

USING A PLAY INTERVENTION TO IMPROVE THE PLAY SKILLS OF CHILDREN WITH A LANGUAGE DELAY

Abbey Sualy, Sara Yount, Lisa Kelly-Vance¹, Brigitte Ryalls

University of Nebraska at Omaha, USA

Abstract. Background. Children with language delays are at risk for difficulty with social skills because their play skill repertoire may be limited. Early interventions can help students learn play skills and prevent future social difficulties. **Purpose.** Minimal studies have addressed the impact of a play intervention, but the few that exist have found positive effects on typically developing and at-risk children. The effect of a play intervention on the play skills of preschool age children verified with a language delay was examined in this study because of the importance in improving play skills for this group. **Materials and method.** Children's free play skills were assessed using the PIECES and then they were assigned to either an intervention or comparison group. The intervention consisted of short-term facilitated play instruction from adults and took place in the early intervention classroom. A pretest posttest design was used to evaluate the effect of the intervention, also using the PIECES. **Results.** Five of six children in the intervention group improved their play skills while the five children in the comparison group remained at or below their pretest levels. **Conclusions.** The children's play increased in complexity by moving from exploratory to complex pretend play. Prompting, modeling and reinforcement are methods which effectively encourage play skill development.

Keywords: play, early childhood, interventions.

Language delays are frequently identified early in life and these children can suffer long- term problems (Catts, Kahmi, 1999). Children with language delays often have difficulty initiating and sustaining play in that they spend less time in group play and engage in more unoccupied behavior than peers with normal language abilities. For example,

¹ Address for correspondence: Psychology Department, University of Nebraska Omaha, 6001 Dodge Street, Omaha, NE 68182-0274; e-mail: lkelly-vance@unomaha.edu; tel.: 402-554-3563.

Sherrod, Siewert, Cavallaro (1984) found that children with less developed language tend to play with only one other child, and if that child is absent, they rarely become involved with the other children or activities. Children with language delays also engage in less mature play and exhibit lower levels of imaginativeness during free playtime. The type of play in which they are engaged typically involves simple manipulation of toys and is often repetitive and patterned, as opposed to dramatic or symbolic (Rescorla, Goossens, 1992; Udwin, Yule, 1983). Children with language delays are also more likely to exhibit problem behaviors at home and in school and be isolated from peers, thus missing out on play opportunities and the opportunity to learn from their play interactions (Craig-Unkefer, Kaiser, 2002; Garbarino, 1989; Roopnarine, Johnson, 1994; Sherrod, et al., 1984; Silva, McGee, Williams, 1983). Because of the concomitant delays in pretend play, a useful intervention strategy for language delayed children is to provide language stimulation during pretend play (Craig-Unkefer, Kaiser, 2002; Rescorla, Goossens, 1992).

Play skills typically develop in a fixed sequence, are related to, and often mirror other domains of child development (Athanasίου, 2007). Play serves many cognitive functions, and certain types of play can enhance a child's cognitive abilities and help as that child encounters developmental tasks such as thinking, problem solving, and speaking (Swadener, Johnson, 1989). Play begins as a sensorimotor activity where children explore and manipulate toys. These play behaviors are physical in nature, because the child is experimenting and focusing on the function of the toy. As children mature, their play becomes more symbolic. In this type of play, also called pretend, imaginative, or representational play, children use mental representations to support their play, to represent objects not present, to plan actions in advance, to substitute one object for another, to direct complex actions toward self and others, and to engage in multi-step behaviors (Athanasίου, 2007). These types of play behaviors promote cause and effect thinking and help children see things from another person's perspective (Bagnato, 2007). The behaviors are also related to creativity, problem solving, hypothetical reasoning, and conservation, and in turn, provide a foundation upon which cognitive abilities can be developed (Athanasίου, 2007).

Play and language development are mutually reinforcing and follow parallel courses, especially at young ages. As play complexity increases,

so do language use and vocabulary development (McCune, 1995; Singer, 1998). For example, children whose play behaviors include symbolic representation are more likely to reach language milestones that require similar representational skills. Through play, children can practice and refine current language skills and learn new skills that can be applied in many other contexts (Athanasίου, 2007). For example, if a child would like to play “house” with a peer, language gives him/her a way to ask others to join in. Language also allows children to express what they have learned through play and expand on certain play behaviors. In addition, children use language to plan activities, organize play, make clarifications, and solve problems that may arise (Fekonja, Umek, Kranjc, 2005).

