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The Mainstream Kindergarten Teacher's Perspective of Pragmatic Skills of Children who are
Deaf or Hard of Hearing Aligned with Common Core Standards

by
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A project submitted in partial fulfillment of the requirements for the degree
of

MASTER OF EDUCATION

in
Communicative Disorders and Deaf Education

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Introduction

Pragmatics, or social/emotional skills are learned early in life by most typically developing children (DeLuzio, Girolametto, 2011). According to the American Speech-Language-Hearing Association (ASHA), social/emotional skills involve three major communication strategies. These include 1) using language for different purposes such as greeting, informing, requesting, 2) changing language depending on the relationship with the listener, and 3) following conversational and storytelling rules such as taking turns in conversation, staying on topic, using non-verbal signals, and maintaining appropriate body position and eye contact (ASHA, 2013). Social/emotional skills among children entering into the mainstream kindergarten setting, according to early childhood core state standards, include a development of self-awareness, positive self-esteem, and skills that promote positive interactions with others (Utah State Office of Education, 2013). Success in these social/emotional skills among young children generally contributes to kindergarten readiness.

Early childhood core state standards are an effective tool for early childhood educators as they teach their students social/emotional skills. For example, Utah's Early Childhood Core Standards (Utah State Office of Education, 2013) provide a concise yet detailed curriculum for early childhood educators to reference as they plan and implement lessons in their classrooms. The section "Social/Emotional and Social Studies" provides pragmatic standards expected of children entering preschool and continuing through the end of kindergarten. Educators can reference these early childhood core standards throughout the school year, implementing appropriate skills within their classroom setting.

Participation of Preschool Children who are Deaf or Hard of Hearing

Consistent with federal mandates under the Individuals with Disabilities Education Act (IDEA) most children with disabilities are fully or partially integrated into mainstream educational settings with their typically developing peers. This includes children who are deaf or hard of hearing (DHH) (IDEA, 2004). Part C of IDEA emphasizes the need for appropriate and effective early intervention services to optimize child growth and development in preparation for successful school entry (IDEA, 2004). It is intended that these early interventions will give children who are DHH the skills necessary to be prepared for the mainstream kindergarten classroom by the time they reach kindergarten. Therefore, it is important that early interventionists are aware of the early childhood core standards, including social/emotional and social studies, as they help these children prepare for this setting.

Early Identification and Early Intervention

As of 2007, approximately 97% of newborns in the United States are screened for hearing loss prior to discharge from the hospital, compared with just 3% of newborns screened in 1995 (White, 2013). With the success of newborn hearing screening programs, the average age at identification fell from 30 months prior to screening to approximately 2-3 months (Forsman & Eichwald, 2010). Children born with hearing loss benefit significantly when they are identified and receive early intervention services starting at birth and continuing through the preschool years (Eriks-Brophy, et. al, 2012, Goberis, et. al, 2012). Such early intervention includes preschool programs where teachers prepare children with the listening, language, literacy, cognitive, and social/emotional skills needed to successfully enter the mainstream kindergarten classroom.

Because of newborn hearing screening programs, early intervention services, combined with advanced hearing technology (e.g., digital hearing aids, cochlear implants), many children who are DHH use listening and spoken language as their primary mode of communication and participate in the mainstream setting at their local neighborhood schools.

Hearing Technology

In addition to early intervention services in the form of preschool and therapy programs, children who are DHH can benefit significantly from appropriate hearing technology. The most common hearing devices used in the pediatric population are hearing aids that fit behind the ear. The hearing aids are connected with an ear mold that fits into the ear canal to direct the flow of sound into the ear. For children with little or no residual hearing who do not benefit from hearing aids, cochlear implants may be the technology of choice for accessing sound. A cochlear implant differs from a hearing aid. Rather than amplifying sounds (making them louder), the cochlear implant captures sound, and using complex algorithmic processing stimulates the auditory nerve to send signals into the auditory centers of the brain.

Children who use hearing aids or cochlear implants must learn how to utilize input from the technology so that sounds become linguistically meaningful for the development of spoken language. Cunningham (2013) reports that “early intervention in the form of hearing aids, FM systems and/or cochlear implants is the most important component to help the hearing impaired child access sound,” (p. 11-1).

It is particularly important for children who are DHH to receive services from a pediatric audiologist who has expertise in selecting and fitting current amplification technology to infants and young children (Cunningham, 2013). Appropriate hearing amplification is a key factor in

helping children who are DHH to be ready for the mainstream kindergarten classroom. Without it, social/emotional skills would be difficult, if at all possible, to learn and maintain.

Social/Emotional Development

Children who are DHH and identified at a young age, and whose families wish for them to use listening and spoken language, are able to participate in early intervention services that have a primary focus on auditory perception and language development. Included in early intervention language goals should be a priority of helping children to develop age-appropriate social/emotional skills.

Several researchers have evaluated social/emotional skills of children who are DHH compared with same aged hearing peers (Brown, Bortoli, Remine, & Othman, 2008; Brown, Remine, Prescott, & Rickards, 2000; DeLuzio & Girolametto, 2011; Duncan, 1999; and Roberts, Brown, & Rickards, 1996). For example, Goberis, Beams, Dalpes, Abrisch, Baca, & Yoshinaga-Itano (2012) extensively evaluated children who are DHH and their pragmatic (social/emotional) development. They described this area of development as a “missing link” for children who are DHH due to the lack of intervention strategies used to teach these skills. This study found that children who are DHH often have age appropriate vocabulary and syntax skills, yet may not have learned how to implement these skills in the social context. Results showed that by age 6, children with typical hearing were able to master items on the Pragmatics Checklist (Goberis, 1984) with 100% accuracy, while children who are DHH were able to master only 6.6% by age 6 and 68% by age 7. This suggests that, although young children who are DHH are able to successfully acquire these skills, they learn and implement them at a much slower rate than children with typical hearing, even when they have received early intervention services.

Children with typical hearing generally acquire appropriate social/emotional skills between 3 and 4 years of age (Goberis et. al., 2012). Once these skills are acquired, children are able to use what they know and develop complex language.

Similarly, DeLuzio and Girolametto (2011) evaluated 12 children who are DHH and their peer interactions in preschool. They found that even though children who are DHH did not differ from their hearing peers in initiating social interactions (e.g. frequency of initiations, response to others' initiations, and skill in maintaining peer interactions), peer responses were fewer when children who are DHH would initiate a social interaction. This may be because children who are DHH use different styles of peer interaction strategies. For example, children who are DHH are more likely to use an approach of waiting and hovering (almost twice as much as their peers) and are less likely to use an approach of a related activity. Children who are DHH were systematically excluded by their hearing peers by responding less often and providing fewer initiations for them to interact (Girolametto & DeLuzio, 2011).

Core Standards of Social/Emotional and Social Studies

Early childhood core standards were created from a national effort to develop Common Core State Standards (CCSS) for children from kindergarten through twelfth grade (Watt, 2011). Children were compared among different state expectations and standards as well as international expectations and standards. It was discovered that an imbalance in the expectations and manner in which children are educated exists within states, nationally, and internationally. In an effort to balance educational expectations and policies on both the national and international level, the CCSS (for grades K-12) were developed. Currently, the majority of states have adopted the CCSS and are in the process of implementing them in their educational systems. As

a result, more is expected of children in the mainstream classroom in the topics of math, science, and literature. These higher standards include children who are DHH and participate in the mainstream classroom (ASHA, 2013).

In an effort to help children maintain these higher standards, educators began looking to early childhood educators to help build a good foundation for children at younger ages. Thus, many states have adopted Early Learning Guidelines (ELGs) in an effort to help early childhood educators as they prepare their students for kindergarten (Watt, 2011; Daily, Burhauser, and Halle, 2012). To ensure that young children who are DHH develop appropriate social/emotional skills, early childhood educators may reference their ELGs. These standards are a developmentally appropriate and evidence-based tool to help early childhood educators prepare their students for kindergarten. For example, Utah's Early Childhood Core Standards (Utah State Office of Education, 2013) provides a baseline of where most children are expected to be in areas including academics (math, science, reading, and art), social/emotional skills and social studies, and physical health and safety. These standards are available for educators of children who are just beginning preschool through the end of kindergarten (Utah State Office of Education, 2013). Because of the added effort needed to help children who are DHH to be prepared for the mainstream kindergarten classroom, early interventionists of children who are DHH may also use ELGs as a reference to preparing their students.

Social/Emotional Checklists and Assessments

Checklists and standardized assessments that evaluate social/emotional skills are two types of measurements that professionals and caregivers can use to measure and monitor pragmatic skills among children who are DHH.

Some checklists, such as the Pragmatics Checklist (Goberis, 1999) include a measurement of social/emotional skills expected in children as young as three and as old as six, while others, such as the Children's Communication Checklist (Bishop, 1998) and the Chapel Hill-Carrboro City School's Teacher's Rating Scale: Pragmatic Language Skills Grades K-3 (ASHA, 2013) include a measurement of social/emotional skills among children starting at the kindergarten level. Regardless of the source, these skills look at a complex outline of social/emotional skills of children, including non-verbal and verbal communication, stating needs, giving commands, and other topics consistent with national recommendations pertaining to social/emotional communication.

Standardized assessments are resources that measure social/emotional performance levels for kindergarten readiness. Two examples are the Preschool Language Scale, 5th Ed (PLS-5), and the Clinical Evaluation of Language Fundamentals - Preschool (CELF-P). These assessments compare children with a national standard based on typically developing, same age peers and are commonly used in educational settings to evaluate expressive and receptive language skills. Social/emotional skills are embedded as subcomponents within these assessments to evaluate child performance as compared with the standardization sample. Language and social/emotional performance levels can be used to assist in determining educational needs and kindergarten readiness in the mainstream setting.

Importance of Social/Emotional Skills in Kindergarten Readiness

Kindergarten readiness among typically developing children is difficult to define. Differences in opinions provide a definition of kindergarten readiness that can be seen as a spectrum, ranging from a heavy emphasis of academic achievement to a heavy emphasis in

social/emotional skills (Kim, Murdock, and Choi, 2007). Kim, Murdock and Choi conducted a study that identified parents' perceptions of what they consider to be important factors of kindergarten readiness. Their study looked at the National Household Education Survey (NHES: 93), which asked parents of children ages 3-8 to rate the importance of skills that constitute kindergarten readiness. These skills included counting to 20, taking turns and sharing, enthusiasm and curiosity, using pencils and brushes, sitting and paying attention, knowing the alphabet, and communicating verbally. The study found that, in general, parents believe that social/emotional skills are more important for kindergarten readiness than academic skills (Kim, et. al., 2007).

One of the challenges in preparing young children for kindergarten is a high focus on language and mathematics and often exclusion in areas such as social/emotional development (Daily, et. al., 2012). Many different early childhood initiatives, such as providing quality care and easier access to programs such as preschools (Head Start, Early Head Start) have aided in preparing young children for kindergarten. Government interest has brought forth other programs, such as Good Start, Grow Smart, introduced by the Bush administration in 2002. Initiatives such as ELGs are continually being evaluated and improved to help early childhood educators prepare children for kindergarten (Daily, et. al., 2012).

Transition of Children who are DHH into Mainstream Settings

Little research has been conducted in regards to the transition of children who are DHH into mainstream educational settings. Of the research found, much of it relates to children in grades K-12 who experience a transition into the mainstream setting when they are ready, which could occur at any age or grade (Rugg & Donne, 2011). However, because of early identification

of hearing loss and therefore early intervention, children who are DHH are more likely to be prepared for the mainstream classroom by the time they reach kindergarten (Thagard, Hilsmier, & Easterbrooks, 2011).

Rugg and Donne (2011) surveyed 12 parents and 7 teachers utilizing interview and written responses that queried their perception of child readiness prior to entering the mainstream setting. An overall positive perception of transition into the mainstream setting was received by both parents and general education teachers, even though the process took time, planning, preparation, and a combined effort from the team involved in the transition process. The study also showed that the success of transition among the children who are DHH into the mainstream setting varied among the students (Rugg & Donne, 2011). Few instances of in-classroom assistance for students who are DHH were required, and most of the students who are DHH continued to receive services outside the classroom from which they transitioned.

Although information from studies such as Rugg and Donne (2011) provide useful information in regards to transitioning children who are DHH into the mainstream setting, no studies could be found that examined the mainstream kindergarten teacher's perspective. Such a perspective will allow professionals to better determine if the strategies used during early intervention are successful. The purpose of this study was to gain a mainstream kindergarten teacher's perspective of the social/emotional skills of kindergarten children who are DHH and who use hearing aids or cochlear implants for listening and spoken language, as well as to gain the mainstream kindergarten teacher's perspective on personal readiness to teach children who are DHH in their classroom. This perspective will assist in determining if the early intervention strategies used by early childhood educators are successful and will contribute to a greater understanding of social/emotional performance of children who are DHH in general education

classroom settings. It will also assist in knowing what information will be helpful to pass on to teachers who will receive students in their classroom who are DHH.

Method

This study used a cross-sectional survey design, containing both quantitative and qualitative data. An electronic survey questionnaire (Patten, 2011) was developed to evaluate teacher perceptions of social/emotional skills of kindergarten children who are DHH in their classroom. The survey questions queried kindergarten readiness as aligned with the Common Core Standards for Social/Emotional Development (Utah State Office of Education, 2013). Respondents also provided recommendations and feedback for promoting social/emotional development in young children who are DHH.

Distribution of the survey began October 2013 and remained open for approximately 6 weeks. Reminder emails were sent two weeks after the initial distribution and again at 4 weeks after the initial distribution.

Participants

Participants for this study were kindergarten teachers in mainstream school settings, both with and without children with hearing loss in the class. Participants who had a child with hearing loss in their class responded to 12 questions regarding social/emotion development as aligned with the Common Core Standards for kindergarten readiness. They also provided feedback and recommendations for improving supports for children with hearing loss in the

general education classroom. All participants provided feedback and suggestions for early interventionists to help children to socially and emotionally prepare for kindergarten entry.

The survey was electronically distributed to potential participants across multiple geographic regions of the United States, categorized as West coast, Midwest, Northeast, Southwest, and Southeast. Potential participants were identified by obtaining a list of general education kindergarten programs, compiled from a randomized web search of schools to encompass a broad geographic representation.

Results

Participant Demographics

The total number of email links distributed was 1,598. Of those, 171 participants responded to the survey, resulting in an approximate 11% return rate. Actual return rate was difficult to calculate due to potential undeliverable web addresses. Thirteen survey participants indicated they had a DHH child in their classroom and 158 respondents indicated that they did not currently have a DHH child in the class.

Despite attempts at equal geographic survey distribution, the largest number of surveys were received from the Western and Midwest regions of the U.S., although all regions had some representation. Survey respondents were predominantly from urban territories (84%). Because it was not possible to identify urban vs. rural school districts in the initial survey distribution, it was not known how many rural school districts received the survey link. The majority of overall respondents reported being a Title 1 school (59%). Of the 13 participants with a DHH child in

the classroom, 10 children used English as their first language, one child used English as a second language, and two children used American Sign Language. Additional participant demographic data are shown in Table 1.

Table 1. Participant Demographics

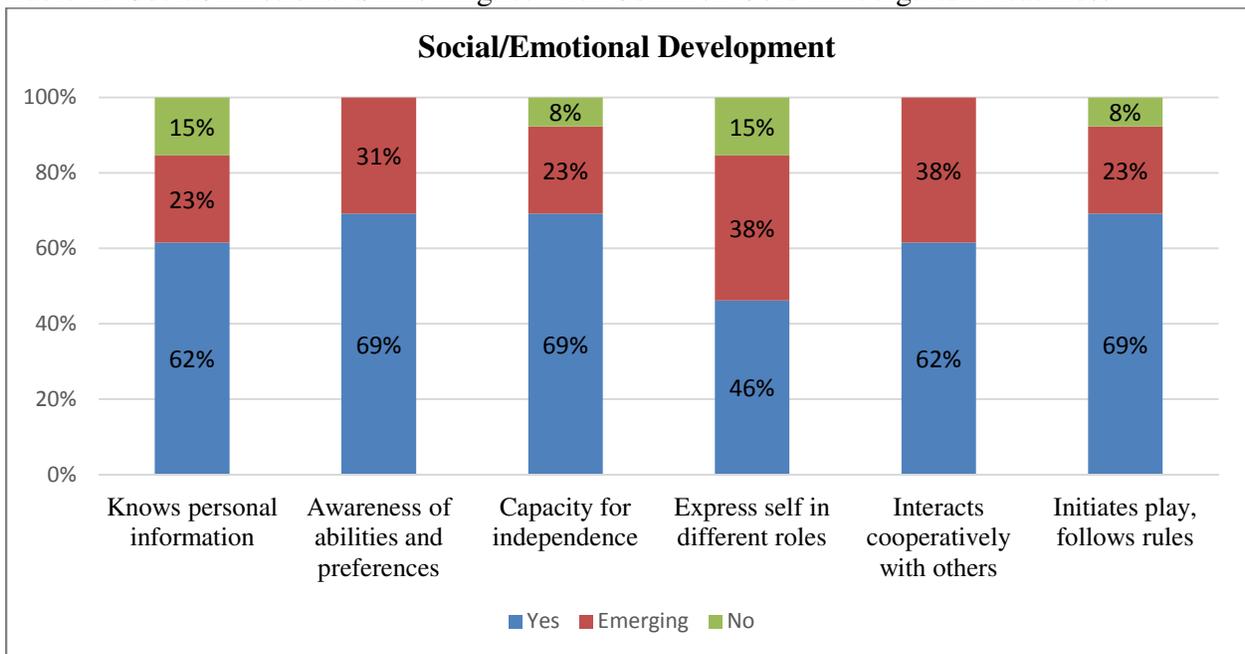
Participant Demographics (n=171)			
	Teachers with DHH Children in Classroom (n=13)	Teachers with No DHH Children in Classroom (n=158)	TOTAL (n=171)
Western Region	3 (24%)	49 (31%)	52 (31%)
Midwest Region	5 (38%)	42 (27%)	47 (27%)
Southwest Region	2 (15%)	17 (11%)	19 (11%)
Northeast Region	2 (15%)	12 (7%)	14 (8%)
Southeast Region	1 (8%)	38 (24%)	39 (23%)
Urban	12 (92%)	132 (84%)	144 (84%)
Rural	1 (8%)	21 (13%)	22 (13%)
Not sure	0 (0%)	5 (3%)	5 (3%)
Title I – Yes	5 (38%)	96 (61%)	101 (59%)
Title I – No	8 (62%)	57 (36%)	65 (38%)
Title I – Not sure	0 (0%)	5 (3%)	5 (3%)
English	10 (77%)	n/a	10 (77%)
English – Second Language	1 (8%)	n/a	1 (8%)
ASL	2 (15%)	n/a	2 (15%)

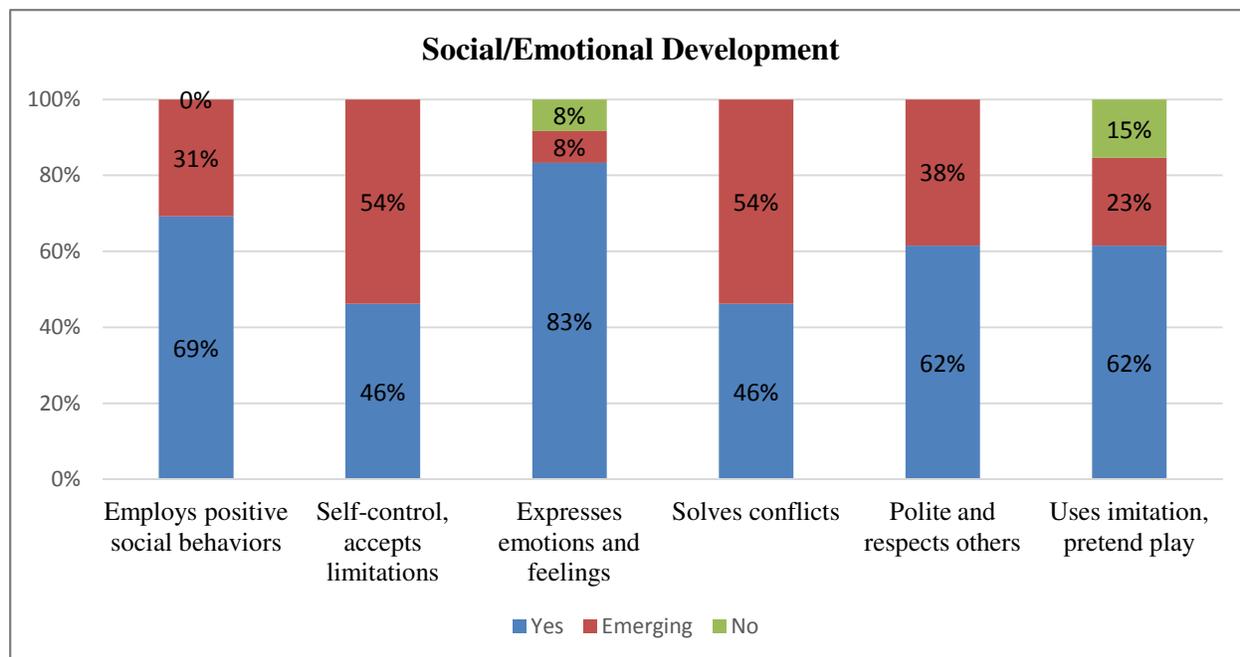
Social/Emotional Development of Children who are DHH in the Classroom

Survey participants with a child who is DHH in the class responded to 12 questions concerning the child’s social/emotional development as aligned with kindergarten readiness in the Common Core Standards. Teachers rated each skill as ‘yes’ (the child displays the skill consistently), ‘emerging’ (the child is beginning to display the skill but is not consistent), or ‘no’ (the child does not display the skill).

Of the 12 social/emotional skill questions posed, at least 60% of the DHH children consistently displayed the common core skill areas in nine categories. Fewer than half of the children consistently displayed the ability to express themselves in different roles, demonstrated self-control and accept limitations, and showed an age-appropriate ability to resolve conflicts. However, social/emotional skill development was either present or emerging in nearly every category, with very few children rated as not displaying one of the common core skills (see Table 2).

Table 2. Social/Emotional Skills Aligned with Common Core Kindergarten Readiness





Teacher Confidence in Serving Child who is DHH

Respondents who had a child who was DHH in their classroom provided feedback concerning their perceived level of readiness in serving that child. As shown in Table 3, most teachers expressed some degree of comfort in serving a child who is DHH in the general education classroom. Most respondents also reported having adequate support from other professionals, such as audiologists, deaf educators, and speech-language pathologists. However, a considerable number of teachers expressed the need for additional training in understanding the features and functions of hearing aids and cochlear implants. The need for training was greatest for children who use a cochlear implant, with just 39% of teachers having an understanding of the use and management of cochlear implants.

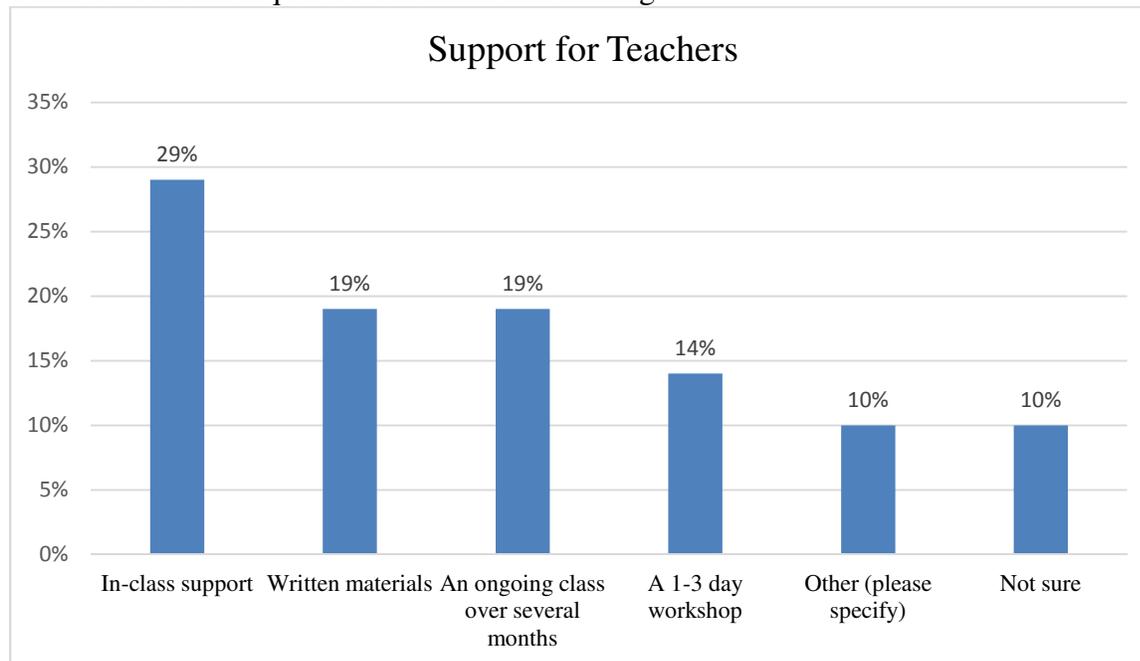
Table 3. Teacher confidence in serving children who are DHH in general education (n=13)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I felt ready to start the school year with my student who is DHH	23%	54%	8%	15%	0%
I feel confident in teaching students who are DHH	15%	77%	0%	8%	0%
I have adequate support from other professionals	30%	62%	0%	8%	0%
I know who to call if I have hearing technology questions	30%	62%	8%	0%	0%
I know and understand the features and functions of hearing aids	15%	47%	15%	23%	0%
I know and understand the features and functions of cochlear implants	8%	31%	23%	38%	0%

Education and Training Support

Teachers indicated what they believed would be most beneficial in serving a child who is DHH in the general education classroom. The most frequently requested form of support was hands-on training in the classroom (29%). Respondents also indicated that written materials, an ongoing class over several months, or a 1-3 day workshop would be beneficial. When asked to further specify requested supports, respondents indicated that online resource guides and detailed information in managing hearing technology would be helpful.

Table 3. Teacher requested education and training



Respondents with No DHH Children in the Classroom

Utilizing an open-ended comment format, the survey queried whether or not teachers might have concerns in serving a child who is DHH in their classroom in the future. Of the 159 open-ended comments written on the survey, 86 (54%) comments expressed various concerns for serving DHH children in the mainstream classroom, and 73 (46%) comments indicated no particular concerns for having a DHH child in the classroom. Content analysis was used to examine the comments written on the surveys. Content analysis is a research technique for making inferences through objective and systematic analysis of a communication or consumer message (Hsieh & Shannon, 2005; Stemler, 2001). In the first step of the analysis, all comments

to this open-ended question were compiled and analysis of the comments revealed commonalities across primary categories.

Participants’ concerns about having a child who is DHH in the classroom were described and categorized across five primary content areas. The most prominent concerns were teachers’ ability to provide optimal educational instruction to meet the child’s needs and the teacher having adequate training and support. Table 4 describes the five content areas of concerns and examples of verbatim comments from participants.

Participants who indicated they would not be concerned about having a child who is DHH in the general education classroom were also categorized across five primary content areas. A majority of respondents expressed confidence in their current level of training or in their ability to learn effective instructional strategies to meet the child’s needs. Table 5 describes the five content areas indicating reasons that participants would not be concerned about serving a child who is DHH in the general education classroom setting, and provides examples of verbatim responses from participants.

Table 4. Participant concerns for serving DHH children in general education classrooms (n=86)

Content Categories	Examples of Verbatim Responses	# %
Capability in meeting child’s educational needs	<ul style="list-style-type: none"> • I would be extremely nervous about my ability to provide a quality education to the child. • I would be concerned that the student receives effective teaching. I would want to know if it is the student's disability or understanding that hampers learning. 	31 (36%)
Need DHH training and supports	<ul style="list-style-type: none"> • My concern would be having enough resources to help make sure I am able to fully educate the child to the highest level possible. • I would feel the need to seek additional education. • I would be concerned about having enough resources. 	27 (31%)

Communication concerns / Lack of ASL knowledge	<ul style="list-style-type: none"> • Yes, I would wonder how to effectively communicate phonics. • I don't know sign language. I believe this would be necessary for effective communication and teaching. • Yes. I would not know any signs to help and would not be sure of how to communicate with them. 	14 (16%)
Ability to understand technology needed in the classroom	<ul style="list-style-type: none"> • Audio equipment is crucial for proper instruction. • We do have the sound system that is supposed to help the DHH child. Hopefully I could get some training on how to best work with these children, since I have not had any so far. • I would be concerned only because I know very little about hearing disorders and the different technologies used to help these hear such as; hearing aids and cochlear implants. 	11 (13%)
Ability to recognize optimal classroom arrangements	<ul style="list-style-type: none"> • I would be concerned about how to set up my room to allow a child who was DHH to see the mouths of his or her peers when they were speaking. 	3 (4%)

Table 5. Reasons participants NOT concerned about serving child who is DHH (n=73)

Content Categories	Examples of Verbatim Responses	# %
Already know DHH strategies or have specialized training	<ul style="list-style-type: none"> • I currently teach ELLs and I have tried to keep up with education issues and strategies as they relate to children who are DHH. • I don't have any concerns as I have worked with children with this issue before. 	32 (44%)
Confidence in ability to learn more about deaf education	<ul style="list-style-type: none"> • I would take the initiative to learn more about deaf education • No, I feel that with the right kind of training and support I could ensure the child could learn what we learn in Kindergarten 	14 (19%)
Availability of collaborative support from other professionals	<ul style="list-style-type: none"> • We have support available to assist in educating this type of student. • I have confidence that the support I might need will be provided. 	12 (16%)

Availability of assistive technology	<ul style="list-style-type: none"> • I use a lot visuals and hearing technology • We are lucky in the school I teach to now have audio systems. • I use sign language as needed, as well as amplification systems installed in our classrooms. 	8 (11%)
Have family members / personal experiences with hearing loss	<ul style="list-style-type: none"> • I have a younger brother who is hard of hearing (has hearing aids) and have helped him through his elementary years in school. He used a lot of hand signals and gestures, as well as read lips. I feel that this would help me effectively teach a child in the future who was DHH. 	7 (10%)

Although nearly half of respondents indicated they would not be concerned about serving a child who is DHH in the classroom, the majority of participants indicated lack of knowledge in managing hearing technology. Of the 130 responses to an inquiry of participants' knowledge and understanding of hearing aids and cochlear implants, 59 (45%) participants agreed or strongly agreed that they knew and understood the features and functions of hearing aids, and just 33 (25%) agreed or strongly agreed that they knew and understood the features and functions of cochlear implants.

Teacher Recommendations for Improving Social/Emotional Development

All respondents, whether or not they had a DHH child in the classroom, were asked to provide strategies they believed to be effective in promoting social/emotional development in kindergarten children in mainstream classrooms. Of the 173 comments provided to this open-ended question, content analysis revealed nine primary response categories. The most frequently recommended strategies these participants believed contributed to social/emotional development was use of guided social play with adult role modeling, ensuring that children feel safe,

comfortable, and respected in their environment, and having appropriate experiences prior to entering kindergarten. See Table 6 for a summary of all recommendations.

Table 6. Teacher recommendations for improving social/emotional development (n=173)

Content Categories	Examples of Verbatim Responses	# %
Guided social play with adult role modeling	<ul style="list-style-type: none"> • I believe that it is important to let children experience normal problems and help them see that it is their job to solve problems. I believe my role as teacher is to coach or consult with students on various possible solutions that they and I "come up with." Students/children need to have opportunities to try out different social solutions including specific talk like, "May I read that book when you are finished?" while the teacher monitors such trials. In addition coaching 2 students who are in a disagreement is sometimes needed when the two students cannot on their own figure out or talk out- a solution. • Role playing activities are helpful for students to learn the appropriate response to various situations. These are conducted in a safe environment and the students are coached during the activity. • Practice with guidance. Teaching steps on how to make friends, how to keep friends, including independent practice. 	37 (21%)
Ensuring children feel safe, comfortable, and respected	<ul style="list-style-type: none"> • Consistent, positive, and nurturing interactions with adults. • In reflecting on self-similarities and self-differences, it's my hope that children would feel safe and welcome in our classroom, no matter what. Safety and community are the biggest influencers on social and emotional skill development for ANY child. • Teaching your students to respect each other is key. No matter who they are. • Setting up a safe environment in your classroom where they feel confident to be a risk-taker. 	22 (13%)
Appropriate experiences prior to entering kindergarten	<ul style="list-style-type: none"> • Parents need to talk to their children about what happens in kindergarten and what they will be doing. Then the teacher can follow through with the rules and the procedures that are used in her/his classroom. • Students need to be exposed to basic skills and social interactions in pre-kindergarten so that they are socially and emotionally ready to learn in kindergarten. 	20 (12%)
Establishing one-on-one or small group interactions	<ul style="list-style-type: none"> • Placing the student with a "hearing" buddy. • Working with partners and small groups. Interactive centers. 	19 (11%)

	<ul style="list-style-type: none"> • I would look to make sure the student is actively talking and interacting with peers. If they were not, I would give the hearing impaired student a peer to talk with and communicate with (especially during social times like lunch, recess and centers). • Small Group and partner activities across the curriculum 	
Utilize direct instruction or a social skills curriculum	<ul style="list-style-type: none"> • We use a program called Second Step for all students as our core instruction on social/emotional skill development. • We have a Social Skills time block for our kindergarten children to work on special social skills. We are using the curriculum of 2nd step. Since most of our students have poor social skills coming in. 	19 (11%)
Use positive reinforcement, establish consistent class routine	<ul style="list-style-type: none"> • High expectations, rigorous and consistent expectations; consistent and structured schedules and consequences; clear communication of expectations with both students and families • Having positive reinforcements will do the best work for children first coming into kindergarten. • We spend a good deal of time the first few weeks of school teaching routines and procedures as many of our students have not been in a classroom setting before. 	18 (10%)
Encourage parental involvement	<ul style="list-style-type: none"> • I often help parents set up playdates with their child and another classmate. • If parents are informed and react positively to their students' needs and help them feel accepted in life this is a huge step forward in the child's acceptance and social development for entering Kindergarten. Parents need to talk with them, show them and encourage their child to be a part of their own medical conditions. • Educating parents on the importance of reading to children at home 	17 (10%)
Ensure effective accommodations are made appropriate for DHH needs	<ul style="list-style-type: none"> • For me, recognizing the need of the DHH and working at a closer proximity, visuals, and at times teaming students up are used for the DHH student and the standard kindergartner. Making sure the DHH has eye contact with the learning situation is important. Each student has his/her own learning style. • Having the students know why we might be using a microphone or special equipment and compare it to a child with glasses. They understand that concept. • The teacher has the responsibility to become educated about the types of students that appear in his/her classroom and to receive the support necessary for this to happen. • My student is seated in preferential seating, will soon use an FM system. 	12 (7%)
Utilize literacy	<ul style="list-style-type: none"> • I would use lots of picture prompts for learning as well as 	9 (5%)

stories, visual aids	<p>hand signals since many kindergartners are pre-literate.</p> <ul style="list-style-type: none"> • A visual schedule was also made for the student with expected behaviors included. It was used daily to check for appropriate behaviors. • Reading books about students with disabilities. Books about tolerance & being different. 	
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Respondents were also asked to describe suggestions they have for early interventionists and preschool teachers to best support child development during preschool years prior to entry into kindergarten. Of the 141 comments provided to this open-ended question, content analysis revealed ten primary response categories. The most frequently cited recommendations were the importance of knowing and implementing best practices in serving a child who is DHH, preparing the child in advance as to what to expect in a kindergarten setting, and directly teaching the child self-advocacy skills. See Table 7 for a listing of recommendations.

Table 7. Teacher suggestions for early interventionists and preschool teachers (n=141)

Content Categories	Examples of Verbatim Responses	#	%
Know and implement best practices in DHH services	<ul style="list-style-type: none"> • Make sure to educate teachers on best practices for teaching students who are DHH as I think many of us don't know as much as we would like about strategies to help students who are DHH learn most effectively. • Train teachers how to provide appropriate services and how to use necessary equipment. • Make sure that the teacher has some prior knowledge in working with these students. Most times we get these students and the training falls through. Therefore we are learning on our feet! 	25	(18%)
Prepare the child in advance of what to expect in kindergarten	<ul style="list-style-type: none"> • They could explain the different settings in a kindergarten room such as large group at the rug, small group instruction, free or play time, individual work time, leaving the classroom to attend, computer, library or recess. One of the biggest is that they meet the teacher in the classroom before hand and can see what the classroom is going to be like. • I would suggest these children come to Kindergarten 	24	(17%)

	<p>prepared for the fast paced academics and social aspect of being in a mainstream classroom. Often times, children with special needs tend to not be able to handle the demand of a regular classroom due to a lack of understanding in this area.</p>	
<p>Teach child self-advocacy skills, foster self-esteem</p>	<ul style="list-style-type: none"> • Challenge them. Help the student understand school might be really hard. Help them learn that they can do hard things. • To make sure they remember that everyone is different and that they are entitled to get what they need to learn just like everyone else. To make sure they can tell the teacher or an adult whenever they need something to learn! • Allow them the ability to ask for help. Teach them that it is okay to advocate for their own needs. 	<p>22 (16%)</p>
<p>Utilize group instruction to teach appropriate play and social behaviors</p>	<ul style="list-style-type: none"> • One helpful intervention would be to involve students in small and large group settings so that they know how to position themselves to hear and see as best as possible. • Talk through and/or act out scenarios which new students will encounter in a class of 20 which they might not encounter in a home environment. For example, students have 1 mom to share with 0-4 others, but students have to share the teacher with 19 other students. Figure out how to communicate needs and wants to students and teachers who are not DHH. 	<p>16 (11%)</p>
<p>Ensure appropriate classroom accommodations are in place</p>	<ul style="list-style-type: none"> • Strategic placement for seating; communication/signal for when help is needed by student • Classroom speaker system where the teacher wears a microphone, preferential seating • Train teachers how to provide appropriate services and how to use necessary equipment. • Teachers should also be educated in the appropriate ways to differentiate instruction and make modifications and accommodations for the student's special needs. 	<p>13 (9%)</p>
<p>Use visual schedules and picture cues</p>	<ul style="list-style-type: none"> • Provide the child with many visuals/photographs to help when describing routines. • I recommend using a visual schedule with photos of the student participating in the activity. • Teach signs that are appropriate for school, help them learn how to follow a visual schedule as well as following directions. 	<p>12 (9%)</p>
<p>Practice positive and effective collaboration with other professionals</p>	<ul style="list-style-type: none"> • Discuss accommodations with aides, staff, parent volunteers so all interactions are smooth and seamless rather than contrived. • Have teachers of the DHH come into your classroom, THEY ARE WONDERFUL! • Initial survey and meeting with parents and audiologist. 	<p>9 (6%)</p>
<p>Collaboration and</p>	<ul style="list-style-type: none"> • There also needs to be good communication between the 	<p>8 (6%)</p>

develop relationship with family	<p>teacher and the parents so that the kindergarten year can be a success and can lead to success in the other grades.</p> <ul style="list-style-type: none"> • I would first advise them to remind parents to be good communicators with the teacher. • Get to know the family and child prior to school beginning if possible. Contact previous caretakers to find out what works for the child. 	
Have high expectations of DHH child similar to typically-developing children	<ul style="list-style-type: none"> • Challenge them. Help the student understand school might be really hard • Have the same expectations for any and all children. • Be positive with the students. Please expose them to grade level material. They are very capable students. 	6 (4%)
Help children in the class understand hearing loss and hearing technology	<ul style="list-style-type: none"> • Have them share and explain their hearing aids or whichever device they might use to the class, so the class is aware of what it is and its importance. • If there is a more useful way of communicating with this child, to make sure that other children know this as well. 	6 (4%)

Discussion

The social/emotional development of children who are DHH as represented in this study suggest the majority have either developed or are emerging in the 12 skills as indicated in the Common Core Standards. Social/emotional skills in which children appeared to have the greatest proficiency were in the areas of expressing their emotions and feelings, their awareness of preferences, their capacity for independence, initiating play and following rules, and exhibiting positive social behaviors. However, three of the 12 questions indicated fewer than half of children who are DHH had acquired skills in expressing self in different roles, utilizing self-control or accepting limitations, or having the ability to effectively solve conflicts. Age-appropriate acquisition of these skills before entering the mainstream kindergarten classroom promotes child readiness for positive social interactions in the mainstream classroom setting. Early interventionists and preschool teachers can facilitate improved child outcomes in

social/emotional development by being aware of Common Core Standards recommendations and including effective instructional practices within the early childhood and preschool curriculum.

Nearly half of the teachers in the present study indicated that they felt prepared to teach students who are DHH in their classroom. Having a teacher who feels prepared and who will actively seek support to learn effective practices will give children who are DHH added support in promoting social/emotional skill development.

Interestingly, many teachers in the present study referenced the need to know American Sign Language (ASL) with children who are deaf. Many children who are DHH have been identified early (e.g. from newborn hearing screenings) and use technology such as hearing aids and cochlear implants to engage in listening and spoken language. Early identification provides the opportunity for children to receive appropriate early intervention strategies to prepare children who are DHH to fully participate in the mainstream kindergarten setting using listening and spoken language skills. Therefore, although many children who are DHH use ASL, this should not be a standard assumption given the availability of advanced hearing technology and the potential for successful acquisition of listening and spoken language.

Study Limitations

The current study yielded a small percentage of the general population of mainstream kindergarten teachers who have a student who is DHH in their classroom. A larger sample size would help generalize data collected. In addition, there is potential for variability in how survey respondents determined their criteria for mastery of the social/emotional skills of their students who are DHH (e.g. one teacher's interpretation of a skill that has been mastered may be interpreted by another teacher as emerging).

Conclusions

Children who are DHH entering the mainstream kindergarten classroom represented in this study were either emerging or had mastered most of the social/emotional skills considered important in the Common Core Standards. Although a larger sample size would better generalize these results to the population, the sampling was entirely randomized and provided a snapshot that suggests many children who are DHH show social/emotional skills similar to same-age hearing peers. By mastering these skills before kindergarten, children are better prepared for kindergarten.

Suggestions and feedback for preparing young children for the mainstream kindergarten setting provided early childhood educators with the kindergarten teachers' perspective on how they can better prepare young children for the mainstream setting. In addition, knowledge by mainstream kindergarten teachers about teaching children who are DHH in their classroom can provide a rich environment for children who are DHH entering this type of setting. Information from general education kindergarten teachers in serving children who are DHH in mainstream settings provide a perspective that is not widely researched, yet highly valuable in the understanding of early intervention strategies.

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