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OCCUPATIONAL THERAPY SUPPORT IN THE KINDERGARTEN CLASSROOM THROUGH RTI TIER I INTERVENTIONS: KINDERGARTEN TEACHERS' PERCEPTIONS OF NEED

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OCCUPATIONAL THERAPY SUPPORT IN THE KINDERGARTEN CLASSROOM THROUGH RTI TIER I INTERVENTIONS: KINDERGARTEN TEACHERS' PERCEPTIONS OF NEED

Presented in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Occupational Therapy

Eastern Kentucky University
College of Health Sciences
Department of Occupational Science and Occupational Therapy

Robyn R. Scarlett
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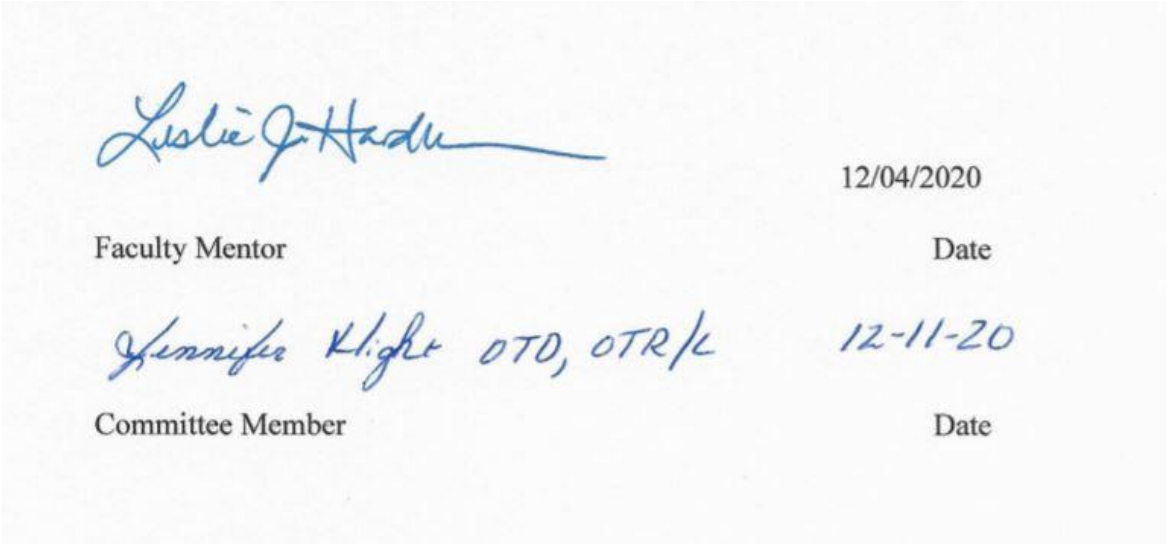
EASTERN KENTRUCKY UNIVERSITY
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF OCCUPATION SCIENCE AND OCCUPATIONAL THERAPY

This project, written by Robyn R. Scarlett under direction of Dr. Leslie J. Hardman, Faculty Mentor, and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF OCCUPATIONAL THERAPY

CAPSTONE COMMITTEE



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Certification

We hereby certify that this Capstone project, submitted by Robyn R. Scarlett, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Occupation Therapy degree.

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Executive Summary

Background: Known for the protection it affords children with disabilities, the federal statute, Individuals with Disabilities Education Act (IDEA), 2004, also provides Local Education Agencies (LEA) funding to support general education students that may be at risk of or are demonstrating difficulty within their educational programming. Response to Intervention (RtI) is one such framework commonly used in school districts around the country to provide multi-tiered support to at-need general education students to facilitate their successful participation in their academic programming.

Purpose: The purpose of this study was to learn what occupational-therapy performance skills kindergarten teachers saw as areas of concern in children entering the educational setting and what types of support from occupational therapists kindergarten teachers would prefer were occupational therapy (OT) services available as a RtI Tier I intervention in the study's school system.

Theoretical Framework. The *Occupational Therapy Performance and Framework: Domain and Process 4th edition* (OTPF-4) (American Occupational Therapy Association [AOTA], 2020) and the Person-Environment-Occupation-Performance model by Bass et al. (2017) are the theoretical frameworks that guided this study.

Methods. Semi-structured interviews were completed for this qualitative, phenomenological study with participants from a convenience sample. A list of performance skills (i.e. cognitive, fine motor, gross motor, sensory, and visual perception) was provided to participants for use during the interview to facilitate consistent wording used among participants. Interviews were audio-visually recorded, transcribed, and coded for categories and themes.

Results. Although the general education kindergarten teachers in this study reported limited knowledge of and limited exposure to occupational therapy services, they discussed that OT-related performance skills were areas of concern for incoming kindergarten students, with cognition and fine motor being the two greatest areas. Following directions and listening/attending, as well as using scissors and developing pencil grasps were the skills most frequently discussed. If made available in the school district, kindergarten teachers reported they would be receptive to OT support in their classrooms for student-specific input, modeling, and feedback, learning opportunities during or after the school day, and provision of resources and materials.

Conclusions: Existing literature provides efficacy of OT services as a RtI intervention provider. This study provides evidence that kindergarten teachers see OT-related performance areas as important skills for kindergarten students' successful participation in their academic programming, supports the premise that occupational therapy can play an important role in general education kindergarten students' academic success through RtI services, and indicates the need for increasing understanding of occupational therapy's role in the school-based setting among general education educators.

Acknowledgements

Earning my doctorate has been a personal goal for many years and has been a fulfilling experience in many different ways. I want to thank Dr. Leslie J. Hardman for her assistance with this study, for her patience and guidance that were in abundance and her friendship along the way. To my peers that have traveled this road with me, both in the program and in the workplace, thank you for your friendship, knowledge, and support. They were gifts that will not be soon forgotten. And to my children, Alena, Stephen, and Mason, you have each given me encouragement and support throughout this journey, lovingly showing me that being a mom is not just about giving but also receiving. I love you most.

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CERTIFICATION OF AUTHORSHIP

Submitted to: Dr. Leslie J. Hardman
Student's Name: Robyn R. Scarlett
Title of Submission: Occupational Therapy Support in the Kindergarten Classroom Through RtI Tier I Interventions: Kindergarten Teachers' Perceptions of Need

Certification of Authorship: I hereby certify that I am the author of this document and that any assistance I received in its preparation is fully acknowledged and disclosed in the document. I have also cited all sources from which I obtained data, ideas, or words that are copied directly or paraphrased in the document. Sources are property credited according to accepted standards for professional publications. I also certify that this paper was prepared by me for this purpose.

Student's Signature: Robyn R. Scarlett, OTD, MS, OTR/L

Date of Submission: 12/11/2020

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Section One: Nature of Project and Problem Identification

Kindergarten in the United States has changed greatly since its introduction by Margarethe Schurz in 1856 (Fromberg, 2006). In its early days, kindergarten was built around activities of play and nurture of the young child. From the 1930's through the 1950's, kindergarten evolved toward a socialization-centered model that "offered children direct environmental experiences, respected children's developmental needs, and provided opportunities for children to make choices and play" (Fromberg, 2006, p. 69). The beginnings of what kindergarten resembles today began in the late 1990's with governmental push for more formal academic instruction (Fromberg, 2006; Larner, 2014). Passage of the federal act No Child Left Behind in 2001 and its replacement in 2015 with the Every Student Succeeds Act have had marked influence on the kindergarten classroom of today (Curwood, 2007; Strauss, 2016). Gone are the days of Play-Doh® and dress up, macaroni art and finger painting, activities that taught a range of developmental skills under the guise of play. Today's kindergarten experience is tightly structured blocks of time with academic focus on math and reading and standard testing of progress (Bassok, Latham, & Rorem, 2016).

The academic demands for children today can be challenging for students with or without previous structured learning experiences such as preschool or a structured child-care program such as Head Start (Nye & Sood, 2020). Children with special needs have educational protections, including program accommodations, under the Individuals with Disabilities Education Act (IDEA), 2004 (Dragoo, 2019). IDEA is a federal statute that ensures students with special needs access to a free and appropriate public education and necessary special education and any needed related services such as occupational therapy,

physical therapy, and/or speech therapy. In addition to special education funding, IDEA also provides federal funding to local education agencies (LEA) to provide supportive services to general education students who demonstrate a need, such as struggling general education students or students at risk of falling behind (Dragoo, 2019). This funding is allocated within Coordinated Early Intervening Services. Response to Intervention (RtI) is one such supportive approach commonly used around the country. RtI is a multi-tiered system that provides successive levels of support for children that have academic or behavioral problems impacting their performance in the general educational setting (Dragoo, 2019). This researcher works in a school-based setting in which occupational therapists can only provide services to kindergarten students with special education programming but are often asked by general education teachers for suggestions and strategies to help their students struggling with poor social, emotional, and physical skills. These teachers frequently request ideas regarding fine motor skills, visual perceptual skills, attentional skills, and behavior. This researcher completed a needs assessment prior to initiating this study to determine what OT-related areas of need teachers perceived as common among starting kindergarten students, which areas were of most concern to kindergarten teachers, and how kindergarten teachers would prefer OT assistance if it were made available through RtI programming. The data gave insight to surveyed kindergarten teachers' perceptions of skills sets that may pose challenges to some students' academic progress versus skills sets that many young children struggle with developmentally as they enter the academic setting. It was this researcher's interpretation that skill areas kindergarten teachers ranked as more concerning to them were areas in which they had less knowledge. Specifically, teachers identified concerns with motor

development and behavior management (that is to say, behavior management for behaviors beyond the bounds of developmental behaviors). Based on the needs assessment data, this researcher proposed that other general education kindergarten teachers in the school district may be concerned about the fine motor development of the regular education students in their classrooms. They may also have concerns about student attention skills, behavior skills, and visual perceptual skills but not necessarily to the same extent.

Problem Statement

General education kindergarten teachers in this study's school system do not have access to occupational therapy services for support of their students who do not have an Individualized Education Program (IEP) or a Section 504 Plan.

Purpose

The purpose of this study was to determine what assistance kindergarten teachers want from district occupational therapists to facilitate general education students' success were OT services available within RtI Tier I interventions. This study sought teachers' perceptions of the following: 1. OT-related student skills that pose challenges for kindergarten students; 2. Identification of which skills are of most concern to kindergarten teachers; and 3. If available, how kindergarten teachers would prefer occupational therapists to support them.

The *Occupational Therapy Practice Framework: Domain and Process 4th edition* (OTPF-4) defines the domain of OT (AOTA, 2020). The document defines OT as "the therapeutic use of everyday life occupations with persons, groups, or populations (i.e., the client) for the purpose of enhancing or enabling participation" (AOTA, 2020, p. 1).