Due to the fact that play gives children an opportunity to engage their emerging cognitive and language abilities, it can be used as a context to deliver interventions to children who are struggling with these areas. Since every child engages in some form of play, interventions delivered through play do not restrict the child and allow him/her to feel at ease in a comfortable, familiar environment (Kelly-Vance, Ryalls, 2008; McWilliam, Strain, 1993). Play interventions are parent and teacher friendly, can be done in multiple settings, such as at home and in the classroom, and can benefit children in many areas of development. In addition, the social context of pretend play requires children to use language to communicate with peers and adults. Although research is limited, there have been a few studies examining the effects of play interventions on the play behaviors of children at risk for delays and results indicated that children’s play could be impacted by these interventions (Craig-Unkefer, Kaiser, 2002; Mallory, Kelly-Vance, Ryalls, 2010).

Craig-Unkefer and Kaiser (2002) used a multi-component play intervention to promote social interaction and play for three year-old children identified as at-risk for language problems. The play skills of six children attending the same childcare center were assessed and coded using the Peer Play Code, which looks at aggression, solitary behavior, onlooker behavior, parallel play, associative play, and cooperative play (Craig-Unkefer, Kaiser, 2002). An intervention was conducted by child interventionists with several years of intervention research experience with young children. The intervention consisted of a planning session where the facilitator introduced a toy set, a time where the children were then allowed to play with the toys as the facilitators modeled, instructed and facilitated

play. Then the children were given free time with the toys after which the play session was discussed. After the intervention, the children's play behaviors were more complex and interactive. They also engaged in more peer-directed play, as opposed to adult mediated play. This intervention was conducted with children at-risk for language delays, so it is important to determine if this type of intervention would have the same effects on children who have been verified with a language delay.

In a similar study (Mallory, Kelly-Vance, Ryalls, 2010), six children at-risk for developmental delays participated in an intervention that targeted expanding their pretend play skills. All six children, who attended a public school early childhood program, were initially evaluated on the PIECES (Play in Early Childhood Evaluation System) (Kelly-Vance, Ryalls, 2005, Kelly-Vance, Ryalls, 2008) to determine their highest level of play and the amount of time they spent in exploratory versus pretend play. The children were placed in either the intervention or the comparison group for six weeks. Children in the intervention group received 20 minutes of direct instruction in play twice a week and the comparison group continued to participate in regular classroom activities. Two of the three children in the intervention group increased their highest level of play and the complexity of the pretend play. Only one child out of the three in the comparison group improved in either area. The authors concluded that play interventions can be effective with some children in a short amount of time, but encouraged others to continue the research to confirm the findings (Mallory et al., 2010).

As demonstrated in these studies, play shows promise as an effective context in which to provide interventions to promote play and language development, but more research is necessary to elucidate how play can best be used to accomplish these tasks (Fekonja et al., 2005). There have been very few studies published examining the effects of play interventions in general. Thus, the purpose of the present research was to examine the effects of a play intervention on the play skills of children with a language delay. The idea underlying this research includes the ideas that, because play and language are mutually reinforcing, improving the play level of children can potentially benefit language development. The specific question addressed in this study is the following: Does a play intervention make a difference in the way children with a language delay play? Consistent with prior research, it was hypothesized that the play

intervention would lead to improvements in the children's play skills. To address this research question, two similar interventions were implemented in an early childhood setting. Differences in how participants were selected and the specific nature of the interventions will be described below while differences in the data collected will be described in the results.

