

2016

Sign language in the preschool classroom : a self-study

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Sign language in the preschool classroom : a self-study

Abstract

This research was a self-study involving the learning and implementation of sign language in the preschool classroom. Over the course of eight weeks, I taught myself sign language and implemented what I learned in my preschool classroom of three- and four-year-old children. Through journaling, videotaping and surveys, I was able to increase my sign language knowledge at a good rate, increase student engagement and find a unique way to bond with my students. My memory was the biggest challenge for me during the study. Knowing someone that speaks in sign language would be beneficial to someone just starting out. While the study was limited to the final months of the school year, the use of sign language in the classroom will continue on.

Sign Language in the Preschool Classroom: A Self-Study

A Graduate Research Paper

Submitted to the

Division of Early Childhood Education

Department of Curriculum and Instruction

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts in Education

UNIVERSITY OF NORTHERN IOWA

By

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July 28 2016

ABSTRACT

This research was a self-study involving the learning and implementation of sign language in the preschool classroom. Over the course of eight weeks, I taught myself sign language and implemented what I learned in my preschool classroom of three- and four-year-old children. Through journaling, videotaping and surveys, I was able to increase my sign language knowledge at a good rate, increase student engagement and find a unique way to bond with my students. My memory was the biggest challenge for me during the study. Knowing someone that speaks in sign language would be beneficial to someone just starting out. While the study was limited to the final months of the school year, the use of sign language in the classroom will continue on.

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Introduction

Over the past seven years of teaching preschool, the number of children identified in my classroom with a speech or language disorder has increased. One of my recent sections of three-year-olds had half of the students working with a speech and language pathologist for a speech or language disorder. When a child in school is identified with a speech or language disorder he or she is put on an Individualized Education Program (IEP). Interventions and specially designed instruction are used by teachers to help the student improve his or her impairment. These interventions are generally done in addition to the classroom's typical curriculum, often taking away from basic instructional time. From my experience, most of the interventions involve a speech-language pathologist (SLP) coming into the room or pulling the child out of the room. I have not successfully implemented any speech and language interventions without a SLP and struggle to do an intervention or new program in addition to the classroom curriculum. "Speech, language, and hearing delays and disorders in children can lead to learning and socialization problems that may persist into adulthood" (Mulrine & Kollia, 2015, p. E1). There is a need for early language interventions (Buschmann et al., 2008) that are practical for improving language instruction (Cabell et al., 2011).

Education often connects language development to literacy development. There are many research articles involving reading interventions for children with language delays. While language development and literacy development go hand in hand, due to preschoolers practicing pre-literacy skills, I chose to focus on language development by itself. According to the American Speech-Language-Hearing Association (ASHA.org), when children or adults cannot produce speech sounds correctly or fluently, they may be considered to have a speech disorder and when children or adults cannot understand others (receptive language) or express their own thoughts or ideas (expressive language), they may be considered to have a language disorder.

Research finds that speech and language disorders are one of the most common types of disorders in early childhood (Glogowska, Roulstone, Enderby & Peters, 2000).

I believe sign language should be an intervention that can be taught simultaneously within the classroom's curriculum, without additional time or materials. American Sign Language ranks third as among the most commonly used languages in the United States and is the preferred method of communication for individuals who are deaf (Dennis & Azpiri, 2005). A person speaking in sign language uses hand movements, along with facial expressions and body movement to communicate (Dennis & Azpiri, 2005). When using sign language, a person uses "handshapes" to represent concepts, words and phrases and "fingerspelling" when signing with the manual alphabet (letters) (Rush, 2011). Sign language is not only useful for individuals who are deaf, but has also been useful for individuals with speech loss, neurological problems, and even for divers engaged in communication underwater (Riekehof, 1978). Sign language is a visual language (Heller, Manning, Pavur & Wagner, 1998). "Children love multisensory learning that involves seeing, hearing, speaking and doing. Sign language can enhance language experiences by engaging all of these modalities" (Good, Feekes, & Shawd, 1993, p. 81). Sign language provides a motivating factor to help grab and hold a child's focus on the teacher (Dennis & Azpiri, 2005).