Occupational therapists are uniquely trained to assess the needs of the client, their desired occupation, and the environment in which the occupation will be completed to facilitate the client's engagement in personally meaningful activities (AOTA, 2020). In the school setting, occupational therapists support students' access to their educational environment and facilitate students' participation in their educational programming. Occupational therapists support school-based occupational performance skills such as motor skills (e.g. bilateral integration, motor planning, separation of the hand, refined pinch, etc.) and cognitive skills (e.g. problem solving, organization, task initiation, sequencing, etc.). These occupational performance skills are instrumental in a student's academic success.

Theoretical Framework

For young people, the role of student is often a major life occupation (AOTA, 2016). For students needing additional assistance to successfully navigate all the demands of the educational setting, occupational therapists can provide support to the student and to staff (AOTA, 2016). For example, a student is influenced by life experiences or the absence of experience as it pertains to a certain school-related occupation. The desired school-related occupation can vary from simple to complex and require no skill or many. The school environment in which the student engages in the occupation has a strong influence on the occupation in that it can facilitate or hinder the student's ability to successfully engage in the desired occupation. The convergence of these three concepts influences the student's occupational performance. The profession of OT adheres to an occupation-based paradigm guiding the delivery of services to clients in a variety of settings. The Person-Environment-Occupation-Performance (PEOP) model is one framework for the delivery of occupational therapy services. The PEOP model guides

occupational therapists' "decision making, clinical reasoning, and professional awareness to address problems that disrupt occupational performance from an evidence-based, client-centered perspective" (Cole & Tufano, 2020, p. 128).

Significance of the Study

Healthy People 2030 states, "Childhood is a critical period of growth and development — and a child's experiences, behaviors, and health problems can have long-term impacts" (U. S. Department of Health and Human Services, 2020). Supporting students' successful participation in their academic programming is the main premise of RtI. Occupational therapists, as service providers in the school setting, are poised to have tremendous impact on student success through RtI if there is understanding of OT's role and scope in the school setting and endorsement of occupational therapists as RtI providers by LEAs. Teachers have stated that support from OT for development of performance skills in general education kindergarten students would be beneficial. The following section explores the unique qualification of occupational therapists and the strengths occupational therapists bring in support of these students in the educational environment.

Section 2: Literature Review

Occupational Therapy's Distinct Value

Occupational therapists are uniquely qualified to support students' participation in the educational environment (AOTA, 2012; AOTA, 2016). Students' successful engagement in the school setting is dependent upon many factors. Occupational therapists are trained to examine the student and their environment though an occupational lens to determine what factors improve or impede the student's performance in a specific setting. Facilitating occupational performance is at the core of OT's profession (AOTA, 2014; AOTA, 2017; AOTA, 2020; College of Occupational Therapists, 2016; Turner & Alsop, 2015). Supporting a student's physical assess to appropriate classroom seating, providing strategies for enhanced work quality and quantity, and presenting staff education opportunities regarding the use of calming and attending strategies in the classroom are examples of the scope of service occupational therapists can provide in the school setting (AOTA, 2014; AOTA, 2020).

Occupational Therapy-Related Performance Skills and Student Success

Analyzing factors impacting occupation allows occupational therapists to view the "why," the skill sets influencing a student's difficulty with a task. Literature regarding OT-related skill sets and the academic benefits of a student's proficiency with them is plentiful. Strong fine motor skills in kindergarten students have been shown to positively influence students' academic success in areas such as reading comprehension and letter and word identification, as well as be a predictor for academic success in future grades (Camron et al., 2012; Manfra et al., 2020; Roebers et al., 2014; Suggate et al., 2019). More specifically, grapho-motor skills (i.e. the ability to copy from a model) directly

influence student achievement in emergent reading and writing skills (Suggate et al., 2016; Suggate et al., 2018). Visual perceptual skills also play a role in students' successful participation in their academic programming. Visual spatial integration tasks (e.g. the ability to look at an image and reproduce it on paper) are a strong predictor of student academic success in math and written expression in young children (Carlson et al., 2013). Additionally, occupational therapists can have impactful interactions with teachers to support the development of their students' fine motor, grapho-motor, and visual spatial skills (Carlson et al., 2013; Gerde et al., 2014; Suggate et al. 2019).

Occupational Therapists and RtI

As discussed earlier, RtI is a multi-tiered system many school districts use to provide successive levels of support for children having academic or behavioral problems impacting their performance in the general educational setting (Dragoo, 2019; Preston et al., 2016). Occupational therapists are already present in the school setting, a setting that is struggling with greater demands and fewer resources (Sullivan & Castro-Villarreal, 2013). Including them as RtI providers effectively utilizes in-house professionals who have knowledge of the school setting and curriculum and have the skills to provide evidence-based interventions to students in need (Ball, 2018; Bazyk et al., 2009; Ohl et al., 2013; Koelbl et al., 2016). Literature shows occupational therapists who provide services through RtI programming support students in the areas of fine motor skills, handwriting, self-help skills, self-regulation, and self-management (Cahill, 2010; Koelbl et al., 2016; Ohl et al., 2013). There are barriers to occupational therapists providing services within the RtI framework such as lack of resources, lack of administrative support, and lack of knowledge regarding occupational therapists' scope of practice (Cahill et al., 2014).

However, when permitted to do so, occupational therapists have contributed to the process of providing additional support to teachers and students for the benefit of academic success for students found in need (Cahill et al., 2014; Clark et al., 2013; Ohl et al., 2013).

Kindergarten Teachers' Perceptions of Need

There is literature examining kindergarten teachers' perceptions of academic expectations, student readiness, and their own level of knowledge to implement today's classroom standards (Lin et al., 2003; Nye & Sood, 2018; Otaiba et al, 2019). Teachers' needs as they pertain to OT are documented as well. Teachers want to collaborate with occupational therapists regarding students in their classrooms (Benson et al., 2016; Bolton & Plattner, 2020; Nye & Sood, 2018; Truong & Hodgetts, 2017). Additionally, they are requesting more student-specific support and feedback opportunities (Nye & Sood, 2018; Truong & Hodgetts, 2017). Teachers have asked for more opportunities to collaborate with occupational therapists, not only to receive information but to also convey information regarding the student and their specific needs within the classroom (Morris, 2013).

Occupational Therapist and Teacher Collaboration

Examination of the collaborative process between the occupational therapist and the teacher is well documented in the literature. The need for clear communication between the professionals is essential to the working relationship and a positive impact on student performance (Barnett & O'shaughnessy, 2015; Benson et al., 2016; Morris, 2013). Communicating the needs of the student, the expectations within the classroom, and the educational goals for the student is important to the process. Clarifying terminology that may be unfamiliar to the listener and ensuring a reciprocal understanding is also

important. However, the collaborative process requires time, and this is often a barrier to effective collaborative interactions (Casillas, 2010; Morris, 2013; Shasby & Schneck, 2011). Teachers have limited time for collaboration due to the rigidity of their classroom schedule; it is interdependent on the overall school's schedule. The occupational therapist meanwhile is likely an itinerant staff member and only at the school on a certain day or at certain times. Poor communication and limited time can significantly influence collaboration, but lack of understanding of OT's role and scope in the school setting affects the foundations of the occupational therapist-teacher collaboration system. Studies over the last decade show that limited understanding of the OT's role and the scope of services that occupational therapists can provide in the school setting is a continuing shortcoming in the occupational therapist-teacher dynamic (Benson et al., 2016; Bolton & Plattner, 2020; Bradley et al., 2020; Casillas, 2010; Huang et al., 2011; Truong & Hodgetts, 2017).

Summary

Literature within this review examined factors influencing student success such as fine motor skills and teacher resources. Also discussed was evidence of the value occupational therapists bring to the school setting as RtI providers and as collaborators with general education kindergarten teachers, addressing the teacher-reported needs in respect to student skill areas of development and classroom programming. Social, emotional, and physical skills are equally important areas in a child's development and successful participation in the school setting. School-based occupational therapists are uniquely qualified to support the development of these skills and have an understanding of them within the context of the academic setting (AOTA, 2014). These articles provide a

glimpse of the evidence for the impact student performance skills have on student achievement, as well as the role occupational therapists can play in supporting kindergarten teachers and student achievement through RtI programming.

Section 3: Methods

Study Design

This capstone study used a qualitative, phenomenological approach to examine teachers' perception of OT-related performance areas that affect their students' successful engagement in the kindergarten setting as well as teachers' needs to gain understanding of OT's role in the school setting and how occupational therapists can support them in the development of students' performance skills. Qualitative studies, especially phenomenological studies, allow the researcher the ability to learn how the subject experiences a phenomenon and the impact it has on the individual (Bonnel & Smith, 2018; Neubauer et al., 2019). A face-to-face, semi-structured interview was the tool used to gather information from eight general education kindergarten teachers to better understand how occupational therapists can support students in the general education kindergarten setting. The researcher used the interview to gather information regarding predominant performance skills areas of child development that may influence a student's success in the kindergarten classroom.

Setting

At the inception of this study, the interviews were anticipated to be in person and at the teachers' schools. With the changes in social climate due to the Covid-19 pandemic, the setting for the interviews changed to virtual. Participants were able to meet with the researcher virtually at a location of convenience to them to participate in the interviews. Interviews were conducted outside of participant work hours as set forth in the study research application to the teachers' school (Appendix C), and participants participated from their classrooms or from their homes.

Participants

This study was dependent upon input from kindergarten teachers familiar with the study's school system and familiar with the system's kindergarten programming. Participants in this study met inclusion criteria as follows: a) participants in this study were general education kindergarten teachers from the school district, b) participants were currently teaching kindergarten, and c) teachers had five or more years of kindergarten teaching experience. Study participant exclusion criteria was as follows: a) individuals not employed by the school district, b) substitute general education kindergarten teachers, and c) kindergarten teachers with less than 5-years of teaching experience in general education kindergarten.

This study recruited participants from one of the 120 largest school districts in the United States (U.S. Department of Education, 2020). General education kindergarten teachers from this district were invited to participate in this study. The nature of this study required a convenience sampling of participants. As mentioned above, participants were purposefully invited based on their specific knowledge of the school district, the district's kindergarten educational framework, and historical knowledge of student needs in that kindergarten setting (Bonnel & Smith, 2018; Creswell & Creswell, 2018; Taylor & Kielhofner, 2017). Email addresses were determined from the school system's public website under a system-wide, staff directory search for kindergarten teachers. Of the listed 254 kindergarten teachers, 247 were contacted using the district's email system. The school district uses first and last names in the employee's email address; successive emails with same first and last name are given a numerical tag (e.g. jane.smith2, jane.smith3, etc.). The search for participant email addresses listed six potential

kindergarten teachers with the same first and last names as other employees within the district. Those kindergarten teachers were not sent emails due to the researcher having no means to confirm name/email with job title. One teachers' email was inadvertently omitted from the master email list. After the first email study invitation distribution, the researcher received three replies agreeing to participate in the study. One week later, a second email of study invitation distribution resulted in an additional six teachers agreeing to participate.