METHOD

Participants

Intervention Group 1. Five children between the ages of 37 months to 55 months participated in Group 1. All children had a verified Speech-Language Impairment (SLI) and were enrolled in a preschool language classroom at an elementary school in a Midwestern suburb. The SLI verification criteria for this classroom was a language delay of at least 2 standard deviations (SD) below the level expected for their chronological age as measured by the Assessment, Evaluation, and Programming System (AEPS) for Infants and Children, Second Edition (Bricker, 2002). All children had expressive and/or receptive language delays, but did not have significant articulation errors. Children were excluded from participation in this group if they had delays in other areas of development or were in need of additional services. Four of the children were male, one was female, and all were Caucasian. Three of the children received the play intervention (Child 1, 2, and 3), while the other two comprised the comparison group who attended class on a different day and did not receive the intervention (Child 4 and 5). Originally, there was a third child in the comparison group, but he moved out of the school district, and therefore was not able to complete the study. Children in the intervention and comparison groups were matched on gender and age at pre-test and assigned to the groups.

Intervention Group 2. Six children ranging in age from 36 months to 59 months participated in Group 2. All children had a verified SLI and two children had an additional Developmental Delay (DD). All were students in a preschool language classroom at an elementary school in a Midwestern suburb. To meet the SLI verification criteria for this classroom children had to fall below the average range (85-115) on a language

measure. In addition, difficulties in speech, language, cognitive skills, or behaviors also had to impact daily functioning. For this classroom, DD meant the two children with this additional label were delayed in language as well as cognition and fine motor skills (Thomas, Annaz, Ansari, Scerif, Jarrold, Karmiloff-Smith, 2009). (The criteria differed between the two classrooms because district procedures had changed.) Four of the children were male, two were female, and all were Caucasian. Three children were assigned to the intervention group (Child 1, 2, and 3) and three were assigned to the comparison group (Child 4, 5, and 6). Children in the intervention and comparison groups were matched on gender, age, play skills, language, and developmental delay.

Setting

The typical activities that took place in both of the language classrooms for both groups were play time facilitated by speech-language pathologists, and teacher led activities such as art projects and group time, which involved reading stories, and singing songs, among other things. The speech-language pathologists incorporated language into each daily activity and prompted the children to use language to make requests, ask questions, and to interact with each other. The area used for both groups was an area typically used for free play, and the only children present were those participating in the study. The data collection and intervention occurred during the morning hours at times convenient for the speech-language pathologists and classroom teacher.

Play Assessment Measure and Procedure

Children's play was assessed pre- and post-intervention using the PIECES (Kelly-Vance, Ryalls, 2005; Kelly-Vance, Ryalls, Glover, 2002; Kelly-Vance, Ryalls, 2008). The PIECES is a set of scales that can be used to observe children during free play and assess their behaviors. The PIECES assesses multiple areas of cognitive development, but this study focused only on the Core Subdomain, which examines a child's exploratory and pretend play behaviors. Scores ranged from 1 (basic mouthing) to 13 (complex, multi-step pretend play). Exploratory play ranges from 1 to 6 and pretend play ranges from 7 to 13.

Inter-observer reliability for the PIECES was found to be .90 for typically developing children and 1.00 for exceptional children. Test-retest correlations for typically developing children ($r = 0.48$) were similar to the correlations for exceptional children ($r = 0.58$). These correlations provide evidence that the PIECES coding scheme can be used with children from both populations (Kelly-Vance, Ryalls, 2005). The children's play behaviors are coded to determine their highest level of play. Measuring a child's highest level of play is logical information that can be derived from the PIECES and gives educational professionals valuable information regarding that child's baseline performance and needs (Kelly-Vance, Ryalls, 2005).

In this study, the raters observed the children during free play time in their classroom, where the children were allowed to play with any toys or materials available. Free play took place at approximately the same time each day. Each child was observed for 30 minutes and the raters recorded the specific behaviors the children engaged in and whether a teacher or peer facilitated the play. After the observation period, each child's play behaviors were coded using the PIECES to determine that child's highest level of play. The same data collection procedures took place after the intervention period to determine the effects of the intervention on the children's play skills. To ensure inter-observer agreement in the current study, 30 % of the baseline and post-intervention observations were coded by an additional rater. Inter-observer agreement averaged .81 (range .60 to .93) for Intervention Group 1 and .88 for Intervention Group 2 (range .73 to 1.00).

Intervention Procedure

The interventions occurred once a week. Intervention Group 1 lasted for six weeks and Intervention Group 2 lasted for eight weeks. Both were conducted in their respective preschool classrooms as described above.