Research has been done on the impact of sign language for children with identified special needs such as Autism or Down's Syndrome. There is limited research regarding sign language with hearing children, but what is available, are the stories of teachers' successes using sign language in their early childhood classroom. Reading about these successes was the motivation for pursuing my own ideas about using sign language in the classroom.

The use of sign language for hearing children provides a way for them to learn a second language and is a motivational way to promote language development (Good et al., 1993). When a teacher uses sign language and teaches about deafness it helps create acceptance for differences (Dennis & Azpiri, 2005). “This high-interest activity improves attention, self-esteem, motivation, sensitivity to others, inclusion of special populations, reading readiness, math readiness, behavior management, vocabularies and retention” (Good et al., 1993, p. 81).

When I received the opportunity to be the teacher for our district’s newly implemented three-year-old preschool program, sign language immediately came to mind. Many of our children that came in with speech or language disorders had used a form of sign language to communicate with their parents before they could speak and were now working to transition to verbal language. Sign language in the classroom seemed as if it would provide me with a way to communicate with these children and encourage communication between all of the children in the classroom.

The purpose of this study was to examine my ability to implement sign language in my preschool classroom. I wanted to explore the challenges I would face and how I worked through them, as well as how my engagement with the children changed, if at all, with sign language implementation.

Literature Review

Sign Language for Typically Developing Children

A study was performed with one typically developing boy, Davey, as he grew up exposed to sign language and English simultaneously (Holmes & Holmes, 1980). Davey’s parents were not deaf but were deaf educators and knowledgeable in the Siglish sign system (Fant, 1972). They used a total communication approach with Davey in which they signed all verbal

communication with him, including beginning babbles (Holmes & Holmes, 1980). Davey's communication was recorded and compared to a group of typically developing children's communication from another study. They found the boy's words came 3.6 months earlier than the average of the group of children not exposed to sign language.

deViveiros and McLaughlin (1982) studied the effects of sign language on expressive language. In their study with four male kindergarten students, the boys were taught 27 signs for common adjectives and adverbs. The results of the study were analyzed using pre- and post-test comparisons of 125 noun cards from the Peabody Language Development Kit (Dunn & Smith, 1965). "This study demonstrates that using manual signs as code symbols or translations of common adjectives and adverbs is effective in the number of descriptive words used by four kindergarten children with no handicaps" (deViveiros & McLaughlin, 1982, p. 174).

Sign Language in Preschool

Daniels (1994a) carried out research on the use of ASL simultaneously with English for one academic school year in four Pre-K classrooms with 60 African American children. In her study, the four classes had identical curriculum but two classes received sign language instruction and two did not. Using the Peabody Picture Vocabulary Test (PPVT-R, Dunn & Dunn, 1981) and two-way analysis of variance, Daniels (1994a) found sign language led to an increase in the preschoolers' vocabulary. Daniels stated, "In tandem, sign language and English offer a much richer language base for young learners" (1994a, p. 296).

Daniels (1994b) completed another study similar to her first but with a pre- and post-test model this time. This study included four preschool classes with 19 students in each class; again two were exposed to sign language and two were not. The Peabody Picture Vocabulary Test (PPVT-R) was completed at the beginning of the school year and again at the end of the school

year. All four classes tested similarly at the beginning of the year but at the end of the year the students exposed to sign language showed an increase in vocabulary (Daniels, 1994b).

She continued her research a couple years later to see whether the students had maintained that increased vocabulary (Daniels, 1996). By comparing pre- and post-Peabody Picture Vocabulary Tests (PPVT-R) of 19 kindergarteners that participated in sign language through her previous study, Daniels found that the students did maintain the increased vocabulary throughout kindergarten that they had gained through sign language in preschool.

Teachers Irma Heller and Debbie Pavur began using sign language in the classroom for all children in order to accommodate two hearing impaired children and ended up doing a 2-year pilot study on sign language in the classroom (Heller et al., 1998). Sign language was used concurrently with speech and the curriculum was not altered. They found sign language benefited all of the children's social, emotional and cognitive development.