Method

The researcher initiated face-to-face, semi-structured interviews with nine kindergarten teachers from the school district. According to Taylor and Kielhofner (2017), this method affords the researcher more control over the structure of the interview by including both fixed-response and open-ended questions, and the data collected from this format can provide more detail than that collected through a survey or questionnaire. Data collection through interviews presents limitations as well. These include responses that may not be relevant to the information sought and the significant time required to analyze and code responses (Taylor & Kielhofner, 2017). Creswell and Creswell (2018) also address that information gained in the interview format is subject to the participant's understanding of the topic of the study and their ability to discuss the topic in a meaningful way.

All participants, upon confirmation of a scheduled interview, received, via email, a brief description of occupational performance skills common to the school setting (see Appendix G). Because some participants reported they did not have the provided description of skills at hand for reference at the time of the interview, the skills list was

resent via email. The interview was composed of 13 questions, with six questions discussing basic demographic information of the participant and seven questions addressing specific classroom information (see Appendix F). The researcher followed an interview protocol as suggested by Creswell and Creswell (2018). A printed list of interview questions guided the researcher during each interview. This assisted with consistency of the presentation of questions and the overall interview process among participants. The list also allowed for note taking of responses and interesting anecdotal information obtained during the interview. In addition to the notes taken, the interviews were audio-visually recorded to ensure accurate recount of the responses. permanently deleted the recordings from electronic storage after coding. The researcher then transcribed each interview, facilitating coding of content. Coding organizes the responses into categories, such as words or phrases, for analysis of trends and themes in a manner relating to the study's purpose (Bonnel & Smith, 2018; Creswell & Creswell, 2018; Kielfohner & Taylor, 2017). After coding, the recordings were permanently deleted from electronic storage. The researcher used reflective journaling in the research process as well. This guided the researcher to record presumed areas of need, anecdotal information regarding the participants and their responses beyond the scope of the interview questions, and notation of unexpected themes identified during and after the interview process.

Ethical Considerations

All research requirements of the university and the school district, including institutional review board (IRB) applications were completed (Workman, Kielhofner, and Taylor, 2017; Creswell and Creswell, 2018). IRB approval was given by the researcher's university of study and the school district employing the participants. The researcher

works in the same school district as the participants, and one participant was known to the researcher. Although the researcher provides OT services at the participant's school, the researcher had not worked with students in the participant's classroom. All participants were assigned numbers (no names) for coding, with information anonymized in the discussion of the findings. As part of the interview introduction, information was provided to each participant including an explanation of the study, participant's opportunity to provide informed consent, and explanation of procedure to ensure participants' anonymity. Informed consent was obtained for all participants (Appendix B). Research materials from this study are securely stored at the researcher's university of study.

Section 4: Results and Discussion

Results

Analysis of the participants' responses provided valuable information regarding OT-supported needs general education kindergarten teachers have in their classrooms. Of the nine participants agreeing to participate in the study, eight met inclusion criteria. The interviews ranged from 15 to 31 minutes in length. Participating teachers represented seven schools across the district to include schools from the north, south, east, and west of the school district, with three schools located in the inner city of the district. Additional demographic information obtained revealed four teachers were teaching in Title I schools. An additional demographic unique to the present social climate was two teachers were conducting their classes exclusively through virtual teaching. Use of the virtual platform is new to the district, imposed because of the 2020 Covid-19 pandemic. Its impact on the educational environment and unique challenges to both the teacher and the students are outside the scope of this study but may have influenced the participant responses. Teachers reported their classroom size ranged from as few as 10 students for a teacher teaching virtually to 22 students for an in-person classroom. Teachers had teaching experience ranging from six years to 30 years in general and six years to 27 years teaching kindergarten. Of all participants, three reported having taught in schools systems others than the system of study.

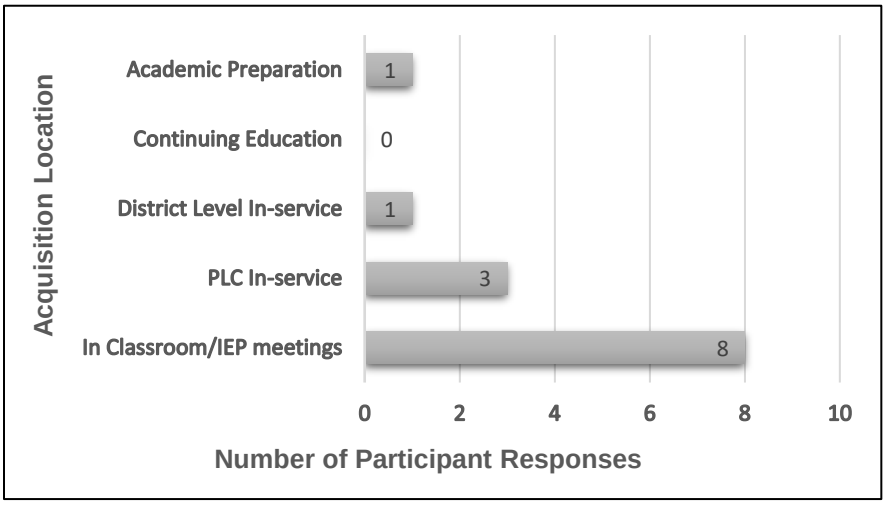
Familiarity with Occupational Therapy Services

Among the information collected, participants reported about their familiarity with OT services in the school setting and of how they came to learn about school-based OT. Interview questions included possible sources of learning about school-based OT (see

Appendix F), including through their academic preparation for teaching, through continuing education opportunities, and through formal or informal informational in-services within the school system of study. The main acquisition of understanding of OT's role in the school setting came from the setting itself (see Figure 1). All participants reported their understanding of OT's role in the school setting as well as the supports and strategies occupational therapists provide to students and staff came from experience with therapists supporting special education students in their classroom or through their attendance at Individualized Education Program (IEP) meetings. All participants reported having had a special education student in their classroom at some point who received OT services. Collaboration with the occupational therapist and the suggestions and strategies recommended for the student added to the kindergarten teachers understanding of OT's role in the school setting. Additionally, federal law requires school systems to review and update a student's IEP a minimum of one time yearly (Dragoo, 2019). A grade-level-specific general education teacher is required to attend the meetings to provide information to the IEP team regarding the grade-level curriculum and opportunities for and expectations of a child in that setting, however, the teacher in attendance is not necessarily the student's general education teacher. Several teachers reported frequent attendance in IEP meetings as the general education kindergarten teacher representative. Their attendance resulted in them gaining knowledge of OT's role with special education students. Teachers reported learning about performance area skills and specific supports and strategies when the occupational therapist made recommendations to the student's IEP team.

Figure 1

Acquisition of Familiarity with Occupational Therapy's Role and Services in the School Setting



Performance Areas of Concern

Beyond information about teachers' knowledge of OT services, interview questions addressed performance skills areas teachers observe as challenges for incoming kindergarten students and asked them to identify which performance skills they found most significant. Of the five performance skill areas listed and described for participants (Appendix G), each was mentioned by at least one teacher (see Figure 2). A few teachers mentioned gross motor, sensory, and visual perceptual issues occasionally seen as areas of need but reported these were not frequently issues for their general education students. Other teachers considered some of the performance skills areas as defined by the list provided (e.g. visual perception-writing letters of name without a model) a part of the kindergarten curriculum and were considered expected areas of need with incoming students. However, all reported that cognitive skills and fine motor skills were significant

areas of need in incoming general education kindergarten students. Of the cognitive skill concerns noted in their kindergarten students, all participants reported following directions

Figure 2

Occupational Therapy-Related Student Skills that Pose Challenges for Kindergarten Students

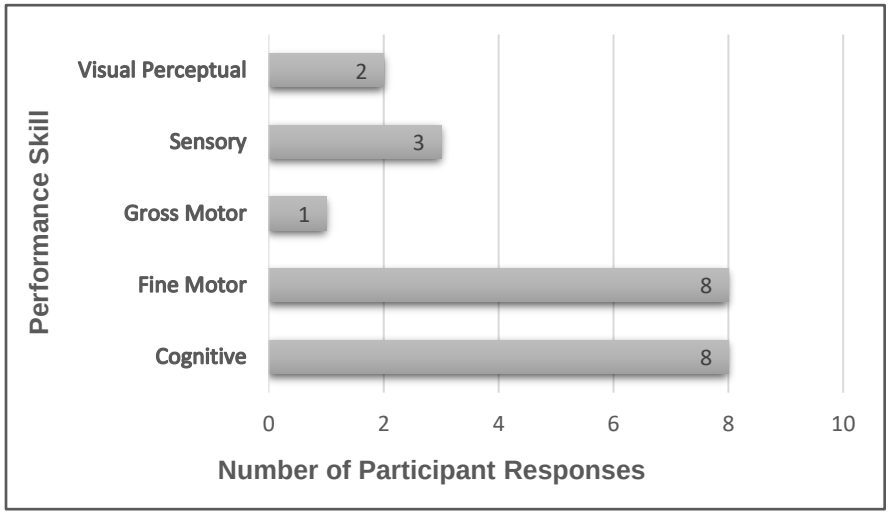
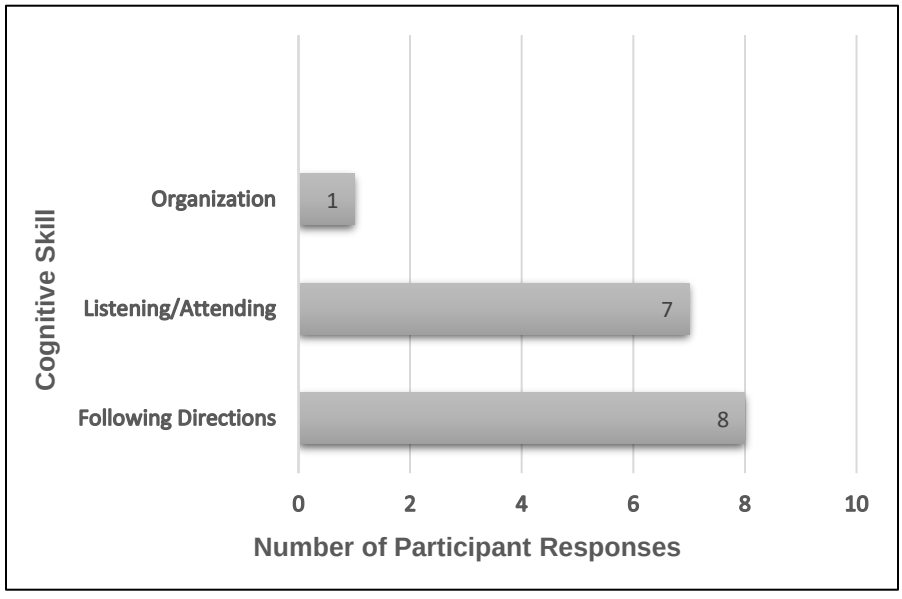


Figure 3

Specific Cognitive Skills Reported as Areas of Concern



was of most concern, followed by seven of eight participants reporting listening/attending, and one of eight reporting organization as a concern (see Figure 3). The fine motor skill most teachers mentioned incoming students struggle with is use of scissors (see Figure 4). All eight participants stated that students are lacking scissor skills, from incorrect grasp of the scissors to awkward positioning of the cutting hand (e.g. upside down and backward). Other fine motor skills teachers reported impacting students' participation in the classroom were students' pencil grasps and their self-help skills, such as washing hands, tying shoes, and managing clothing fasteners.