Each intervention session had a pretend play theme centered around a children's book and toys. There were four different themes: kitchen/grocery shopping, bedtime, doctor/hospital, and cooking/cleaning. All themes were used in both Intervention Groups. Intervention Group 2 repeated every theme once and Intervention Group 1 repeated two of the four themes.

The intervention typically lasted approximately 30 minutes, depending on the activities the classroom teachers had planned. The interventionists were school psychology graduate students who attended training where they learned the purpose of the intervention, its components, and strategies to use to improve the children's language and play skills. Specifically, the interventionists were instructed on the types of questions to ask, how to verbally reinforce the children for appropriate behaviors, how to encourage pretend play behaviors and language use, and how to model play behaviors for the children. Each week a story and corresponding toy set with a specific pretend play theme was chosen (Craig-Unkefer, Kaiser, 2002). The intervention had three main components: a) reading a story, b) a play session, and c) a review session. The only difference between groups was in component (b), the play session, as described below.

Component a. In the first intervention component, the interventionist read the story aloud to the children and introduced the theme and materials in the toy set (e.g., "Today's theme is bedtime and we have dolls, a bathtub, and blankets...").

Component b: Intervention Group 1. For Intervention Group 1, the second component was a 15-minute play session, where the children played with the toys provided while the adult facilitated, modeled, and instructed the children on certain play behaviors. The purpose of the facilitation and modeling was to promote and encourage more complex levels of play. For example, if a child was holding a doll, the adult might say, "What do you think the baby needs? Is she hungry?" in order to get the child to engage in a higher level of play or more appropriate action. These questions, comments, reflective statements, and re-directs were used to encourage or sustain a verbal interaction or pretend play sequence. The children were also reinforced through verbal praise for exhibiting pretend play behaviors and for using language in appropriate ways. After 15 minutes of facilitated play, the adult moved away from the play area and watched the children for 5 minutes to observe whether they continued to communicate and engage in pretend play behaviors. This was documented informally through descriptive notes and anecdotal observations.

Component b: Intervention Group 2. The story was followed by five minutes of free play with the toy sets that related to the story. After

this period of free time, the experimenter removed the toy sets leaving only non-toy objects for free play with no guidance (Rescorla, Goossens, 1992). The goal was to encourage pretend play and creativity. Free play took place over a five minute period. At the beginning of the eight week period, the play was completely facilitated. This meant that the facilitator modeled, facilitated, and instructed the children on how to play with the non-toy objects for the entire five minute period. The facilitator gradually increased the amount of free play without facilitation each week, and, by the end of the eight week period, the facilitator was only guiding the participants in play for two minutes. After the non-toy session, the children cleaned up and reviewed what was learned in the play session.

Component c. The third component of the intervention was a review session that took place while the children cleaned up the toys. The adult joined the children again and reviewed and discussed the story, the theme, the toys, and what they did while playing. The purpose of the review session was to encourage the children to talk about their play behaviors and to link the play and toys back to the story (Craig-Unkefer, Kaiser, 2002; Rescorla, Goossens, 1992).

RESULTS

Two types of data will be discussed. First, to document the effectiveness of the intervention, changes in the level of play pre- and post-intervention in the intervention and comparison groups will be discussed. This was done by a visual analysis of the data. Second, to examine potential explanations for why the intervention was successful, qualitative descriptions of each intervention child's play behaviors will be provided. The descriptions in the Intervention Group 1 include information about type of play whereas the behavioral observations in the Intervention Group 2 included more specific play behaviors such as variability with toys and use of substitution.

Changes in Level of Play

The highest level of play that children achieved at both pretest and posttest were compared. Five of the six children who participated in the intervention groups engaged in a higher level of play on the PIECES after

the intervention period. The one remaining child remained at the same level, which was at pretend play during pretest. Four of the six intervention participants moved from exploratory to pretend play. In contrast, none of the comparison group children increased their play level; two children remained at the same level and three of the children displayed a lower level of play at the posttest. Table 1 illustrates the changes in level of play for each child in the intervention and comparison group.

Table 1. *Scores on the PIECES (with age approximations) in Pre and Post Intervention Phases*

Intervention Group 1		Comparison Group 1	
Child 1 (52 months)		Child 4 (48 months)	
Pre	5 (12-15 mo.)	Pre	6 (12-16 mo.)
Post	8 (12-18 mo.)	Post	5 (12-15 mo.)
Child 2 (37 months)		Child 5 (55 months)	
Pre	6 (12-16 mo.)	Pre	11 (24-36 mo.)
Post	13 (36+ mo.)	Post	11 (24-36 mo.)
Child 3 (43 months)			
Pre	5 (12-15 mo.)		
Post	11 (24-36 mo.)		
Intervention Group 2		Comparison Group 2	
Child 1 (47 months)		Child 4 (53 months)	
Pre	8 (12-18 mo.)	Pre	11 (24-36 mo.)
Post	11 (24-36 mo.)	Post	11 (24-36 mo.)
Child 2 (54 months)		Child 5 (49 months)	
Pre	11 (24-36 mo.)	Pre	11 (24-36 mo.)
Post	11 (24-36 mo.)	Post	9 (19 mo.)
Child 3 (44 months)		Child 6 (49 months)	
Pre	6 (12-16 mo.)	Pre	11 (24-36 mo.)
Post	8 (12-18 mos.)	Post	10 (24+ mo.)

Description of Play during Intervention: Intervention Group 1

Child 1. Before the intervention, Child 1 was mainly engaging in unitary functional activities, where she was performing one action with an object. She used the toys for their primary purposes and did not engage in any symbolic representation. Her highest level of play involved

complex exploration. She did not engage in any transitional or pretend play behaviors. However, after the intervention, Child 1 increased the complexity of her play behaviors, and only had a couple instances of unitary functional activities, unlike in the pre-intervention period. After the intervention, she engaged in passive other-directed acts or object-directed acts, which involve acting on another person or object with a toy or acting on or with inanimate objects. Overall, Child 1 spent more time in pretend play after the intervention, and the behaviors she exhibited were more complex.

Child 2. Child 2 improved in a similar way. Before the intervention, he spent the majority of the play time performing only a few actions with an object and typically used it only for its primary function. After receiving the play intervention, Child 2 spent most of the play period in pretend play, where he acted on others with toys and engaged in play episodes, where he combined seven play behaviors in a logical order. Engaging in pretend play episodes is appropriate for Child 2's age, as measured by the PIECES, and after the intervention, the gap between his chronological age and the age that correlated with his initial score on the PIECES had been reduced.

Child 3. Child 3 engaged in more pretend play behaviors after the intervention period. During the pre-intervention assessment, his play behaviors mainly involved simple manipulation and performing single actions with toys. After the intervention, Child 3 moved up to pretend play and most of this play involved passive other-directed acts. However, Child 3 did engage in a more complex multischeme combination. These pretend play behaviors were more complex than his play before the intervention, and he spent the majority of time in these types of sequences and less time in simple manipulation.

Description of Play during Intervention: Intervention Group 2

Child 1. The PIECES showed that Child 1 was the only participant to have fairly stable play levels over time. Child 1 maintained at eight minutes of pretend play before and after the intervention. Before the intervention started, he spent the majority of time in exploratory play doing basic manipulations and single functional acts, which means the child

was examining objects and only doing one action with the toys a majority of the time. After the intervention, Child 1 spent the majority of his time exploring objects, but he was able to increase the complexity of his exploration to using random combinations with objects. In addition, he was able to increase his substitution by one minute and other directed behaviors by three minutes. While Child 1 did not spend more minutes in pretend play after the intervention, he did increase the complexity of play after the intervention as measured by the PIECES. Anecdotal results showed that Child 1 was also able to increase his substitution during the intervention.

It is important to keep in mind that Child 1 has developmental delays which may have impacted the intervention outcomes. In addition, interactions during the intervention may have also impacted the results. Specifically, Child 1 had problems focusing on the tasks asked of him.

Child 2. The PIECES results indicated Child 2 increased time spent in pretend play from 16 minutes to 26 minutes after the intervention. She was able to make the largest gains in play across all six participants. Before the intervention, Child 2 spent majority of the time doing a single functional action by exploring an object with one act. She spent an equal amount of time doing object directed play, in which she did a single pretend play behavior on an object. After the intervention, Child 2 increased the time spent pretend playing with object directed play behaviors from eight minutes to fifteen minutes. For other directed behaviors, Child 2 increased pretend play from three minutes to eleven minutes. It is also important to note that while this child did not show substitution increases from the PIECES pre and post-test, she showed gains on the intervention. During the first five intervention sessions, this child incorporated at most one substitution play act that was not facilitated. During the last three sessions, the student did two substitution acts that were not facilitated. Not only did Child 2 increase the amount of substitution throughout the intervention, the complexity of her substitution increased as well.

Child 3. Child 3 increased his pretend play behaviors from pre to post-test. The PIECES showed that before the intervention, he had no pretend play behaviors, and after the intervention he was engaged in pretend play for seven minutes. During the pre-test, Child 3 spent majority of the time doing a single functional act with toys, which means he

stacked blocks and moved a car around on the rug. He also spent some of this time with similarity based combinations. After the intervention, Child 3 spent the majority of his play in complex exploration. He also increased the amount of time doing object directed play. Child 3 spent the majority of his time playing with blocks and cars initially and was able to expand his toy selection after the intervention. The data shows that Child 3 increased his selection of toys as well as his amount of time spent in pretend play after the intervention. In addition to gains on the PIECES, Child 3 also showed gains in substitution throughout the intervention. Initially, all play was facilitated. Although there were some obstacles, this child was able to show non-facilitated substitution behaviors by the end of the intervention. Child 3 was ill for two of the eight intervention sessions. Along with being ill, this child was upset for the first half of the intervention during the first two sessions and did not participate. Therefore, the child did not participate in four of the eight sessions. With four sessions of no participation, he was still able to show growth in substitution behaviors similar to Child 2.

DISCUSSION

The purpose of this study was to determine the effects of a play intervention on the play skills of preschool-age children verified with a language delay. Results of the study indicate that the intervention was effective in increasing the complexity of the children's play behaviors. Each child who received Intervention 1 moved from exploratory play to pretend play. Children in the Intervention Group 2 increased their complexity of play and substitution behaviors. The observational data provide additional evidence that the complexity, variety and representational levels of play increased after children participated in the interventions. The use of comparison groups strengthened the findings in that none of these children made gains in their play.

Overall, the play intervention helped all children in the intervention groups close the gap between their chronological age and the age level that corresponded to their highest level of play skills as measured by the PIECES. These complex pretend play behaviors begin to develop around 24 months of age, so it is expected that preschool-age children engage

in them. This play intervention may have been successful because it took place in their natural environment, which was comfortable and familiar to them. In addition, during each intervention session, the children were introduced to a story and a set of toys designed to promote pretend play. It is possible that spending time each week with toys that encourage pretend play helped them learn ways to engage in pretend play on their own with different toys. The prompting and modeling from adults may have also benefited the children, and allowed them to better imitate those behaviors and act them out on their own. It may be that these children needed extra support from adults in order to engage in play behaviors more appropriate for their age. This extra support is easy to provide and is something that can be done at an early age in order to prevent these delays from occurring or from becoming worse. These results show how a play intervention is effective for helping children learn how to play in more complex ways and incorporate symbolic and substitution actions.

The results from the current study are consistent with previous research which found that interventions conducted in play contexts have positive effects on the play behaviors of young children (Craig-Unkefer, Kaiser, 2002; Craig-Unkefer, Kaiser, 2003). The current study extends previous research, because it shows that a play intervention is effective in increasing the complexity of play behaviors of children verified with a language delay, not just at-risk for a delay. In comparison to previous research, the interventions in the current study lasted only six or eight weeks, which shows that a play intervention can be effective when carried out for a shorter period of time. In addition, the children received a less intense intervention than in previous research, because it was only implemented once per week over the course of the intervention period. This is less time than previous interventions, most of which occurred 2-4 times per week for at least 30 minutes. This illustrates the ease with which educators, psychologists and parents can develop and carry out play interventions, because they are not time consuming, can be done in natural settings like the classroom and home, and involve strategies and activities that educators, psychologists and parents may already be using or doing (Fekonja, et al., 2005; McWilliam, Strain, 1993).

Given the link between play and later development, it is important to ensure that children with language delays are not missing pretend play opportunities because of their delayed language skills. These children's needs should be addressed as early as possible before they are required to complete academic-related tasks in school. There are many opportunities for pretend play and language use in preschool classrooms and in homes, and if simple interventions such as the one in this study are done on a weekly basis, children's skills may begin to improve and the cycle of problem behaviors will end. The interventions used in the current research have implications for psychologists who work with young children in that play interventions can be successful in improving the play skills of children with language delays. Prompting, modeling, and reinforcement are methods that can be used to encourage these types of behaviors.

Although the results of this study are promising regarding the improvements in the children's play skills, replication is needed to determine whether the intervention is effective with other children verified with language delays. General limitations of this study were the small sample size and lack of diverse sample size. Because of the population studied and the nature of the intervention, it would have been difficult to conduct with a large number of students. An additional limitation of this study was the absence of generalization measures. No steps were taken to determine the effects of the intervention beyond the classroom play setting, thus, the degree to which the children demonstrated play skills in other settings, situations, and with other people is unknown. It is difficult to separate out the effects of each component of the intervention and determine which was most effective in improving the complexity of the play behaviors, so future research should explore the individual effects of the story, the toys and materials, the verbal praise, and the adult facilitation and modeling on increasing the complexity of play behaviors.

In conclusion, this research extends the literature on play interventions by providing a method and specific strategies that can be used to improve the play skills of children with language delays. The importance of play is clearly stated in the literature and this study shows how facilitated play with young children in natural settings can contribute to their development.

References

- Athanasiou, M. S. (2007). Play-Based Approaches to Preschool Assessment. In B. A. Bracken, R. J. Nagle (Eds.), *Psychoeducational Assessment of Preschool Children* (4th ed.) (pp. 219–238). Boston, MA: Allyn & Bacon.
- Bagnato, S. J. (2007). *Authentic Assessment for Early Childhood Intervention: Best Practices*. The Guildford Press: New York.
- Bricker, D. (2002). *Assessment, Evaluation, and Programming System for Infants and Children* (2nd ed.). Baltimore, MD: Paul H. Brookes Publishing Co.
- Catts, W. W., Kahmi, A. G. (1999). *Language and Learning Disabilities*. London: Allyn & Bacon.
- Craig-Unkefer, L. A., Kaiser, A. P. (2002). Improving the Social Communication Skills of At-Risk Preschool Children in a Play Context. *Topics in Early Childhood Special Education*, 22, 3–13.
- Craig-Unkefer, L. A., Kaiser, A. P. (2003). Increasing Peer-Directed Social Communication Skills of Children Enrolled in Head Start. *Journal of Early Intervention*, 25, 229–247.
- Fekonja, U., Umek, L. M., Kranjc, S. (2005). Free Play and Other Daily Preschool Activities as a Context for Child's Language Development. *Studia Psychologica*, 47, 103–116.
- Garbarino, J. (1989). An Ecological Perspective on the Role of Play in Child Development. In M. N. Bloch, A. D. Pellegrini (Eds.), *The Ecological Context of Children's Play* (pp. 16–34). Norwood, NJ: Ablex Publishing Corporation.
- Kelly-Vance, L., Ryalls, B. O. (2005). A Systematic, Reliable Approach to Play Assessment in Preschoolers. *School Psychology International*, 26, 398–412.
- Kelly-Vance, L., Ryalls, B. O. (2008). Best Practices in Play Assessment and Intervention. In A. Thomas, J. Grimes (Eds.), *Best Practices in School Psychology V* (pp. 549–560). Bethesda, MD: National Association of School Psychologists.
- Kelly-Vance, L., Ryalls, B. O., Gill-Glover, K. (2002). The Use of Play Assessment to Evaluate the Cognitive Skills of Two- and Three-Year Old Children. *School Psychology International*, 23, 169–185.
- McCune, L. (1995). A Normative Study of Representational Play at the Transition to Language. *Developmental Psychology*, 31, 198–206.
- McWilliam, R., Strain, P. (1993). *Service Delivery Models in DEC Recommended Practices: Indicators of Quality Programs for Infants and Young Children with Special Needs and Their Families*. Reston, VA: Council for Exceptional Children.
- Mallory, J. M., Kelly-Vance, L., Ryalls, B. (2010). Incorporating Divergent Thinking Training into Play Interventions for Preschool Children with Developmental Risk Factors. *The International Journal of Creativity & Problem Solving*, 20, 57–71.

- Rescorla, L., Goossens, M. (1992). Symbolic Play Development in Toddlers with Expressive Specific Language Impairment (SLI-E). *Journal of Speech & Hearing Research*, 35, 1290–1302.
- Roopnarine, J. L., Johnson, J. E. (1994). The Need to Look at Play in Diverse Cultural Settings. In J. L. Roopnarine, J. E. Johnson, F. H. Hooper (Eds.), *Children's Play in Diverse Cultures* (pp. 210–228). Albany, NY: State University of New York Press.
- Sherrod, K. B., Siewert, L. A., Cavallaro, S. A. (1984). Language and Play Maturity in Preschool Children. *Early Child Development and Care*, 14, 147–160.
- Silva, P. A., McGee, R., Williams, S. M. (1983). Developmental Language Delay from Three to Seven and Its Significance for Low Intelligence and Reading Difficulties at Seven. *Developmental Medicine and Child Neurology*, 25, 783–793.
- Singer, J. L. (1998). Imaginative Play in Early Childhood: A Foundation for Adaptive Emotional and Cognitive Development. *International Medical Journal*, 5, 93–100.
- Swadener, E. B., Johnson, J. E. (1989). Play in Diverse Social Contexts: Parent and Teacher Roles. In M. N. Bloch, A. D. Pellegrini (Eds.), *The Ecological Context of Children's Play* (pp. 214–244). Norwood, NJ: Ablex Publishing Corporation.
- Thomas, M. S. C., Annaz, D., Ansari, D., Scerif, G., Jarrold, C., Karmiloff-Smith, A. (2009). Using Developmental Trajectories to Understand Developmental Disorders. *Journal of Speech, Language and Hearing Research*, 52, 336–358.
- Udwin, O., Yule, W. (1983). Imaginative Play in Language Disordered Children. *British Journal of Disorders of Communication*, 18, 197–205.

VAIKŲ, KURIEMS NUSTATYTA VĖLUOJANTI KALBOS RAIDĄ, ŽAIDIMO ĮGŪDŽIŲ LAVINIMAS PASITELKiant ŽAIDIMO INTERVENCIJAS

Abbey Sualy, Sara Yount, Lisa Kelly-Vance, Brigitte Ryalls
Nebraskos universitetas Omahoje, JAV

Santrauka. Mokslinė problema. Vaikai, kurių kalbos raida vėluoja, dažnai patiria ir socialinių įgūdžių sunkumų, nes jų žaidimo įgūdžių repertuaras taip pat gali būti ribotas. Ankstyvos intervencijos gali padėti vaikams lavinti žaidimo įgūdžius ir išvengti socialinių sunkumų ateityje. **Tikslas.** Tyrimų, kuriuose būtų analizuojama žaidimo intervencijų nauda, beveik nėra, tačiau kelios atliktos studijos patvirtina žaidimo intervencijų naudą tiek įprastos raidos, tiek rizikos grupės vaikams. Šiame tyrime analizuojamas žaidimo intervencijų efektyvumas lavinant ikimokyklinio amžiaus vaikų, kuriems nustatyta sulėtėjusi kalbos raida, žaidimo įgūdžius, nes šios grupės vaikams yra ypač svarbu lavinti žaidimo įgūdžius. **Metodika.** Vaikų laisvo žaidimo įgūdžiai buvo įvertinti taikant PIECES metodiką, remiantis įvertinimo rezultatais vaikai buvo priskirti poveikio ir lyginamajai grupei. Poveikis buvo daromas ankstyvų intervencijų klasėje naudojant

trumpas skatinančias žaidimo instrukcijas, kurias pateikdavo suaugęs asmuo. