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## Teachers' Perceptions of Needs and Supports for Handwriting Instruction in Kindergarten

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# Teachers' Perceptions of Needs and Supports for Handwriting Instruction in Kindergarten

## **Abstract**

**Background:** This study was designed to explore the perceived needs of kindergarten teachers as well as the supports they require in preparing children for success in the area of handwriting.

**Methods:** A phenomenological research design was used and nine kindergarten teachers employed at four elementary schools in a school district in Illinois participated in the study. Semi-structured interviews were completed to discuss the perceptions of teachers related to challenges they face and the supports they require in promoting the occupational task of handwriting among the children in their classrooms.

**Results:** The results from this pilot study revealed that overall the teachers felt that the lack of a curriculum and formalized training impacted their teaching practices related to handwriting instruction.

**Conclusion:** The teachers stated that gaps in their knowledge base relating to developmental progression, the ability to assist struggling students, an awareness of strategies to use, and the IEP process contributed to their challenges in teaching handwriting to kindergarten students.

## **Keywords**

handwriting, foundational skills, needs, at-risk students

## **Cover Page Footnote**

The first author completed this study as part of the Capstone requirement for the Doctor of Occupational Therapy at Governors State University. The authors have no conflicts of interest to disclose.

In the U.S. school system, handwriting difficulties are a frequent reason for referral to occupational therapy (Benson, Szucs, & Mejasic, 2016). Studies of writing readiness indicate that children do not have the necessary foundational skills for handwriting until they reach the latter part of kindergarten (Daly, Kelley, & Krauss, 2003; Marr, Windsor, & Cermak, 2001; Ohl et al., 2013; Weil & Cunningham Amundson, 1994). Because of increasing academic demands, kindergarteners are often expected to begin the handwriting process early in their kindergarten year. Further, many schools do not have a formal handwriting program that provides structure and follows a developmental progression for skill acquisition (Schlagal, 2014; Troia & Graham, 2003).

Handwriting is a critical component in a child's education. The lack of adequate fine motor and visual perceptual skills can negatively impact the acquisition of handwriting skills as well as have far-reaching consequences in terms of academic success and self-esteem (Feder & Majnemer, 2007; Sharp & Titus, 2016). Students must be proficient in handwriting to produce an acceptable amount of written work to successfully meet the standards of the curriculum and the teacher (Donoghue, 1975; Lamme, 1979; Marr et al., 2001; Tseng & Chow, 2000; Weil & Cunningham Amundson, 1994). This need provides the rationale for accelerating the acquisition of handwriting skills.

Factors both intrinsic and extrinsic to the student impact the acquisition of handwriting skills (van der Merwe, Smit, & Vlok, 2011). Several factors intrinsic to the child are identified in the literature and include visual motor integration, posture, strength, balance, motor control, and an understanding of spatial temporal concepts (Amundson & Weil, 1996; Datchuk, 2015; Marr et al., 2001; Olathe District Schools, 2012; "The Development of Pre-Printing," 2002; Tseng & Chow, 2000; Weil & Cunningham Amundson, 1994). Factors extrinsic to the child include classroom factors, such as seating arrangement; organization of space; visual clutter; classroom noise; lighting; desk or chair height; and instructional factors, such as materials used; procedures; and structure and difficulty level of task (Feder & Majnemer, 2007; Landy & Burrige, 1999; van der Merwe et al., 2011).

### **Teachers' Perspectives on Handwriting Instruction**

Research is emerging and up until 2012 there was little research regarding teaching handwriting to students at a young age; therefore, little is known about how handwriting is taught to young, developing writers (Asher, 2006; Dinehart, 2014; Graham et al., 2008). Graham et al. (2008) identified that the average amount of time spent on handwriting by primary grade teachers was 70 min per week or between 2 min to an hour per day on average. Instruction was typically taught to the whole class, and 61% of the respondents in the study reported using a commercial program to teach handwriting. The teachers reported using a number of procedures for teaching letter formations, and grading was reportedly informal or subjective with legibility noted as the predominant measure used. When asked about their own education relating to teaching handwriting, the teachers indicated a lack of confidence in this area (Graham et al., 2008).

Vander Hart, Fitzpatrick, and Cortesa (2010) conducted an in-depth case study that used several measures of handwriting curriculum and instructional practices in four kindergarten classrooms. The district used a commercial program for their reading curriculum during the daily literacy block. A handwriting curriculum was used on a weekly basis during the daily literacy block. The time allotted for handwriting instruction was 3.3 days per week and the instruction was embedded in the reading curriculum. The teachers reported spending on average 48 min per week on handwriting instruction. An additional 30- min handwriting instructional block was led by the

occupational therapist (OT) on a weekly basis. The 30-min instructional block led by the OT was the only handwriting instruction specifically reflected in the classroom schedule (Vander Hart, Fitzpatrick, & Cortesa, 2010).

The results of the Vander Hart et al. (2010) study indicated that the reading curriculum and the handwriting curriculum were not aligned in terms of sequence of instruction of letter formations and rarely were the same letters being taught between the two programs. The teachers reported using some of the handwriting curriculum prompts during the reading curriculum literacy time block, which was also noted by the OT during classroom observations (Vander Hart et al., 2010). In addition, the pace of instruction was often different and therefore the rate of progression through the program was different between the schools. The teachers expressed frustration with these inconsistencies. Consistent with the findings of Graham et al. (2008), the teachers reported using a variety of methods to teach letter formations with assessments that were primarily subjective in nature. Writing samples were obtained to provide a means of objective measure. These samples were used to compare them to the teacher's assessment as reported on student report cards. Samples were scored according to handwriting speed, fluency, and legibility. In addition, letter recognition was tested using flash cards to present letter formations with scores obtained by calculating correct responses for each in percentages. The teachers reported either no training or informal training in handwriting instruction. As a result, they felt uncomfortable teaching handwriting (Vander Hart et al., 2010).

### **Role of Occupational Therapy Related to Handwriting**

School-based OTs frequently are requested to remediate handwriting difficulties in the classroom (Asher, 2006; Chandler, 1994; Clark-Wentz, 1997; Vreeland, 1999). Although the primary responsibility for handwriting instruction rests on the classroom teacher, the OT is often the one who provides support to the teacher through identification and treatment of deficits that interfere with the acquisition of handwriting skills (American Occupational Therapy Association, 2011; Tseng & Cermak, 1993). The OT's role may include consulting with the teacher to view work samples, providing classroom observation to determine which performance components may be deficient, and assessing which deficits exist and to what extent (Amundson & Weil, 1996; Benson et al., 2016). To that end, OTs use their knowledge related to motor development, visual motor integration, visual perception, fine motor skills, hand-eye coordination, and sensory processing to assist in identifying deficit areas that may be impacting the acquisition of handwriting skills. Adaptive strategies that can be incorporated into the classroom may include slant boards, pencil grips, alternate seating, adaptive paper, the use of highlighting to identify the writing space or writing line, and environmental changes to reduce distractions or noise (Gerde, Foster, & Skibbe, 2014; Schneck & Amundson, 2009).

Collaborative consultation is a standard of practice in school-based occupational therapy that is emerging (Sayers, 2008; Villeneuve, 2009). Morris (2013) described collaborative consultation as a model "rich with promise for the profession in transition in school practice" (p. 3). Morris reiterates findings that practitioners should explore options for service delivery outside of the context of a pull-out model as the key to skill mastery, and that their generalization lies in practice in familiar contexts. Morris further encouraged school-based OTs to depart from the expert model of consultation and embrace the collaborative model of consultation as a means to provide service delivery in the context of the school day (Morris, 2013). This model of service delivery fits well with the mandates of the

Individuals with Disabilities Education Improvement Act of 2004 concerning the least restrictive environments.

The state of Illinois adopted the Common Core Standards as educational benchmarks for K through 12 in 1997. In June of 2010 the standards were revised and stricter standards were put into place for English-Language and Math (“Realizing Illinois,” 2013). As a result, teachers are required to devote more time to instruction in these core subjects, thus leaving little time in the school day to develop the fine motor and visual motor skills necessary for success in handwriting, despite their preparedness to do so (Gallant, 2009). There is limited evidence that discusses the perceptions of teachers related to the challenges they face and the supports they require to promote the occupational task of handwriting among students in their classrooms.

### **Purpose of the Study**

The purpose of this phenomenological study was to explore the needs of kindergarten teachers and the supports they require when preparing children for success in the area of handwriting. This study was designed to answer the research questions:

1. What factors impede kindergarten teachers in facilitating handwriting skills among kindergarten children in their classrooms?
2. What supports do kindergarten teachers require to facilitate handwriting skills among kindergarten children in their classrooms?

### **Method**

#### **Research Design**

The overall study design used for this study was a qualitative phenomenological research design. Phenomenological studies are used to describe the “lived experiences” of several individuals in order to derive common meaning of a concept or phenomenon. The focus is on finding commonality among the participants. The data were collected by the researcher and a description of the experience was formulated for the group following the analysis. The resultant information described “what” the experience was as well as “how” it was experienced (Creswell, 2013). The format of open-ended questions during the interview process was considered an ideal means of capturing the lived experiences of the interviewees (Guest, Namey, & Mitchell, 2013). This type of research design was chosen because the researcher wanted to gain an understanding of the challenges that teachers faced and supports that they required to provide handwriting instruction in kindergarten. The researcher used the information to develop occupational therapy programming to meet the needs of the teachers and students in their classrooms.

#### **Description of Participants**

Participants were recruited from four elementary schools in a school district in Illinois. Kindergarten teachers who were employed full time, held current licensure in the state of Illinois, were willing to participate in the study, and signed a consent form were eligible for inclusion in this study. Teachers who were employed outside of the district and who taught early childhood or later were not eligible for inclusion in the study. Table 1 provides the participants’ demographic information.

**Table 1***Demographic Information*

Gender (%)	
Male	0
Female	100%
Age-mean (Range 29-45 years)	33.3 years
Degree (%)	
Bachelor of Arts	22%
Bachelor of Science	78%
Master of Arts (Secondary Degree)	88%
Educational Major (%)	
Elementary Education	78%
Education	22%
Years Teaching-mean ( <i>SD</i> )	11 years ( <i>SD</i> = 5.28)
Years Teaching Kindergarten-mean ( <i>SD</i> )	9.5 years ( <i>SD</i> = 6.14)
Training in Handwriting Programs (%)	
Formal	11%
Informal	56%
None	33%

**Data Collection Method**

Data were collected through semi-structured interviews. This type of interview was chosen because it allowed for the emergence of other questions during the interviews that could add depth and richness to the interview process (see Table 2). All of the interviews were conducted by the first author of the study. Interviews were voice recorded for transcription. The first author transcribed the interviews verbatim.

**Table 2***Interview Questions*

According to you, what handwriting skills should a kindergarten student have?
How do you promote the development of handwriting skills among kindergarten students? Can you provide examples?
What do you view as the challenges in providing handwriting instruction to your students? Can you provide examples?
How do you currently address those challenges? Can you provide examples?
What do you see as the “gaps” in your preparedness to teach handwriting?
What information would make you better prepared to teach handwriting?
How do you currently access information regarding handwriting instruction?
Does your district currently use a handwriting curriculum? If so, which one?
Identify three areas that you would like further information on in order to provide handwriting instruction.
How do you evaluate a child’s handwriting?
How do you currently assist struggling students in the area of handwriting? Can you provide examples?
What do you think the role of occupational therapy is in handwriting instruction? How can occupational therapy support you in your role of teaching handwriting?

## Procedures

Approval from the Institutional Review Board (IRB) was granted contingent on written approval from the local school district. The researcher procured the necessary documentation and the IRB granted final approval. The researcher then began the process of recruiting participants. Meetings with the potential participants were scheduled during which the purpose of the study was explained, objectives of the program were reviewed, and any questions that the participants had were answered. Following the meetings, consent was obtained from the participants who were willing and able to complete the study. Upon receipt of the signed informed consent forms, the semi-structured in-depth interviews began. Demographic information, including gender, age, degree, educational major, years in teaching, years teaching kindergarten, and training in handwriting programs, was collected from all of the participants. All of the interviews were audio recorded. Following completion of the interview process the recordings were transcribed by the first author of the study.

## Data Analyses

Data were analyzed following the process described by Miles and Huberman (1994). Data reduction began the first step in the analysis process in which the researcher completed multiple readings of the transcripts in order to “organize, manage, abstract, and retrieve” those parts of the data that were most meaningful to the research topic (Carpenter & Suto, 2008, p. 115). The data reduction phase required reading the transcripts from a literal, interpretive, and reflexive perspective. As part of this analysis, the researcher highlighted chunks of data that were felt to inform or to provide insight regarding the purpose of the research or the research questions. The highlighted data chunks were reviewed in order to derive meaning and determine their significance. According to Miles and Huberman (1994), prior understanding of the topic on the part of the researcher and the “conceptual framework developed in designing and implementing the research” is embedded in the decision as to what is considered significant and subsequently coded (as cited in Carpenter & Suto, 2008, p. 116).

In the second step, data chunks were coded or indexed to identify common meanings. Codes were generally a word or phrase that enabled the researcher to cluster data quickly according to concepts or ideas and formulate categories. In the third step the researcher identified relationships between the codes that were formulated in Step 2. Concept mapping and matrices were used in this step to show the relationship in a visual format. During this step, codes were discarded or renamed and categories were reformed or subdivided. Themes were developed following completion of the qualitative analysis process.

## Methods of Validation

Several steps were taken to increase the rigor of the research study. Data analysis was completed by the first author independently through reading and review of transcripts that were transcribed verbatim. The researcher completed member check by providing each of the participants a copy of the transcribed interviews to ensure accuracy of quotes and derive meaning for the purposes of coding. The researcher met individually with the participants to review any changes and clarify meaning prior to developing codes. Of the nine participants, three responded in order to provide clarification of a response. Verbatim quotes were used to support the identification of the themes. Key words were documented in response to each of the interview questions in order to derive commonality. The key words were grouped and assigned a code. Initially, the researcher identified 10 codes. The interpretation of the data was checked by the second author of the study and codes and themes were

confirmed or discarded or renamed. Following review by the second researcher it was determined that there were five codes that could be combined, which resulted in five themes. During the process of data analysis an audit trail along with a detailed coding document was maintained.

## Results

Data were analyzed in order to answer the research questions. Following data analysis, five themes were identified (see Figure 1). The identified themes are presented in order of importance to the teacher participants.

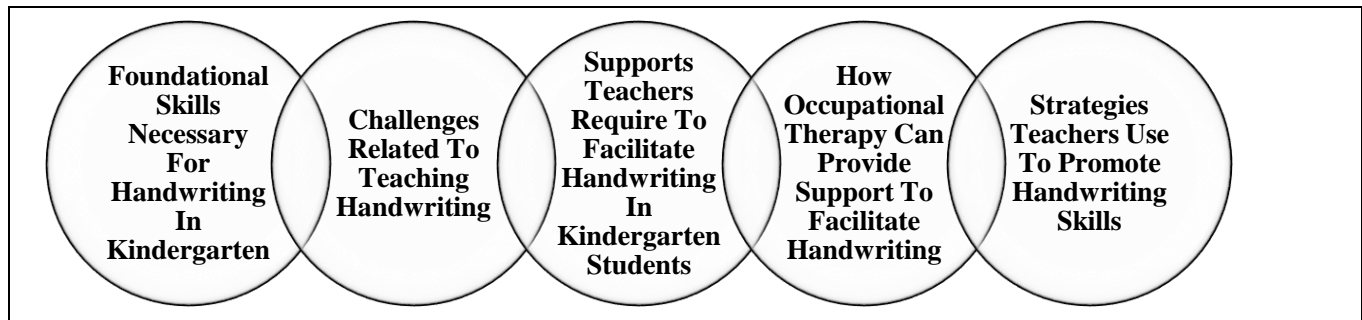


Figure 1. Identified themes.

### Theme 1: Foundational Skills Necessary for Handwriting in Kindergarten

The participants identified several foundational skills that a kindergarten student should have in relation to preparedness for handwriting. The identified skills included demonstration of a functional grasp pattern; spatial organization, including knowledge of concepts such as top, bottom, and middle to correctly place letter formations on the writing line and appropriately size the formations; recognition of both upper and lower case letters; and the ability to complete letter formations correctly. For example, P2 stated, “They should have exposure with letters coming in and exposure to writing them; using correct formation because we move fairly quickly onto using those letters to write words.”

### Theme 2: Challenges Related to Teaching Handwriting

The participants identified two significant challenges that they faced in relation to handwriting instruction: the lack of a curriculum relating to handwriting and the lack of time. The participants cited that the lack of a curriculum had a major impact on their ability to provide handwriting instruction to their students. In addition, they cited a lack of consistency across the district, with some schools using Zaner Bloser and others using “piecemeal” approaches that incorporate components of several programs. The participants felt that the lack of a formal curriculum further impeded their ability to provide effective instruction to their students because, as P3 stated, “it’s hard [be]cause we really don’t have a set curriculum of what we’re supposed to do and how we’re supposed to teach handwriting.”

The second challenge that was most discussed was time, specifically the lack of time. Limited time was compounded by the fact that in this district kindergarten was a half-day program; therefore, time constraints were felt to be more significant. P7 expressed, “The challenge right now is not enough time.”

Additional challenges discussed were the lack of resources, the lack of guidance, decreased access to occupational therapy, and correcting established bad habits. The teachers cited that in terms of resources, they access information from the Internet. Some of the participants stated they access information through “Teachers Pay Teachers,” talking with colleagues, and use of old resources or



“piecemeal” information. In addition, they related that they lacked guidance in terms of teaching handwriting, stating, “It’s hard when we don’t have really a curriculum for it.” Another responded, “We really don’t have, like, a set, you know, curriculum of what we’re supposed to do and how we’re supposed to teach handwriting.”

Access to occupational therapy was felt to be limited due to “packed schedules” and previously mentioned time constraints as well as the IEP process. P9 stated, “I don’t understand how the process works; why it’s difficult to get services for children that need help.”

The participants felt that development of incorrect pencil grasp as well as how letter formations are initiated were significant challenges. P1 stated, “Many children, even by age 5 . . . habits have already formed . . . especially grasp” and further stated, “It’s really difficult to have them break those bad habits.”

### **Theme 3: Supports Teachers Require to Facilitate Handwriting in Kindergarten Students**

The participants reiterated the need for a handwriting curriculum in the district. In addition, the participants indicated that formal training would be beneficial to supporting the needs of their students. The participants wanted to further enhance their knowledge on acquisition of developmental skills as well as how to identify handwriting-related concerns. P3 indicated a desire for more information regarding “what is age appropriate” and “what are all kindergarteners supposed to achieve at that age.” P4 indicated that she would like “more of a background about developmentally how handwriting should come in” and “the progression related to acquisition of handwriting skills.”

Six of the participants discussed that it would be beneficial to have consultation with an OT in the classroom who can monitor handwriting instruction, provide guidance, and address classroom strategies, including how to incorporate play to assist struggling students. Two of the participants specifically recommended that the OT meet with the teachers to provide guidance and an overview of handwriting in terms of how children progress developmentally. P3 stated, “Seeing a lesson being taught one-on-one or to a class would be beneficial in order to have being exposed to more.”

The participants indicated that although they used a variety of means to access information relating to handwriting instruction with evidenced-based practice in the forefront of education, they would, as P1 stated, like more specific information regarding research-based handwriting programs that produce “actual benefits” and are “proven to be effective.”

### **Theme 4: How Occupational Therapy Can Provide Support to Facilitate Handwriting**

In response to the question “How can occupational therapy support you in your role of teaching handwriting?” 100% of the participants indicated that collaboration, co-teaching, push-in, or guidance with an OT was desired. P2 stated, “I think you have a better grasp . . . a different perspective . . . comes from more of a whole child type of perspective.”

The teachers requested more support in the classroom, meaning they would like to see occupational therapy playing a more active role in handwriting instruction through informal training (e.g., lunch and learn opportunities, group instruction, and experience working as a team). For example, P3 requested that an OT “model a handwriting lesson” so that the teachers could “really see.”

All of the participants identified that occupational therapists collaborating with and coaching teachers would be beneficial. P4 and P5 indicated that this could be provided through the OT observing during handwriting lessons and providing feedback to the teacher to guide them in their instructional practices. P6 indicated that this “information . . . is so valuable.” The teachers also indicated that they

would find the input beneficial to “make sure” that they are “doing it right.” Lastly, the teachers identified input from the OT regarding the embedding of activities in the curriculum to promote the development of fine motor skills.

### **Theme 5: Strategies Teachers Use to Promote Handwriting Skills**

The participants discussed several strategies they use when providing handwriting instruction to their students. All of the teachers stated a variety of methods that they used when instructing their students, including practice; review; consultation with an OT; modeling; structured learning activities, such as the use of commercially available handwriting program components; cues; parental and home involvement; highlighting of formations and visual supports; pacing and modifications; RtI programming; hand-over-hand; and use of assistive tools for grasp. In addition, the participants stated that they often incorporated use of activities designed to foster development of foundational skills that may not be adequately developed.

### **Discussion**

The current study focused on identifying barriers faced by kindergarten teachers in facilitating handwriting skills among kindergarten children in their classrooms and the supports they require to facilitate handwriting skills in their classrooms. The identified barriers directly correlated to the perceived supports cited by the participants. There were four important findings from this study.

#### **Finding 1: Lack of Handwriting Curriculum and Need for Training**

The results from this pilot study revealed that overall the teachers felt that the lack of a curriculum and formalized training impacted their teaching practices related to handwriting instruction. These results support a prior study by Graham et al. (2008), which stated that of 169 participants completing a national survey relating to handwriting instruction, only 12% felt that they had been adequately prepared to teach handwriting. In addition, in the current study teachers stated that gaps in their knowledge base relating to developmental progression, ability to assist struggling students, awareness of strategies to use, and the IEP process contributed to their challenges in teaching handwriting to kindergarten students. They identified time as one of the biggest challenges along with the lack of a curriculum. The participants indicated that they would like to have a curriculum that included “formal” training. They specifically requested that the OT provide the training along with education related to foundational skills via “lunch and learn,” in-service, modeling of lessons, and ongoing consultation and problem solving meetings. This recommendation further supports findings from the Graham et al. (2008) study.

#### **Finding 2: Access to Occupational Therapy Services**

Another area of need appeared to be access to information regarding handwriting instruction and the availability of occupational therapy services. Occupational therapy services were considered an asset; and yet, due to time constraints on both the OTs and the teachers, this was felt to be an area where occupational therapy was not being used as effectively as it could be. Gerde et al. (2014) discuss the fact that OTs are “uniquely qualified to be key point people” (p. 1) in the writing development of young children and suggested that an OT has the opportunity to become an integral member of the literacy education team through his or her “expertise in writing development and strategies to support writing with the general education teacher” (p. 14). Findings from a study by Benson et al. (2016) reiterated that teachers wanted more availability of occupational therapy services. In the current study the teachers

specifically indicated that they wanted more professional development in the areas relating to foundational skills (motor development, visual perception, etc.).

### **Finding 3: Teacher Training in Handwriting Assessment**

The teachers indicated that grading handwriting was subjective and informal. Overall, the participants indicated that the evaluation of skills in the area of handwriting was inconsistent, at best. The participants referenced the approach of comparing students to each other; individual progress monitoring; grouping of kids according to skill levels; looking at the foundational skills (grasp, letter formations); spatial organization of the writing, including spacing between and within words; placement of formations on the writing line; and overall legibility. These findings are also consistent with the findings of previous studies that indicated teachers use subjective assessments, often noting spacing and legibility and selecting students' "best handwriting" for display (Graham et al., 2008, p. 60). Vander Hart et al. (2010) cited speed and legibility of writing tasks, such as alphabet writing and copying, as measures used for report card grading. These studies indicated that spacing and legibility were components of their assessments; however, they reported that assessments were subjective in nature. In the current study the teacher participants indicated that they wanted to complete more objective assessments supported by evidenced-based criteria and developmental and age expectations.

### **Finding 4: A Need to Create a Collaborative Service Delivery Model to Address Handwriting Concerns among Kindergarten Students**

The findings from this study lead the authors to discuss the need to develop a collaborative service delivery model in which an OT serves as a coach to the teachers. The International Coach Federation (ICF; <http://www.coachfederation.org>) developed a definition that would encompass all types of coaching (e.g., executive, leadership, life). Their aim was to establish standards for coaching, maintain those standards, and advance the practice of coaching (Rush & Sheldon, 2011). The ICF defines coaching as an ongoing relationship which focuses on coaches taking action toward the realization of their visions, goals or desires. Coaching uses a process of inquiry and personal discovery to build the coachee's level of awareness and responsibility and provides the coachee with structure, support, and feedback. (as cited in Rush & Sheldon, 2011, p. 3)

A potential coaching model can include observations of teachers during handwriting instruction with follow-up discussions to provide feedback relating to instructional practices; education relating to factors impacting skill acquisition, including child factors and environmental factors; guided practice and modeling of lessons; collaboration to develop strategies to assist struggling students; and opportunity for reflection both from the coach and the coachee.

### **Limitations of the Study and Future Direction**

This study was completed in one school district with a small sample of kindergarten teachers. The study was completed in one geographical area of the Midwest and may not be representative of teacher perspectives in other areas of the US or the state of Illinois in general. Increasing the sample size and expanding the geographical area may assist in identifying trends in teacher perspectives relating to their preparedness to teach handwriting to young writers. In the future, the authors want to develop a collaborative model to support teachers to enhance their teaching practices related to handwriting using the principles of coaching.

## Implications for Practice

The findings from this pilot study present a potential shift in the role of occupational therapy in school-based practice. OTs should consider working with teachers to provide input and education related to topics relevant to handwriting instruction. In addition, OTs should assist the teachers to develop a “toolbox” of strategies to assist students who are struggling with handwriting.

The findings from the present study highlight the need for OTs to serve as coaches for the teachers. The purpose of coaching, according to Rush and Sheldon (2011), is to acknowledge the existing body of knowledge and practices being used as well as potentially enhance that knowledge while facilitating the coachee to engage in a continual process of self-reflection and learning. This fosters a collaborative relationship with individual teachers, and it tailors the program to meet individual needs. Through this collaborative relationship one builds on existing knowledge and allows for an open dialogue between the OTs and teachers to best meet the needs of the students in their classrooms.

Coaching presents a unique combination of education, observation, and collaboration. Studies support inclusion of an OT in the classroom setting, as it benefits the entire class (Campbell, Missiuna, Rivard, & Pollack, 2012). OTs can use this approach to identify areas of concern and evaluate “what works” through the collaborative process. The use of coaching is a viable process in the development of a different type of service delivery model in the context of school-based practice. To begin such a process, OTs need to reflect on how they facilitate best practices in their individual setting and how they best meet the diverse needs of the students they service.

## Conclusion

The results from this study provided insight into the challenges that kindergarten teachers face in teaching handwriting to their students. This study may foster collaboration between OTs and teachers for program development to meet the identified needs. OTs have a unique skill set that can contribute to the development of writing skills in young children. The participants of this study indicated that they wanted and needed support from an OT to meet the challenges they face when providing handwriting instruction in their kindergarten classrooms.

With the changing climate in the school environment, empowering the teachers and fostering a “partnership” between occupational therapy and educators will only serve to benefit the students, thus giving them skills that will foster self-esteem and success throughout their academic careers.

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