Another study was conducted by Sherman and Torres-Crespo (2015), in which they taught targeted words to preschool students in Spanish and ASL for a semester. Using a pre- and post-test analysis, they found the students were able to learn the targeted words through 30-minutes of instruction, twice per week. Various activities were used to teach the targeted words in ASL and Spanish, with singing and moving being the most effective.

Rush (2011) had planned to be a teacher for the deaf but ended up teaching in Head Start. After deciding to implement sign language into her preschool classroom she began noticing changes in the children's communication skills. Rush (2011) authored a book to help other teachers implement sign language in their classroom. She spoke of the benefits of sign language including memory, fine motor development, diversity awareness, increased vocabulary and reading skills and self-expression.

Methods

Self-study is a way of doing personal-professional development (Cole & Knowles, 1996). Its purpose is to improve a teacher's own practice in order to then improve student learning (Samaras, 2011). I engaged in a self-study as I learned sign language and implemented it in my classroom. I utilized the five steps of a self-study: 1) authoring my own question; 2) working with a critical friend; 3) planning new pedagogies for improved learning; 4) enacting, documenting and assessing my research process; and 5) sharing what I have learned (Samaras, 2011).

“Working with colleagues helps extend and transform an individual's understanding” (Samaras, 2011, p. 43). This is why I had a critical friend that was knowledgeable in language development and early childhood. I have worked with her for the past 3 years and we collaborated well together prior to the study so it only seemed natural to collaborate with her for my research.

“Teachers, like all learners, learn from their mistakes” (Samaras, 2011, p. 43). My self-study allowed me to make a plan for my learning, realize it was not working and change it to better improve. The progress was made when I learned what worked and what didn't (Samaras, 2011).

My process, as you will read, was documented through journaling, videotaping, and audio recordings of collaborations with my critical friend. Journaling was my main way of documenting not only what I was doing and learning but also how I was feeling throughout the learning. All of this documentation helped me then re-visit my research and determine the results. I share with you my self-study research of the implementation of sign language in my preschool classroom.

Participants

This was a self-study of my own implementation of sign language. I have a bachelor's degree in early childhood education and am currently working on my master's degree in early childhood education. I have been teaching in an inclusive preschool classroom for seven years. I utilized my current three sections of preschoolers that included 22 three-year olds and 16 four-year-olds for the implementation. Ten of those students were on an Individualized Education Program (IEP) for an identified speech/language disorder. Informational letters were sent home with each of my preschool students notifying families of the research taking place within the classroom (Appendix A). The Speech-Language Pathologist that serves children in my classroom, from our local Area Education Agency, served as my critical friend. We have collaborated within the classroom for three years. She worked in my classroom three days per week with children and was able to see the daily functions of my classroom, as well as become familiar my study.

Procedures

I kept a personal reflective journal throughout the entire learning and implementation of sign language to document the process, for a total of 25 entries. I used the journal entries to share personal feelings about the learning and implementation and to document the frequency with which I was using sign language in the classroom. Within my journal, I created a list of the signs that I had learned and used with my students each week (Appendix C).

“In the early education setting, signing can be taught as soon as the teacher is ready to experiment” (Good et al., 1993, p. 81). I began the study doing research and asking questions. What sign language did I know? What sign language did I need to know to use in the classroom? I created a list of signs that I currently knew and signs that I thought were important

to learn first. I chose these signs based on words that were frequently used in the classroom or that would assist with giving students directions. These included signs to go with our daily schedule review, such as group, work, book, outside, table and backpack.

Similar to Heller and Pavur's pilot study (Heller et al., 1998), I decided to use sign language simultaneously with speech and to introduce the sign naturally, as it was needed within the daily activities. The first signs I used in the classroom were those for the schedule review. I continued the use of daily activities and commands for signing and those included sit, stand, play, dance, book, group, outside, backpack, table and snack. When I was using these signs for our schedule, I was not teaching them to the students but was signing while I verbally spoke. This is similar to how sign language was used in the classroom in Daniels' (1994a) study.

My overall goal at the end of my study was to be able to use enough sign to have the ability to sign in phrases and even sentences. I was finding it challenging to learn the sign language when I was not using it so I decided it may be better to teach the children the sign language while I was learning it. This would provide me with more words to learn as I taught.

Rush (2011) recommended introducing five to ten new signs per week when teaching children sign language. Therefore, I began teaching at least one sign per day. By the end of the study, I taught my preschoolers 45 signs and they were exposed to over 80 signs total. Sherman and Torres-Crespo (2015) found songs and movement to be best for students to learn another language so sign language was integrated into our song or fingerplay for the day. Throughout the study, I set goals for myself, for example, I will sign good morning to each child. I tried to learn the signs for words that we would use within lessons, for example, when doing a sequencing activity, I researched how to sign first, next, then and last.

Sign language has been found to be a bridge from concrete to abstract (Good et al., 1993) so I made sure to teach sign language for those abstract concepts of colors names, letters and numbers. These were all incorporated throughout a read aloud or song. When singing ABCs, I signed each letter. I planned songs and fingerplays that incorporated numbers and colors. Books were utilized for teaching the sign language of vocabulary words similar to how Daniels (1994a) implemented sign language in her research. When reading a book about a duck, I taught the sign for “duck” to the preschoolers. Feelings were taught in sign language using a book as well. Many of the signs I learned were words taken from our daily read alouds.

I videotaped three lessons of myself using sign language in the classroom. These videotapes were used for me to be able to see my ability to implement the sign language and the students engaged with the sign language. I reviewed the tapes and tallied the amount of times I could have used a sign and how many times I did use the sign. I also looked at the student engagement. I operationally defined engagement on the student looking at me when I was signing and whether they copied the sign I was doing.

Research indicated that, “The role of a critical friend is pivotal to the development process of self-study research,” (Breslin et al., 2008, pg. 33). Therefore, throughout my study, I met weekly with the Speech-Language Pathologist. Her job as a critical friend was to critique and offer suggestions (Breslin et al., 2008). She was in my classroom multiple times per week working with students and was able to see my sign language in action, and she also reviewed my daily journals. Once a week, my critical friend and I met face-to-face. She would offer suggestions to assist with challenges I was having. Also, she was particularly useful in advising what words for which I should try to learn the sign. My critical friend was very helpful in gathering me resources on sign language to assist with my research. A critical friend is needed

for validity (Samaras, 2011) and to help that validity, meetings with her were audio recorded. I was then able to return back to these audio recordings to confirm during my analysis and listen for any challenges I expressed to her and ways that she or I found to help solve them.

At the end of my study I sent an anonymous survey to the parents of my students (Appendix B). The survey was done through Google forms and included two questions. Those questions included whether the child showed any signs at home and whether the child expressed any excitement or interest in sign language. My intentions of the survey were to see whether there was any carryover from school to home with sign language.

Analysis

Once finished with my data collection, I sat down with all of my work including journal entries, videos, audio recordings and survey results. From my journal entries, I totaled up my weekly lists of sign language that I knew to get an average number of signs learned per week. Google survey created a few graphs for me to view the results of my survey and calculate the percentage of students utilizing sign outside of school. I created a list of challenges that I found mentioned in my journal entries and audio recordings with my critical friend, as well as how I solved them and other suggestions my critical friend had.

The videotapes of my lessons were reviewed. I tallied how often I utilized sign language compared to how often I could have used sign language. I then reviewed student engagement. Each video was 3-6 minutes long and I could see 3-4 students. To decide whether or not they were engaged in the sign language, I looked at how many times they were looking at me when I did the sign and how many of them replicated the sign throughout the lesson.

Results

The purpose of my research was to examine my ability in implementing sign language in my preschool classroom. I needed to find out whether it could be an intervention to implement without additional time or materials, what the challenges would be and whether it would change the way I interacted with my students.

Sign Language Implementation

I began the study knowing 11 signs plus the manual alphabet. I ended the study knowing 81 signs in addition to the manual alphabet and numbers one through ten. That is an increase of 70 signs over an 8-week period for an average of 8.75 signs learned per week. Figure 1 shows the number of signs I knew each week over the entire 8-week study. This total is the number of signs I could still sign today. Some signs I learned and implemented, but then forgot because I didn't use them frequently. These included words such as jealous and frustrated. I was able to implement them for the story that week but due to the limited use of the word, no longer remembered the sign the following week. I found animal and color signs to come the easiest because many of them have a match to the word in some way. For example, the color blue is the sign for the letter "B" and the signer shakes it or the sign for sheep is moving fingers up the arm in a scissor form as if someone were sheering a sheep. Throughout the study, my sign knowledge was visible in my teaching. The amount of times I signed in a lesson compared to the amount I had the opportunity to sign increased.

Figure 1: Sign Language Knowledge over 8 Weeks

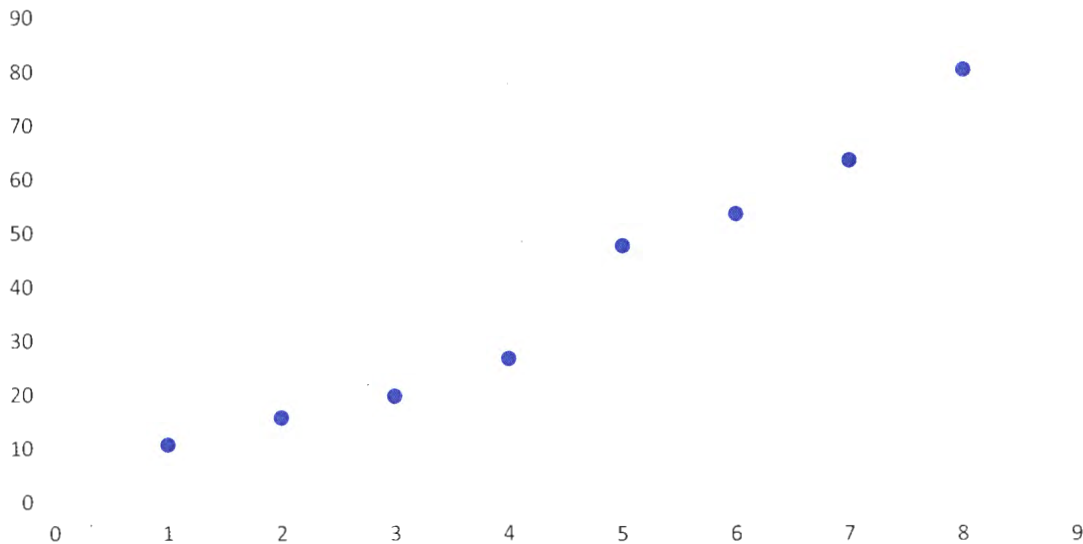


Figure 1-Represents the number of signs I had learned at each week in the 8-week study.

Challenges

There were a few challenges that came up throughout the study. The biggest challenge was trying to implement something that I did not know. Implementing sign language does not require much effort by the teacher other than remembering to implement it. But I cannot implement sign language throughout my day if I do not know the signs. This problem was the basis for many of the other challenges I came across in the study.

The second challenge was remembering. I was enmeshed in a routine and moved through it so quickly that needing to do sign language would slip my mind. I also couldn't always remember the sign for the words, even if I had just looked them up that morning. A beginning journal entry stated,

I spent last night looking up the signs I wanted to use today but none of them stuck with me. I need a way to remember them. Maybe a cheat sheet until I know them would work. (Journal Entry, March 22, 2016)

I began printing off visuals of the signs from the internet and leaving them in my teaching area as a reminder. I also put sticky notes into the books I was going to read aloud so that I would have the sign available for the story. Once I started using the signs they stuck with me.

The third challenge that came up rather quickly was that many signs require the use of two hands. When I was reading a story, one hand was holding the book leaving it difficult to sign with two hands. I ended up setting the book on my lap and doing the sign needed during my stories. My critical friend suggested I could have a student be the book holder throughout the story to help. On a few occasions, our special education teacher was doing the story and I was able to sit next to her doing the sign while she read. This challenge made me realize that implementing sign language in the classroom does require the teacher to make a few adjustments to her normal routine and ways of teaching. For example, signing good morning requires both hands. In the mornings, I often have a clipboard or iPad in my hands, taking observations, so both hands are not available. I was able to sign good morning when my hands were empty so I tried to change my routine of observation taking during arrival and make signing good morning happen at least once per week.

The fourth challenge was knowing which sign to use. When researching sign language, I discovered that baby sign is different from American Sign Language and there are different signs for the same word even in American Sign Language. Knowing which one to use created some confusion for me. My critical friend knew some sign language and was able to assist on

occasion but I had to be very particular about which resources I could use when searching for a sign.

The last challenge that came up was signing without plans. It was a challenge to sign during conversations with the students. I could plan what sign I would teach in our lessons but knowing all the signs needed for the conversation or slowing down enough in the conversation to use them was difficult for me. One conversation that I had with my critical friend in the beginning regarded speaking while signing and she said, "You may find that you talk slower when you are signing." She was correct; when I sign I do need to speak slower but the other problem for me was that I didn't know enough sign to use during conversation.

Student Engagement

My critical friend and I did not notice that the way I interacted with the students was any different during the sign language implementation. The preschoolers seemed more engaged in the read alouds and songs when sign language was involved. I identified their engagement when the students were looking at the signing and repeating the sign. Of the 3-4 students visible within my lesson videotapes, all continued to watch when I was signing, at all times. Each student replicated the sign a minimum of twice and one of those students replicated the sign each time I did it. Many students would mimic the signs when I was doing routine signs. During stories, all of the students would copy the sign when they were taught. A few students were interested enough that they would ask me what the sign was for words and some took the time to explore sign language books during free choice time. There were only two occasions when a student used sign language independently. The first occasion was with a three-year-old student during schedule. I was telling the preschoolers that we would have two small groups and the student said, "We will switch," and she did the sign for "switch" as she said it. The second

occasion was with a four-year-old student. I was giving directions for the students for small groups when a student said, “I think we should do this instead,” and he signed “play”. One observation in my journal stated,

More of my students are doing the fingerplays and all of the kids are doing more of the fingerplays when there is more signing involved. Even the special education teacher noticed the kids seem to enjoy the fingerplays more now that they involved the sign language. (Journal Entry, May 5, 2016)

Fifty percent of my preschool parents responded to the parent survey at the end of the study. Figure 2 shows how much sign language was used at home. Figure 3 shows the child’s interest in sign language, according to what they shared with their parent. Responses were based on each parents’ personal judgment of the question.

Figure 2: Have you noticed your child use sign language at home?

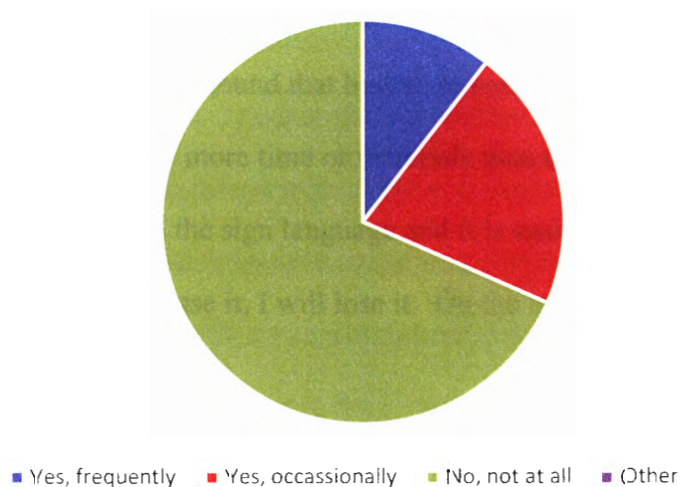


Figure 2-Represents parent responses regarding their child performing sign language at home

Figure 3: Rate your child's interest toward learning sign language at preschool



Figure 3-Represents parent responses regarding their child's attitude and interest toward learning sign language at preschool.

Discussion

“Teachers, like students, are motivated to learn about things they care about and that matter to their lives” (Samaras, 2011, p. 42). That is just what I did with this self-study, examining my ability to implement sign language in my preschool classroom.

Throughout the study, I found that having to use my hands and sign while talking and teaching does not require any more time or materials than other interventions or curriculum does. It does not take long to learn the sign language and it is easier to learn it if I am doing it. It's one of those things that if I don't use it, I will lose it. On the other hand, it is difficult to use it if I do not know it.

Challenges came up along the way that required me to think and change my ways of doing things. It seemed very reasonable to use sign language as an indirect way of teaching the students. This would have worked had I known enough sign language to do this. In order to help myself learn the sign language, I had to change to a more direct teaching approach of sign

language. Having my critical friend there to question what my goal was helped me to realize this change was needed. I found that I needed a plan for the direct teaching of sign language that required notes and reminders of the sign I was using.

Having others see the outcomes of my study provides another way to reflect. As I reviewed my journal entries and saw several mentions of the special education teacher that co-teaches in my room, asking for sign language to use with the children, it reminded me just what an impact I was making not only on my own teaching but the teaching of others. Having her tell me she sees a difference in the childrens when using sign language made me realize the impact I was making on my students.

While I didn't notice a difference between the way I engaged with my students before and during this study, it did provide me with a way to connect to my students that not many teachers get the opportunity to do. We learned something together. They got to see me have to look at things to see how to do it and hear me say, "I don't know." If I didn't know a sign, I made a point to look it up and get back to them with it. I was able to show them how to think and find answers to their questions and not just have knowledge to share with them.

Limitations

While this study provided me with many answers to my own questions, it had some restrictions. The sign language implementation took place in the last two months of the school year. This time frame could work for an intervention but was not enough time to learn sign language myself in order to implement it fully. When I originally began implementing sign language I was not teaching it to the children but instead just using it when I spoke. I then realized it might make a difference if I planned to teach them the sign language. While that did help, I had to spend part of my research time with this trial and error process. I had planned to

be able to sign in full phrases by the end of my study but that was unsuccessful. The children and I had a limited amount of time to experience sign language in the classroom to see the possibilities it could provide.

Most of the results are based on informal observations. The parent survey could have provided a more numerical detail had I asked different or more questions. Had I provided parents with more specific guidance on which to base their answers, such as what frequently or occasionally meant to them, as well as on what to base interest level, I could have gained more useful data. The videotapes of my signing implementation provided me with information on the students' engagement during sign language implementation but failed to record their engagement prior to sign language to see whether there was any difference. In addition, the videos were only during the sign language lesson, rather than including comparison of non-sign language lessons. The research setting was limited to one classroom and one teacher. Results could be different depending on whether the teacher already knows sign language prior to implementation.

Conclusion & Recommendations

I will continue to implement sign language in my preschool classroom in the school years to come. I find it a great way to connect with the students and one more way to engage them. I believe that if sign language is implemented at the start of the year, there could be many benefits to the students, as well as the teacher. My self-study will be shared with my fellow colleagues during a professional learning community meeting so that it may help them to decide to grow professionally either with sign language or another interest.

Based on my 8 weeks with sign language, I have decided to make changes for the next school year. In the future, I will begin sign language implementation at the beginning of the school year. I plan to label my classroom with sign language similar to how we label for literacy

awareness. Each item will have the name of it, for example, table, and then the sign for table.

This will help the adults in the room to be able to sign more and the students to learn more of the sign language. I also would like to get extra copies of popular books and put the signs for vocabulary words on the pages directly into the books.

I believe that further research needs to take place regarding the use of sign language as a language intervention with typically developing children in the general classroom. The possibilities of early childhood educators' abilities to increase language skills in all children are there.

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APPENDIX A

University of Northern Iowa
Sign Language in the Preschool Classroom: A Self-Study
Parental Education Letter

Dear Preschool Parents,

As an educator, I am always looking to do what is best for my students. This means I need to explore new ideas and approaches to use in my classroom. Through my current educational journey at the University of Northern Iowa, I have learned a variety of new information to apply in my teaching. I would like to take that a step further and challenge myself as an educator to try a new approach within my teaching. I will be introducing sign language into my preschool curriculum with all of my students and conducting research on how this changes the way I approach teaching.

The purpose of this research study is to examine my ability in implementing sign language in my preschool classroom as a language intervention. I want to find out what challenges I come across and how I get through them, as well as how my engagement with the children changes with sign language implementation.

This will take place in my preschool classroom within Mid-Prairie Community School District in Wellman, Iowa from March through May 2016. Sign language will be used simultaneously with verbal language. I will write daily reflective journals immediately following class to document my feelings and what I am experiencing from my perspective. Children's names will not be used in the journals. I will videotape one lesson weekly and meet with my critical friend weekly. The district's Speech and Language Pathologist will serve as my critical friend to ask questions and provide her perspective of the study. These meetings will take place face-to-face in my classroom and will be audio recorded and transcribed by me. Videotapes of lessons will be shown during these meetings. I will begin implementation of sign language in my classroom with commands needed for daily activities (sit, stand, wait, help, drink, eat, more, please, thank you). Next, I will teach abstract concepts of colors, letters and numbers. Thematic nouns will be introduced with read alouds such as when reading a book about a bear, I will sign the word for bear. As I learn the sign language, it will be used in phrases and worked up to

sentences over the 8-week intervention. At the end of the 8-week intervention an anonymous survey will be sent home with each student for a parent to provide feedback. I will analyze data by reviewing videos, journal entries, meeting transcriptions and survey results to find common themes. I will search for barriers and how they were resolved, as well as look at my engagement with the students over the course of the intervention. I will create an hour professional development to share the results within my district's early childhood team. All audio and video recordings will be stored on my personal drive that is password protected and will be deleted upon completion of the research study. Video recordings will only be viewed by the research team.

There are minimal risks involved with this research, no more than the risks associated with general preschool curriculum. Sign language will occur during normal daily activities and lessons. Through this research study, your child has the chance to learn a second language and increased language skills.

Information obtained during this study which could identify your child will be kept strictly confidential. The summarized findings, with no identifying information, will be submitted for my master's degree and may be available electronically through the campus library. I may also publish in an academic journal or present at a scholarly conference.

If you have questions about the study or desire information in the future regarding your child's participation, you can contact me, DiAnna Geiger at 319-646-2864 or dgeiger@unphawks.org or my UNI faculty advisor, Linda Fitzgerald, at 319-273-2214, linda.fitzgerald@uni.edu. You can also contact the office of the Human Participants Coordinator, University of Northern Iowa, at 319-273-6148, Anita Gordon at anita.gordon@uni.edu, for answers to questions about rights of research participants and the participant review process.

DiAnna Geiger

Student Researcher

319-646-2864

Linda May Fitzgerald, PhD

Faculty Advisor

319-273-2214

APPENDIX B

Research-Parent Survey

I am currently doing a research project regarding my teaching of sign language in the classroom.

Please consider completing this short, anonymous survey to help me determine how sign language is working within my teaching. Thank you!

1. Have you noticed your child use any sign language at home during the past 8-weeks?
 - a. Yes, frequently
 - b. Yes, occasionally
 - c. No, not at all
 - d. Other

2. Rate your child's attitude/interest toward learning sign language at school.

1

2

3

4

5

Dislike/No Interest

Extremely Happy/Very Interested

3. Any additional information you wish to share

APPENDIX C

Week 1	<ul style="list-style-type: none"> -please -thank you -play -sit -stand up -more -drink -eat -all done -wait -help -Letters in the alphabet
Week 2	<ul style="list-style-type: none"> -table -backpack -group -outside -book
Week 3	<ul style="list-style-type: none"> -walk -dance -stop -house
Week 4	<ul style="list-style-type: none"> -mom -dad -duck -scared -happy -work -friend
Week 5	<ul style="list-style-type: none"> -bunny -birthday -cake -bird -squirrel -tree -numbers 1-5 -pig -sheep -ice cream -owl -flower -time -minutes -clean-up -silly -sad -excited -mad -feeling -good -morning
Week 6	<ul style="list-style-type: none"> -numbers 6-10 -disappointed -proud

	<ul style="list-style-type: none">-shy-frustrated-jealous-Earth
Week 7	<ul style="list-style-type: none">-red-yellow-blue-orange-green-pink-brown-black-white-bubble
Week 8	<ul style="list-style-type: none">-horse-mouse-chicken-cow-bicycle-music-what-where-trade-fish-over-under-through-go-come-want-in-out