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EASTERN KENTUCKY UNIVERSITY

Occupational Differences in Play between Monolingual and Bilingual Children in  
Kentucky

Honors Thesis

Submitted

In Partial Fulfillment

Of the

Requirements of HON 420

Fall 2016

By

Miranda Massey

Eastern Kentucky University

Faculty Mentor

Professor Kathy Splinter-Watkins

Department of Occupational Science and Occupational Therapy

## Occupational Differences between Monolingual and Bilingual Children in Kentucky

Miranda Massey

Professor Kathy Splinter-Watkins, Department of Occupational Science and  
Occupational Therapy

This study looked at the occupational differences between monolingual and bilingual children in the state of Kentucky. The children were ages 7-12 years old and were divided into three categories: monolingual English-speaking, monolingual Spanish-speaking, and bilingual English and Spanish-speaking. Each child and their parent/guardian was interviewed to collect data on play habits to determine if language was a factor in the play choices. Subjects were selected through convenience sampling over social media and by word-of-mouth. From all possible participants collected, one child from each category was chosen for the interview process.

The process itself consisted of a 50 question child interview on their play habits, a semi-structured, 30-40 minute interview with the parent/guardian of the child, and a 30-minute observation period in which the child was evaluated on their observed play choices and photos were taken of each child's favorite toys and/or objects. The interviews took place in an environment that was chosen and deemed comfortable by the interviewees.

The study developed into three separate case studies on three children of different ages. The data demonstrated that the older a child was, the fewer the number of activities they participated in but the higher their level of interests in the activities. The bilingual child participated in the highest percentage of activities while the monolingual children participated in a lower percentage of activities discussed in the interviews. The bilingual

child demonstrated a greater amount of play exploration and creativity than compared to the monolingual children.

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## **Introduction**

### **Background and Need**

Throughout my life, there has always been a desire within me to work with children, specifically special needs children. Once I discovered the idea of occupational therapy, I knew that I wanted to be a pediatric therapist. Having four years of experience with Spanish in high school, a Spanish major in college, and experience travelling abroad to both improve my Spanish skills and learn more about working with Spanish-speaking children, I decided to pursue a career in which I would be able to utilize my language ability to help others in a health care setting.

According to the United States (U.S.) census (2014), the Hispanic population accounts for 55 million people (17%), making individuals of Hispanic origin the country's largest ethnic minority. Between 2013 and 2014 alone, the Hispanic population grew by 1.15 million (2.1%) and continues to grow today. In 2060, the

projected Hispanic population is approximately 119 million. As of 2013, 38.4 million (73.3%) U.S. residents ages 5 years or older reported speaking Spanish in the household.

Due to the high growth rate of the Hispanic population and the need for bilingual health care practitioners, as well as my interest in both therapy and the Spanish language, I wanted to combine both majors to delve deeper into the realm of therapy to explore the importance of occupational choice in children in reference to play. I conducted this study in efforts to gain a better understanding of how the Spanish language correlates with child play occupational choices and how that may affect my role as a future occupational therapist.

### **Problem Statement**

Language and the culture that accompanies it can greatly influence the occupations in which an individual chooses to participate (Whitebread, Coltman, Jameson, & Lander, 2009). It is known that bilingualism in children can increase cognitive flexibility (Rathus, 2008) and lead to more creative children and adults. When looking at a child's play profile, language may affect the occupational choices made by the child and therefore the level and manner of development that occurs over time (Kielhofner, 2008).

### **Statement of Purpose**

The purpose of this research is to conduct a study on the occupational differences in play between monolingual children (only English-speaking vs. only Spanish-speaking) and bilingual children (English and Spanish speaking) between the ages of 7-12 years old in the state of Kentucky. The purpose of this study is to identify the association between the primary language spoken at home and the occupational choices

of children between the ages of 7-12 years old in the state of Kentucky and how language influences these occupational choices.

### **Research Question**

How does language affect occupational play choices of children between the ages of 7-12 in the state of Kentucky?

### **Terms**

Activities of daily living (ADLs): routine activities performed by an individual on a daily basis; the six basic categories include eating, bathing, dressing, toileting, transferring and continence.

American Occupational Therapy Association (AOTA): a national professional association established in 1917 to represent the interests and concerns of occupational therapy practitioners and students and improve the quality of occupational therapy services (AOTA, 2014).

Environment: the physical, social, symbolic, or cultural context in which occupation (including play) occurs (Parham & Fazio, 2008, p. 446).

Exploration: behavior that involves investigation of the environment (Parham & Fazio, 2008, p. 446).

Interview: the process of orally gathering clinically relevant information from the child and his or her family via conversation or a schedule of questions (Parham & Fazio, 2008, p. 447).

Leisure: free or unoccupied time; a nonobligatory activity that is intrinsically motivated and engaged in during discretionary time, that is, time not committed to obligatory occupations such as work, self-care, or sleep (Parham & Fazio, 2008, p. 447).

Life story: a narrative that connects together the experiences that have occurred over one's life (Parham & Fazio, 2008).

Narrative: a story that conveys the personal meanings that an individual imbues on life events (Parham & Fazio, 2008, p. 448).

Narrative methods: technique for obtaining information about an individual's life story (Parham & Fazio, 2008, p. 448).

Observation-based assessment: clinical evaluation method that involves watching a child's behavior carefully, either in a clinical setting or in the everyday contexts of the child's life (Parham & Fazio, 2008, p. 448).

Occupation: the intentional engagement of an individual in an activity within the ongoing stream of human behavior; occupation is thought to influence health, either positively or negatively; play is a special kind of occupation (Parham & Fazio, 2008, p. 448).

Occupational Science: an academic discipline that is designed to provide a knowledge base on the nature of the human as an occupational being and to be useful for the clinical practice of occupational therapy (Parham & Fazio, 2008, p. 448).

Occupational Science Pediatric Interest Profiles: age-appropriate profiles of play and leisure interests and participation that can be used with children and adolescents who have disabilities, as well as those who do not have disabilities (Parham & Fazio, 2008, p. 448).

Play: an attitude or mode of experience that involves intrinsic motivation, emphasis on process rather than product and internal rather than external control, and an "as-if" or pretend element; takes place in a safe, nonthreatening environment with social sanctions (Parham & Fazio, 2008, p. 448).

Play history: a semi-structured, 30-40 minute interview with a parent/guardian to develop more information on the child's past play patterns and is used to help develop the life narrative of a child in regards to play.

Play interests: a tendency to pay special attention to, or seek out, certain kinds of ludic activities (Parham & Fazio, 2008, p. 449).

Play as means: the use of play as a critical ingredient in the process of providing an intervention, in order to achieve therapeutic goals (Parham & Fazio, 2008, p. 448).

### **Assumptions**

The following assumptions are to be made about the research that will be conducted:

- The participants used are interviewed on voluntary basis and will not be compensated for their participation
- Language may influence the chosen occupations
- Developmental stage may influence the chosen occupations
- Age of the child may influence the chosen occupations
- Gender of the child may influence the chosen occupations
- Parenting styles throughout the child's childhood may influence the chosen occupations
- The context and environment in which the subjects live may influence their chosen occupations
- There may be differences in culture between the three households of the children interviewed
- Current parenting styles and household rules may affect the way in which a child interacts with certain toys/activities

- 

## **Literature Review**

### **The Science of Occupation**

When looking at occupational science and occupational therapy, many question its importance or significance and how the science of occupation correlates with therapy. Occupational science is best described as the science behind why individuals participate in the activities in which they choose, what influences those occupations, with whom they participate, how often they participate and what perspective they have on the type of occupations in which they like or dislike (Pierce, 2003). Occupational science can also be described as an academic discipline, the purpose of which is to generate knowledge about the form, function, and meaning of human occupation” (Zemke & Clark, 1996), which helps to serve as a foundation for occupational therapy.

### **Life Narrative**

When looking at Occupational Therapy, the concept of the life narrative is essential to developing the most appropriate and most effective forms of intervention for a client (Wiseman & Whiteford, 2007). The life narrative consists of interviews, assessments and observations in order to understand the daily occupations of a client as well as their occupational strengths, weaknesses and suggestions. Without the life narrative of a client, the therapist has no background information on the individual or their interests, hobbies, habits, values, or occupational roles in which they participate in their everyday life. Having the ability to develop an insight into the lives of others to analyze and treat an individual with a disrupted occupational pattern, especially in individuals with disabilities, leads to strong skills as a therapist in the clinical setting (Pierce, 2003).

### **AOTA Practice Framework**

Occupational science can be viewed in various manners and from a variety of perspectives. The perspective which this thesis will be viewed will be the American Occupational Therapy Association (AOTA) Practice Framework (AOTA, 2014). With this model, occupations are divided into eight basic categories:

- Activities of Daily Living (ADLs): basic activities of self-care such as bathing, feeding, grooming, etc.
- Instrumental Activities of Daily Living (IADLs): activities that aid activities of daily living such as shopping, caring for others, caring for pets, etc.
- Education: school and other educational activities such as homework, group work
- Work: productive, paid occupations
- Leisure: restorative occupations such as watching TV, going on a walk, listening to music, etc.
- Sleep/Rest: sleeping and resting
- Play: activities performed for enjoyment such as playing video games, playing outside, participating in a sport, etc.
- Social Participation: participating in occupations with others such as parties, going to dinner with a friend, spending time with friends, etc.

It is important to consider the model and perspective being used when analyzing occupational choice and balance as it is important to note in which areas a client could improve, which areas are the strongest, and which areas take up the majority of the client's time. For this specific thesis, the category of play will be emphasized and analyzed when looking at language and its influence on child development and occupational choice.

## **Play as an Occupation**

When considering the occupation of play, many believe that it connects only with children and childhood activities, but it is clear, based on the Model of Human Occupation that play is an occupation significant in the lifespan of all humans. Throughout the development of occupational science, play has become increasingly important in offering knowledge about occupational concepts that have not been researched to a great extent in a systematic manner (Parham & Fazio, 2008). Research studying this occupational category can offer more information not only about children and play habits, but apply to adults as well (Parham & Fazio, 2008). For years, the concept play and its purpose have been highly discussed in terms of research. In 1949, an occupational therapist by the name of Normal Alessandrini stated in the *American Journal of Occupational Therapy*:

Play is a child's way of learning and an outlet for his innate need of activity. It is his business or his career. In it he engages himself with the same attitude and energy that we engage ourselves in our regular work. For each child it is a serious undertaking not to be confused with diversion or idle use of time. Play is not folly. It is purposeful activity.

These perspectives are important when examining child's play and developing a life narrative to use in therapy or for research purposes.

## **Child Developmental Stages**

"As children grow and mature, they are able to interact to a greater extent with more physical and social environments that influence their development" (Christiansen & Townsend, 2010, p. 150). Children mature and develop at different rates, reaching different developmental milestones along the way. For each age, the expected



developments and characteristics occupations differ. When looking at the specific age ranges of the children interviewed for this study, there are specific characteristics that are prominent during this late childhood stage. The characteristics of play/leisure for the given age ranges include (Christiansen & Townsend, 2010, p. 164):

1. 7-8 years old:
  - Plays more than one board or card game requiring skill and decision making
  - Makes or buys small gifts for caregiver or family member on major holidays, on own initiative
2. 8-10 years old:
  - Returns borrowed toys, possessions, or money to peers, or returns borrowed books to library
  - Uses appropriate table manners without being told
  - Watches television or listens to radio for information about a particular area of interest
3. 11-12 years old:
  - Goes to evening school or facility events with friends, when accompanied by an adult
  - Initiates conversations on topics of particular interest to others

Christiansen & Townsend (2010) go on to explain that the “genetic makeup with which an infant is born endows that infant with abilities, interest and temperament that influence development and interactions with environments” (p. 147). Genetic makeup and developmental stages influence how exploratory a child may be when participating in the occupation of play, as well as how the child interacts with the environment. A child’s participation can also affect their occupational play exploration and development. Since an occupation is an experience (Pierce, 2003) and involves active doing, occupational development also requires active participation, regardless of age (Christiansen & Townsend, 2010). This participation can be influenced by physical,

emotional and/or cognitive abilities, demands of the environment and attitudes of society and those that surround them (Christiansen & Townsend, 2010).

In recent research, it has also been discussed how to factors seemingly influence a person's participation in occupational possibilities: occupational exposure and occupational expectations (Christiansen & Townsend, 2010). As individuals grow and develop, especially as children, they are shaped based on the environments in which they are exposed and the expectations of how they are to interact with the environment. The developmental stage of a child can shape their expose and expectations; those that are older will have more experience and greater exposure to occupational possibility that a younger child in the exploratory phase may experience (Christiansen & Townsend, 2010). This will affect the occupational choices of the child and the way in which they interact with their environment.

### **Language as an Opportunity**

The genetic makeup that a child is born with determines their abilities, interests and the way in which they interact with their environment (Christiansen & Townsend, 2010). Neural plasticity is the term referring to the ability to learn. The brain triples in size from the time a child is born until they are fully matured, and this growth is paralleled by development of cultural competency (Christiansen & Townsend, 2010). Bilingualism has also shown to result in more generally creative individuals. Creativity and other differences between young bilingual children and young monolingual children were significant, showing favor to the bilingual children (Leikin, 2012).

Research also demonstrates that bilingualism affects cognitive abilities; data shows that “the bilingual brain can have better attention and task-switching capacities than the monolingual brain, thanks to its developed ability to inhibit one language while

using another” (Marian & Shook, 2012, pg. 1). Bilingualism has shown effects at both ends of the age spectrum, with children younger than one year demonstrating the ability to better adjust to their environment than compared to monolingual children while bilingual elders demonstrate less cognitive decline than compared to other monolingual elders (Marian & Shook, 2012).

## **Methodology**

### **Participants**

The subjects for this study were chosen on the basis of convenience sampling. Social media and personal contact were used to reach out to those who may know a child eligible for the study. If the child was eligible, they were placed into one of three categories of possible subjects: 1) monolingual English-speaking, 2) monolingual Spanish-speaking, and 3) bilingual, English and Spanish-speaking. The possible subjects also had to be from 7-12 years old and be a resident of Kentucky. After all eligible subjects were collected, one was be chosen from each category to interview. For the *Play*

*History* (Takata, 1974) portion of the interview, the parent, guardian and/or primary caretaker was interviewed. At the end of the study, a total of three subjects and their parent/guardians were interviewed.

### **Design**

This was a study that looked at the play habits of children both from the child perspective and the perspective of the parent/guardian. The *Kid Play Profile* (Henry, 2000), was conducted first, followed by the *Play History* (Takata, 1974), ending with a 30 minute observation period of the child. The child was asked to respond to each question in the *Kid Play Profile* (Henry, 2000), and notes were taken during the *Play History* (Takata, 1974) and during the observation period. The interview with the parent/guardian was recorded for use by the interviewer. All data was analyzed at the end of the study and looked at each child individually as well as comparatively.

### **Materials**

#### **Child assent form.**

An assent form for child's participation in a research project was presented to and signed by the child and then collected. This form stated the title of the study, purpose of the study, the criteria for the subjects, what the interview entailed, and what information was to be disclosed with the parent/guardian. The form also informed the child that if at any point they felt pressured to participate or uncomfortable during any part of the study, they were given the opportunity to stop their participation with no consequence. Permission was also received to take photos of the child's favorite objects,

toys, play environment, etc. The form required the child's signature as well as a signature of a witness. The form was printed in English and Spanish so that the child had the choice of using whichever form they feel is most appropriate.