Skill of Greatest Concern

This researcher hypothesized that teachers would report fine motor skills as their main performance skill area of concern. However, more teachers specifically reported cognitive skills as their predominant area of concern, with fine motor skills as the second area. Five of eight teachers said incoming students' cognitive skills were of most concern to them; three teachers stated that the fine motor skills demonstrated by incoming kindergarteners were most concerning to them (see Figure 5).

Preference for Occupational Therapy Support

All participants reported they would be receptive to support from an occupational therapist as a Tier I provider (see Figure 6). Teachers also commented on additional ways occupational therapists could provide assistance to the general education kindergarten classroom. In-service opportunities during teachers' Professional Learning Community (PLC) times or after work hours was agreeable to some of the teachers. Reference materials and handouts were also acceptable to the teachers as a means of support.

Figure 4

Specific Fine Motor Skills Reported as Areas of Concern

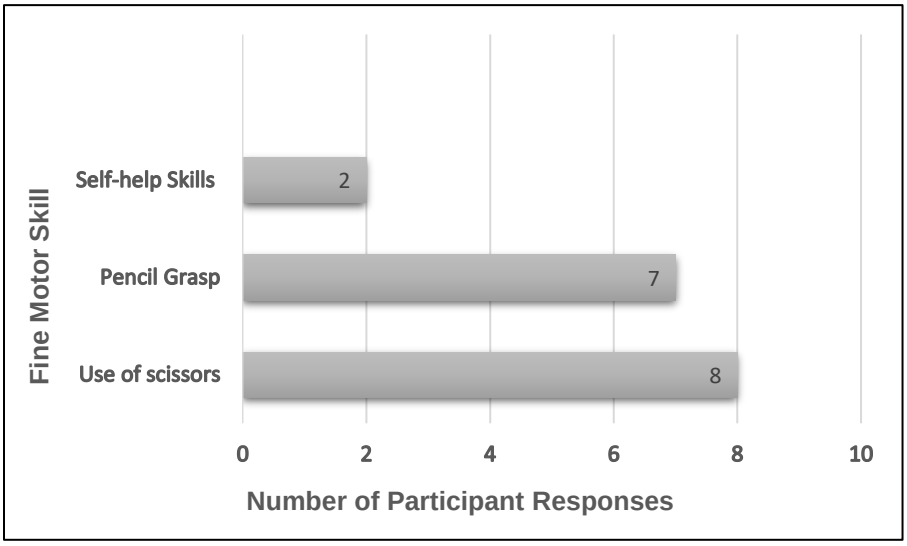


Figure 5

Student Skill of Greatest Concern to Interviewed Teachers

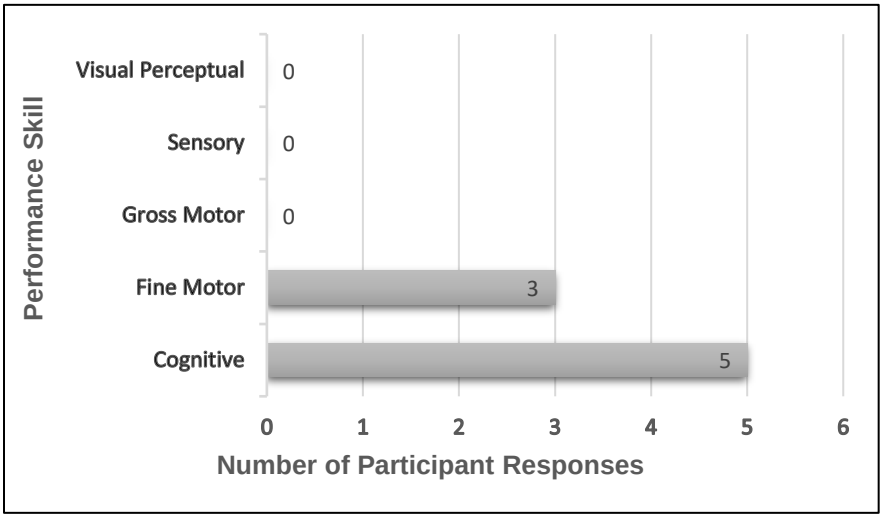
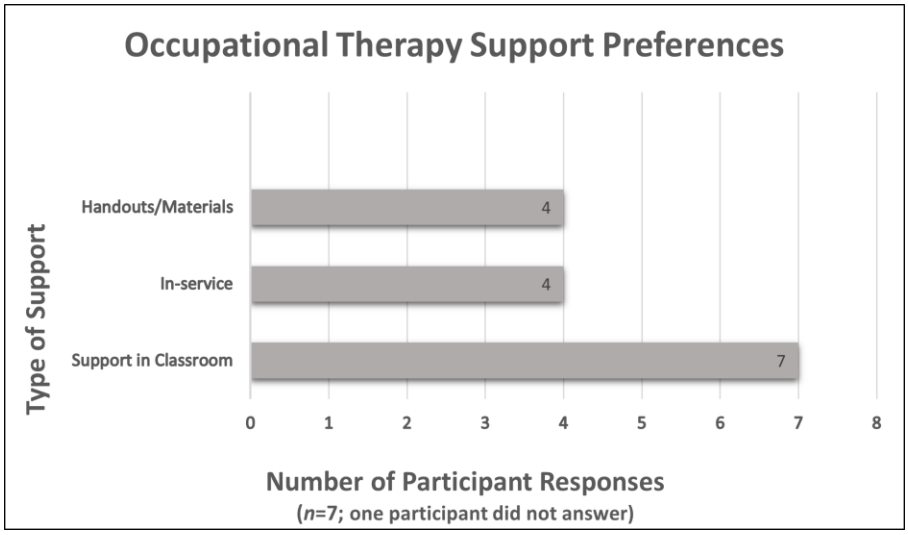


Figure 6

Occupational Therapy Support Preferences



Discussion

The purpose of this study was to determine what assistance kindergarten teachers want from district occupational therapists to facilitate general education students' success were occupational therapy services available within RtI Tier 1 interventions. This study sought teachers' perceptions of the following: 1. Occupational therapy-related student skills that pose challenges for kindergarten students; 2. Identification of which skills are of most concern to kindergarten teachers; and 3. If available, how kindergarten teachers would prefer occupational therapy to support them. Responses to interview questions also gave insightful information regarding teachers' familiarity with OT services and how they acquired knowledge of OT services.

Performance Areas of Concern

Teachers' perception of OT-related performance skills was a main area of this research. Findings in this study support the premise that teachers consider OT-related

skill sets important contributors to overall student success. Performance areas such as cognitive, fine motor, gross motor, sensory, and visual perception were, at varying degrees, areas of concern to this study's kindergarten teachers in their incoming kindergarten students. OT's scope of practice includes cognition and fine motor skills as performance areas that occupation therapists can address (AOTA, 2012; AOTA, 2020). Cognitive skills such as listening to and following directions and self-organization are fundamental skills all students need for successful participation in the school environment (Burchinal et al., 2020). One teacher with 30 years of teaching experience shared concerns regarding students' listening skills. They reported, "I'm seeing a lot of cognitive… Like, they hear, but they don't listen. That's what we've been talking about [in class]. 'You hear my voice, but you're not, you're not listening to what I say.'" Another participant with 13 years of teaching experience shared, "Listening to instructions is like actually probably one of the worst ones, and like the organizational skills… Eighty percent of my class probably has zero like exposure to any kind of organizational practice or like following multiple directions." Although learning these skills are part of the kindergarten curriculum, occupational therapists can assist students and teachers through supports and strategies such as therapeutic activities, staff training, or provision of visual and auditory strategies.

The refinement of fine motor skills is also a large part of the kindergarten student's academic experience through coloring, cutting, writing, and playing. These skills can also present challenges to incoming students. Participants in this study reported that use of scissors is an area of need for incoming students. When asked the skill students struggle with most, one participant shared, "Oh, it's across the board fine motor, absolutely, and

those scissors. Man, that can cause a 5-year old to breakdown in a temper tantrum." Another participant stated, "I feel like, as a rule, children are not cutting and gluing and being allowed to practice those fine motor skills at home as much as maybe they use to." Cutting is a task that involves several fine motor skills including bilateral integration, hand strength, separation of the hand, motor planning, and visual-motor control, all of which occupational therapists are uniquely trained to examine and facilitate refinement of in students (AOTA, 2016; AOTA, 2020). Likewise, development of writing skills and independence with self-help skills are within OT's scope of practice. A large part of school-based OT is supporting teachers with strategies and materials to assist students with their fine motor and visual perceptual skills to be successful with writing and managing their own self-care (AOTA, 2016; AOTA, 2019).

Preference for Occupational Therapy Support

Another major area explored in this study was how teachers would prefer OT support were it available in the study's school district. Many were receptive to in-service trainings. A participant with 18 years of experience said,

> The best thing that would support us would be if we could have a time where we, maybe for an hour after school even, the kindergarten team could meet with an OT and just discuss some of the things that we're seeing with our students and get some feedback, from what we might need to bring attention to their parents and how we can support them in the classroom and to what, some suggestions of things that we can use without having [special education] services for them.

Another participant with six years of experience shared,

> I think, well, all kindergarten teachers would benefit from more, like trainings, like the one we had in our PLC, and then also handouts, but then like after those trainings and learning more about that I think teachers will be able to tell more if a kid needs some, something extra… .

Moreover, another teacher with 18-years-teaching experience in pre-K and kindergarten enthusiastically said,

> And you can quote me saying that if they had on [district learning days], that they had OT for kindergarten I would go to that every single time. I think it would be very beneficial. I feel like a lot of kindergarten teachers would.

With nine years of teaching experience, one teacher suggested,

> If you had time, I think the in-service is nice, but I also know like sometimes people don't want to do that. So even if it was just like an email, if like "Hey, these are some of the things we're seeing. What can we do to work on that?"... Then some kind of handouts or whatever that were specific to the kind of stuff that we were seeing…

All participants were receptive to having occupational therapists in their classroom as RtI providers. Several teachers spoke about the benefits of having access to OT services.

> I think it would be nice especially at the beginning of the year, those kids that are having, that maybe are not, they don't have the right pencil grip or they're cutting with the chicken wings, that if somebody just came through, we're so busy with 18, trying to get everyone to do it right. Sometimes you catch them, but they turn around and do it… .

Another teacher said, "…it would be great to have somebody just to come in, and those kids that are just struggling with just those little, they seem like very minute skills, but it affects, I've seen what it affects in 3rd grade." This teacher spoke to the concerns of providing appropriate support to students in the classroom, "I mean I can give a kid a pencil grip, but knowing what they need, that's where I don't feel trained. I don't want to give them the wrong things." One teacher did say that the spirit in which occupational therapists were in the classroom was important.

> I think a lot of teachers, when people start coming in the classroom it gets kind of nerve wracking, so that's probably why a lot of teachers kinda back away from that. But if it was more like, not a judgement thing, if it was perceived like, "We're just helping you," you know, coming in, I'm sure it would be, but I think a lot of people would rather have the handouts because of that, but I think it would be beneficial to get both, you know.

Supporting teachers and students in the general education classroom is within the OT scope of practice (AOTA, 2012; AOTA, 2019). Occupational therapists providing training to teachers and having a presence through RtI services would be beneficial for teachers and students, as well as for the profession. Teachers and students could benefit from student-specific staff training, detailed supports and strategies for specific classroom needs, and overall facilitation of performance skills necessary to students' academic success. Creating awareness of the profession and the services occupational therapists provide facilitates a larger role for OT in the school setting and promotes the benefits of OT as a whole.

Familiarity with Occupational Therapy Services

This study revealed teachers are not typically introduced to nor informed through their academic preparation of OT's role in the school setting. Only one participant reported they had training in their academic preparation regarding OT's role in the school setting and reported that the training was "very minimal." Another teacher shared they had not heard about OT services in their academic courses, "not even in my special education course I had to take." Teachers in this study reported they did not attend continuing education courses that addressed OT supports in the school system; continuing education courses regarding occupational therapists' role as RtI providers may not be available. Teachers were able to gain some knowledge of OT's role in the school setting through building-level or district-level in-service opportunities. One participant shared, "If I hadn't gone to the trainings that I've been to I wouldn't feel as equipped. I did find both of those to be really helpful. That's been a few years, but I still use them a lot." The chief means of gaining familiarity with OT's role in the school setting was through direct contact with the occupational therapist in the classroom (i.e. an occupational therapists supporting a student with special needs in the teacher's classroom) or through attendance at IEP meetings. A participant with 13-years-experience said, "[IEP meetings are] really where I get a lot of my information, and of course, you know, if it wasn't for that I probably… I would struggle." Another participant with 18-years-experience said, "We've had people during like professional development, bits and pieces of OT, but most of what I've learned has been from having OTs in my classroom and in the building." These results support the need for school-based occupational therapists to educate school personnel and district level administrators about the role of OT and the scope of services

occupational therapists can provide in the school setting (Benson et al., 2016; Bolton & Plattner, 2020; Bradley et al., 2020; Casillas, 2010; Huang et al., 2011; Truong & Hodgetts, 2017).

Socioeconomic Influences on Student Success

Several teachers reported a greater need of support for performance skills among students attending Title I schools than those who were not. Title I status of a school is determined in part by the proportion of attending students living in poverty, and literature shows socioeconomic status (SES) plays a role in student achievement (Kainz, 2019; Paschall et al, 2018; U.S. Department of Education, National Center for Education Statistics, 2017). The same performance skills needs addressed in this study are examined in studies examining academic concerns for low income and ethnically diverse children (Bazyk et al., 2009; Hamilton & Liu, 2018;; Manfra et al., 2017; Morrissey & Vinopal, 2018; Paschall et al, 2018; Shrier, 2014). As providers uniquely qualified to support the development of performance skills significantly impacting educational performance, occupational therapists need to be at the table to advocate for a greater OT presence in the RtI process. In collaboration with teachers, occupational therapists can support students of all backgrounds through RtI interventions, helping to close academic gaps and facilitate greater academic opportunities for all students (AOTA, 2019; USDHHS, 2020).

Limitations

Limitations of this study include the indeterminable impact the long absence from the school environment due to Covid-19 had on kindergarten students' performance skills, and in turn, teachers' responses regarding their concerns of those performance skills.

Additionally, teachers' discussion of concerns may have been influenced by the performance skills list provided for interview purposes. The list was beneficial as it gave a common vocabulary to all participants. Inversely, participants did not necessarily speak to specific performance skills beyond those identified as examples of the specific performance areas provided on the list. Lastly, yes/no questions were not expanded on by some participants and may have prevented the researcher opportunity to have a greater understanding of teachers' needs should additional information from those participants been obtained.

Implications

In Cahill's study (2010), it was recommended that further research examine the role occupational therapists play in RtI and the extent of their contributions. This study recommends the same. The barriers occupational therapists faced ten years ago for provision of RtI services continue to the present (Huang et al., 2011; Bradley et al., 2020). The lack of knowledge of OT's role and scope in the school setting hinders occupational therapists' ability to effectively support teachers and students. There stands to be an indirect relationship between increased OT presence in the kindergarten setting through RtI services and decreased special education referral rates if OT were to play a larger role in the RtI process and research was conducted to examine the impact of those services (Ball, 2018; Cameron et al., 2012, Roebers et al., 2014). Kindergarten teachers perceive OT-related skills as important areas for incoming kindergarten students' success and want occupational therapists' support to help them develop students' performance skills (Benson et al., 2016; Bolton & Plattner, 2020; Nye and Sood, 2020). As this study did not

reach saturation, further examination of teachers' perceptions of OT services may provide additional information to facilitate a larger OT presence in the RtI process.

Future Research

The next step in this line of inquiry could be a pilot study examining district, occupational therapists' provision of services in a manner of Tier I interventions. The study could be developed to collect data from both the teachers' perspective and the occupational therapists' perspective, giving insight to the advantages and disadvantages of OT services in the general education setting from their respective viewpoints. Additional studies comparing utilization of occupational therapists as Tier I providers within multiple, in-state school systems and analyzing outcomes of OT services through Tier I interventions in Title I schools versus non-Title I schools may be beneficial as well.

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Appendix A: IRB

Eastern Kentucky University Institutional Review Board
Application for Expedited Review

This application is to be used to request an expedited review for IRB approval. The investigator must receive approval prior to engaging in research activities involving human subjects.

In order for human subjects research to be reviewed under expedited review procedures, the study must represent not greater than minimal risk to its participants and include only activities that fall within the categories listed in this application (see Section 2).

Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.

Instructions for Applying for Expedited Review

1. All applications for IRB review must be submitted online by the principal investigator.
2. After completing this application form and all required attachments, access the online submission system at eku.inforeadv4.com. Choose Expedited Review Application from the list of available opportunities and click the **Apply** button on the right. If needed, you can filter the category column by Institutional Review Board (Human Subjects Research).
3. If you are a current EKU employee or student, click the option to log in as an EKU user. Your user name and password are the same as what you use to log in to EKU's network. Your user name is not your email address.
4. Complete the basic information in the online application and upload this application form and all required attachments in their original file formats (i.e., Microsoft Word documents). **Please do not convert files to PDFs. PDFs are allowable for signed documents, CITI training documentation, and other files that were provided to you in PDF format. If you copy and paste text into the application's form fields, please format your text to Tahoma font in size 10 prior to copying.**
5. Upon receipt of a new online application, the IRB administrator will review the submission for completeness and return incomplete applications for updates prior to processing.
6. Once an application is accepted by the IRB administrator, it will be assigned to the faculty advisor (if the principal investigator is a student) and the department chair for approvals prior to being reviewed by the IRB.
7. If the IRB reviewers have questions or request updates to the application materials, the principal investigator will be notified by email and asked to resubmit application materials by email.
8. Once the IRB has approved the application, the principal investigator will be notified by email.

Application Checklist

In order for the IRB to consider an application for expedited review, the following items are required:

- ☐ Expedited Review Application (this application)
- ☒ CITI Training Completion Reports for all investigators, key personnel, and faculty research advisors
  Note that the Basic Course for Social Behavioral or Biomedical Researchers is required. The Refresher Course cannot be accepted unless the investigator has previously completed the Basic Course and is using the Refresher Course to renew training credentials.
- ☐ Informed Consent Documents (check all that apply):
  - ☒ Informed Consent Form
  - ☐ Parent/Guardian Permission Form (for parents/guardians of subjects who are children)
  - ☐ Child Assent Form(s) (for subjects who are children)
  - ☐ Request for Waiver of Informed Consent Documentation

As applicable:

- ☒ Recruitment materials (i.e., advertisements, verbal scripts, cover letters, etc.)
- ☒ Instrument(s) to be used for data collection (i.e., surveys, questionnaires, interview questions, assessments, etc.)
- ☒ Letter(s) granting permission to use off-campus facility for research

All documents that will be provided to subjects must include the title of the study.

Application for Expedited Review
Section 1: General Information

1. **Title of Study:**
Occupational Therapy Support in the Kindergarten Classroom through RtI Tier 1 Interventions: Kindergarten Teachers' Perceptions of Need

2. **Principal Investigator:**
Principal Investigator Name: Robyn R. Scarlett
Department: Department of Occuaptional Science and Occupational Therapy
Position: Student

3. **Degree Program, Faculty Advisor, and Committee Members:**
(Skip to Item 4 if principal investigator is not an EKU student)
Degree Program: Doctorate of Occupational Therapy
Faculty Research Advisor: Dr. Leslie Hardman
Committee Members (required for theses, dissertations, scholarly projects, field experience, or other studies guided by an academic committee):
Dr. Jennifer Hight

4. **Other Investigators:** Identify all other investigators assisting in the study. If additional lines are needed, please attach a Continuation Page for Other Investigators.

Name: Click and type. Authorized to obtain consent? ☐Yes ☐No
Responsibility in Project: Click and type.
Name: Click and type. Authorized to obtain consent? ☐Yes ☐No
Responsibility in Project: Click and type.
Name: Click and type. Authorized to obtain consent? ☐Yes ☐No
Responsibility in Project: Click and type.
Name: Click and type. Authorized to obtain consent? ☐Yes ☐No
Responsibility in Project: Click and type.
Name: Click and type. Authorized to obtain consent? ☐Yes ☐No
Responsibility in Project: Click and type.
Please check if a Continuation Page for Other Investigators is attached. ☐

5. **Estimated Duration of Research Project:** upon IRB approval through 6/30/2021
Note that research may not begin until IRB approval has been granted. Projects may be approved for a period of up to three years, after which time, a new application is required.

6. **Funding Support:** Is the research study funded by an internal grant or an external grant or contract? ☐Yes ☒No
Funding Agency: Click and type.

7. **Is the proposed study a clinical trial?** ☐Yes ☒No
Please respond to the following questions to determine whether a study meets the clinical trial definition:
- Does the study involve human participants? ☒Yes ☐No
- Are the participants prospectively assigned to an intervention? ☐Yes ☒No
- Is the study designed to evaluate the effect of the intervention on the participants? ☐Yes ☒No
- Is the effect being evaluated a health-related biomedical or behavioral outcome? ☐Yes ☒No

If the answers are all "yes," the study is a clinical trial. If any answers are "no," the study is not a clinical trial

8. **Risk Category:**
☒ Not greater than minimal risk
☐ Greater than minimal risk, but of direct benefit to individual participants – *Please complete full review application instead of this form.*
☐ Greater than minimal risk and no direct benefit to individual participants, but likely to yield generalizable knowledge about the subject's disorder or condition – *Please complete full review application instead of this form.*

Application for Expedited Review
Section 2: Expedited Review Categories

Research activities may be reviewed through expedited review procedures when the only involvement of human subjects falls within one or more of the categories below and the study represents not greater than minimal risk to its participants. If the study represents greater than minimal risk or if any activities fall outside the categories below, the project is not eligible for expedited review, and the investigator is required to instead apply for full review.

1. Select one or more of the categories below that apply to the research project:

☐ **Category 1:** Clinical studies of drugs and medical devices only when condition (a) or (b) below is met.
- ☐ (a) Research on drugs for which an investigational new drug application is not required. Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review.
- ☐ (b) Research on medical devices for which (i) an investigational device exemption application is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.

☐ **Category 2:** Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows (check one):
- ☐ (a) from healthy, nonpregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or
- ☐ (b) from other adults and children, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.

☐ **Category 3:** Prospective collection of biological specimens for research purposes by noninvasive means.
Examples: (a) hair and nail clippings in a nondisfiguring manner; (b) deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction; (c) permanent teeth if routine patient care indicates a need for extraction; (d) excreta and external secretions (including sweat); (e) uncannulated saliva collected either in an unstimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue; (f) placenta removed at delivery; (g) amniotic fluid obtained at the time of rupture of the membrane prior to or during labor; (h) supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques; (i) mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth washings; (j) sputum collected after saline mist nebulization.

☐ **Category 4:** Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications.)
Examples: (a) physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy; (b) weighing or testing sensory acuity; (c) magnetic resonance imaging; (d) electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, and echocardiography; (e) moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.

☐ **Category 5:** Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).

☒ **Category 6:** Collection of data from voice, video, digital, or image recordings made for research purposes.

☒ **Category 7:** Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

2. Will the study involve any procedures that fall outside the categories selected in Item 1 of this section?
☒ No ☐ Yes (apply for full review)

3. Will the project involve prisoners? ☒ No ☐ Possibly Incidentally ☐ Yes (full review required)
Subpart C: Additional Protections Pertaining to Biomedical and Behavioral Research Involving Prisoners as Subjects requires full review except for research aimed at involving a broader subject population that only incidentally includes prisoners (i.e., a web-based survey that an inmate may be able to access from a prison computer without the researcher being aware of the prisoner status).

Application for Expedited Review
Section 3: Research Description

1. **Background:**
   a. **Provide an introduction and background information for the study and provide a discussion of past research findings leading to this study. Cite literature that forms the scientific basis for the study.**

Nature of Project and Problem Identification

The academic demands for kindergarten students can be challenging with or without previous structured learning experiences such as preschool or a structured child-care program such as Head Start. Within the Individuals with Disabilities Act (IDEA), Coordinated Early Intervening Services (CEIS) allows public schools to provide supportive services to children who demonstrate a need (Dragoo, 2017). Response to Intervention (RtI) is one such approach and is a multi-tiered system that provides successive levels of support for children that have academic or behavioral problems that impact their performance in the general educational setting (Dragoo, 2017). This author works in a school-based setting in which occupational therapy only provides services to kindergarten students with special education programming but is often asked by general education teachers for suggestions and strategies to help their struggling students. These teachers frequently request ideas regarding ways to support developmental challenges in attention, fine and gross motor skills, sensory processing, and visual processing. This author completed a needs assessment to determine what occupational therapy-related areas of need teachers perceived as common among starting kindergarten students, which areas were of most concern to kindergarten teachers, and how kindergarten teachers would prefer occupational therapy assistance if it were made available through RtI programming. The data gave insight to surveyed kindergarten teachers' perceptions of skills sets that may pose challenges to some students' academic progress versus skills sets that many young children struggle with developmentally as they enter the academic setting. Likewise, it was this author's interpretation that areas kindergarten teachers ranked as more concerning to them were areas in which they had less knowledge, specifically motor development and behavior management (that is to say, behavior management for behaviors beyond the bounds of developmental behaviors). Based on the assessment data, it is proposed that other general education kindergarten teachers in the school district may be concerned about the fine motor development of regular education students in their classrooms, as well as students' attention skills, sensory processing skills, and visual perceptual skills, although not necessarily to the same extent.

Problem Statement

General education kindergarten teachers in this study's school system do not have access to occupational therapy services for support of their students that do not have an Individualized Education Program (IEP) or a Section 504 Plan.

Purpose

The purpose of this project is to determine what assistance kindergarten teachers desire from district occupational therapists to facilitate general education students' success were occupational therapy services available within RtI Tier 1 interventions. The domain of occupational therapy is defined in the Occupational Therapy Practice Framework: Domain and Process 3rd edition (AOTA, 2014). Within this document, occupational therapy is defined as "the therapeutic use of everyday life activities (occupations) with individuals or groups for the purpose of enhancing or enabling participation in roles, habits, and routines in home, school, workplace, community, and other settings" (AOTA, 2014a, p. S1). Occupational therapists are uniquely trained to assess occupational needs and provide guidance and assistance to facilitate favorable outcomes for those that struggle with their occupations within various environments (AOTA, 2014b).

Theoretical Framework

For young people, the role of student is often a major life occupation (AOTA, 2016). The Person-Environment-Occupation model developed by Law et al. (1996) provides a guiding framework that considers the interrelationship between the person, his or her occupation, and the environment in which he or she engages in that occupation and how they influence each other, culminating into occupational performance. For example, a student is influenced by life experiences or the absence of experience as it pertains to a certain school-related occupation. The desired school-related occupation can vary from the simple to the complex and require no skill or many. The school environment in which the student engages in the occupation has a strong influence on the occupation in that it can facilitate or hinder the student's ability to successfully engage in the desired occupation. The convergence of these three concepts is a student's

Literature Review

Role Fine Motor Skills Play in Student Success

Literature regarding occupational therapy-related skill sets and their benefits to students' academic achievement are plentiful. In a study completed by Cameron et al. (2012), executive function and fine motor skills were examined in 213 kindergarten students. Their study demonstrated positive correlations between executive function and fine motor skills and student achievement as noted from the study's fall to spring achievements scores. Additionally, this study showed strong fine motor skills were a predictor for academic gains in reading comprehension, letter sound awareness, and letter-word identification. Of note was student performance in the area of copy design, in that it was a significate predictor of student achievement in letter-word identification.

Roebers et al. (2014), in their study, looked at the fine motor skills, executive functioning skills, and non-verbal intelligence of 169 children from kindergarten to second grade. Their study supported fine motor skills play an indirect but significant role in academic achievement. In addition, the authors proposed fine motor skills may be reflective of a child's brain functioning and his or hers higher executive functioning skills to address typical life situations.

Occupational Therapists and RtI

Response to Intervention (RtI) is a multi-tiered system many school districts use to provide successive levels of support for children that have academic or behavioral problems impacting their performance in the general educational setting (Dragoo, 2017). Within the literature examined, there were several studies addressing occupational therapists' participation in RtI programming. Cahill (2010) discussed that occupational therapists are increasingly providing services in elementary school settings through RtI. Through a 6-month, email survey, 12 occupational therapists who participated in RtI teams provided information regarding frequency of input to the team meetings, the general nature of the input, and various questions to determine if and how the therapist's input was implemented. Cahill recommended that further research was needed to examine how many occupational therapists are participating in RtI and to give voice to the extent of their programming contributions.

A study of a 10-week, Tier 1 RtI program addressing fine motor and visual-motor skills in 75 general education kindergarten students was conducted by Ohl, Graze, Weber, Kenny, Salvatore, and Wagreich in 2013. The authors of the study stated that at the time of publication there was little evidence regarding RtI program effectiveness where occupational therapists played a contributing role in the programming. In their study, pre- and post-test scores showed improvements in fine motor and visual-motor skills in students receiving Tier 1 RtI occupational therapy interventions. However, pre- and post-test scores evidenced a slight decrease in those skills in students in the control group. This study provides evidence that occupational therapy services delivered through RtI programming are beneficial to kindergarten students' fine and visual-motor skills development.

Cahill, McGuire, Krumdick, and Lee (2014) examined survey responses of 276 occupational therapy practitioners' participating in RtI programming. Of the therapists surveyed, 214 responded their district had RtI programming, and 122 therapists responded they participated in the RtI programming implemented by their district. The grade levels most occupational therapists worked with were kindergarten and grades 1-3. Of note to this author were the perceived barriers reported by respondents. No precedent for provision of occupational therapy services through RtI programming was reported by 82 occupational therapy practitioners; 72 practitioners reported they did not have support from their administration to participate in RtI.

Kindergarten Teachers Perceptions of Need

There is literature examining kindergarten teachers' perceptions of academic expectations, student readiness, and their own level of knowledge to implement today's standards. Nye and Sood (2018) examined the factors impacting kindergarten teachers' ability to facilitate handwriting skills and the supports they need for handwriting instruction for their students. Nine individuals participated in semi-structured interviews addressing questions regarding handwriting instruction in the kindergarten classroom. Participants discussed the lack of a handwriting curriculum, limited access to occupational therapy services, and a need for handwriting assessment training. Based on the study's findings, the authors discussed the need for teacher-occupational therapist collaboration and development of a collaborative model to bring the knowledge of both professionals together to facilitate handwriting for kindergarten students.

Summary

Articles discussed in this review examined various aspects of student achievement and factors that need to be considered to support kindergarten teachers and their students. Social interaction, processing, and physical skills are equally important areas in a child's development and successful participation in the school setting. School-based occupational therapists are uniquely qualified to support the development of these skills and have an understanding of these skill sets within the context of the academic setting (AOTA, 2014). These articles provide a glimpse of the evidence

that shows non-academic skills have an impact on student achievement, as well as the role occupational therapists can play in supporting kindergarten teachers and student achievement through RtI programming.

2. **Research Objectives:**
   a. **List the research objectives.**

   Objectives of this research are to learn if general education kindergarten teachers want support from occupational therapy for assistance with their students' skill development, and if so, with what skill areas do these teachers want occupational therapy support.

3. **Project Location:**
   a. **Where will the study take place?**

   Knoxville, TN

   b. **If the study will take place at a location other than EKU, attach a letter from an authorized representative of the organization granting permission to use facility for research purposes.**
   ☐EKU only ☒Letter(s) attached

   c. **Will any data be collected through organizations other than EKU?**
   ☒No ☐Yes, complete the following:
   - Will personnel of the organization be involved in the data collection process or have access to data after collection? ☐No ☐ Yes - If yes, list personnel in Section 1, include CITI training documentation, and define role here: Click and type.

4. **Subject Population:**
   a. **What criteria will be used to determine the *inclusion* of participants in the study?**

   Must be employeed by the school district
   Must be general education kindergarten teachers
   Must have 5 or more years of experience teaching general education kindergarten

   b. **What criteria will be used to determine the *exclusion* of participants in the study?**

   Individuals not employed by the school district
   Substitute kindergarten teachers
   Kindergarten teachers with less than 5 years experience teaching general education kindgarten

   c. **Anticipated Number of Participants** *(maximum):* 10
   d. **Age Range of Participants:** 25-65
   e. **Gender of Participants:** ☐Male ☐Female or ☒Gender not considered in subject selection
   f. **Ethnicity of Participants:** Click and type. or ☒Ethnicity not considered in subject selection
   g. **Health Status of Participants:** Click and type. or ☒Health status not considered in subject selection
   h. **Which of the following categories of subjects will be included in the study? Please check all that apply.**
   ☒ Adults
   ☐ College Students age 18 and older
   ☐ Children (under age 18) – complete Section 4
   ☐ Subjects who do not speak and/or read English – *see Translation Certification form and guidance*
   ☐ Pregnant Women (other than by chance)
   ☐ Fetuses/Neonates
   ☐ Hospital Patients
   ☐ Patients at Inpatient Mental Health Facilities
   ☐ Individuals with Impaired Decision-Making Capacity – *complete Section 5*
   ☐ Institutionalized Individuals with Impaired Decision-Making Capacity – *complete Section 5*
   ☐ Prisoners (other than incidentally without the investigator's knowledge) – *apply for Full Review instead of Expedited Review*

☐ Other – Please Describe: Click and type.

5. **Recruitment of Participants:**
   a. **How will prospective participants be identified for recruitment into the study?**

General education kindergarten teachers will be identified through the school district's elementary education department in the form of an email list. Potential participants will be invited via school district email to participate in the research project.

   b. **Describe the recruitment procedures to be used with potential participants identified for the study.**

Kindergarten teachers who respond to the email will be contacted by the principal investigator with a follow-up email to provide information to the teacher regarding the basic interview format, anticipated length of time of the interview, and clarification that the interview will take place after contract hours. Principal investigator will select kindergarten teachers in the school district with kindergarten classes for 8 to 10 kindergarten teachers across the district.

   c. **Recruitment materials to be used:** Check all that will be used and attach copies. The study's title must be included on all documents.
   ☐None ☐Advertisement ☐Flyer ☐Verbal Recruitment Script ☐Cover Letter
   ☒Other: Email requesting volunteers to participate in the research project

6. **Ensuring Voluntary Participation**
   a. **Who will be responsible for seeking the informed consent of participants?**

Principal Investigator

   b. **What procedures will be followed to ensure that potential participants are informed about the study and made aware that their decision to participate is voluntary?**

Participants will sign an informed consent agreement verifying they understand their participation is voluntary.

   c. **How will consent be documented?** If you are requesting a waiver of documentation, please explain here and attach a completed waiver request form.

A signed informed consent form will be obtained from participant prior to participation in interview.

   d. **What consent documents will be used in the study?** Attach copies of all.
   ☒Informed Consent Form ☐Parent/Guardian Permission Form ☐Child/Minor Assent Form ☐Oral Script
   ☐Other: Click and type.

7. **Research Procedures**
   a. **Describe in detail the research procedures to be followed that pertain to the human participants.**
   Be specific about what you will do and how you will do it. If applicable, differentiate between standard/routine procedures not conducted for research purposes and those that will be performed specifically for this study.

A face-to-face, semi-structured interview will be conducted and recorded with eight to ten general education kindergarten teachers from a large southern school district. According to Taylor and Kielhofner (2017), the semi-structured interview offers a few advantages. This method allows control over the structure of the interview by including both fixed-response and open-ended questions. Additionally, the data collected from an interview can provide more detail than that collected through a survey or questionnaire. Data collection through interviews present limitations as well. These include responses that may not be relevant to the information sought and the significant time required to analyze and code responses (Taylor & Kielhofner, 2017). The district's general education kindergarten teachers will be invited to participate in this study by email via the school system's email platform. The email will give a brief description of the study and will contain information regarding informed consent, how their anonymity of participation will be assured through assigned participant codes, that their collected data will be coded or themed, and that the analyzed results will be reported in aggregate. Instructions for completion of consent form should they wish to participate will also be in the narrative of the email. Principal investigator's contact information will be given in the body of the email.

The interview will have a base number of fourteen questions, seven demographic questions and seven classroom-specific questions; the number may expand to include/explore topics which come up during the interview. Prior to the actual interview, the participants will be provided a brief description of occupational performance skills that occupational therapy services support in the school setting to assure understanding of terminology.

The occupational performance skills are as follows:

- Cognitive - (e.g. listening to instruction, following directions, completing multi-step activities)

- Fine Motor - (e.g. grasping a pencil, writing letters, using scissors, managing clothing fasteners)

- Gross Motor - (e.g. sitting or standing, bending to retrieve a pencil from the floor, using appropriate force to open a door)

- Sensory Processing - (e.g. internal processing of touch, tastes, sounds, smells, or visual input)

- Visual Perceptual - (e.g. writing letters of name without a model, matching two objects that are the same shape, finding upper and lowercase A's in different fonts on a letter search page)

8. Potential Risks

a. Describe any potential risks, including physical, psychological, social, legal, or other risks. Note that if identifiable data is used, there are risks to the participants' confidentiality.

No greater than minimal risk.

b. What procedures will be followed to protect against or minimize any potential risks?

Explanation of interview process will be given prior to the interview. Participant has the right to decline to answer any question and stop and/or withdrawal from the interview at anytime.

c. How are the risks reasonable in relation to the anticipated benefit to participants and in relation to the importance of the knowledge that may reasonably be expected to result from the study?

The participants will volunteer 45 to 60 minutes off-contract time to participate in the interview. Participants may read about the study results upon completion of the project. Participation in the interview may result in the participants learning about opportunities for occupational therapy in their classrooms.

d. Will alternative choices be made available to participants who choose not to participate?
☒No ☐Yes, Describe: Click and type.

9. Incentives and Research Related Costs

a. Will incentives be offered to participants? ☒No ☐Yes, complete the following items:

1) What incentives will be offered? Click and type.
2) If monetary compensation will be offered, indicate how much the participants will be paid and describe the terms of payment. If gift cards will be used as incentives, please see Guidance for Projects Using Gift Cards as Subject Payments. Click and type.
3) Describe the method of ensuring that the incentives will not compel individuals to agree to participate in the study. Click and type.
4) Describe how the incentives will be funded. Click and type.

b. Will there be any costs to the subjects for participating? ☒ No ☐ Yes, complete the following item:

1) Describe any costs that will be the responsibility of the subjects as a consequence of their participation in the research. Click and type.

10. Research Materials, Records, and Confidentiality

a. **What materials will be used for the research process?** Include a description of both data collected through the study as well as other data accessed for the study. Copies of all data collection instruments must be attached and must include the title of the study.

A semi-structured, face-to-face interview will be conducted with participants. Interviews will be recorded.

b. **Who will have access to the data?** If anyone outside the research team will have access to the data, provide a justification and include a disclaimer in consent documents.

No one outside of the research team will have access to the data.

c. **Describe how and where research records will be stored.** Note that all research-related records must be securely maintained for a period of three years from the study's completion and are subject to audit. Following the completion of the study and throughout the records retention period, student research records must be maintained by the faculty advisor identified in Section 1, Item 3 of this application or provided to the IRB for records maintenance.

All research-related records will be securely maintained at Eastern Kentucy University, Disney Building, Room 137 in a locked cabinet for a period of three years from the study's completion.

d. **How will data be destroyed at the end of the records retention period** (i.e., shredding paper documents, deleting electronic files, physically destroying audio/video recordings)?

Data will be shredded, deleted, and destroyed as applicable.

e. **Describe procedures for maintaining the confidentiality of human subjects data.**

Identifying information will not be used. Participants will be assigned numbers for coding purposes, and information will be anonymized in the discussion of the findings.

Appendix B: Consent Form

Consent to Participate in a Research Study

Occupational Therapy Support in the Kindergarten Classroom through RtI Tier 1 Interventions: Kindergarten Teachers' Perceptions of Need

EKU

Institutional Review Board
Protocol Number
3400
Approval Valid
7/20/20-6/30/21

Key Information

You are being invited to participate in a research study. This document includes important information you should know about the study. Before providing your consent to participate, please read this entire document and ask any questions you have.

Do I have to participate?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering. If you decide to participate, you will be one of 8 to 10 people in the study.

What is the purpose of the study?

The purpose of the study is to examine kindergarten teacher perception of occupational therapy support for developmental challenges experienced by children in the classroom. You have been invited to participate in this study as you are a current kindergarten teacher in the Knox County Schools system with five or more years of experience teaching kindergarten.

Where is the study going to take place and how long will it last?

The research procedure is a semi-structured interview conducted by the researcher. It will be conducted face-to-face or online at your convenience on a date and at a time mutually agreed upon between you and the researcher. The interview will take approximately 45 to 60 minutes.

What will I be asked to do?

If you give your consent, you will participate in an informal, semi-structured interview with the researcher. The interview will be recorded to ensure the accuracy of collected responses for data purposes.

Are there reasons why I should not take part in this study?

If you are not a current kindergarten teacher employed by Knox County Schools with five years or more kindergarten teaching experience you are not eligible to participate in the study. If you are a substitute kindergarten teacher, you are not eligible to participate in this study.

What are the possible risks and discomforts?

There are no known risks to participating in this study.

What are the benefits of taking part in this study?

A benefit to you for participating in this study is the opportunity to share your professional input regarding developmental challenges kindergarteners experience in the academic setting. Your participation will also provide you with increased

information regarding occupational therapy services in the school environment and occupational therapy-related developmental skills sets that impact student success in the educational environment.

If I don't take part in this study, are there other choices?
If you do not want to be in the study, there are no other choices except to not take part in the study.

Now that you have some key information about the study, please continue reading if you are interested in participating. Other important details about the study are provided below.

Other Important Details

Who is doing the study?
The person in charge of this study is Robyn R. Scarlett at Eastern Kentucky University. She is being guided in this research by Dr. Leslie Hardman at Eastern Kentucky University. There may be other people on the research team assisting at different times during the study.

What will it cost me to participate?
There are no costs associated with taking part in this study.

Will I receive any payment or rewards for taking part in the study?
You will not receive any payment or reward for taking part in this study.

Who will see the information I give?
Your information will be combined with information from other people taking part in the study. When we write up the study to share it with other researchers, we will write about this combined information. You will not be identified in these written materials. We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information or what that information is. Your name will be kept separate from the information you give, and these two things will be stored in different places under lock and key.

Can my taking part in the study end early?
If you decide to take part in the study, you still have the right to decide at any time that you no longer want to participate. There are no consequences if you decide to stop taking part in the study.

What happens if I get hurt or sick during the study?
This study is less than minimal risk of harm; compare to any interview about your teacher role. If you experience physical or emotional discomfort during the interview, you have the option to stop the interview and reschedule or stop the interview and withdraw from the study.

If you believe you are hurt or get sick because of something that is done during the study, you should call Robyn Scarlett at 865-640-4746 immediately. It is important for you to understand that Eastern Kentucky University will not pay for the cost of any care or treatment that might be necessary because you get hurt or sick while taking part in this study. Also, Eastern Kentucky University will not pay for any wages you may lose if you are harmed by this study. These costs will be your responsibility.

What else do I need to know?
You will be told if any new information is learned which may influence your willingness to continue taking part in this study.

You will get a copy of this consent form to take with you.

Consent

Before you decide whether to accept this invitation to take part in the study, please ask any questions that come to mind now. Later, if you have questions about the study, you can contact the investigator, Robyn R. Scarlett at 865-594-4449. If you have any questions about your rights as a research volunteer, you can contact the staff in the Division of Sponsored Programs at Eastern Kentucky University at 859-622-3636.

If you would like to participate, please read the statement below, sign, and print your name.

I am at least 18 years of age, have thoroughly read this document, understand its contents, have been given an opportunity to have my questions answered, and voluntarily agree to participate in this research study.

_____

Signature of person agreeing to take part in the study Date

_____

Printed name of person taking part in the study

_____

Name of person providing information to subject

Appendix C: Application for Permission from School

Application for Permission to Conduct Research within Knox County Schools

(1) Name, mailing address, and e-mail address of the investigator(s).

Robyn R. Scarlett
XXXX XXXXX XXXX XXXX
XXXXXXXX, XX, XXXXX

robyn_scarlett@mymail.eku.edu

(2) Telephone number where the investigator(s) can be reached in the daytime.

XXX-XXX-XXXX

(3) Position(s) of the principal investigator(s) [undergraduate student, graduate student, or college professor (specify institution); Knox County employee (specify job and location); other (specify occupation and affiliated institution, if any).

Doctoral student, Eastern Kentucky University, Richmond, KY

Also,

XXXX XXXXXX XXXXXXX XXXXXXXX
Occupational Therapist
XXXXX XXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

(4) Name and title of the principal investigator's instructor, major professor, or project director (if application).

Dr. Leslie Hardman, Facility Research Advisor
Eastern Kentucky University, Richmond, KY

(5) Title of the proposed study.

Occupational Therapy Support in the Kindergarten Classroom through Response to Intervention (RtI) Tier 1 Interventions: Kindergarten Teachers' Perceptions of Need

(6) Brief description of the proposed study which is not limited to but **must** include the following:

(a) an intended purpose for any data (a report, a dissertation, a publication, etc.),

This research will be part of a Capstone Project to be submitted in partial fulfillment of the requirement for the degree of Doctor of Occupational Therapy. This research will examine the potential value of occupational therapy support as a RtI Tier 1 intervention as it relates to best practice of occupational therapy services in the school setting.

(b) a targeted population (who and how many),

Kindergarten teachers with a minimum of 5 years teaching experience in kindergarten

No more than 10 kindergarten teachers will be interviewed

(c) data collection procedures (if requesting current data, a spreadsheet with the desired fields),

Face-to-face, semi-structured interview; human subjects research training has been completed through Collaborative Institutional Training Initiative (CITI), and a copy of certificate of completion will be attached as a separate document with this application

(d) an estimated time required by Knox County participants (who and what they are being asked to do),

No more than 10 kindergarten teachers will be interviewed; interviews with the principal investigator will take place after contract hours

Estimated time of participation is 45 to 60 minutes

(e) a projected value of the study to Knox County, if any

This study will provide information regarding the possible need for and potential benefits of occupational therapy supportive services to general education kindergarten teachers in areas such as, but not limited to, student development of fine motor skills, calming/attending skills, and visual-perceptual skills. Need(s) identified in this study will be based on participant teachers' perceptions of the following: 1) Occupational therapy-related student skills that pose challenges for kindergarten students; 2) Identification of the skills they see as areas of need for incoming kindergarten students; 3) Identification of which

skills are their priority of concern; and 4) How they would prefer occupational therapy to support them if available.

(7) Single copies of all questionnaires, surveys, tests, answer sheets, structured interviews, or other instruments that will be used by Knox County participants. Each instrument needs to contain a statement indicating that all responses are voluntary

Attached as a separate document with this application

(8) Single copies of cover letters, copies of instructions, parent permission statements (for voluntary student participation).

Attached as a separate document with this application

(9) Approximate proposed dates (length of time) for the beginning and end of the study.

August 3, 2020 – September 28, 2020

(10) If appropriate, agreement to complete the Knox County Schools background check which includes a background check (no cost to participant) and drug screening (at researcher's expense).

XXXXXXXX XX XXXX XXXXXX XXXXXXXX

Appendix D: School Approval Letter

KNOX COUNTY SCHOOLS
ANDREW JOHNSON BUILDING

Bob Thomas, Superintendent

May 19, 2020

Robyn R. Scarlett
7711 Chapel Bend Rd
Corryton, TN 37721

Ms. Scarlett:

You are granted permission to contact appropriate building-level administrators concerning your research study *Occupational Therapy Support in the Kindergarten Classroom through Response to Intervention (RtI) Tier 1 Interventions: Kindergarten Teachers' Perceptions of Need*. Final approval of any research study taking place within the Knox County School system is contingent upon acceptance by the principal(s) at the site(s) where the study will be conducted. Include a copy of this permission form when seeking approval from the principal(s).
Any study involving direct contact with students requires that the investigator(s) complete a background check with the results residing in the Knox County Schools Human Resource department.

In all research studies names of individuals, groups, or schools may not appear in the text of the study unless specific permission has been granted through this office. The principal researcher is required to furnish this office with one copy of the completed research document.

Good luck with your study. Contact me at 865-594-1735 if you need further assistance or clarification of the research policies of Knox County Schools.

Yours truly,

Dr. Laura Denton
Grant Development Manager
Research Committee

Appendix E: Research Request Approval Clarification

[EXTERNAL] Research Request Approval Clarification

Research, Evaluation, and Assessment <REA@knoxschools.org>
Fri 8/21/2020 8:46 AM
To: Scarlett, Robyn R. <robyn_scarlett@mymail.eku.edu>

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Robyn,

As a follow-up to your phone call today (8/21/2020) and after conferring with Steven Rudder, Director of Research, Evaluation, and Assessment, due to the nature of your research, you are permitted to contact Kindergarten teachers directly and request their anonymous participation in your study.

For original project approval, reference approval #192048, dated 5/19/2020.

Sincerely,

Beth Boston, Specialist
Research Committee Assistant

REA
Research · Evaluation · Assessment
Knox County Schools

Appendix F: Guided Interview Questions

Guided Interview Questions for Kindergarten Teachers
RE: Occupational Therapy Support in the Kindergarten Classroom through RtI Tier 1 Interventions: Kindergarten Teachers' Perceptions of Need

Robyn R. Scarlett, MS, OTR/L
Principal Investigator
Capstone Project
Eastern Kentucky University, Richmond, KY

Dr. Leslie Hardman, Facility Research Advisor
Eastern Kentucky University, Richmond, KY

All responses are voluntary.

Demographic Information

1. How long have you taught general education kindergarten?

2. Have you taught other grade levels? If so, which ones?

3. Have you taught in school systems other than Knox County Schools?

4. If so, in what districts and states?

5. Have you had training in your academic preparation, undergraduate or graduate teaching programs, about the role of occupational therapy as a collaborative support service in the school setting?

6. Have you attended any continuing education (face-to-face or online training) that discussed occupational therapy's role in the schools?

7. If no to questions 5 and 6, have you had formal or informal training specific to occupational therapy's roles in the school setting through Knox County Schools? If so, please describe.

Classroom Information

1. What is your average class size?

2. Which skills do you see most students struggle with when they enter kindergarten?*

3. Which of the skills are of most concern to you with incoming kindergarten students?

4. Do you feel you are equipped (e.g. training and materials) to address your area(s) of concern? Please explain.

5. Are you familiar with occupational therapy services in the Knox County Schools setting? If so, have you worked with occupational therapy services regarding a student in your classroom?

6. If available, would you be interested in working with an occupational therapist regarding RtI Tier 1 intervention needs in your classroom? If so, in what ways would you prefer to receive occupational therapy support?

7. Is there anything else you would like to share regarding the addressed performance skills and/or occupational therapy services?

Appendix G: Occupational Performance Skills

*Occupational Performance Skills

- Cognitive - (e.g. listening to instruction, following directions, completing multi-step activities)
- Fine Motor - (e.g. grasping a pencil, writing letters, using scissors, managing clothing fasteners)
- Gross Motor - (e.g. sitting or standing, bending to retrieve a pencil from the floor, using appropriate force to open a door)
- Sensory Processing - (e.g. internal processing of touch, tastes, sounds, smells, or visual input)
- Visual Perceptual - (e.g. writing letters of name without a model, matching two objects that are the same shape, finding upper and lowercase A's in different fonts on a letter search page)