the ways the children in the book listen and focus in their class.” Then, compare the list they made before reading and after.

Center-based Experiences

In the table top toys center, place table top loose parts such as small blocks, cloths, small animals, small flowers, and round wooden disks. Encourage children to be creative and to develop various play scenes. Challenge them to remain at the center until the timer goes off (start with 5 minutes, then try 7, and so on). Ask them about their creations and talk about the time and if they want to go for longer. Observe/record who chooses the materials and their timing of play and focus on their work.

In the writing center, offer paper and writing tools for the children to create their own stories. Start each paper with the prompt: “I can focus when I...” Be sure to work in small groups so that you can take their dictation and write their ideas on their work. Create a class book and place it in your library center.

Figure 5 shows a few pages from the class book that was created.

Small group Experiences

In small groups, pass out egg shakers and instruments. Using song cues, have the children listen for various parts of the song and respond with playing their item. For example, when the song says “Play our instruments,” those of you with instruments play and when the song says, “Shake your bells, those of you with shakers, shake your bells.”

Communication and Expression of Ideas

Read-Aloud Experiences

The anchor story here is *Happy-Sad Today: Making Sense of Mixed Feelings Together* by Lory Britain and Matthew Rivera.

Start by introducing that, “Today we are going to read another story about emotions. Let’s look at the cover. What are some things you see on this cover? What do you think the story will be about, based on what we see?”

Then, read the title again. “Based on the title, what do you think the story will be about?”

Next, read the story all the way through.

At the end ask, “Who enjoyed that story? What did you like about it?”

If the children are interested, ask, “Can you think of any times you felt two emotions at once?” Record responses on chart paper.

Center-based Experiences

Place *The Rabbit Listened* by Cori Doerrfeld story in the library center. Create story cards for the book and encourage the children to draw their own endings.

Small group Experiences

Read *The Rabbit Listened* with a small group of children and have them share their alternate endings with one another during the small group experience. Model how to reflect on work by providing specific feedback to each child. Some prompts for this are:

- “That was very creative how you....”
- “It is interesting that you chose to....”
- “Your new ending makes me wonder if...”

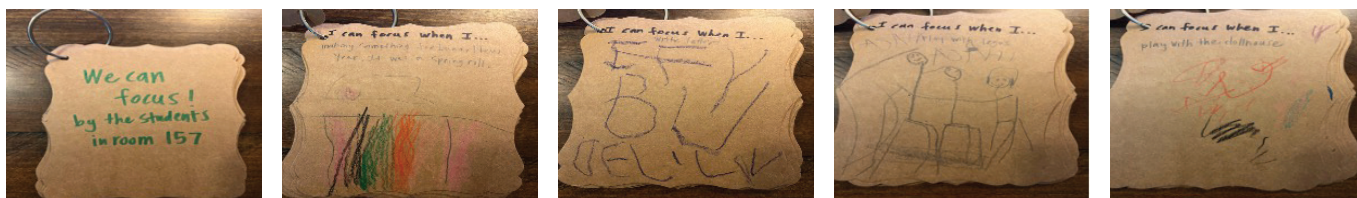


Figure 5. *We Can Focus: A Class Book*

Cooperation & Problem-solving

Read-Aloud Experiences

Announce to the children that you are going to read a story about friends working together to solve a problem. Then read *Ricky, the Rock that Couldn't Roll* all the way through. After you finish reading, ask, "What was the main problem in this story?" "How did the friends work together to solve this problem?" "Do you think working together like this is a good idea? How come?" "How can you work together in school?"

Write down the responses on the chart paper. Post in the classroom. See Figure 6 for an example of their work.

Center-based Experiences

In the blocks center using your blocks materials and/or loose parts materials such as boxes, cups, fake flowers, and so forth as building materials. Guide the children in developing a plan as they work together. Take a picture of their creation, their explanation of what they created, and how they decided to make their creation.

Comment on how they shared ideas, communicated, and made decisions together.

Figures 7, 8, 9 show examples of children working together with these materials.

Small group Experiences

The five steps in problem-solving card scenarios- ordering the steps and matching ideas to each.

Step 1: Identify the problem

Step 2: Think of some solutions

Step 3: Talk about if you think the solution will work, why or why not.

Step 4: Try it out!

Step 5: Reflect: Did it work?

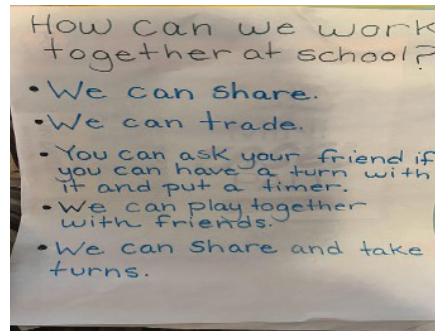


Figure 6. *How Can We Work Together?*



Figure 7. *Cooperating in Blocks: "Castles"*



Figure 8. *Cooperating in Blocks: "A Tower"*



Figure 9. *Cooperating in Blocks: "A House"*

Findings

Overall, all teachers felt the lessons were worthwhile and helpful in teaching the children about self-regulation as it connects to CCR. Miss P reflected on the work, stating,

I believe the lessons meaningfully contributed to children's understanding of self-regulation skills and were a valuable part of our curriculum. Students were able to connect with the characters and situations in the stories, which helped them better understand their own feelings and how to manage them. For example, after reading *The Color Monster*, several children began using color words to express their emotions.

Miss M had similar reflections, sharing that,

The children found the books relatable and shared examples of times that they felt big emotions and needed to cool down. One child gave an example of something that happened that morning during center time. During our second read we used the shakers to call attention to ways to cool down and I think that freshened up the second reading. We made a great list and the children had a lot of good ideas about how to cool down. We read the book *Boxitects* twice and students loved this one. It really sparked great conversation and I am hoping it will also foster more creative play during centers.

All teachers commented that, as a result, children were able to hold extended conversations about various self-regulation skills, such as expressing ideas on how to focus on tasks, expression of emotions, identifying how to cooperate with one another, and ideas on how to solve problems. Additionally, as reported by the teachers and observed during the data collection, the children were able to demonstrate the discussed skills during their play. Miss K reported in her final journal, "I noticed that this week most of my children have used their words when talking about emotions instead of hitting one another and automatically resulting in crying."

The four teachers reported children displaying self-regulation skills in various ways including but not limited to:

1. working together to determine how to build castles and homes: deciding on how high and wide to create their structures, who to add to them, and what decorative items they should include;

2. working together to complete an emotions memory game: using this not as a competitive challenge but as a cooperative experience helping everyone get matches and identify the feelings;
3. discussing ways to solve problems using the problem-solving scenarios as they shared ideas and decided on the best ways they thought problems could be solved;
4. identifying many feelings they have had and under what circumstances while creating pictures and reviewing previous work and commenting on each other's work. While doing so, they shared materials, commented on each other's ideas, and offered suggestions to each other to add to their work;
5. using practiced strategies such as mindful breathing, reading in the cozy corner, and stating their emotions. Miss K shared, "In the classroom, I noticed the children being able to calm themselves down using the strategies we have learned over the past few weeks with less teacher support than at the beginning of the school year."

The teachers felt that they would like to begin the school year using lessons such as the ones in this study. They felt that beginning to introduce the lessons in a similar progressive and organized way as the study would add to the increased community and function of the class earlier on in the year. The teachers also noted that adding the lessons formally at the beginning of the year could also set them up to continually remember to reinforce these skills in various ways throughout the year, instead of having a week here or there. This reinforces one of the goals of the study and could help to counter teacher's pre-study reports that while they were somewhat familiar with self-regulation skills, they did not consistently implement or reinforce the skills throughout the year. Additionally, starting at the beginning of the year would also give them more time to focus on these concepts. All teachers reported that each comprehensive lesson, due to their complexity, could be used over more than one week's time. Adjusting the timeframe and beginning earlier would create an extended curricular focus on the skills and possibly fit into the rest of the curriculum in an even more fluid and easier manner. Miss P shared, "I deeply believe in the importance of emphasizing social-emotional development in early childhood education. These foundational skills support self-awareness, emotional regulation, and relationship-building—all of which are essential for lifelong learning and success."

Recommendations

It is evident that the standards outlined in the CT ELDS account for the many skills associated with CCR. Therefore, implementing lessons that are specifically designed to place an emphasis on building these standards with children seems like a solidly good idea. Teachers are critical factors in building self-regulation skills in children (McRoy et al., 2022) as they should ensure their curriculum is derived from meaningful age-appropriate experiences that are cultivated through active learning experiences and deep teacher-child interactions, leaving concerted time for social emotional learning experiences such as the ones identified in this study. According to the Learning Policy Institute (2020), this should be a vital part of teaching our young children.

How can teachers do this? Balancing teacher-directed versus child-initiated experiences as well as didactic versus play-based experiences (with a heavy emphasis on play-based) is recommended so as to create engaged and enthusiastic learners who are thereby encouraged to focus on learning tasks for extended periods of time. When children are bored, unable to make choices, and are encouraged to be passive learners, it is challenging for them to become active participants in their learning (Hyson, 2008). It is through this active participation, as we see in this study, that children have opportunities to build the self-regulation skills associated with CCR. Teachers need to also be given the ability to implement a curriculum that speaks to that engagement even though it may not look like traditional classroom learning.

To counter the small study size, I suggest repeating the study with additional classrooms, in additional programs of varying settings, and across longer time intervals. It would also be worthwhile to have the teachers document children's classroom behaviors using a specified data collection sheet/tool to gain an even deeper insight into children's acquisition of these skills.

Final Thoughts

In an ever-increasing environment engulfed in high-stakes, pushed down standards, where the expectation is that curriculum efforts must achieve lofty (and at times, age-inappropriate) learning goals, this study reminds us that while remaining play-based, child-centered, and age-appropriate, early childhood educators are working toward meeting rigorous learning goals for young children and setting the foundation for their CCR. This study reminds us that, when engaging teaching methods are coupled with strategically play-based lessons, intentionally aligned to standards for learning associated with CCR, children can and will be engaged in their learning as they

work towards building the skills necessary for academic and life success.

Connecting CCR to preschool age children can be far stretched for some. We know a lot happens between the years of preschool and high school graduation, personally, academically, and socially. However, just because there are a lot of variables between this timespan does not mean that we should not begin to look at the various skills associated with CCR during the early years, and consistently and intentionally, plan for age-appropriate learning experiences in early childhood that will lead to well-prepared students for whatever their life choices bring.

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Appendix A: Lesson Example on Self-Regulation

Focus of Lesson: Collaboration/Working Together, Communication, and Problem Solving

CT ELDS

Developmental Domain	Learning Strand	Learning Progression (Learning Standard)	Age group indicators
Cognition	Early learning experiences will support children to develop effective approaches to learning	Cooperation with Peers in Learning Experiences	3-4 years Engage in and complete learning activities with peers/help cooperate in groups 4-5 years Plan and complete learning activities with a peer/model or teach peers how to use materials or complete a task
Cognition	Early learning experiences will support children to use logic and reasoning	Problem solving	3-4 years Think of and try an alternative strategy when first attempt at solving a problem is unsuccessful 4-5 years Try multiple strategies to solve a problem and draw on multiple resources.

Developmental Domain	Learning Strand	Learning Progression (Learning Standard)	Age group indicators
Language and Literacy	Early learning experiences will support children to use language	Expression of Ideas, Feelings, and Needs	3-4 years Communicate about current or removed events and/or objects/ use increasingly longer, complex sentences that combine phrases or concepts to communicate ideas 4-5 years Use more complex words to describe the relationships between objects and ideas.
Cognition	Early learning experiences will support children to strengthen executive function	Working Memory	3-4 years Engage in games that involve remembering 4-5 years Hold in mind the topic of group discussion and contribute personal experience
Cognition	Early learning experiences will support children to strengthen executive function	Regulation of Attention and Impulses	3-4 years 4-5 years

Anchor Book	Vocabulary words related to Self-Regulation
<i>Ricky the Rock that Couldn't Roll</i> by Mr. Jay	Problem Solving Communication Working Together (Collaboration)
Materials Needed <i>Ricky the Rock that Couldn't Roll</i> book Problem Solving poster <i>The Tiny Baker</i> book Open-ended block materials (boxes, cups, fabric, and so on) Chart paper	

Reading Experiences
First Read Date Completed: Introduction/Set up before you read the story: Let the children know you are going to read a story about friends working together to solve a problem. Procedure during reading: Read the story all the way through. After the reading: “What was the main problem in this story?” “How did the friends work together to solve this problem? Do you think working together like this is a good idea? How come?” “How can you work together in school?” Write down the responses on the chart paper. Post in the classroom. Review the Problem Solving poster and decide where you should hang it.
Second Read (with recall focus) Date Completed: Introduction/Set up before you read the story: Introduce the rereading of this story by saying: “Remember we read about Ricky the other day? He couldn’t roll, how come?” (answer: He was flat on one side). “And his friends helped him figure out a way to roll. Why do you think they wanted to do that?” “As we read it again, listen for ways they worked together.” Procedure during reading: Reread the story and emphasize how the friends worked together. Discuss what they noticed. Chart their responses on the chart paper. After the reading: Share with them they are going to get a chance to work together. Review the idea of Blocks center and Art center pair creations. See description below.
Review Date Completed: Ask the children if they remember the story and what happened. Take a few responses; be sure someone (you or the children) highlight how they solved the problem. Refer to the problem solving poster, “Did the characters in the story use these steps? How?” Chart their responses during or shortly after the discussion. This should be a short introductory discussion (no more than 5 minutes just to set the stage). Then tell them, “We have a problem. We need an ending for a new story, and we need to work together to create it today.” Read <i>The Tiny Baker</i>. Then develop an alternate ending with the children (a class story). Write down their story on chart paper. Read their ending. Celebrate their creation by listening and dancing to “Celebrate” by Blazer Fresh (https://www.youtube.com/watch?v=f2NZg6Sr9qo) or by creating a celebration dance together.

Modifications during reading experiences

- Fidgets if needed
- Flexible seating
- Quiet individual activities (such as puzzles) at tables if the child needs something to occupy them during group
- You can read the story in small groups if needed.
- Break up experiences if needed

Extensions**Teacher Interactive Strategies to encourage building: Working Together/Collaboration, Communication, and Problem Solving**

- Take note and comment when you see children working together to make learning decisions
- Be specific in your praise (i.e., “I hear you are working together to make a tall tower. I see you tried one suggestion but are still trying to make it taller, what are you thinking you might try next?”)
- Keep adding to your “We Are Growing” chain of affirmations honoring effort and children’s work
- Facilitate and join in on play experiences—ensure the children know you are there to help but try not to solve problems for them
- Utilize visuals posted around the room; refer to the chart they made on how they can work together, posters that show the steps in solving a learning problem, and so forth.
- Place flip books in each center showing the steps in solving a learning problem and refer to this during their work.
- Take pictures of the children working together (and take language samples of their conversations). Share these accomplishments in group experiences and engage children in discussing their successes.

Environmental Supports

Problem Solving in learning experiences posters and flip books

Posted chart paper for their ideas on how to work together and solve learning problems

“We Are Growing” affirmations chain.

Group Experiences**Date (s) Completed:**

- On Friday, share the block and/or art creations with the large group, focusing on how they worked together.
- From time to time, share pictures of the children working together to solve learning problems and share their experiences

Center-related experience to extend the learning

Blocks and/or Art pair creations: Help children choose a partner to work with at times in blocks and art this week and see what they create. Take a picture of it and ask them to describe how they made it together. Comment on how they shared ideas, communicated, and made decisions together. This should be treated like a small group experience during centers. Take pictures of them working together (or write down what you see).

For Blocks: Use the boxes, cups, flowers, and so on as building materials. Guide the children in developing a plan as they work together. Take a picture of their creation and their explanation of what they created and how they decided to make their creation.

Notes/Reflections on the lesson/week’s focus (quick information “to remember” items for deeper thoughts in the journal)

Appendix B: Optional Week-at-a-Glance for the lesson above

Monday	Tuesday	Wednesday	Thursday	Friday
Morning meeting: listen to https://www.youtube.com/watch?v=QLu8loOvmqs Let the children know this week's focus is on problem solving and working together! Literacy group: Read (during story time) <i>Ricky, the Rock that Couldn't Roll</i>, first time through.	Morning meeting: remind the children about the focus this week: problem solving and working together! Watch: https://www.youtube.com/watch?v=VrVbjO6075Y Introduce Blocks center and Art center pair creations. See description above. In your last meeting of the day, share photos/stories of how the children worked together to make their creations.	Morning meeting: Read <i>Ricky, the Rock that Couldn't Roll</i> a second time with recall focus Continue the Blocks center and Art center pair creations.	Continue the Blocks center and Art center pair creations In your last meeting of the day, share photos/stories of how the children worked together to make their creations.	Literacy group: Alternate Ending—<i>The Tiny Baker</i> up to page—develop an alternate ending with the children. Write down their idea on chart paper. Blocks center and Art center pair creations In your last meeting of the day, share creations with the large group, focusing on how they worked together. If possible, email the families with a link to YouTube to a reading of the book along with the class created new ending. YouTube read aloud of this story here: https://www.youtube.com/watch?v=rQqI5jPGFYg

Author's Biography

Dr. Lori Blake, an Assistant Professor of Early Childhood Education at Central Connecticut State University, has been in higher education for over a decade, leading degree programs successfully through NAEYC Higher Education Accreditation. She worked with local school boards and departments of education in developing a Reggio-Emilia focused magnet school and continues to serve as a trainer and consultant in early childhood programs. Her broader work beyond self-regulation largely focuses on leadership practices, anti-bias education, and developing curriculum utilizing a backwards design approach.

Parallel Stories of Narnia: Study Abroad Travels to Ireland Inspired by Children's Literature

Keely D. Cline, Victoria Seeger, and Elizabeth Dimmitt

NORTHWEST MISSOURI STATE UNIVERSITY

"Bless me, what do they teach them at these schools?"

—C. S. Lewis, in *The Lion, the Witch and the Wardrobe* (1950, p. 100)

Books are not merely tools for learning to read. "Books are the plane, and the train, and the road. They are the destination, and the journey. They are home." This sentiment was offered by American author and journalist Anna Quindlen (1998) in her national bestseller, *How Reading Changed My Life* (p. 70). It was our own love of literature that inspired us to design study abroad programs using children's books as themes that were threaded through our studies and travels. In this article, we share about our journey as faculty at Northwest Missouri State University using this approach, including our most recent program, a class focused on the topics of psychology, childhood, imagination, and play, and that involved travel to Ireland. We tell the "story" of our students as it parallels the children's book *The Lion, the Witch, and the Wardrobe* (Lewis, 1950) that gave a unique "flavor" to the class experience. We also reflect on our observations in relation to the topic of the current movement in reading instruction (i.e., asking what children are being taught in schools, paralleling the question posed by the character Professor Digory Kirke in our opening quotation from C.S. Lewis's book) with attention to concerns that have been raised about whether contemporary practices foster a growth of reading motivation and a love of books. Finally, we consider implications for teacher education, including for programs affiliated with laboratory schools.

Children's Literature

Children's literature is widely viewed as important, and reading with young children has been recognized as having the potential to support the development of reading, language, and cognitive skills as well as emotional growth and cultural awareness (e.g., Luther, 2023; Klass et al. 2024; Pulimeno et al., 2020). While building skills is unquestionably significant, also important is experiencing the simple joy that a good story can offer. Pulimeno et al. (2020) referred to the "edutainment" value of children's literature, with books offering both knowledge and entertainment. Positive experiences with books

at an early age can serve as a foundation on which a life-long love of reading may be built.

Children's books clearly have value for children. However, as reflected by C.S. Lewis, "No book is really worth reading at the age of ten which is not equally - and often far more - worth reading at the age of fifty and beyond" (Lewis, 2002, p. 15). Rustin (2016) considered the value of children's literature for children and adults alike:

Our belief is that the intense and lasting appeal of imaginative works for children is rooted in the exploration of their emotional experiences and anxieties – for example about separation, growing-up, friendships, the challenges of development, and even encounters with mortality – but in symbolic and metaphorical ways (Rustin & Rustin, 1987/2002). The best works of this kind have meaning and resonance for adult readers and audiences too ... (p. 139)

Many teacher educators and other college level instructors have recognized the value of children's books in working with their adult students. Hansen and Zambo (2005) discussed ways that children's literature can be used to illustrate concepts with educational psychology students. Freeman et al. (2010) reflected on the use of children's literature in teacher education:

Early childhood teacher educators frequently enhance their learning environments by reading children's books to their adult students. It is not unusual for faculty outside of early childhood to question devoting precious class time to readalouds which they may consider a curious, if not frivolous, instructional strategy. Quality children's literature can, however, enhance students' experiences in the college classroom, contribute to their understanding of course content, promote their personal growth and self-understanding, increase their appreciation for quality children's literature, and enhance their ability to integrate storybooks into their own teaching. Children's

books often capture a child's point of view. They have the potential to provide historical or cultural perspectives on children and families. They also can lead to the examination of universal truths and can facilitate the discussion of sensitive or emotional issues. (p. 1)

Reflecting on her study of using children's literature with adults, English (2000) noted, "When a person is told a story for children, he or she listens for the points of connection, for the places where one's own story meets the new one being heard" (p. 17). She then proposed, "children's narrative results often in personal connection for adults and leads to the gradual unfolding of their own narrative" (p. 18). Children's books can serve as tools for using narratives to develop and promote perspective-taking skills and understanding in adult learners.

Teacher Preparation at Northwest Missouri State University

Northwest Missouri State University is known for its teacher preparation programs, offering valuable experiences through the Horace Mann Laboratory School and Leet Center and reflected in high numbers of students enrolled in the early childhood, elementary education, and special education programs. Faculty focus on modeling during instruction. Morton and Stryker (2019) noted this regarding teacher candidates: "Modeling exemplifies how different procedures and techniques can be incorporated into their future classroom" (p. 4). Valued practices modeled in the Northwest Missouri State University teacher education classrooms and the Horace Mann and Leet Center laboratory school settings include a focus on read-aloud using high-quality children's literature, play, and experiences in nature. Demonstrating the value placed on read-aloud using high-quality children's literature, the teachers in the kindergarten classroom recently shared the chapter book, *The Wild Robot* (Brown, 2020), with the class. While well above their expected reading level, this story captivated the children's interests and sparked their imaginations. Demonstrating the value placed on learning through play paired with experiences in nature, most of the classrooms have three recesses daily, recognizing the value of free play in nature. The laboratory school has daily examples of the impact of nature on the students and the teacher candidates. Many classes are held outdoors when prospective teachers are facilitating their lesson plans. To offer examples, prospective teachers recently led a two-week science unit on simple machines (exploring mass, force, and resistance) with the kindergarten class in the outdoor setting using Hot Wheels and found objects. The third and fourth grade classes designed

a project led by the provocation, "How can we design the landscape of the new building on campus with native Missouri plants, trees, and flowers that also benefit pollinators?" These types of multilevel learning about and within nature enhance understanding, encourage engagement, and increase overall joy and memory making of the learning experience.

Given the class's emphasis on play, nature, and the text *The Lion, the Witch, and the Wardrobe* (Lewis, 1950), it was no surprise that half of the university students who enrolled in our study abroad to Ireland were education majors, even though the class was offered as a psychology course. In retrospect, the participation of the education majors in the study abroad experience holds deeper meaning beyond the class's stated purpose and encompasses what is important and valued in working with children in our schools.

Literature Review: Contemporary Trends in Literacy Education

Current trends in literacy education curriculums in the United States include a shift from reading and writing workshop models and conferring with students to a primary focus on foundational literacy skills. In a *New York Times* article, Mervosh (2023) asserted that the "movement" of shifting to primarily focusing on phonics and phonemic awareness skills has no winners "until we've actually seen we've improved literacy outcomes" (para. 22). While new curriculums were quickly generated and are still being refined, overall improvement in reading scores still needs to be examined in the long-term. The science of reading, specifically, was heavily discussed in the media for at least two years prior to 2020; the resultant media campaign was meant "to guarantee that systematic phonics is taught to *all* students in *all* schools in the United States" (Pearson et al., 2020, p. 27). All of this is quite politicized with the current focus on the noted skills receiving criticism for de-emphasizing what is important in helping children develop a love for reading and writing. In their 2012 article, *Every Child, Every Day*, Allington and Gabriel advocated for giving children choices about what they read. Also emphasized as important by Allington and Gabriel (2012) was that children read texts accurately and understand what they are reading, that children are provided time to write in ways that are meaningful to them, and that children discuss their reading and writing with their peers. Finally, Allington and Gabriel recommended that children have an opportunity to listen to an adult who is a fluent reader for read-aloud every day. One criticism of new curriculums focused on phonics and phonemic awareness is that little time is left in a typical day at school for read-aloud. And, just like Allington and Gabriel, Serafini (2011) echoed the value of read-aloud in classrooms,

asserting that “read-aloud experience builds a foundation for all other essential components of a successful reading framework” (p. 32). Layne (2015) described classroom teachers reading aloud as a sustainable best practice, noting that research points to it supporting student reading achievement, helping students think about what is being read, and engaging students in reading. Vocabulary development, promoting enjoyment of reading, and impacting fluency skills are also cited as significant reasons for using read-aloud in classrooms for students of all ages (Layne). In fact, Brooks (2022) noted, “Read alouds should be an integral part of every classroom, beginning in preschool and continuing through high school.” Gurdon (2019), a *Wall Street Journal* children’s book reviewer, described reading aloud with her adolescent son, “We didn’t have much in common in those years. He was no longer interested in joining his sisters for story time, but he did want to keep reading with me, provided it was just the two of us” (p. 66). Gurdon discussed that reading novels in the classroom allows “another way in – in the process keeping listeners of all ages connected to books and to long-form narrative when their interest may otherwise have moved to screens” (p. 131).

It can be argued that by 2020, schools in the United States had, once again, lost their way by focusing curriculum and instruction almost exclusively on finite skills for phonemic awareness and phonics that often take the entire instructional time allotted for reading and writing in a child’s day at school. Gebhard (2006) described “lost readers,” a reference to *Peter Pan* (Barrie, 1957), and teacher candidates who do not read for pleasure and are not interested in reading, noting, “Our modern lost boys and girls do not read unless they have to, do not appreciate the joy of reading for pleasure, are not developing enthusiasm for reading, and most tragically, may never be able to communicate a positive attitude about reading to their future students” (p. 454). What Gebhard was writing about nearly 20 years ago will only be compounded by students who believe that reading is identifying where sounds occur in words, reading nonsense words fluently, and being able to recite sight words accurately. It takes a skilled teacher to tie these kinds of skills back to reading “real” texts that hold students’ attention and that are interesting to read. We can consider that our future teachers will be products of this kind of literacy instruction, and as Serafini (2011) poignantly stated, “If teachers do not value children’s literature, and the possible roles that it may play in the reading curriculum, then they will not find time for reading and discussing children’s literature” (p. 31).

Serafini (2011) described the importance of teachers becoming rich readers themselves stating, “We need to become more sophisticated readers if we are to become more sophisticated teachers of reading” (p. 33). Sophisticated readers analyze, discuss, build strong connections, and deeply

comprehend what they read. These are the kind of readers and future teachers the study abroad students demonstrated they are becoming as they discussed their analysis of *The Lion, the Witch, and the Wardrobe* (Lewis, 1950) - including in relation to other class content - with the other study abroad students and faculty during their time in Ireland.

The Context and History of Our Study Abroad Programs

As avid readers, book lovers, researchers of the practice of sharing literature with children, as well as parents of young children, we as researchers were quite captivated with and found great value in children’s books. This prompted us to wonder if children’s literature might be used to expound and enhance concepts covered in the collegiate level courses, more specifically psychology courses. We questioned how we could build a class, specifically a short-term faculty-led study abroad program, around a strategically selected children’s book in order to develop a lens, point of connection, and reference that could be used when further investigating theoretical and practical applications of core course concepts. We envisioned this could be used to stimulate rich conversation and encourage the development of peer relationships focused around a central theme, while at the same time helping students develop a more well-rounded understanding of course content. We also quickly discovered it served as a useful tool for threading together course content and travel as we planned a large-scale course and trip that might otherwise have felt overwhelming or daunting.

We built our first program around J.M. Barrie’s *Peter Pan* (1957), examining the psychology of childhood and imagination and including travel to England, with the majority of our travel sites being in London. Not only did we focus on theory and research around the developmental constructs, but we also used *Peter Pan* as a thread for connecting these constructs and travel sites. We considered what influenced Barrie’s writing, settings that inspired the representation of Neverland (i.e., exploring Kensington Gardens and Hyde Park), characteristics of the children and adults in the story (i.e., visiting the V&A Museum of Childhood), when children may be discouraged from engaging in play or believe in magic or imaginary worlds (i.e., attending *Matilda the Musical*), and the cultural context of the time period in which the story was written and set (i.e., touring the Foundling Museum, Great Ormond Hospital, the British Museum, and a city tour).

We found that college students had an emotional connection to the classic *Peter Pan* (Barrie, 1957) story that caught their eye in promotional materials for class enrollment; this familiarity also helped “sell them” on participating in a deep level learning class that required a significant financial

commitment and that was out of the comfort zone of some students who had limited travel experience. By having students read *Peter Pan*, we could connect our core research-based themes back to examples evidenced in the book, take the students to locations that brought these themes to life, and have more practical, personalized interpretations and application of these themes by literally walking in the same places as the author of the book - a man who also spent a great deal of time and reflection on these same topics during his lifetime. The students of this *Peter Pan*-themed program volunteered that when comparing their study abroad experiences with those they had previously experienced in standard classroom settings using only traditional textbooks and articles, they felt more connected to the content, to the faculty, to their peers, and to their own inner child. They demonstrated being more willing to engage in and practice the skills discussed in class, specifically play and imagination which was evidenced when they participated in group and individual activities in London (i.e., tandem biking, paddle boating on a lake, skipping at Stonehenge, and riding the London Eye ferris wheel during non-scheduled time).

After facilitating the program in London, as reflective educators, we informally assessed the value of framing a class around a piece of children's literature, looking at components of the course students seemed to gravitate to the most and what did not work as well. We decided to frame a study abroad course again around a different children's book in a new location - and expanding the topics - to examine if this method of framing a class around children's literature would continue to be a viable and valuable method of developing collegiate level course curriculum. One significant observation from the initial course was that the students were most engaged in quality discussion, excited about learning, and demonstrated greater depth of understanding as well as increased creativity during the outdoors components of the travels. We designed our second class focused on the perspectives of childhood and play with an added emphasis on the importance of experiences in nature. We considered different children's books that would allow us to explore these themes, deciding to frame our course around C.S. Lewis's (1950) *The Lion, the Witch, and the Wardrobe* paired with travel to Ireland, primarily Northern Ireland, though we would spend a brief amount of time in the Republic of Ireland (henceforth, references to Ireland include both Northern Ireland and the Republic of Ireland unless otherwise specified). Northern Ireland tourism materials promote the "C.S. Lewis Trail" which includes locations credited as offering inspiration to the author as he developed the idea of Narnia and its characters. Additionally, the numerous natural attractions would allow us to emphasize nature by walking in the footsteps of the author in his early years. Once again, even in the recruitment stage, students' connection to the story played a

significant role in their curiosity about the class and eventual enrollment in the program.

After one successful trip to Ireland, we decided to repeat the program - offering a second trip to Ireland - with some modifications informed by what we had learned. Wanting to take our reflective practices even deeper, we designed a qualitative case study focused on analyzing the students' perceptions about their study abroad experiences, including through digital storytelling projects and focus groups (Cline et al., 2022). Students reported feeling more engaged with the content, a deeper understanding of application-based practice, an increased willingness to participate in playful activities, a greater connection to nature, and stronger relationships with peers and faculty than in traditional classroom settings. With these findings in mind, we decided to offer a third trip to Ireland (with modifications including adding in more sites in the Republic of Ireland), this time designing an ethnographic study to further explore the central research question: How does group culture form, evolve, and endure over time for undergraduate students and faculty leaders participating in a short-term, faculty-led study abroad program?

During our travels, we noticed that the story, characters, and events from the children's book were often present in conversations. This observation was reinforced when we started to analyze the data. Data sources included students' interviews conducted pre-trip, during the trip, and post-trip by the faculty researcher who served as the ethnographer; the students' digital storytelling submissions which included photographs and written descriptions submitted by the students; and our field notes and photographs. While the primary focus of our analysis centered on the formation of the study abroad group and group culture, we became interested in the striking parallels between C.S. Lewis's story and the "story" of the group's experiences over the course of the journey. This inspired us to more intentionally use *The Lion, the Witch, and the Wardrobe* (Lewis, 1950) as a lens through which to consider and reflect on the group's story. While we will be presenting the more comprehensive report of our ethnographic study in a future publication, the purpose of this article is to analogize between the parallel stories of the Pevensie siblings' journey to Narnia and our students' trip to Ireland. The method we used involved first working together as a team to identify themes that emerged as part of our analysis of the data sources. Then, we each reread the C.S. Lewis book, exploring whether the themes we identified could be connected with elements of the book, such as characters or plot. Finally, we came to a consensus on the connections that we viewed as the most compelling and that could be threaded together to make meaning of the parallel stories.

The Students

Twelve students, all female and White, ranging in age from 18-22 years old, participated in the study abroad course offered in the summer 2022 semester. Half of the students were education majors, with four of these being elementary education teacher candidates, one being an early childhood candidate, and one being a vocal music education candidate. Two of these education majors were also receiving their special education degrees, and the early childhood major was minoring in early childhood special education. In addition to the education majors, there were three psychology majors (with one of these students also double majoring in political sciences), an emergency disaster management major (who was minoring in psychology), a park and recreation management major, and an English major. All but two of the students reported feeling connected to *The Lion, the Witch and the Wardrobe* (Lewis, 1950) prior to the class, having either read the book, watched the movie, and/or attended or acted in a theatrical production. They reported that their love of the story was a significant motivation for enrolling in the program. Many also noted some connection to the location of travel (i.e., heritage, family history of and/or long-held dream of traveling to Ireland). Several noted interest in the class due to class focus on child development and the connection with nature and the outdoors.

The Parallel Stories

Here we present parallels between the story of *The Lion, the Witch and the Wardrobe* (Lewis, 1950) and the story of the 12 students who were the “characters” in their own tale of travel. Students’ actual names have been replaced with pseudonyms in this article to protect their anonymity. We have used quotations and ideas from the children’s book that connect to themes and other observations that emerged from our analysis. Student quotations were expressed during their interviews unless otherwise noted.

“If there really is a door in this house that leads to some other world (and I should warn you that this is a very strange house, and even I know very little about it) — if, I say, she had got into another world, I should not be at a surprised to find that that other world had a separate time of its own; so that however long you stay there it would never take up any of our time...” (Lewis, 1950, p. 39)

The study abroad trip evoked a “separate time of its own,” like the fictional Narnia (Lewis, 1950, p. 39). The 11 days of the trip seemed to go too fast for most of the students; however, it was also as if students packed “more life” into that time than they would have had they been following their typical everyday routines, attending classes in a traditional university classroom

setting. Students spent almost all their waking hours immersed with their study abroad peers and faculty, sharing and embarking on new experiences and building memories together (see Figure 1). One student, Rianna, captured this idea:

So, this has been a thousand miles per hour more than every other class because this past semester I had a class with the same 20 people or whatever. I saw them six hours a week and everything, but this was every week. I’m with these people pretty much 24 hours a day.

This seemed to support the formation of relationships among classmates and the development of group identity at an accelerated pace.

Notably, only two students knew each other well before signing up for the program. However, it did not take long for students to start figuring out relationship dynamics and how they fit with their peers in the class. Ashley explained her experiences with navigating relationship formation early in the trip: “I’m finding out which ones are people that I see as friends, and which ones are more of classmates.”

Shortly after arriving in Ireland, the students described making friends with their roommates, including at dinner and while traveling on the bus. Rianna explained how she was already bonding with the other study abroad students, thinking aloud, “‘Okay, I want to talk to these people. I want to get close to these people. And also I’m just friends with these people,’ which is crazy to say after only three days.” The idea of bonding and making connections is detailed in Elsbeth’s description of shared experiences:

It’s been very interesting because we have so much to learn about each other. We’re all in the same scenario. We’re all miles from home. We all kind of just really have each other. It’s caused us to band together even more.

As the trip proceeded, students discussed specific friendships. Ashley talked about her budding friendship with Callista and the reasons why the friendship was forming:

We both want to seize every moment and go and check out everything that we possibly can and just live it in the moment. So when you have somebody like that who sees everything the same way, I think that you naturally bond a little bit more than you might to the others.

It was at this same point that depictions of friends and friendships surfaced in students' digital storytelling submissions. This was observed in the students' choice of photographs as well as how they reflected on the content of the photographs. Debbie had this to say about the content of her photographs, explaining that she took,

a lot of nature because we studied a lot of nature. And a lot of the structures, the castles and different stuff like that. But also friends. It was our team... I have a lot of group photos, which I love. And a lot of selfies or just me and just a couple people which means a lot.

Similarly, Rianna described one of her pictures:

I chose this picture because I [sic] the background. The beautiful-ness of the sea and the rocks are fantastic. I also took this picture because ...prior to this trip I had never met Debbie, but I have grown a lot closer to her in this very short amount of time. I am really happy that I've met such fantastic people, such as Debbie.

On our final day before heading home, Callista wrote, "I love that we got to go explore with our new friends that I feel like I've known for years!" By the end of the trip, all of the students reported feeling close to one or more fellow travelers. This paralleled our observation of multiple distinctive friendships that formed.

The trip certainly seemed to have a "separate time of its own," (Lewis, 1950, p. 39) with most students being practically strangers before the trip yet several students forming what would end up being enduring friendships before the end of the trip. Nonetheless, we want to note that the seeds that would grow and bloom into relationships were planted even before we took flight for Ireland. Students met as a full group for three required pre-departure meetings during the spring semester. During this time, students received information about the class and trip, but they also engaged in games and activities. The students were also encouraged to spend some additional time getting to know their roommates before the trip. Based on the interviews, we know that some pairs and small groups of students arranged to meet up (e.g., for coffee). Based on our previous experiences with study abroad groups, we prioritized students having opportunities to interact before the trip. These experiences paved the way for the connection building that unfolded across the brief time of the trip allowing for a more enjoyable learning experience.

"These are your presents," was the answer, "and they are tools not toys. The time to use them is perhaps near at hand. Bear them well." (Lewis, 1950, p. 87)

This statement from Lewis's story was made by Father Christmas before he proceeded to give Peter a shield and sword, Susan a bow and arrows as well as an ivory horn, and Lucy a bottle containing a cordial and a dagger. These tools would be essential to winning the battle in the story. We drew a parallel between the book characters' gifts and the study abroad students' individual characteristics. Just as the book characters' gifts each served a special function, the students' individual traits allowed them to uniquely contribute to the group throughout the trip.

Students each brought their own unique characteristics to the program and the group. Considering the story of our class in parallel to Lewis's (1950) story inspired us to consider our students as characters. To help us make meaning of our observations, we explored how each student seemed to portray one of the traditional literary archetypes proposed by Jung (1968) that help to create a dynamic and well-rounded story or adventure (as cited in Sahin, 2017). The individual students' archetypes and gifts (see Table 1) illustrate what each student contributed and offer a broader view of the group. Though we will further explore each student's gifts more comprehensively in a future publication about the ethnographic study, we focus here specifically on one story—a story of Lydia and how she shared her gifts with the group. We selected this story to share here because it is among the ones that stood out the most to us as we strived to make meaning of our observations. This story helped us to reflect on how individuals grow and contribute to group culture. We immediately recognized that the story was significant when it unfolded during our travels, but our appreciation of it grew with time as we were inspired to return to it again and again after the trip.

Lydia embodied a combination of the roles of the innocent (e.g., humble and trusting) and the hero (e.g., altruistic, brave, and fearless) (Sahin, 2017). In comparison to other students, soft-spoken Lydia tended to be on the quieter side, contributing to conversations and discussions less frequently. However, much like Lucy in *The Lion, the Witch, and the Wardrobe* (Lewis, 1950), when she did talk, she was often intentional and kind in what she said. Lydia's peers had to listen carefully to capture the depth of her words and thinking; this was a skill that came more easily to some of Lydia's classmates than others, paralleling the dynamics between Lucy and her older siblings. Also like Lucy, Lydia reported being scared at the onset of our adventure as well as being determined to see and explore all that was set in front of her. Having a history of significant health issues that had impacted her vision and motor skills, Lydia acknowledged she was trying to prove to herself

that she was capable of pushing the limits of her comfort zone. The chapter of our group story detailed here captures how Lydia shared her gifts with the group.

One day of our trip stood out as including some of our most demanding and trying adventures. In Lewis's (1950) story, the Pevensie siblings, led by the beavers, braved a long and arduous—yet beautiful—walk to meet Aslan. Similarly, our students traversed a steep, long, uneven cliffside hike at the Gobbins Cliff Path full of risk that even required hard hats (see Figure 2). While there was clearly a range of physical abilities represented in our class, even the most active students found the demands quite challenging. At some point, almost everyone needed to stop for breathers, utilized peer support for the very large, deep steps, and/or endured leg and side cramps. One student needed to stop for an inhaler and a few even shed some tears before the end.

As the group trudged on through the last leg of the journey (which had the steepest incline of the entire hike), everyone seemed exhausted. Many seemed disheartened, discouraged and even grumbly. In the midst of this negativity, Lydia offered a different perspective. As she slowly but steadily made her way up the hill, in her soft-spoken voice, she communicated feeling a sense of pride about what she was accomplishing. Hearing this from Lydia, for whom the physical demands of the hike would be expected to be felt most intensely, seemed to silence the grumbling of the people in her immediate vicinity. Once we were on the bus, and everyone had a chance to catch their breath, we, inspired by our observations of Lydia, encouraged the students to reflect on what they had just accomplished. This led to a discussion of how they are capable of doing hard things. The students spontaneously drew the parallel between obstacles overcome by the Pevensie siblings in *The Lion, the Witch, and the Wardrobe* (Lewis) and the challenges they—as individuals and as a group—had just conquered. One of Lydia's gifts—a gift she shared with the group—was her ability to gently model how to reframe the way we approach obstacles and how we can find strength within ourselves even in the midst of the most demanding challenges, and in the end, take great pride in our accomplishments.

“Everywhere the statues were coming to life. The courtyard looked no longer like a museum; it looked more like a zoo. Creatures were running after Aslan and dancing round him till he was almost hidden in the crowd. Instead of all that deadly white the courtyard was now a blaze of colours; glossy chestnut sides of centaurs, indigo horns of unicorns, dazzling plumage of birds, reddy-brown of foxes, dogs and satyrs, yellow stockings and crimson hoods of dwarfs; and the birch-girls in silver, and the beech-girls in fresh, transparent green, and the larch-girls in green so bright that it was almost yellow. And instead of the deadly

silence the whole place rang with the sound of happy roarings, brayings, yelpings, barkings, squealings, cooings, neighings, stampings, shouts, hurrahs, songs and laughter.” (Lewis, 1950, p. 137)

This excerpt from Lewis's story captures how the beings, previously turned to stone by the White Witch, returned to life. Inspired by this part of the story, an activity planned by one of the students was a variation of the frozen statues game (see Figure 3). This game was played on the spacious and scenic lawn of the Botanic Gardens in Belfast. One person, designated the “White Witch,” kept her back turned to the other players. The other players were free to move around until the “White Witch” turned around, at which point they needed to be perfectly still. If the “White Witch” saw anyone moving, that person would be “frozen” like a statue (i.e., no longer able to move even when the “White Witch” turned back around). The object of the game was to be the last person who could avoid being “frozen.” The students, faculty, and even a couple of other tourists (who were invited by one of the students) engaged together in this playful activity.

The concept of transformation (captured in the above text by C.S. Lewis) was also a theme in our study abroad students' story. The choice of the activity, inspired by *The Lion, the Witch and the Wardrobe* (Lewis, 1950), further illustrates how the children's book was threaded throughout our activities, influencing how our students studied and discussed content and made connections and experiences through the travels. However, beyond this, we saw a parallel to different kinds of awakenings experienced by the students. As busy young adults, the students sometimes lost touch with their playful sides in their day-to-day lives. On our first night in Ireland, we watched (from a distance) as the students played together at a pirate-themed playground structure (see Figure 4) close to our hotel. Up to that point, the students had been more reserved in full group settings (e.g., in the contexts of the pre-departure meetings and the airports). However, as they spent time together at the playground, they seemingly (symbolically) transformed from “statues” back into vibrant “living beings.” Jorey playfully described the group's experience at the playground, including as they played on a large structure shaped like a ship, in one of her digital storytelling submissions:

After extensive sight seeing [sic] and exploration, my feet were growing weary. But then, to the great surprise of my group, we spied a pirate ship in the distance. Having all once dreamt of sailing the seven seas on a might [sic] vessel, this was a find we simply could not ignore. After traveling over wild and untamed green seas of grass and

daring to delve under a dark and mysterious tunnel, we found our treasure trove. A mighty ship with a proud steering wheel and daring climbing apparatuses. We laid claim to it immediately, scavenging the ship for further hidden treasures. Despite the joy we felt from our incredible find, we still felt twinges of fear within our hearts. For the land surrounding this ship was treacherous and inhabited with small beings we did not dare approach, for their larger guardians might attack. So we kept away from the creatures, roaming the land on our own. From crossing a great chasm via Zipline to climbing a mountain of rope, we made incredible discoveries that nearly cost us our lives. Regrets? Absolutely none. But alas, the night was beginning to fall and the cold was setting in. We decided it was time for us to retreat back to our homeland ... Mayhaps one day we shall return to that ship once again.

Rianna also reflected on the group's time together at the playground, concluding, "It was really fun to just play like we were kids again at a playground."

In a sense, the whole trip appeared to be a transformative time full of awakenings. Students seemed to bond with one another and faculty, as well as connect with their own inner child, as they experienced the magic of travel. They broadened their perspectives through the trip, including through cultural experiences, scholarly dialogue, and considering themselves in relation to the wider world. This was reflected in one of Katlin's digital storytelling submissions as she described a picture of herself with green rolling hills stretching on and on behind her:

I love this picture because it shows me just how small I am in this big world that I have yet to discover and explore. There is so much that the world has to offer. So much beauty. So much peace. So much LIFE. This picture makes my desire to learn and grow even stronger. This picture makes me excited for the future and for all the things I will one day accomplish. In conclusion... I love Ireland. It has made me open my eyes even more to the unknown and to have hope for what is yet to come.

Discussion, Assertions, and Conclusion

We challenge education professionals to truly consider the question posed by Professor Digory Kirke in *The Lion, the*

Witch and the Wardrobe (Lewis, 1950), "Bless me, what do they teach them at these schools?" (p. 100) in relation to the shift in literacy curriculums from using reading and writing workshop models to focusing primarily on foundational literacy skills. Does this movement "teach" children that books can be a journey in themselves? Or does it risk creating generations of "lost readers" (Gebhard, 2006, p. 454) who read only when required?

We return to the idea that books are not merely tools for learning to read. Books, including children's literature, can help us—regardless of age—make meaning of our experiences in the world. We assert that the story of our class, including as it parallels the story of *The Lion, the Witch and the Wardrobe* (Lewis, 1950), is a testament to the power of literature written and intended for children. Children's literature has the potential to "edutain." The International Association of Laboratory Schools' vision statement advocates for "a world where every child *enjoys* [emphasis added] learning experiences that prioritize their well-being and development, respect their rights and diverse needs, and position them as active, engaged participants in their education" (IALS, n.d., Our Mission section). Introducing children to high-quality children's literature and offering a choice about what they read pairs the educational and entertainment values of children's literature, helping lay the foundation on which a lifelong love of books and reading may be built. We expect that offering positive experiences with children's literature as part of teacher preparation can aid future teachers in offering high-quality literacy education during their careers.

Laboratory schools are in a unique position to meaningfully impact the field of education. Part of the laboratory school identity is to be innovative. Educators associated with laboratory schools, including university and college faculty and classroom teachers, are in a position to question educational trends. This includes challenging the current trends in teaching reading that involve replacing the use of high-quality literature, read-aloud, and student voice and choice (Gebhard, 2006; Serafini, 2011; Morton & Stryker, 2019). The laboratory school community just may be able to offer the momentum needed to swing the educational pendulum back to a point where focusing on literacy skills is balanced with inspiring a love for literature. Based on our own experiences and observations, we encourage other educators to consider the potential of creatively weaving children's literature into their curriculum, including at the university level. This article documents how we did this in the context of study abroad programs, but elements of this practice can be adapted into more traditional classroom settings as well. Integrating children's literature in this way can model a love of stories and reading which future teachers may in turn model in their own future classrooms. As faculty who have witnessed

the power of using children's literature in our own teaching with university students, our hope is for educators to teach in a way that fosters a life-long love of reading. Beyond that, we can consider how this practice may serve as a powerful tool for helping classes—students and ourselves—more deeply reflect on our individual and collective stories. \

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Table 1: The Students as Characters Representing Archetypes and Possessing Gifts

Character	Archetype	Gifts
Elsbeth	The Leader	The gift of kindness and the ability to encourage others with respect and dignity
Lydia	The Hero or the Innocent	The gift of courage and competence in the midst of adversity
Ashley	The Adventurer	The gift of contagious enthusiasm for exploration and nature and the willingness to share genuine gratitude
Rianna	The Seeker	The gift of deep inquiry, both academically and interpersonally with others
Katlin	The Creator	The gifts of playfulness and authenticity in song and other forms of communication
Debbie	The Nurturer	The gifts of vulnerability and the willingness to share oneself while accepting the realness of others
Oriana	The Chameleon	The gift of adaptability to fit with any group in any environment
Callista	The Jester	The gifts of joy, resilience, and hidden depth
Carlyn	Old Faithful or The Everyman	The gifts of practicality and consistency
Jorey	The Sage	The gifts of deep thoughts, perceptiveness, and dry humor
Tatum	The Lover or The Ruler	The gift of historical knowledge, the uninhibited mind, and the desire to lead
Sheila	The Diplomat	The gift of autonomy, insight, and the willingness to develop relationships with others



Figure 1. *Fast Friends Soaking up the Moment at Giant's Causeway*



Figure 2. *Facing Challenges and Growing in the Process at the Gobbins Cliff Path*



Figure 3. *A Moment Frozen in Time at Botanic Gardens in Belfast*



Figure 4. *Sailing into a World of Imagination at a Playground in Carrickfergus*

Authors' Biographies

Keely D. Cline, Ph.D. is an associate professor in the Division of Behavioral Sciences in the School of Health Sciences and Wellness at Northwest Missouri State University. Her academic interests include early childhood development, parent-child book reading, home and school settings as contexts for development, and using children's literature in college level education. She values opportunities to collaborate with educators at the laboratory school at Northwest Missouri State University and facilitating study abroad programs focused on child development and play.

Dr. Victoria Seeger recently retired as Associate Professor at Northwest Missouri State University in the School of Professional Education. She continues at Northwest as an Adjunct Professor for the Curriculum and Instruction Graduate Program. She lives in Lawrence, KS.

Elizabeth Dimmitt, MS, LPC, is a Senior Instructor at Northwest Missouri State University in the School of Health and Wellness. Her academic interests include student group dynamics, stigma reduction for help-seeking, parent-child book reading, using art as an emotionally expressive tool, using children's literature in college-level instruction, grief and loss, and professor/student relationships in classroom success. She values opportunities to collaborate with the laboratory school at Northwest Missouri State University and facilitate study abroad programs.

Scavenging for NFCs

Michael Báez

UNIVERSITY OF PUERTO RICO SECONDARY SCHOOL (UHS)

Introduction

Technology continues to progress on a daily basis. For example, Artificial Intelligence (AI) has come a long way since its inception in 2015. Now, most major platforms feature an AI tool to facilitate work. Although Artificial intelligence (AI), Augmented Reality (AR), QR codes, among others, are being developed faster than ever, many classrooms remain the same, without the use of technology to ease the learning process. Educators must not be left behind. Instead, they should embrace the new technologies being implemented in many fields and find new ways to engage students in an ever-changing environment.

With that in mind, during the 2023-2024 academic year, I ventured into the field of Near-Field Communication (NFC) tags with the goal of exploring how NFC tags can motivate students. My goal was to investigate what students thought about the use of NFC tags in scavenger hunts for the discussion of literary texts. The literary text used for this activity was William Shakespeare's *Twelfth Night*. The scavenger hunt required students to search for the NFC tags all over the school, answer questions related to the text, and solve riddles that would lead them to the next tag. The teacher's task consisted of programming, placing, and hiding the tags all over the school in strategic places. For this activity, students needed to use a smartphone, and, unlike other scavenger hunts, both an internet connection and a functioning smart device were required.

Literature Review

Motivation

Motivation is one of the most important aspects when it comes to engaging students in any subject matter: "If the goal (English) is present in environments they feel are personal and engaging, the students might be able to give the extra mile when it comes to paying attention in class" (Báez, 2022, p. 26). Motivation continues to be one of the main issues when teaching any subject matter. If students are engaged and

entertained, they will try harder. As defined by Dörnyei and Ushioda (2011), motivation is "'to move'; what moves a person to make a certain choice" (p. 86). Students need to be engaged with the material to process it. Hence, tackling a student's lack of engagement with the material should take center-stage when it comes to teaching. The material should be enticing enough that students feel like they want to participate. However, this does not mean that the content must change; on the contrary, the content can remain the same while using strategies and technologies to help advance the student's motivation.

Technology and Education

The use of technology has improved the way we teach and learn. Mahiri (2001) employs the term "pop culture pedagogy" to refer to "many modes of transmission (e.g., TV, the internet, video games, music compact discs, movies) that are capable of presenting a variety of...forms" (p. 382). Students are multimodal beings and are bombarded with different mediums daily. The lack of a projector, smartboard, or computer does not make it impossible to implement pop culture in the classroom. Pop culture pedagogy focuses on the multimodal nature of students. In other words, Mahiri focuses on the bombardment of diverse mediums used in the target classroom. However, multimodality does not necessarily relate to the targeted use of pop culture aimed at students' reality. Mahiri (2001) addressed this problem when he states that "pop culture works in young people's lives in context specific ways" (p. 385). This clearly tells teachers that pop culture should not be added in a void. If pop culture is to be implemented, it must serve a purpose. There must be a goal that the students are moving toward, whether it be to comprehend or simply compare.

Technology-based learning (TBL), or E-learning, should be a widely-used strategy in the 21st century due to the impact that technology has on the average consumer, in this case, the student. Koller et al. (2006) define TBL as "the learning of content via all electronic technology, including the Internet, intranets, satellite broadcasts, audio and video tape, video and audio conferencing, Internet conferencing, chat rooms, e-bulletin boards, webcasts, computer-based instruction" (p. 4). Additionally, the term technology-enhanced learning seems

to align with the use of NFCs in the classroom due to the fact that “technology plays a subordinate role and serves to enrich a traditional face-to-face classroom” (Koller et al., 2006, p. 4). NFCs are used for the sole purpose of aiding in the teaching-learning scenario. The use of NFCs and similar technology is necessary due to the low number of researchers documenting its impacts in Education. As stated by Kim and Hannafin (2010), “Evidence of effective problem-solving teaching and learning using such technology tools in schools has been scarce.” Some researchers (e.g., Hannafin & Land, 2000; Papert, 1987) argue that teachers hold traditional, didactic beliefs and use “old tricks” without substantial, sustainable support for student-centered problem solving. The wide gamut of mediums that fit into the category of TBL continues to expand as new technology is created and used in numerous fields, such is the case with NFCs.

Near-Field Communication (NFC) Tags

As cited in Preis (2008), Near-Field Communications (NFC) “allows for the exchange of information between devices over the range of a few centimeters” (p. 11). This type of technology allows people to access data by simply tapping their phone against an NFC-enabled surface, which requires the use of an electronic device with NFC capabilities. Today, most smartphones come with these capabilities, allowing anyone with a smart device to use them. In a classroom setting, educators can program and use NFC tags to store electronic information such as presentations, slides, questions, riddles, and commands.

Additionally, the usefulness of NFC tags comes down to their range: “NFC is a short-range wireless connectivity technology standard designed for simple communications between electronic devices. NFC communication is enabled by bringing two NFC compatible devices within a few centimeters of one another” (Egmont Institute, 2009, p. 5). Both devices, the tag itself and the smartphone, must be in range for the device to detect the NFC tag. In other words, even though anyone can tap their compatible phone to the NFC, they must tap it intentionally for the device to read the tag.

As seen in Sutoyo et al. (2023), the use of NFC tags has diversified various markets, making its way into the field of ecotourism: “The role of Near Field Communication Technology (NFC) is facilitating efficient communication. Specifically, the adaptation of NFC through Smart Posters is carving a niche for itself, particularly in sectors like tourism” (p. 1577). NFC tags are not just useful in the classrooms, as their versatility allows them to be used in posters, cards, flyers, among others. Additionally, the adaptability of an NFC boils down to the fact that it can be conveniently placed on almost

any surface, hidden from prying eyes, and provide ease of access: “Since NFC tags are placed in things, it is possible to covertly include them into smart posters. Smart posters are regarded as being extremely user-friendly since they give users digital information without requiring a lot of user engagement” (Sutoyo et al., 2023, p. 1578). NFC tags do not require the user to log into a platform unless they are programmed to do so. In most cases, an NFC can be accessed by tapping a device against it, and the information will be transferred to said device without the need to log on or type a username. Moreover, Sutoyo et al. (2023) succinctly pinpoint the importance of NFCs when they state: “Smart posters enable for user engagement, the potential for dynamically updating material, the personalization of user data, and the creation of statistical reports for service providers” (p. 1578). This engagement is not unique or exclusive to tourism and smart posters. The use of NFCs in a classroom can create the same type of engagement for students. It also makes the material easy to update or change, and it can be a quick way to gather data. This all depends on the tools used to program the NFC and what the educator aims to do with the tags.

In the paper titled “Development of English Learning System by Using NFC Tag,” Aizawa and Yoshimura (2021) attempt to combine NFC tags with a Raspberry Pi system. This allows for a constant exchange between the NFC and the Raspberry system. In other words, NFCs can be combined with other hardware or software to produce a more complex interaction between the user and the technology. When it comes to the classroom, there are numerous articles that discuss how to incorporate NFC tags and Radio-Frequency Identification (RFID) into the classroom. This, in turn, creates, or is the epoch for, a smart classroom. The use of NFC tags in a classroom can range from scavenger hunts to the incorporation of material in new ways. According to Shen et al. (2013),

NFC plays an important role in this smart system because it provides several advantages over other communication technologies. First, students do not have to configure anything. Second, the proposed NFC-ready system can be fitted with other RFID systems. Third, student ID data are saved on a mobile phone in an encrypted form. Fourth, NFC allows two-way communication (p. 732).

The advantages of NFC tags are numerous according to Shen et al. (2013). This item might facilitate everything from access to texts to assisting the distribution of instructions, material, activities, among others. According to Singh (2020), “Librarians can borrow ideas from commercial implementations of NFC-based marketing to enhance

promotions for library resources, services, and events” (p. 9). This idea can also apply to the use of NFC tags in the classroom. The teacher could use NFC tags for virtual posters, Canvas slides, and images, as well as to provide a link to textbooks or novels. This might make the process of acquiring certain documents easier for some students. For example, students could access a class catalogue or a syllabus through an NFC, similarly to what some universities have accomplished: “At the Renison University College Library in Ontario, Canada, visitors can tap an NFC-enabled ‘library smartcard’ to retrieve a digital brochure of library services in a variety of formats, including PDF, EPUB, and MP3” (Singh, 2020, p. 9). Moreover, the teacher could use the NFC tags to help students access texts that are in the public domain, allowing them to read new texts that might have otherwise been inaccessible to them.

Aim of the Study

The purpose of this investigation is to understand how students might be motivated using NFC tags for scavenger hunts. In other words, this study sought to investigate if the use of NFC tags made scavenger hunts more, or less, accessible, entertaining, and motivating. Additionally, the fact that the scavenger hunt takes place outside of the classroom might be another motivator for students to feel more engaged regarding this activity.

Methods

To culminate the discussion on Shakespeare’s *Twelfth Night*, I created fourteen slides on Canva that included both a question related to the play and a riddle that would hint at the next location in the scavenger hunt. I programmed the NFC tags with the free version of the Apple app called NFC tool, a user-friendly platform that allows users to program NFC tags in numerous ways. Users can read, write, erase, lock, edit, format, set and remove passwords, among others.

The initial idea for this study comes out of gamification, in an attempt to entice students toward class content that they might dislike. In my experience, students still show hesitation toward texts in Early Modern English. Instead of creating a Kahoot or a Peardeck, as is customary in my classroom, I decided to use an NFC-fueled scavenger hunt to entice them.

The creation of the Canva slides was relatively easy. I used medieval-style, Shakespearean, or literacy-related templates. These slides were outfitted with two text boxes: one to place the riddle and another to include the question related to *Twelfth Night*. After creating each of the Canva slides, I collected the link for each slide, and copy-pasted them to format each NFC individually. This was done by tapping the phone on the NFC

tag after the link had been added to the “Add a Record” section in the NFC tool. After the NFCs had been programmed, I placed them all over the school: classrooms, library, hallways, coffee machines, administrative office, and so on. The selection of the location was contemplated with great effort because each riddle was unique to a location specific to the target school. In other words, students had to search the entirety of the campus to find the NFC tags, with the help of the riddles.

Students were tasked with finding all the NFC tags hidden in the school campus. During this period, the teacher would only provide the students with the instructions if anybody had any questions related to the structure. However, the teacher would not provide answers, clues, or hints related to the questions or riddles and had minimal contact with the students during the experience. Once the students exited the classroom, they were on their own, and they had to use the riddles as the guide to complete the hunt. Prior to the class, the teacher divided students into groups of five or six, depending on the size of each section. This was done to make the experience more welcoming and engaging, as students interacted with each other to attempt to solve the riddles and questions. Three different sections participated in the activity. In order to complete the assignment and win, students had to find all the NFC tags in the correct order and provide their answers on a blank sheet of paper facilitated by the teacher. Two groups had a total of one hour and thirty minutes to complete this assignment, and the third one had fifty minutes to complete it since there were one-hour periods on the day they participated in the scavenger hunt. Once the time was up, students would return to the classroom and submit their piece of paper. The teacher then verified each document to determine who the winner was.

The riddles will not be provided due to the fact that they reveal names and spaces related to the school. This might break the anonymity and confidentiality of the students who participated. The questions and answers used during the scavenger hunt are included in Table 1.

This study uses the methodology employed in action research to create a reflective analysis of the data collected by the teacher and provided by the students. This means that the procedure is divided in four phases: plan, act, observe, and reflect. The planning phase consisted of gathering the material to be discussed (Shakespeare’s *Twelfth Night*), creating the Canva slides with the questions and the riddles, and programming the NFC tags. This first phase was completed by the teacher after the students had read and discussed *Twelfth Night*. The acting phase consisted of providing the students with the instructions to the scavenger hunt and explaining the activity. Simultaneously, the teacher would be conducting the observation phase while students were acting. These are

documented as field notes that were collected as the teacher followed the students outside of the classroom while they participated in the scavenger hunt. This could indicate that the collected data is limited, due to the fact that the teacher could not follow all of the students at the same time and document all of their interactions, reactions, and/or behaviors. The reflection phase is documented in the conclusions and limitations of this paper.

Participants

This investigation was conducted at the University of Puerto Rico Secondary School (UHS), a laboratory school that is affiliated to the University of Puerto Rico's (UPR) College of Education. The school's purpose, other than to provide its students with an excellent education, is to serve as a practice center that prepares and trains pre-service and student teachers who are completing a bachelor's degree in education at the UPR. Additionally, the purpose of any laboratory school is to create a lasting impact on the field of education. UHS has an enrollment of approximately 500 middle and high school students from diverse socio-economic backgrounds. UHS uses a one-hour and thirty-minute class period per subject matter. Apart from teaching core subjects (e.g., math, Spanish, English, science), students can also take elective courses that range from theater to sculpting. English is taught as a second language in this institution, and the focus of the English curriculum is literature.

This investigation was aimed at 11th grade students in both regular and honors level English courses. These 11th graders were targeted due to their lack of engagement during some class periods in an attempt to use the technology to engage them. The participants had to be registered in 11th grade English, have a 2.50-4.00 GPA in English class, have an interest in both technology and English, and be between the ages of 15 to 17. The sex of the participants was not a deciding factor in their selection.

A total of five students participated in this study, even though all of the students in the three sections took part in the scavenger hunt. The students that participated in this study were all from the regular sections of an 11th grade English course that focused on the discussion and analysis of literary texts. All of the students were adept at using technology in their spare time, which influenced their ability to grasp the use of NFCs in the classroom. Additionally, as a laboratory school, UHS requires parents to sign a document acknowledging that its faculty might occasionally delve into action research and other qualitative or quantitative research strategies; this might imply that UHS students are aware of the importance of engaging in constant research and knowledge making.

Observations and Analysis

After promoting the research and reminding students that they would be allowed to participate if they so wished, only five students agreed to participate in the study. Seeing as the 11th grade class consisted of 78 students, this is not a representative sample, as it comprises only 6.41% of the group. This fact is important because decisions cannot be made solely on the results of this study and more research must be conducted on this topic to yield representative findings. The research consisted of 16 Likert scale items and five multiple choice items, leading to a total of 21 items. Each Likert scale item presented five options: 1 (*strongly disagree*), 2 (*disagree*), 3 (*neutral*), 4 (*agree*), and 5 (*strongly agree*). The students' participation consisted in answering a Google Forms questionnaire that was sent to them once the scavenger hunt had concluded. The results of the 16 Likert scale items are included in Table 2, and the results of the five multiple choice items are presented in Table 3.

Key Findings from Questionnaire

Six items in the questionnaire were indicative of *enjoyability*:

- "The activity was enjoyable."
- "I would like to experience another NFC activity."
- "The use of NFC tags made the activity more enjoyable."
- "Having to step outside of the classroom was one of the most enjoyable aspects of this activity."
- "I enjoyed the design of each of the NFC tags."
- "The NFC tag made the literary piece more enjoyable than it would've been without it."

Nevertheless, *enjoyability* contemplated everything from the experience itself to the NFC designs. I made this conscious decision to assess the students' perspectives relating to how they felt toward the use of technology in the classroom, specifically NFCs. This leads me to believe that the activity was a success, despite the fact that the sample of the population was not adequate, as stated earlier. *Enjoyability* was also a contributing factor in the creation of the items because if the students' affective filter is low, then they are more likely to enjoy and learn.

Four out of the six items relating to *enjoyability* had 80% of participants select the highest possible answer (i.e., *strongly agree*) to describe their experience. This means that only one student was the least satisfied compared to the majority of the students that experienced the scavenger hunt and decided to participate in the study. Additionally, one must consider the word *enjoyable* as the starting point of all analysis. This is due to the idea that this is an ambiguous word, and everyone has a different idea of what is *enjoyable*. This might mean that some

students enjoyed the activity because they had to run, they exited the classroom, they used technology, or they were not being directly taught; instead, they were engaged.

One of the questionnaire items focused on the literary pieces and NFCs. This item also fell under the *enjoyability* theme. However, it is unique because the item contemplates *enjoyability* as it equates to literature and how NFCs affect this enjoyability. In this case, the NFCs are used as a bridge to help students engage with the material that they would otherwise find boring or unengaging. This item is critical to the evaluation of this study because the focus of the class is literature. The NFCs are used to make the literature more appealing and welcoming. In this case, students' apprehension of Shakespeare seems to have been tackled through the use of NFCs. This conclusion is reached due to the fact that four out of five students strongly agreed with the statement, "The NFC tag made the literary piece more enjoyable than it would've been without it."

Field Notes and Observations

For the field notes, I documented the observable elements of the scavenger hunt. The two sections that were documented will be referred to as sections 1 and 2. These details will be discussed throughout this section of the research. I will break down these elements by section and then compile the data onto one set.

Section 1

Date: March 20, 2024

- "5 teams"
- "Started at 1:10 p.m."
- "Students are running all over the school. They seem to be having fun."
- "Students get very competitive. They wait for other teams to walk away before scanning to make sure nobody sees them."
- "Some students are stuck on the [third] riddle." Item was erased to avoid identifying information.
- "They ask questions relating to the answers. They ask for hints."
- "There was an error in the arrangement. However, students have not found them in the proper order."
- "Students are not as observant as one would believe."
- "Students had to race to see who began scanning by writing their names and dates [on the piece of paper]."
- "Students asked if they need to write in complete sentences."
- "Fatherless questions: student asked if it was the characters who we know their fathers are dead or the

ones that their parentage is never mentioned."

- "Number 3 had tapping issues..."
- "Riddle solving skills are lacking; does this correlate to critical-thinking skills?"

Section 2

Date: March 21, 2024

- "Students are excited."
- "It began at 9:15am."
- "An issue with the ninth NFC tag was fixed."
- "Some students are stuck in #3"
- "Gave them a clue: hot or cold"
- "Students continue to find them out of order."
- "Students are running to the next NFC tag: excitement."
- "Some students are treating it like an intense competition: they are pretending they didn't find anything so the other teams don't [have an] advantage."
- "Students did not pay attention to the instructions: they either answered the one element, wrote the questions; rarely did students answer both riddle and question. I had to clarify."

Key Findings From Field Notes

Students in both sections seemed to be excited about the NFC scavenger hunt. This was evident in how they ran out of the classroom, ecstatic trying to find the next NFC tag. Many of the students participating in this activity ran and actively searched for the NFC tags. The euphoria the students were experiencing seemed to be triggered by the competitiveness of the students that were participating. However, this could also be because of the fact that students were allowed to leave the classroom. Nevertheless, a small number of participants were not as engaged.

Once the hunt began, both sections had to compete by writing the names of the participants on a piece of paper to see who would gain access to the first NFC. This was a frantic ordeal as students tried to write as fast as possible. Students' competitive nature was highlighted in this activity. Whole teams pretended to be oblivious about the next NFC just to avoid giving the other teams the location. Students were trying their best to gain the upper hand and win the NFC scavenger hunt. The teacher provided students with a clue by telling them if they were hot or cold, but this tip was not a constant. Other than this, the teacher did not give them any further help. Some teams asked for hints that would have provided the answer to the question or the riddle, and the teacher denied their request. Some students asked for clarification relating to

the question about which characters are fatherless in the play. Students' questions focused on material that was not discussed or mentioned in class. While these were valid questions, they shone a light on a more troubling issue: why would a teacher include something that was not discussed in class? It seems like both sections had trouble following the rules of the activity. Although the teacher explained the instructions before the activity began, some students asked if they needed to write in complete sentences, if they needed to include the answer to both the riddle and the question, and if the items had to be found in the correct order.

Most students had issues with finding the NFC tags in the correct order, even though each NFC contained a riddle that would lead them to the location of the next one. Students depended on their eyes rather than on the riddles. And yet, at times, the NFC tags were right in front of them, and they did not see them. Additionally, it seems like the most difficult NFC was the third one. This was due to the location of the NFC tag, which was hidden under a bench. Additionally, there were some technical issues on the part of the teacher's NFC tags. Some of the NFC tags did not scan despite being tested numerous times before the activity. Similarly to other types of technology, technical issues are bound to come up during an activity, especially if it is new to the students partaking in it.

Reflections and Possible Conclusions

The data gathered through this study is highly subjective and limited due to the sample size. Five students are not an adequate sample to draw consistent conclusions. However, with this limited sample, we can reach agreements regarding future studies relating to the use of NFC tags in the classroom, particularly for scavenger hunts. Based on items 1, 3, 5, 6, 12, 15, 19, and 21 students enjoyed this activity (see Tables 2 and 3). Some of these positive answers might be related to the fact that students were allowed to leave the classroom and escape the humdrum reality of daily lessons. One could argue that that was contemplated in items 6 and 16 (see Table 2). Additionally, when it came to the discussion of literary concepts and the text itself, item 15 (see Table 2) focused on the enjoyability of the scavenger hunt in relation to the literature discussed in class, *Twelfth Night*. Most students believe that the NFC tags made the material more enjoyable. While item 8 (see Table 1) focused on the difficulty of the questions and how prepared students felt relating to the material, most students believed that the questions were, in fact, too easy. This might lead to future research focusing on the difficulty of the material rather than just on the NFCs. Perhaps the educator could make questions that are slightly more difficult or complex to have students think harder about the answers.

In addition, item 11 (see Table 2) focused on how prepared students were for the scavenger hunt, concentrating on the material. Even though three students selected option 5 (i.e., *strongly agree*), implying they were prepared, and two students chose option 2 (i.e., *disagree*), 60% of students believed they were prepared for the *Twelfth Night* scavenger hunt. It could be concluded that the NFC scavenger hunt was a success, despite some students experiencing issues with some of the NFC tags. The data collected from the students led me to believe that they were motivated during the activity, and this boosted their engagement toward the material.

Limitations

More data must be collected on the field of NFC tags for scavenger hunts due to the limited data and sample size of this study, which totalled five participants. In the future, I will try to provide incentives to see if more participants volunteer. This was one of the major limitations of the study, as the total number of students enrolled in each section exceeded 20.

Opportunities

NFCs are not limited to scavenger hunts. Seeing as these devices are incredibly versatile and programmable, a teacher, administrator, assistant, secretary, or student can use them for various tasks. Teachers could use NFCs to provide specific material when tapped by the students, such as a syllabus, a short story, or an assignment. Administrators could create a hyperlink to a Google Form that streamlines the scheduling process. Students could be tasked with creating their own NFCs with their unique material related to class discussions. NFCs can even be used to provide recipients with crucial information: emails, telephone numbers, among others. They can even be programmed to send emails and text messages with a single tap. Additionally, they can always be used for safe, fun, and different scavenger hunts. The possibilities are endless.

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Table 1: Questions and Answers Used in Scavenger Hunt

Question	Answer
Who says the line “that breathes upon a bank of violets”?	Orsino
What is Elysium a reference to?	Greek afterlife
Which characters are fatherless in the play?	Olivia, Viola, Sebastian
What language does Andrew lack to identify in Act 1? What does it say about Andrew?	French. He’s not well versed.
What does it mean to “fear no colors”?	To be brave
Who says the following quote and what exactly might it imply in the context of the play? “No, my profound heart. And yet by the very fangs of malice I swear I am not that I play. Are you the lady of the house?”	Viola, and it implies that she is admitting to be pretending to be something she is not.
Who saved Sebastian?	Antonio
Who says the following quote, and what might it imply? “Alas, our frailty is the cause, not we, For such as we are made of, such we be.”	Viola, and it implies that women are the frailer sex.
What are Andrew and Toby discussing at the beginning of Act 2, scene 3?	About going to bed early or late.
Which character is a spider in an adaptation of <i>Twelfth Night</i> ?	Malvolio
What is the setting of <i>Twelfth Night</i> ?	Illyria
“By innocence I swear, and by my youth, I have one heart, one bosom, and one truth, and that no woman has, nor never none shall mistress be of it, save I alone. And so adieu, good madam. Nevermore” What does this quote reveal about the character that speaks it?	That Viola is a woman
Where do Antonio and Sebastian agree to meet in act 3, scene 3?	The Elephant
What wall does the Fool break at the end of the play?	Fourth wall

Table 2: Discussion of Likert Scale Items (1-16)

Item	Results 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).	Discussion
1. "I experienced issues with the NFC tags."	Three students (60%) selected number 3, and 2 students (40%) selected number 4.	This seems to point to students experiencing some type of technical issue during the scavenger hunt. Whether this issue was due to their smartphones, or the NFC tags themselves is not clear. However, perhaps this is a concern relating to the experience itself as all of the students were either in the middle or near the extreme right side of the Likert scale.
2. "The activity was enjoyable."	Four students (80%) selected 5 and 1 student (20%) selected 3.	This seems to imply that students overwhelmingly enjoyed the activity. Despite the fact that four students out of five seemed to have thoroughly enjoyed the activity, this is only 6.41% of the students enrolled in the class.
3. "I would like to experience another NFC activity."	Four students (80%) selected number 5, while one student (20%) selected number 2.	Once again, a minority leaned toward a negative association with NFC tags, while the majority seems to have enjoyed it. Four students would like to repeat this activity.
4. "The NFC tags were user friendly." Note: The user interface is its foundation. If students do not feel like this technology is user friendly, or, if they run into too many bugs, they will not enjoy it as much.	This item was relatively split between 3, 4, and 5.	This might allude to the fact that some students had issues with the NFC tags, relating to the first item on this questionnaire. However, the fact that only one student (20%) selected three, two students (40%) four, and two students (40%) five presents a positive future prospect for the use of NFCs in the classroom and students' embracing such technologies.
5. "The use of NFC tags made the activity more enjoyable."	One student (20%) selected 3, two students (40%) selected 4, and two students (40%) selected 5.	This is a positive prospect. The consensus is that NFC tags make scavenger hunts more enjoyable. However, it is not clear why this is so. It could be because students enjoy using their electronic devices. It could also be because the use of NFC tags is something new to them and that novelty has not worn off yet.
6. "Having to step outside of the classroom was one of the most enjoyable aspects of this activity."	Four students (80%) selected 5 and one student (20%) selected 1.	It seems like the consensus is that the scavenger hunt was enjoyable. It might be due to students being allowed to move, search, and answer these questions outside of the classroom. Students are often confined to the classroom, and this might create a monotonous environment. The student that answered 1 could be because they had to run, search, and participate actively, instead of sitting down and relaxing while the teacher spews information to be memorized. However, it is not clear. The items did not have a follow-up question that required students to explain their selection.
7. "The time provided to complete the activity was adequate."	Two students (40%) selected option 2, one (20%) selected 3, and two (40%) selected 4.	Three groups participated in the scavenger hunt. However, there were two different timeslots used. Two groups had a total of one hour and thirty minutes to complete the activity, while one group had a total of fifty minutes to complete the activity. The group that had fifty minutes might have felt like the activity was rushed compared to the other groups.
8. "I experienced some difficulties with the questions."	Two students (40%) selected option 1, and two students (40%) selected option 2 for a total of four students. One student (20%) answered 3.	It seems the majority of students did not experience any difficulty. Based on the sample size, one can assume that the students found the questions either easy or manageable. The fifth student seems to be in the middle, which could mean that the student experienced a bit of difficulty, but it was not something that they could not manage. This is a positive outcome, seeing as students were not focused on the difficulty of the questions.

Item	Results 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (strongly agree).	Discussion
9. "I experienced some difficulty with the riddles."	Two students (40%) selected 4, one student (20%) selected 3, one student (20%) selected 2, and one student (20%) selected 1.	Students also had to solve a riddle to progress to the next NFC. It seems like students experienced some difficulty when it came to the riddles as the answers are split. The fact that the results of the Likert scale are spread out almost evenly does not allow for proper conclusions. However, 40% of students selected 4, which leads me to believe that most students experienced some form of difficulty when it came to deciphering the riddles.
10. "I was tired by the end of the activity"	This item is the only one with an even distribution of answers. Each student picked a different number in the Likert scale from 1 through 5.	No conclusions can be reached regarding this item, seeing as they were evenly distributed.
11. "I was prepared for the material."	Three students (60%) selected number 5, while two students (40%) selected number 2.	Based on the results, students were prepared for the material. However, the fact that they selected these items is not an adequate indicator of their preparation. Nonetheless, they do believe they were ready for such an activity, which might have fueled their motivation.
12. "I enjoyed the design of each of the NFC tags."	Four students (80%) selected 5, and one student (20%) selected 4.	Students seemed to have enjoyed the NFCs designs.
13. "The tags were well-hidden."	Three students (60%) agreed with the statement, selecting 5; one student (20%) somewhat agreed with the statement, and one student (20%) was neutral toward the statement.	Students needed to find these tags all over the school, but the teacher tried to hide them properly. Most students lean toward the NFC tags being well-hidden on campus.
14. "Once the team solved the riddle, it was easy to find the tag. The NFC tag was where the riddle suggested."	Two students (40%) selected 3, two students (40%) selected 4, and one student (20%) selected 5.	This item focuses on the level of accuracy between the riddle and the hidden NFC tag. It is unclear if the NFC tags were easy to find since two students were neutral toward the statement. This could lead to an ambiguous conclusion.
15. "The NFC tag made the literary piece more enjoyable than it would've been without it."	Three students (60%) selected 5, one student (20%) selected 4, and another student (20%) selected 3.	With four students leaning toward the enjoyability of the activity, one can come to conclusions about what this limited sample enjoyed.
16. "I would have enjoyed the scavenger hunt more if it was restricted to the classroom."	Four students (80%) selected 1, and one student (20%) selected 2.	Students seemed to overwhelmingly agree that it would have been less enjoyable if the activity was restricted to the classroom. In other words, students enjoyed stepping outside of the classroom instead of remaining inside the classroom. This might have influenced their enjoyment relating to this activity.

Table 3: Discussion of Multiple-Choice Items (17-21)

Item	Results	Discussion
17. “My team used an (a) Android phone or (b) an Apple phone.”	All participants selected option (b).	The participants used iPhones for the scavenger hunt.
18. “Would you like to have had a workshop on NFC tags prior to the activity?”	Four students (80%) selected No, while one student (20%) selected Yes.	Most of the students participating in this study believe that a workshop is not necessary. However, maybe it would be useful to give a five-minute demonstration for those students that do not understand the technology behind NFC tags.
19. “Did you enjoy your experience?”	All of the students selected Yes.	They enjoyed the NFC tag experience.
20. “Have you had any other experiences with NFC tags?”	Four students (80%) had never had an NFC experience, while 2 of students (20%) had.	For most of the students, this was their first experience with NFC tags.
21. “Which of the following words would you use to describe the experience?”	Students could select as many options as they liked. The options were: <i>Dull</i> (0%), <i>Energetic</i> (80%), <i>Fun</i> (100%), <i>Boring</i> (0%), <i>Exhausting</i> (40%), <i>Adrenaline-Fueled</i> (80%), <i>Competitive</i> (100%), <i>Techy</i> (60%), <i>Confusing</i> (40%), and <i>Draining</i> (20%).	Some of the descriptors that were selected the most were <i>Fun</i> , <i>Competitive</i> , <i>Energetic</i> , <i>Adrenaline-Fueled</i> , and <i>Techy</i> . These items had a selection rate of 60% or higher. It is important to point out that two items received a total of 0%, even though students could have selected as many items as they believed applied. These items were <i>Boring</i> and <i>Dull</i> .

Author’s Biography

Michael Báez lives on a tiny island in the Caribbean originally named Boriken. Dr. Báez has an Ed.D in Curriculum and Teaching and currently teaches at the University of Puerto Rico Secondary School (UHS). His dissertation, titled *The use of pop culture: A case study of a TESOL classroom*, focused on how pop culture can be used to motivate students. Additionally, Dr. Báez has published fiction in numerous magazines and platforms: “Bayú” in *The Deadlands Magazine*, “Time Will Tell” in *Transforming Being Anthology*, “Promesa” in *Revista Trasuntos* and *600 Second Saga*, among others.

Collaborative School Partnership: Research to Practice Model With Social Validity and Fidelity

Laroye Lynn Stansberry Brusnahan

SCHOOL OF EDUCATION, UNIVERSITY OF ST. THOMAS

Molly McGraw Healy

SCHOOL OF EDUCATION, UNIVERSITY OF ST. THOMAS

Leslie Hitchen

ST. PAUL PUBLIC SCHOOL DISTRICT, MAXFIELD ELEMENTARY

This article provides a contextual overview of a nascent collaborative laboratory school partnership between a private institution of higher education and a public school (Mayhew & Edwards, 1936). It highlights a pilot model for practitioner-researcher collaboration in implementing a socially valid, evidence-based practice with fidelity in real-world settings. The model facilitates effective collaboration between public school practitioners and university faculty through a four-step process:

1. Identify a need and select an intervention
2. Conduct professional development
3. Implement the evidence-based practice
4. Collect and analyze data

This study explores the research question: “What is the impact of a collaborative practitioner-researcher initiative on the implementation of a socially valid, evidence-based practice with fidelity in a public school?”

Overview of Collaborative School

The University of St. Thomas, a private, mission-driven institute of higher education, led by the School of Education, partnered with the St. Paul Public School District (SPPS) to create the Collaborative Learning School at Maxfield Elementary. The University of St. Thomas is Minnesota’s largest private university and one of the largest Catholic colleges or universities in the nation. SPPS is Minnesota’s second-largest and most diverse school district, educating approximately 33,000 students who speak more than 114 languages across 68 schools. Maxfield Elementary School has around 350 students in grades Pre-K through 5.

Supported by the public school district, this partnership is uniquely embedded within a single elementary school—an uncommon model for laboratory schools (Garcia Alvarado & Jozwia, 2023). Serving as a hub for collaboration, the lab school brings together university faculty and school educators to refine pedagogical approaches, engage with community epistemologies, and bridge the gap between research-based theory and classroom practice in order to enhance student learning. The collaborative school is located approximately three miles from the university campus.

Grounded in a co-designed mission, vision, and values, the collaborative school partners strategically focus on co-identified priority areas to guide the co-creation and implementation of initiatives. This partnership fosters mutual benefit for both institutions while honoring the expertise of university faculty and practicing educators. Community-anchored, in-district lab school partnerships can create meaningful opportunities to transform public PK-12 education through targeted interventions that support students’ academic, cognitive, behavioral, and social-emotional development (Garcia Alvarado & Jozwia, 2023).

Program Vision and Mission Alignment

Table 1 presents the mission of the collaborative school, developed with input from over 70 key stakeholders representing the university, school district, elementary school, and broader community. Laboratory schools typically serve three primary functions: community service and outreach, professional development, and research (Barbour, 2003), maintaining a triangulated commitment to students (scholars), educators, and scholarship. Aligned with these principles, the Maxfield-St. Thomas collaborative school advances the mission of the university’s School of Education by leveraging faculty expertise within the framework of public education. This

approach ensures that educators are equipped with the skills to implement evidence-based practices that improve student outcomes and promote the common good.

Table 1: Mission of Maxfield Elementary School

The Maxfield Elementary Collaborative Learning School's mission is to create a learning environment with high expectations that challenges scholars, educators, and our community to collaborate in empowering successful life-long learners that have a lasting, positive influence on our world.

Scholars: Create a student-centered, equitable, and joyful learning environment that honors scholars' identities and gifts, and fosters creativity, collaboration, and innovation for all students.

Educators: Provide both innovative and evidence-based learning opportunities that ensure all educators – emerging and practicing – are resilient and ready to respond to the evolving needs of all scholars, families, and the community.

Greater learning community: Research, learn, and innovate to identify, develop, and apply best practices of the future to inform learning transformation locally, nationally, and globally.

Key Priority Areas

A central focus of the collaborative school is the co-design of priorities and initiatives that align with national, state, district, community, and Maxfield Elementary's evolving needs. Ensuring social validity—meaning that initiatives are perceived as important and socially acceptable by the community—is essential. Each year, the school and university work together to identify and validate priority areas to guide the selection and focus of initiatives. The current priority areas include attendance, school climate, mathematics, and literacy (i.e., reading and writing).

The Maxfield-St. Thomas collaborative school provides a structured space for faculty and educators to work together in developing cohesive, evidence-based best practices in pedagogy, teacher preparation, and ongoing professional development to address these priorities. A key component of collaboration is fostering social validity through clear communication, high-visibility participation, and consistent follow-through at every stage of initiative implementation.

Attendance. The rationale for prioritizing attendance within the collaborative school stems from the persistent challenges of chronic absenteeism (Rogers et al., 2017). Since the unprecedented disruptions of the COVID-19 pandemic, schools nationwide have experienced a continued rise in chronic absenteeism from kindergarten through grade 12 (Evans et al., 2024). Chronic absenteeism—defined as missing

at least 10% of the school year—is a key contributor to poor academic achievement (American Federation of Teachers, n.d.).

Like many schools, Maxfield Elementary has struggled with attendance both historically and in recent years. Over the past two years, state data indicate that fewer than half of Maxfield students have met the Minnesota Department of Education's definition of consistent attendance, which requires attending school more than 90% of the time. Student absences are strongly correlated with academic performance (Nauer et al., 2014; Romero & Lee, 2007), including significant impacts on third-grade reading proficiency (Ginsburg et al., 2014). Attendance patterns—even in early grades—can serve as early indicators of long-term academic risks, including an increased likelihood of grade retention, high school dropout, and difficulties developing the social-emotional skills necessary for success in higher education and careers (Ginsburg et al., 2014).

The risk of chronic absenteeism is further compounded by additional factors such as poverty, homelessness, child welfare involvement, mental health challenges, and limited social capital (Nauer et al., 2014). For both individual students and the broader community, the reality that more than half of Maxfield students are at risk of progressing through the school system via social promotion underscores the urgent need for targeted interventions. Without meaningful support, these students may miss the opportunity to develop fully and achieve their potential.

Climate. The collaborative priority area of creating a positive school-wide climate aligns with Maxfield's current School-Wide Positive Behavior and Intervention Support (SW-PBIS) initiatives and has been shown to improve both student attendance motivation and educator retention rates (Gupta & O'Reilly, 2020; Swisher, 2022; Wagner, 2022). Research has demonstrated significant effects of SW-PBIS on social-emotional functioning and prosocial behavior (Bradshaw et al., 2012). For example, a peer-reviewed comparative study of demographically matched schools with and without SW-PBIS found that students with special education needs in SW-PBIS schools demonstrated higher attendance rates, with stronger effects in schools that sustained PBIS with fidelity for longer periods (Gage et al., 2024; Johnson et al., 2025).

Maxfield participated in a two-year training cohort to earn designation as a Minnesota SW-PBIS Tier 1 school and has achieved “sustaining exemplary recognition” for its implementation that produces positive student outcomes. Maxfield's PBIS team—comprising teachers, behavior support specialists, and other staff—utilizes this research-based framework to design equitable behavioral support systems that prevent challenging behaviors, develop students' pro-social skills, and implement data-based problem solving (SPPS, n.d.).

Mathematics. The rationale for the third collaborative

priority area of mathematics stems from the National Assessment of Educational Progress (NAEP, 2024), also known as the National Report Card, a comprehensive nationwide assessment of student achievement in core subjects. While Minnesota's fourth-grade students achieved mathematics scores (241) higher than the national average (237), significant disparities exist within demographic groups. Students who identify racially as Black (218) and who experience economic disadvantage (226) demonstrate scores substantially lower than both national (237) and state (241) averages.

Literacy. The priority on literacy, encompassing both reading and writing, is similarly based on nationwide assessment scores. Minnesota's average fourth-grade reading scores (214) match the national average (214). However, consistent with mathematics findings, Minnesota's students who racially identify as Black (195) and students experiencing economic disadvantage (197) show scores significantly below both the national and state averages (214).

University Collaborative Roles

The university has created two key roles to support the implementation of prioritized initiatives within the collaborative school:

Partnership Liaison. This role assists with administrative duties and other activities:

- collaborative school coordination and communication
- relationship management
- initiative implementation

Faculty in Residence. This role helps co-create and execute professional development initiatives based on collaboratively designed priorities. Two university faculty currently serve in this role, bringing complementary expertise:

- One faculty member specializes in school climate, behavior, and social-emotional learning.
- The second faculty member focuses on academic instruction.

The collaborative school is uniquely positioned to bridge theory and practice by combining research developed by university faculty with hands-on classroom implementation. This environment allows teaching practices discussed during teacher preparation coursework to be directly applied and evaluated in actual school settings.

The collaborative school serves as a vital partner in the professional development of educators at Maxfield Elementary School. The university and faculty function as active collaborators, not only supporting the school's implementation of current best practices but also co-creating innovative approaches with practicing educators to generate impact across student, classroom, school, and sector levels.

The collaborative school provides comprehensive opportunities for professional development and support for educators (Weih & Ensworth, 2006). To ensure all students receive thorough academic, social, and emotional support, the program delivers educator professional development that incorporates evidence-based practices. The school subsequently collects feedback, analyzes data, and utilizes these insights to develop future best practices.

Bridging the Gap between Research and Practice

This section highlights a piloted model for collaboration between university faculty and district educators to implement evidence-based practices linked to identified priorities, with attention to social validity and fidelity. The model follows four sequential steps:

1. Identify an evolving need and select an intervention
2. Conduct professional development
3. Implement the evidence-based practice
4. Collect and analyze implementation data

Identifying Needs and Selecting an Intervention

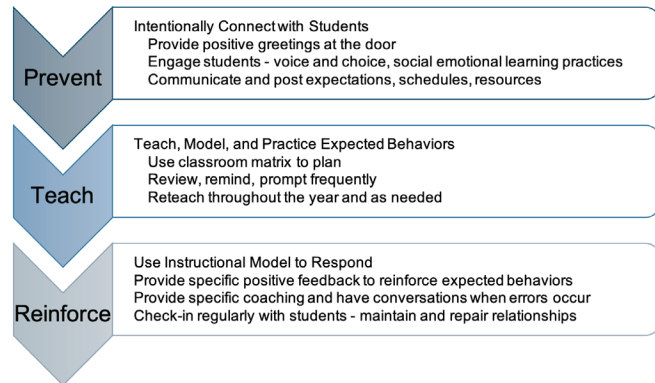
The process of identifying needs and selecting an appropriate intervention began with structured consultations between the university partnership liaison and key stakeholders at Maxfield School. Initially, the liaison met with the building principal to discuss the unique educational needs of Maxfield's student population. During this meeting, the principal reviewed a menu of potential interventions that highlighted the areas of expertise offered by the faculty-in-residence, along with suggestions based on an analysis of the school's current initiatives and previous professional development efforts designed to prepare the school community (including leaders, educators, and support staff) to address student needs effectively. After careful consideration, the principal identified "positive greetings at the door" (PGD) as an appropriate Tier 1 universal support that aligned with two of the school's priority areas: improving student attendance and enhancing school climate.

According to the U.S. Department of Education's Office of Elementary and Secondary Education funded Center on PBIS, positive greetings at the door (PGD) is an effective strategy for increasing academic engagement, decreasing unwanted behavior, and improving student-teacher relationships (PBIS, 2019). The Departments of Education, Health and Human

Services, Housing and Urban Development, and Justice jointly produced *Every Student, Every Day* (2015), a toolkit outlining strategies for schools to prevent the consequences of absenteeism. This toolkit identifies positive and supportive engagement strategies connected to PBIS as an effective approach to improve student attendance. The PBIS framework supports schools in creating positive, effective, and inclusive climates that foster academic, social, and emotional success for all students (McIntosh, 2023).

In the second meeting, the partnership liaison met with Maxfield's leadership team to ensure the selected initiative had social validity. The third meeting was with the school's PBIS team to confirm the initiative aligned with Maxfield's School-Wide PBIS (SW-PBIS) Tier 1 interventions. Table 2 includes an overview of SW-PBIS Tier 1 interventions. Based on feedback and conversations with all stakeholder groups, the practice of positive greetings at the door—previously identified by the PBIS team as a Tier 1 strategy at Maxfield—was deemed socially valid. Before this initiative, Maxfield had not conducted any targeted professional development on implementing positive greetings at the door.

Table 2: Tier 1 School-Wide Positive Behavior and Intervention Support



Conducting Professional Development

Following the identification of the initiative, a collaborative team co-planned and co-created a professional development session leveraging each member's expertise. The university representatives included the faculty in residence and partnership liaison, while Maxfield's team representatives included a classroom teacher and the building's behavior support specialist. The team delivered comprehensive professional development to school leaders, educators, and staff through multiple formats: written materials, videos, an in-person co-facilitated session, and a recorded version available

online for those unable to attend.

Before the professional development session, a two-page practice brief titled "positive greetings at the door" from the Center on PBIS (2019) was distributed via both physical mailboxes and email. This brief effectively outlined the strategy with clear implementation steps, including (a) What is it? (b) Why do it? (c) How do we do it? (d) fidelity checklist, (e) tips for success, and (f) references (Allday & Pakurar, 2007; Cook et al., 2018). The professional development was presented to the full teaching staff during a regularly scheduled school meeting, with timing deliberately set three business days and a weekend before implementation. This timeline allowed educators sufficient opportunity to integrate the practice into their classroom routines. To accommodate educational assistants and staff who accompany students on buses and could not attend the after-school meeting, the team provided a recorded video version of the session. Additionally, the university's faculty in residence offered two virtual office hours to address questions regarding implementation.

The professional development emphasized that students can be greeted in various ways as they enter schools and classrooms. Table 3 provides step-by-step instructions for implementing a positive interactive greeting routine with fidelity at the start of the day or class period. The positive greetings at the door strategy included multiple greeting options, representing a simple yet effective approach to creating a welcoming school climate. Research has demonstrated that this greeting routine strengthens positive student-adult relationships (Allday & Pakurar, 2007; Cook et al., 2018).

Table 3: Steps: Positive Greetings at the Door

1. Stand just inside or outside of the door.
2. Greet each student by name.
3. Have a short positive interaction with individual student(s). a. Engage in an interactive motor activity (e.g., provide choices such as fist pump, knuckles with explosion, high five, hug, handshake, pinkie shake, secret handshake). b. Communicate verbally (e.g., ask a short question, make a friendly and welcoming comment).
4. Direct the student to the first quiet, independent entry activity a. Examples include a "bell ringer," "bell work," "do now," or "warm-up" activity such as a maintenance of skill task, easy writing task (e.g., journal entry, fill in the blank, finish the sentence), brainteaser, and/or item of the day (e.g., joke, idiom, math problem, hidden curriculum)

(PBIS Brief Positive Greetings at the Door, 2019)

When an adult greets a student who appears happy to see them, this simple interaction initiates the school day on a positive note, provides an opportunity to assess the student's social-emotional wellbeing, and offers a chance to proactively address any emerging issues. These positive interactions are particularly significant for students who have experienced adverse childhood experiences (ACEs). ACEs are potentially traumatic events occurring during childhood and adolescence, including experiences such as bullying, witnessing conflict, violence, or suicide attempts, and enduring physical, emotional, or sexual abuse. Additional ACEs include growing up in environments with substance abuse (drugs, alcohol) or mental health challenges, navigating unsafe neighborhoods, and experiencing instability or unmet daily needs (poverty, hunger, homelessness, parental separation, divorce, or incarceration) (Jones et al., 2020). For students affected by ACEs, consistent positive interactions with adults at school can serve as crucial protective factors, potentially mitigating some of the negative impacts of trauma and fostering resilience in academic and social settings.

Implementation of Evidence-Based Practice

Following the professional development session, all educators and staff received a follow-up email and access to the recorded session for reference (see Table 4). Additionally, participants were granted access to a resource website containing the previously distributed PBIS brief and supplementary materials, including research articles on positive greetings at the door. The email outlined a three-tiered incentive structure designed to reinforce desired behaviors:

1. Recognition for classrooms achieving the highest attendance rates
2. Acknowledgment of individual students for consistent attendance and punctuality
3. Recognition for educators and staff who implemented positive greetings at the door practices.

Table 4: Email to Maxfield Educators and Staff

Greetings. This year, two things the University of St. Thomas' School of Education and Maxfield are working on together are making sure students are in school each day and making sure school is a positive, joyful place for each learner and teacher. Beginning on Monday, Maxfield will begin a school-wide strategy called Positive Greetings at the Door, which research has shown to improve student attendance, learning, and classroom climate. Maxfield educators and staff will be making a special effort to make sure every student receives an individual, positive, welcoming greeting at the door as they start off their day. Our hope is that great mornings lead to great days, and an increased excitement and willingness to head to school each morning. Classrooms with strong on-time attendance will receive daily recognition and students will be entered in a prize raffle for each day they are in school on time. Educators and staff participating will also be eligible for a daily raffle!

Positive Reinforcement

Class-wide Recognition. The office will do daily announcements of classes with perfect attendance and on-time arrival. Classes will receive a popcorn treat.

Student Recognition. Educators and staff will provide students arriving on time a raffle ticket. Each day, the educators will do a raffle drawing in classrooms for individual student prizes.

Educator Recognition. Educators and staff greeting students at the door will receive a daily raffle ticket and place it with their name on it in the office raffle box. Daily, a name will be drawn for a prize. Prizes will include university apparel and water bottles.

We know mornings can be hard, and that not every day will be smooth or perfect. We welcome your thoughts about how we can support you in greeting students at the door each day. If you have ideas or thoughts to share, please feel free to reach out to us.

We have distributed a letter and resource from Attendance Works to parents with facts about the power of being in school consistently and some ideas for parents on how to help smooth the morning transition to school. Thank you for all you do for the young learners in your lives. You make an incredible difference!

Table 5 presents the timeline for the execution of the strategy that was disseminated to all educators and staff members. The first phase of implementation occurred over two weeks, during which a continuous reinforcement schedule was applied across classrooms, students, educators, and staff. Following the first and second weeks of implementation, the school observed a planned two-week break. Throughout the first and second weeks, raffle tickets were distributed daily for prize drawings and acknowledgments. In the third and fourth weeks, the implementation progressed with a variable reinforcement schedule for classrooms, students, educators, and staff.

Table 5: Implementation Calendar and Information

Monday	Tuesday	Wednesday	Thursday	Friday
	30-minute professional development launch of resource page	Information was sent out to families. Time to reflect: Observe your current practices. What needs to be in place for your classroom so you can be at the door to greet each student? What will be the role of any other staff in your room during greeting time? Visit virtual office hours if you have questions. Dates and Times: XXX		
Week 1 Implementation Launch Positive Greetings at the Door with a continuous reinforcement schedule. • Front school door: NAME welcome vans. NAME welcome late arrivals • Side school door: NAME, NAME, and NAME welcome school buses. • Classroom door: Educators welcome at the classroom door. Support staff make plan with classroom educators. Raffle Tickets: NAME, NAME, and NAME distribute tickets to greeters.				
Break – No school this week.				
Break – No school this week				
Week 2 Implementation Continue greetings consistent with the continuous reinforcement schedule. Watch for feedback surveys.				
Week 3 and 4 Implementation Continue greetings with a variable reinforcement schedule. Reflect on progress.				

Table 6 includes the email that went out the day after the professional development to the students' parents and caregivers to inform them of the intervention.

Table 6: Parent Communication

Greetings Maxfield Parents and Caregivers, As you may know, Maxfield has a partnership relationship with the University of St. Thomas' School of Education. This year, two things we are working on together are making sure students are in school each day and making sure school is a positive, joyful place for each learner. Beginning on Monday DATE, Maxfield will begin a school-wide strategy called Positive Greetings at the Door, which research has shown to improve student attendance, learning, and classroom climate. Maxfield educators and staff will be making a special effort to be sure every student receives an individual, positive, welcoming greeting as they start off their day. Our hope is that great mornings lead to great days, and an increased excitement and willingness to head to school each morning. Classrooms with strong on-time attendance will receive daily recognition and students will be entered in a daily prize raffle for each day they are in school on time. As fellow parents and caregivers, we know mornings can be hard, and that not every day will be smooth or perfect. We welcome your thoughts about how we can support you and your students in getting to school on time each day. If you have ideas or thoughts to share, please feel free to reach out to us at XXX. On the back of this sheet, please find some facts about the power of being in school consistently and some ideas for parents on how to help smooth the morning transition to school. Thank you for all you do for the young learners in your lives! You make an incredible difference!
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The professional development defined fidelity, and the PBIS brief included information on a fidelity checklist that educators and staff could use to ensure they were implementing positive greetings at the door with fidelity (see Table 7).

Table 7: Fidelity Checklist

Date: Teacher/Staff: Directions: Check YES or NO for each step (completed by self or with peer). 1. Stand outside or inside the door. YES or NO 2. Greet each student by name. YES or NO 3. Have a short, positive individualized interaction. YES or NO 4. Direct the student to the first activity. YES or NO How many YES? # Comments:
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Methods

This research utilized comprehensive qualitative field notes alongside a post-implementation survey consisting of five questions, which was administered after the four-week implementation period.

Participants

Maxfield boasts a dedicated and diverse team of educators committed to supporting students across all learning levels. The school employs 17 grade-level teachers spanning from pre-K through grade five, alongside seven special education instructors who provide tailored support to students with unique learning needs. Additionally, there are three specialized educators in science, physical education, and music, ensuring a well-rounded academic experience. To support language development and accessibility, Maxfield includes two educators focused on English as a Second Language, and another two staff members who concentrate on academic support, offering targeted assistance to help students thrive. Of the 31 educators at Maxfield, 25—representing 80% of the total—participated in the professional development sessions, with 18 attending in person and seven completing the training online. The group reflects a wide range of teaching experience: three have over 30 years in the profession, four have more than 25 years, and three have surpassed 20 years. Additionally, six educators bring over a decade of experience, six have taught for more than 5 years, and nine are relatively newer to the field with between 1 and 5 years of experience. This diverse blend of tenure highlights the depth and variety of perspectives. Among those who participated in the professional development, 20 completed the survey. Staff were also invited to participate in the professional development.

Results

Question 1. Centered on fidelity, the initial inquiry was, “Did the professional development (including handouts, web resources, and instructions) clarify how to implement positive greetings at the door with fidelity?” Ninety-five percent of respondents indicated, “Yes—I understood precisely what to do and was able to execute the practice with fidelity,” while 5% replied, “I was unsure of what to do, and/or I was not aware that this initiative was occurring.”

Question 2. Focusing on impact, the second inquiry was “How would you assess the impact of the positive greetings at the door on classroom climate?” Sixty-seven percent answered, “Extremely positive,” 29% responded, “Somewhat positive,” and 5% indicated, “Neither positive nor negative.”

Question 3. With an emphasis on social validity, the third question was “Is the practice of positive greetings at the door a meaningful and acceptable intervention that is feasible to maintain?” Eighty-one percent of participants answered, “Definitely yes,” while 19% responded, “Usually.”

Question 4. Also addressing social validity, the fourth question was “Did you find positive greetings at the door a meaningful intervention, and would you like to see this practice continue?” Ninety percent of participants replied, “Yes,” and 10% answered, “Neutral.”

Question 5. Concentrating on impact, the final question was, “What changes (if any) did you observe in your students/classroom as a result of this practice? Please provide comments.” The responses are detailed in Table 8.

Table 8: Survey Responses

- Students eventually answered the greeting.
- Students come into the classroom with more smiles.
- Everyone seemed to start the day on a more positive note.
- More of the students are greeting back after being greeted. I see a lot more smiles, engagement, and desire to share.
- Positive way to start the day right when students get here...didn't really see a difference in attendance though. But it was a tough time of year, right before and after break.
- Starts the day positively- feels welcoming, and students smiled lots.
- Keep modeling positivity, rain or shine.
- It would be great if all staff could use positive greetings.
- It can look different for classrooms based on needs, and that's ok.
- It should just be an expectation that educators greet their students at the door in the morning.
- I don't think it has to be an elaborate handshake. But greet them every day with a caring smile so they know you are happy they are there.
- I feel like I did see an increase in greetings, and people are more aware of how they talk to kids in the morning.
- Use this time to build relationships and gather below-the-line information.

Discussion

The survey findings addressed the research inquiry regarding the influence of a collaborative practitioner-researcher initiative on the execution of a socially valid evidence-based practice with fidelity in a public school setting. Ensuring fidelity in the implementation of practices guarantees that interventions are executed as designed, which can result in more reliable outcomes and improved results. Participants indicated that they were well-informed about how to implement the strategy with fidelity and assessed the effect of the evidence-based practice on classroom climate as favorable. Negative and neutral feedback included several educators who noted that they were already welcoming students at the door, resulting in minimal personal change; however, they observed a shift in other areas of the school where this practice was newly implemented.

One reason for selecting positive greetings at the door was its compatibility with the school's existing PBIS framework. Additionally, the team aimed to initiate a straightforward initiative that would facilitate the testing of the four-step implementation process. The strategy proved to be simple to execute. Prior professional development on the implementation

steps had not been provided. One educator remarked that while many believed they were already familiar with the concept, it was beneficial to have the steps delineated and to grasp the significance of implementing with fidelity. Evaluating social validity entails collecting feedback from stakeholders and fostering a collaborative approach to the execution of interventions. Social validity focuses on ensuring that the targeted intervention is deemed significant and pertinent to a student's everyday life and educational experience. Respondents expressed that the practice of positive greetings at the door is a valuable and acceptable intervention that is feasible to sustain, and they expressed a desire for its continuation. When educators perceive an intervention as relevant and suitable for their students, they are more inclined to engage actively and support its implementation. One of the constraints of this study was the limited sample size, as it involved a small number of participants and was conducted exclusively within a single elementary school.

Conclusion

This article illustrates a collaborative effort between university faculty and public school educators aimed at bridging the divide between research-based theories and the application of evidence-based practices within real-world educational environments to enhance student learning outcomes. The initiative discussed herein exemplifies how a university and a public school can synergize their expertise to develop professional development programs focused on the implementation of socially valid interventions with fidelity. The fidelity of practice implementation in educational settings is essential, as it preserves the evidence-based foundation of the interventions. A notable achievement of this initiative was its high social validity and widespread understanding, facilitated by a multi-faceted approach. Ensuring social validity in these practices is vital, as it aligns interventions with the values, needs, and perspectives of all stakeholders—including faculty, educators, staff, parents, and students—thereby fostering acceptance and leading to meaningful, sustainable outcomes. By prioritizing social validity, educators are better equipped to meet student needs and to avoid interventions that may be deemed inappropriate. When interventions are perceived as socially valid, students are more likely to engage positively and experience significant improvements in their daily interactions.

A collaborative school serves as a platform for university and school district partners to engage in reform efforts, focusing on mutually identified priority areas to guide co-created and co-implemented initiatives (Silvernail & Batista, 2012). A primary objective of this collaboration was to pilot a four-step implementation model. This initiative demonstrated

that the four-step model and consistent follow-through led to the successful application of the chosen evidence-based practice during the monitored period. The identification of the intervention, which involved multiple meetings with administrators and educators (Step 1), laid the groundwork for success. This was further reinforced by the combination of in-person and video-based professional development, supplemented by email and printed resources (Step 2). The subsequent communication and implementation strategies, including printed and emailed materials, high-visibility implementation (Step 3), and multiple opportunities for stakeholder feedback via surveys administered through email and staff meetings (Step 4), contributed to enhanced engagement.

The lessons derived from this effort have significant implications for future collaboration between faculty and school educators at a lab school, particularly in areas related to priority initiatives. Moreover, the four-step model employed in this study provides a replicable blueprint for implementing, refining, and sustaining evidence-based practices in a lab school setting (Wilcox-Herzog & McLaren, 2012). This model's adaptability and ease of replication make it an attractive framework for other lab schools seeking to implement collaborative, evidence-based initiatives. Future research should incorporate objective student outcome measures (e.g., academic or non-cognitive gains) and control groups to enhance the robustness of the study.

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Authors' Biographies

Laroye Lynn Stansberry Brusnahan is a Professor at the University of St. Thomas in Minnesota where she coordinates the autism and developmental cognitive disabilities graduate programs and previously served as the chair of the Department of Special Education. She is a Faculty Fellow in Residence at the University of St. Thomas-Maxfield Collaborative School. She prioritizes collaborative research on evidence-based educational practices. Dr. Stansberry Brusnahan has a Bachelor of Science degree from Purdue University, and a Master of Science in Exceptional Education and Doctor of Philosophy in Urban Education from the University of Wisconsin-Milwaukee.

Molly McGraw Healy is the Senior Director of Strategic Partnerships at the University of St. Thomas and serves as the founding liaison between the university's School of Education and the Collaborative School at Maxfield Elementary, a lab school launched in 2023. She holds a Master's in Public Policy from the University of Minnesota's Humphrey School and received her Bachelor of Arts from St. Olaf College. Prior to her current role she served as the Director of Charter School Authorizing for the University of St. Thomas and was an active member of the authorizing community, serving three years as chair of the state's authorizer organization, and as presenter and consultant nationally and locally.

Dr. Leslie Hitchens is the principal at Maxfield Elementary School. She has been in Saint Paul Public Schools for nearly 20 years as a teacher serving students who receive specialized education, a peer assistance and review coach, an administrative intern at Maxfield, a K-12 Special Education Supervisor, and principal. Dr. Hitchens has a Bachelor of Arts degree in special education and elementary education from Xavier University of Louisiana, a Master of Arts degree in curriculum and instruction from University of Minnesota-Twin Cities and a Doctor of Education in Educational Leadership from Hamline.

Elevating Literacy Through Evidence-Based Practice: A Case Study in Innovation at Kilby Laboratory School

Stephane Bolton, Angelique Tomlinson, and Eric Kirkman

KILBY LABORATORY SCHOOL

As Alabama's only state-funded laboratory school, Kilby Laboratory School holds a distinctive role at the intersection of public education and university-based instructional research. Charged with the dual responsibility of meeting state standards while modeling innovation, Kilby embraces the challenge of pushing beyond compliance to lead the way in educational excellence. Central to Kilby's mission is the use of standards not as a ceiling or goal for student achievement but rather as a baseline foundation for instruction upon which deeper learning and higher student growth can be cultivated.

The "Laboratory School" for Practitioners and Researchers

From the inception of "lab schools" or "training schools," the idea of educating current students and future teachers has been a synchronous task. By all practical purposes, laboratory schools have and continue to function as a tool for the educational community. From preparing staff and personnel, to engaging in research endeavors, laboratory schools function to help improve the science of teaching while also serving the needs of children and post-secondary students. While laboratory schools may be rare in some parts of the United States, the mission of laboratory schools expands across the globe, connecting institutions through the sharing of effective practices and the exchanging of teacher-training concepts and philosophies. Preservice teacher training in the clinical setting often provides an opportunity for lab school supervising teachers to model innovative and research-based practices that can be shared and passed on to those learning in the clinical setting. This often opens the door for discussions on what works and what does not in the live classroom. Furthermore, lab school teachers hence are challenged to stay abreast on the most current and effective instructional practices for their own students as well as their clinical students.

Professional Practice and Teacher Preparation

Kilby's philosophy is grounded in a commitment to instructional practices that are research-informed, student-centered, and adaptable. This philosophy not only shapes daily

teaching but also serves as a cornerstone in the preparation of pre-service educators. Rather than relying solely on basal curricula, Kilby teachers model how to seek out, evaluate, and apply optimal instructional tools and strategies to ignite a lifelong love of learning.

Mentorship plays a critical role in cultivating this philosophy of teaching and learning in preservice teachers. Teacher candidates at Kilby are guided by expert educators who exemplify continuous growth, professional curiosity, and a refusal to accept the status quo. These educators are selected for their commitment to excellence and trusted with autonomy to innovate within their classrooms. Collaboration across grade levels and content areas is encouraged, and trust is earned through consistent demonstration of research-based practice and student success.

Innovating with EBLI in First Grade

One of the clearest examples of this laboratory school model in action is the implementation of Evidence-Based Literacy Instruction (EBLI) led by Kilby's first-grade classroom instructor. Known for her leadership in early literacy and her commitment to student success, the instructor began the 2024–2025 school year by fully integrating EBLI into her instruction following extensive training and research. After a careful examination of the evidence base behind EBLI, the first-grade instructor was supported by the school leadership, which consists of the school Director and the Local Reading Specialist. EBLI is a comprehensive, speech-to-print approach to literacy instruction that integrates reading, spelling, and writing through a streamlined, research-aligned framework. The program is grounded in cognitive science and designed to eliminate redundancy and cognitive overload while maximizing instructional efficiency. Each lesson is purposeful and connected, allowing students to make immediate and meaningful application of new skills across all areas of literacy.

From the outset, the instructor's goal was to align instruction with the five pillars identified by the National Reading Panel, phonemic awareness, phonics, fluency, vocabulary, and comprehension, while also integrating handwriting, spelling, and writing (National Reading Panel,

2000; Ehri, 2005). The EBLI framework enabled her to deliver instruction that consistently addressed these eight domains in a cohesive and efficient manner. All EBLI activities encompass four or more areas in a single lesson, reducing instructional time while accelerating student learning.

Early Results and Expanding Impact

By October, tangible results had already emerged. Students who had previously struggled with decoding and writing began to make remarkable progress. One student, who started the year reading just three words per minute and refused to write more than a single word, confidently declared, “I told my mom I love reading and writing now!” Her transformation, both in skill and mindset, was one of many that confirmed the powerful impact of EBLI on student motivation and achievement.

Driven by these outcomes, the instructor extended her work beyond first grade, tutoring a fourth-grade student four days a week during a portion of her non-instructional time. Despite years of prior interventions, this student made minimal progress, until the implementation of EBLI. Within weeks, she exhibited measurable gains in decoding, spelling, working memory, and overall confidence. These results aligned with research by Moats (2020), which supports the efficacy of explicit speech-to-print instruction for students of all ages.

Student Growth Data and Literacy Outcomes

By spring, classroom data told a compelling story. At the start of the year, only 37% of Bolton’s students were reading at or above grade level. By year’s end, 100% had reached that benchmark. The class achieved a median of 184% of typical growth, with several students more than doubling their expected progress and surpassing ambitious stretch growth goals designed to close achievement gaps.

Measures of oral reading fluency showcased growth for readers of all levels, from those just beginning to decode words to those already reading with confidence and expression (Fuchs et al., 2001). Table 1 illustrates the range of growth in oral reading fluency achieved by students over the course of the 2024-2025 school year.

Table 1: Range of Growth in Oral Reading Fluency Achieved by Students Over the Course of the 2024-2025 School Year

August 2024		May 2025	
Words Correct Per Minute	Accuracy	Words Correct Per Minute	Accuracy
3	43%	46	100%
7	44%	71	99%
14	70%	78	96%
30	83%	129	99%
42	89%	126	98%
45	96%	129	100%
57	89%	168	99%
112	97%	154	99%

Other assessments echoed these outcomes, showing measurable gains across every skill domain, including handwriting, phonemic awareness, spelling, and writing. For example, spelling accuracy improved by 20 to 40 percentage points, and writing samples evolved from isolated words to full paragraphs with 80 to 90% accuracy in spelling. These results align with research showing that explicit writing instruction enhances reading development and overall literacy performance (Graham & Hebert, 2010). Students were spelling multisyllabic words, applying feedback immediately, and writing with fluency and purpose, which was a dramatic shift from where they began.

These outcomes were not limited to struggling readers. Students already performing at or above grade level also experienced substantial growth across multiple domains, often advancing by more than one grade level. One student advanced from a kindergarten level placement to the third-grade benchmark in a single year.

Beyond the data and perhaps most exciting was the transformation in students’ reading habits. As skills grew, so did student confidence and curiosity. Students became voracious readers, eagerly finishing books and asking for more. By the end of the year, every student in the class was successfully reading chapter books, many for the first time. They were thinking critically, writing more clearly, and demonstrating a love for language that stemmed from authentic understanding. Students not only saw themselves as readers and writers, but they embraced this identity wholeheartedly.

Broader Implications

The results from Kilby’s first grade class mirror findings from Schechter and Chase (2025), whose study confirmed the efficacy of EBLI in whole-class, Tier 1 settings. The program

not only aligns with the Science of Reading but also serves as a practical vehicle for applying that science in the classroom in a way that is efficient, engaging, and impactful.

As a laboratory school, Kilby is uniquely positioned to pilot, refine, and share research-based practices with the broader education community. Its commitment to high standards, professional trust, and educator autonomy fosters a culture of collaboration and innovation where instructional approaches like EBLI can take root and thrive. The instructor's work serves as a powerful case study in how student achievement and educator growth can flourish when research, practice, and passion come together with purpose. Kilby's model offers a compelling blueprint for transforming teaching and learning and redefining what is possible in public education.

This program pilot provides implications for school leaders seeking solutions to academic problems. First, the supportive approach of the school administrator promulgated more teacher self-efficacy while cultivating a culture of confidence to "think-outside-of-the-box" and explore the unknown. The school leadership worked closely with the Local Reading Specialist to ensure that all factors surrounding the application of the EBLI program, such as class schedules, learning materials, and reflective feedback, were all conducive for obtaining maximum results. Honoring the research conducted by the classroom teacher, and the trust shown to allow the teacher to move forward with the program implementation should serve as a model for achieving positive outcomes. Through this process, we have learned that when the administrator believes in the teacher, who then believes in their students, the students will then start to believe in themselves!

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Authors' Biographies

Stephane Bolton is a National Board-Certified Teacher with over two decades of experience in early childhood education and literacy. She currently teaches first grade at Kilby Laboratory School, the only publicly funded laboratory school in Alabama, where she mentors preservice teachers through daily classroom observations and clinical experiences. Stephane holds Bachelor of Science, Master of Arts, and Education Specialist degrees in Elementary Education from the University of North Alabama, as well as certification in Instructional Leadership.

Angel Tomlinson is the reading specialist in residence at Kilby Laboratory School on the University of North Alabama campus. Dr. Tomlinson has a PhD in special education from Liberty University with a research and professional focus on literacy. At Kilby Laboratory School, Dr. Tomlinson acts as a think partner-coach for our master teachers as well as heading up initiatives such as a weekly Morphology Focus challenge and the annual One School One Book initiative.

Dr. Eric Kirkman is an Associate Professor and the Director of the Kilby Laboratory School located at the University of North Alabama. His professional career spans 26 years, with 13 of those years serving as a school administrator. Dr. Kirkman holds both a bachelor's and master's degree in education from the University of North Alabama. He also holds a Doctorate in Educational Leadership from Nova Southeastern University. Dr. Kirkman has published articles in the past that highlight the innovative practices and possibilities that can be found in laboratory schools. Dr. Kirkman is a past President of the International Association of Laboratory Schools (IALS) and currently serves on the IALS Board of Directors.

INFORMATION FOR CONTRIBUTORS

Call for Papers—IALS Journal 2025

Information for Contributors

The *IALS Journal*, a refereed journal, publishes articles that contribute to the knowledge and understanding of laboratory and university affiliated schools and other significant educational issues. Most articles focus on research, innovation, or opinion. The subjects most often addressed are teaching techniques; administrative concerns; functions, history, and the future of laboratory schools; innovations in curriculum and program; teacher education; student growth and development; and philosophical topics. Rebuttals, responses, and book reviews are also considered for publication. We also welcome articles outlining innovative teaching practices in laboratory schools and columns celebrating exceptional laboratory schools or laboratory school educators. Unsolicited manuscripts are additionally encouraged for consideration, though preference is given to articles that link explicitly to laboratory schools. The Journal is published once a year.

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