**Parent/guardian form.**

Along with the child assent form, a parent/guardian permission form for a minor's participation in a research project was distributed and collected after being read and signed by the parent/guardian of that participating child. This form stated the title of the study, who was conducting the study, the purpose of the study, the subjects that were to be used, what the interview entailed, what was expected of the child during the interview, reasons for the child to not participate, possible risks and/or discomforts, child benefits, options for participating, cost and/or payment, and what would happen with the information that was obtained during the study. The form also informed the parent/guardian that if at any point they felt pressured to participate or uncomfortable during any part of the study, they were able to stop their participation with no consequence. Permission was also request for photos to be taken of their child's favorite objects, toys, play environment, etc., but informed that no identifying features were to be shown in the photos. The form required the parent/guardian's signature, child's name, and the signature of a witness. The form was be printed in English and Spanish so that the parent/guardian could use whichever form they felt was most appropriate.

**Pediatric interest profile.**

For the interview portion of the study, a pediatric interests profile from the Model of Human Occupation occupational therapy framework was used to collect data. This profile was a three part assessment that involved an interview with a child, an

interview with the primary parent/guardian to the child, and a 30 minute observation period playing in an environment in which they found comfortable and/or familiar.

**The kid play profile.** The first part of the pediatric interests profile is known as the *Kid Play Profile* (Henry, 2000). This interview lasted approximately 15 minutes and consisted of series of 50 questions that related to eight categories of activities:

1. Sports
2. Outside
3. Summer
4. Winter
5. Indoor
6. Creative
7. Lessons/Classes
8. Socializing activities

After the category involving socializing activities, the assessment provided a ninth,

optional,

“other

activities”

category,

which

allowed the

subject to

draw or

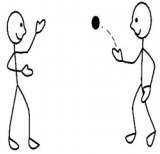


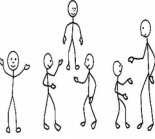



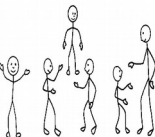
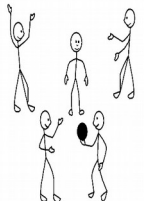


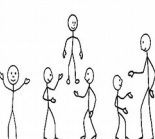
write in

their

activities of

choice in

**Kid Play Profile**

Outdoor Activities	Do You Do This Activity?	Do You Like This Activity?	Who Do You Do This Activity With?
 4. Play Catch	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 5. Ride a Bike	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up
 6. Play Dodgeball	 Yes No	 A Lot A Little Not at All	 By Myself With Friends With a Grown-Up

which they wanted to answer questions. Regardless of the category, each activity was followed with three questions inquiring whether the child participated in the activity, if they liked the activity, and with whom they completed the activity. An example of the assessment is shown below in figure 1.1:

*Figure 1.1 The Kid Play Profile (Henry, 2000)*

At the end of the *Kid Play Profile* (Henry, 2000) there is an evaluation that was utilized. For each category, this evaluation provided the percent of activities in which the child participated, a score between 1-3 of how much the child liked the given category of activities (1 being the lowest and 3 being the highest), and a percentage of activities that the child completed by themselves, with friends or with a parent/adult. At the end of the evaluation, the totals for each category were used to determine the number and percentage of total activities in which each child participated, a cumulative score of 1-3 for how much the child liked the activities in which they participated, and the percent of all activities the child completed by themselves, with friends, or with a grown-up. There was also a section for a play interview summary, play observations and interpretations/recommendations that were used for analysis.

A variety of media was provided to the children to complete the child interview. Examples of media included pens, pencils, colored pens, colored pencils, markers, crayons, highlighters and stickers. An example of the evaluation form is provided below in figure 1.2:

Other Activities	Yes	A Lot	A Little	Not at All	By Myself	With Friends	With a Grow-Up
81.		3	2	1			
82.		3	2	1			
83.		3	2	1			
84.		3	2	1			
85.		3	2	1			
Total							

Number of Other Activities Child Participates in _____	How Much the Child Likes Other Activities _____	Percent of Activities the Child Does By Myself _____ With Friends _____ With a Grow-Up _____
Percent of Other Activities Child Participates in _____		

Play Interview

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Total** (Exclude "other" activities when calculating totals)

Number of Activities Child Participates in (sum the totals of the 8 categories) _____	How Much the Child Likes All Activities He or She Participates In (sum the scores for the 8 categories and divide the number by 8) _____	Percent of All Activities the Child Does By Myself _____ With Friends _____ With a Grow-Up _____ (add final percentages from each column and divide by 8)
Percent of Activities Child Participates in (divide the above number by 8) _____		

**Play Interview Summary**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Play Observations**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Interpretations/Recommendations**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Appendix A 89

Figure 1.2 The Kid Play Profile evaluation form (Henry, 2000)

**The play history.** The second part of the assessment was the interview with the parent/guardian of the interviewed. This portion is known the *Play History* (Takata, 1974). This was a 30-40 minute, semi-structured, open-ended interview. The purpose of this assessment was to better understand the child’s play from the perspective of the guardian and involved questions regarding previous play experiences with toys and materials, gross physical play, pretend and make-believe, sports and games, creative interests, hobbies and other leisure activities, and recreation/social activities. An example of the questions asked in this portion of the assessment are shown in figure 1.3:



The Play History

(1) GENERAL INFORMATION (parent(s) interview)  
 Name: Birthdate: Gender:  
 Date: Informant(s):

Conditions (if relevant):

(2) PREVIOUS PLAY EXPERIENCES (parent(s) interview)

A. Solitary play

B. Play with others;  
 mother father sisters brothers playmates other family members pets

C. Play with toys and materials (earliest preferences)

D. Gross physical play

E. Pretend and make-believe

F. Sports and games: group collaboration group competition

G. Creative interests: arts crafts

H. Hobbies, collections, other leisure time activities

L. Recreation/social activities

*Figure 1.3 The Play History (Takata, 1974)*

**Observations and recommendations.** The *Play History* (Takata, 1974), was followed by a 30-minute observation period where the interviewer is to observe the child playing in a familiar, comfortable environment of their choice. The goal is to observe gross motor play, interaction with others and with objects, ways in which objects and toys are played with, etc. Observation notes were made in the allotted space at the end of the form. After the observation period, recommendations were made for the child's strengths and weaknesses as a means to improve future play. An example of the observations and recommendations form is provided below in figure 1.4:

- (3) ACTUAL PLAY EXAMINATION (parent(s) interview & observation)
- A. *With what does the child play?*  
 toys materials pets
- B. *How does the child play with toys and other materials?*
- C. *What type of play is avoided or liked least?*
- D. *With whom does the child play?*  
 self parents brothers sisters peers others
- E. *How does the child play with others?*
- F. *What body postures does the child use during play?*
- G. *How long does the child play with objects? With people?*
- H. *Where does the child play?*  
 home: indoors outdoors  
 community: park school church other areas
- I. *When does the child play?*  
 daily schedule for weekday and weekend
- (4) PLAY DESCRIPTION (student observation of child at play)
- (5) PLAY SUGGESTIONS (student recommendations for play)

*Figure 1.4 Play observations and recommendations*

## Procedure

Each participant was informed of confidentiality and that any identifying information was to be eliminated from the study so as not to disclose the identity of any of the participants. All confidential information was then be locked inside a file cabinet on the campus of Eastern Kentucky University, in the office of Professor Kathy Splinter Watkins. The documents will remain there for the next five years and then disposed of

so that no information is to be released or obtained by any other persons.

For the child interview using the *Kid Play Profile* (Henry, 2000), each child was be able to choose the location in which they wanted to conduct the interview. Before the interview they were briefed on what the research would look at, why they have been chosen, what was expected of them during the interview process, and how the information was to be used after the interview. They were be ensured that their identity and any identifying information would not be disclosed but that pictures were to be taken of their favorite objects, toys and the environment in which they played. They were informed that the interview would take approximately 15 minutes and that they could stop or take a break at any time, as well as choose not to answer a question(s). The subjects were given a variety of media, including pens, pencils, crayons, markers, colored pens, colored pencils and stickers to answer each questions however they saw fit. The interview portion with the child was be completed after the end of the assessment had been reached.

After the *Kid Play Profile* (Henry, 2000), the parent/guardian/caretaker was interviewed using the *Play History* (Takata, 1974) assessment. The guardian was given the opportunity choose where the interview was conducted so that they would feel most comfortable during the process. Before the interview, they were briefed on what the interview entailed, what the information was going to be used for, how it would be used and how their identity and an identifying information would not be disclosed. The interview was also recorded for reference, and the details of the recording and its purpose were disclosed to the participant. If they did not want not to be recorded, there were no consequences for this choice, though all participants agreed to the recording. They were informed that the interview would take approximately 30-40 minutes and

that were able to stop or take a break at any time, as well as choose not to answer a question(s).

During the interview, the *Play History* (Takata, 1974) was used as a reference for questions. Many of the questions on the provided form were asked, but since the interview was semi-structured and open-ended, other probing questions were asked as result of the parent/guardian's response(s). Along with the recording, notes were taken throughout the interview about important points made during the interview, specific responses or quotes, and observations taken during the interview either about the way which the parent/guardian responded, the environment, or any information that was thought to be useful for the purpose of the study.

For the play observation portion of the assessment, the child was observed playing in their natural, comfortable environment for approximately 30 minutes. The child was not be directed or prompted on what to do, nor did they have any specific tasks to complete. The child chose the activities in which they participated and with whom, and notes were taken during the observation about the type of play, toys/objects used, interactions with others, and any other information that was considered to be useful for the study. During this observation period, photos were taken of some of the favorite toys/objects of the child.

## **Results**

Data was analyzed based on the information obtained through the *Kid Play Profile* (Henry, 2000), the *Play History* (Takata, 1974), and the observation portion of the pediatric interest profile.

To determine if there was a relationship between language and occupational choices of children, the data between the *Kid Play Profile* (Henry, 2000), *Play History*

(Takata, 1974) and observation notes were compared and organized into visual representations. Each child was analyzed independently and comparatively to demonstrate any possible differences between the three, with the *Play History* (Takata, 1974) also being used for a more phenomenological look at the child's play interests and choices from a parent/guardian's perspective. Refer to figure 1.3 for an example of the evaluation form.

The first child interviewed was a 7 year old bilingual female from Paris, Kentucky. This child lived in a more rural environment and had siblings. She enjoyed playing with toys rather than objects, with some of her favorite toys including a kitchen set, toy ponies and Dora the Explorer figures. The child participated in a variety of activities in each category, but participated in only 50% of the winter and socializing activities that were asked about. Overall, this subject participated in 82% of all activities asked about during the interview, and had a 2.09 interest score in all activities. The parent/guardian interview revealed that she plays well with others - predominately family – and does not play alone often. She enjoys many gross physical play activities such as swimming, running and other outside activities, and often times plays pretend and make-believe. She has many creative interests and recreational activities and keeps herself busy.

The second child interviewed was a 9 year old, monolingual English-speaking male from Richmond, Kentucky. He has siblings and lives in a suburban area. He enjoyed collecting items such as money, performing magic tricks and reading. He enjoys winter, creative and outside activities most, but also participated in a variety of activities that he discussed in the "other" category at the end of the child interview, such as tennis, playing in a treehouse and jumping on a trampoline. Overall, he participated in 33.75% of all activities and had an overall interest score of 2.27. The parent/guardian interview

revealed that the child prefers solitary play and sometimes plays with his siblings. He enjoys playing with action figures, reading books, and from a young age has had a higher reading level than most of his peers. When he was younger he had medical issues and he disliked touching objects of certain textures. His parent/guardian explained that he is very disorganized in many aspects and has been all of his life. He is not competitive and does not participate in sports, which would explain his 0% participation in sport activities on the *Kid Play Profile* (Henry, 2000). He has many creative interests such as drawing and writing and likes to work on math games with his mother and build robots with his father.

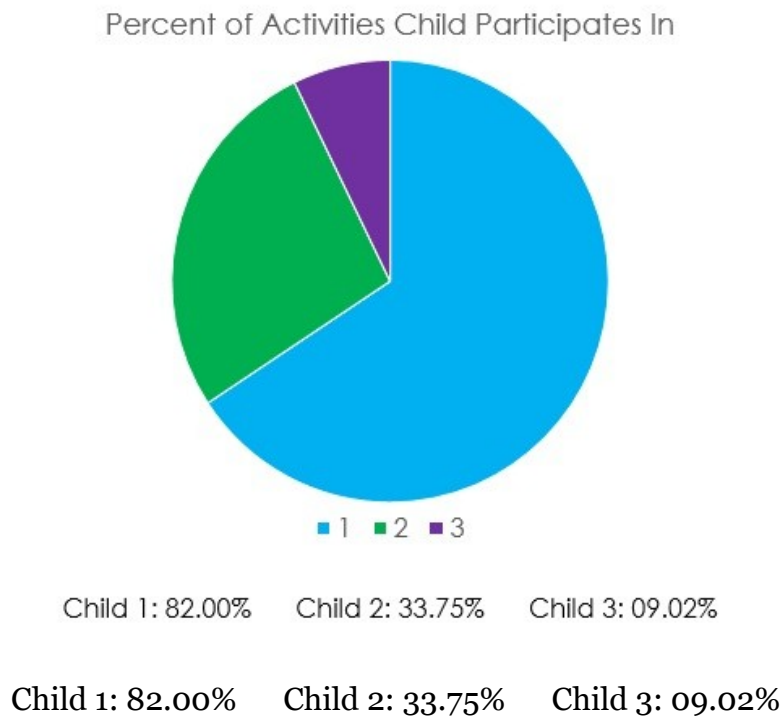
The third child interviewed was a 12 year old, monolingual Spanish speaking child living in Louisville, Kentucky. He has no siblings and lives in a suburban area. He enjoys reading, baking and playing games on his cell phones rather than playing with toys. He enjoys participating in sport and winter activities most. Overall, he participated in 9.02% of all activities discussed in the interview, giving him the lowest participation percentage of all three children. Though he did not participate in a majority of the activities, he had the highest activity interest score of 2.78. His mother stated that when he was little, being an only child, he did not like to play with other children and did well with solitary play. He has had a few friends growing up but did not prefer to share or play with others. He loved playing with toy cars as a younger child but now prefers books and more interactive activities rather than playing with toys or objects. Though he loves sport activities, he is not competitive. He has many creative interests, including drawing, painting, building Legos and discussing his art.

When looking at the three subjects, all are different in various aspects – age, language ability, living environment (city, rural, etc.) and number of siblings. When

comparing scores and percentages of activity participation, the differences can be seen in the tables and figures below:

Subject	% of Activity Participation	Interest in Activities (1-3)
1	82.00%	2.09
2	33.75%	2.27
3	09.02%	2.78

*Table 1.1 Child Participation Comparison*



*Figure 1.5 Percent of Activities Child Participates In*

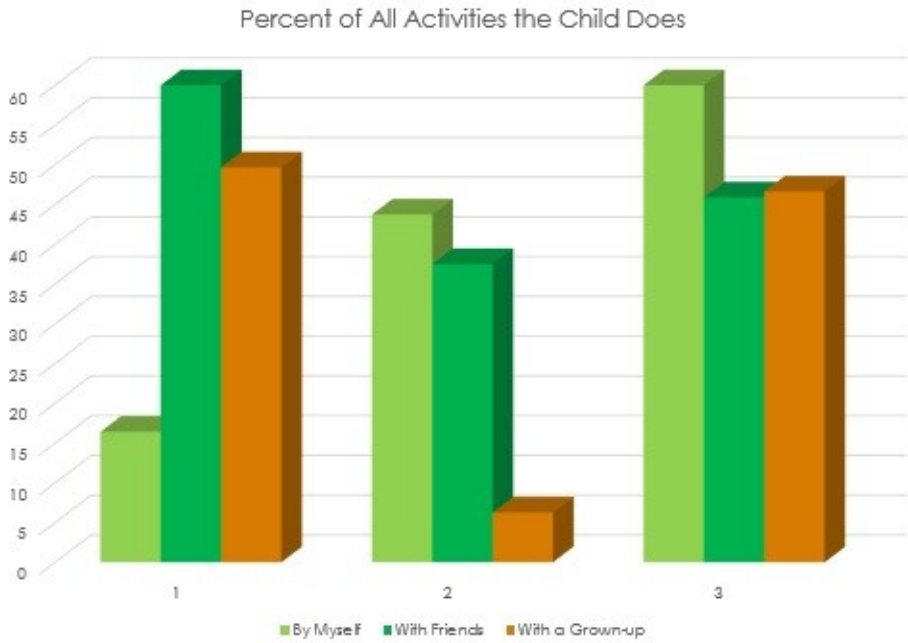
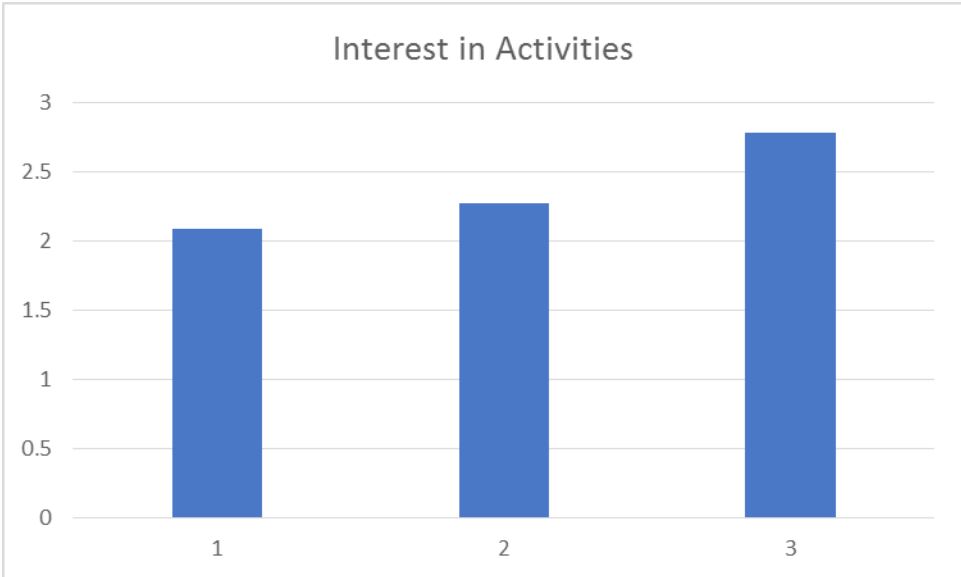


Figure 1.6 Percent of all activities the child does and with whom



Child 1: 2.09    Child 2: 2.27    Child 3: 2.78

Table 17 Interest in Activities (1-3)



### **Discussion**

When looking at the data collected with the interviewed children, the older the child was, the fewer activities they participated in but the higher interest rate they had in the activities. This could be due to the development of personal interests throughout childhood. At a young age, children are often in the play exploration stage where they explore their play interests to determine what they enjoy and do not enjoy in terms of play (Christiansen & Townsend, 2010). During this stage is when many play habits become noticeable and when strengths and weaknesses can be determined.

Experiencing the play exploration stage can result in a child participating in a large number of activities since many may be newly introduced to the child. As the child continues through this play exploration phase, they can make conscious decisions about what they enjoy based on their own personal experience and thus can be more purposeful in their play decisions.

Data also demonstrated that when looking at language as a factor, monolingual subjects participated in fewer activities than compared to the bilingual child. This data could be a result of the differences in cognitive development and level of creativity as a result of bilingualism at a young age (Leikin, 2012). The high level of participation and low interest level in the activities of the bilingual child (subject 1) could be a result of a higher level of creativity and play exploration. If the child is more creative as a result of being bilingual, it would follow that they may have a greater amount of interests and objects/toys in which they enjoy, and the ways in which they interact with their environment (Christiansen & Townsend, 2010). When looking at research, it would also follow that the monolingual children have fewer interests as a result of a lower level of creativity than compared to the bilingual child (Leikin, 2012). The data collected correlates with previously conducted research and supports a higher level of creativity in bilingual children.

Conducting the chosen pediatric occupational therapy assessments provided information about play habits and interests from the child perspective, the perspective of the parent/guardian, and the perspective of the interviewer, thus triangulating the data to provide a strong sense of life narrative and background information. This combination of data collection and evaluation allowed for reliable sources that could be supported by various forms of data collection and for a deeper, more phenomenological perspective into the child's play interests and history.

### **Need for Bilingualism**

“The proportion of the U.S. population with limited English proficiency is growing. Physicians often find themselves caring for patients with limited English proficiency in settings with limited language services” (Schenker, Lo, Ettinger &

Fernandez, 2008). This proportion is continually increasing and the number of services to accommodate for these language gaps are very limited and not well integrated into physician services (Schenker, et al., 2008). As a result of this need for bilingual speakers, I have pursued opportunities to (1) better learn and understand the Spanish language and (2) better learn and understand the Hispanic and Latino culture. Having experience and a knowledge base of the language and culture will not only help me in my endeavors to one day work with this population of people, but also become a more culturally skilled and competent occupational therapist (Smart, 2009).

### **Strengths**

In terms of strengths of the study, the combination of occupational therapy assessments that were used helped to gain a greater, more personal insight into the life narrative of the child and their play interests than compared to a standard interview. The phenomenological aspect of the interviews allowed the participants to openly expand upon the topics that were discussed. Since the interviews were semi-structured and allowed for freedom of answers, that may not have occurred if more structure or limitations during the interview were present. The participants were from the state of Kentucky, and the children ranged between the ages of 7-12 years old. This was a strength in that it provided a range of subjects from one state to comparatively look at in regards to the association of language and occupation at different ages.

### **Limitations**

Just as the age differences was a strength, they were also limitations. Due to the narrow range of participants, the study developed into three separate case studies rather than a study with a large number of children ages 7-12 in Kentucky. After conducting the interviews, it was also realized that the age range was a limitation in that children were

significantly different in developmental stages despite having only a five year age range for the study.

Time and number of participants were two of the biggest limitations of the study. Though it was not intended, the study developed over time into three separate case studies rather than a study on a large number of children ages 7-12 in Kentucky. Due to the class duration and the study being only two semesters, only three children were able to be interviewed for the study. If given more time, more children could have been interviewed so as to have more data points that can be generalized to a greater population.

As for other limitations, the language of the study was limited to only English and Spanish speaking children and the gender and socioeconomic factors could have impacted the results. When looking at the developmental differences between males and females and the ways in which socioeconomic factors may affect the types of objects/toys available to a child and the ways in which they play with those objects/toys, this limitation must also be considered.

When looking at the characteristics of each child, each had different variables that also may have played a role in the results. If conducted again, more children with fewer varying characteristics would need to be interviewed in order to eliminate characteristics that may affect data. All children interviewed would need to be the same age, gender, or multiple children from multiple ages would need to be interviewed. It would also be better to limit the study to children in one city in Kentucky, or interview more children from various parts of the state, rather than only interviewing one child from different cities. Interviewing multiple children from the same location or multiple

children in various locations would help to provide a better range of data either for the state or for the specific area in which that participants reside.

Though not seen as a limitation until after the study was completed, the financial status and location of the families of the children could have influenced the interview process. Financial status could play a factor in occupational choices to a certain extent, considering that this aspect could affect the types of toys/objects that a child has access to, how many toys/objects are provided in the play environment, and the types of activities in which the child may be able to participate (i.e. skiing, hiking, going to the beach, etc.). Considering that one child interviewed in the study lived in a more rural area popular for horse farms than compared to the other two subjects that lived in more suburban areas, their interactions with others and relationship with family and animals could also be affected. Though they may not be significant factors, it would be ideal to eliminate these variables from the study.

### **Directions for Further Research**

#### **Time.**

For further research, the study should be longer in order to allow time to collect a larger pool of participants so that more participants should be chosen. Since social media was used as a means of collecting participants, conducting a study that occurred over a longer period of time would allow for reaching more individuals that may not have been reached in the short time period that was given. Since the interviews were conducted in an environment that was comfortable to the participant – many of which chose their homes – each interview required a certain amount of travel; conducting a longer study would also allot more time for a greater number of interviews.

#### **Gender.**

An equal number of male and female children should be chosen for further research, so that each gender is represented equally. During the age ranges that were considered in this study (7-12 years old) males and females develop at different rates psychologically and socially. These differing developmental milestones and growth rates could possibly affect data and should be reduced by including an equal number of each gender, or just one gender.

### **Age.**

Though the study and the *Kid Play Profile* (Henry, 2000) are only applicable to children ages 7-12 years old, and due to the different rates of development that occur during this age, the age factor should be reduced. This could happen in two ways:

1. Interview multiple children of one age
2. Interview multiple children for various ages (ex: interviewing three 7 year olds, three 8 year olds, etc.)

Having more data points of children all the same age or multiple children interviewed for multiple ages would help not only reduce the likelihood of age affecting the data as well as developmental rates.

### **Location.**

Location could also be standardized when looking at the interviewees. Two of the children interviewed in this study were from larger, more suburban areas/cities, while one child was from a more rural region in the state. Standardizing the location of the participants (i.e. only interviewing children from one town/city) or interviewing multiple participants from each location subtype (city vs. rural) based on population could help reduce any significant differences in the data that occurred as a result of location.

**Financial status.**

Financial status could also be a controlled variable. During the preliminary interview process where all personal information is disclosed, providing a space for the parent/guardian to classify themselves in financial category. Possibilities for the categories of financial status provided might include:

- Lower class
- Upper-lower class
- Lower-middle class
- Middle class
- Upper-middle class
- Upper class

Financial status may play a role in the types of toys/objects that a child has access to, the activities in which they may participate, and the types of interactions they have with toys/objects. Those with different financial statuses may provide toys/objects that another individual in a different financial category may not be able to provide, such as technological toys, cell phones, etc., and certain activities that may cost money or objects that require money, such as skiing or swimming in a pool. In these cases, if a child does not have access to technological toys/objects or the financial status of the family does not allow for a pool to be built or to pay to visit a pool, a child may not have experience with swimming. Though children develop their own play interests as they develop physically, psychologically and emotionally, having access to certain toys or activities may alter their occupational play choices and reducing the likelihood of financial status effecting the data would be recommended.

**Further Implementation**

As for further use of this research, intentions are to use the data to help improve cultural my cultural competency as a future occupational therapist so that I am better

able to work with clients of diverse backgrounds and cultures. The goal is to continue to increase my knowledge base of the Latino and Hispanic populations so that I can better connect with future clients that speak both the English and Spanish languages.

As well as developing my cultural competency skills, I hope to also continue gaining experience with occupational therapy assessments in order to better understand a client, and be better able to evaluate and analyze data. I hope to use this study not only for personal experience and having the opportunity to conduct my own research within the realms of my two majors, but also as a foundation for a better understanding of the relationship of language and occupational choices in children and how they may be associated.



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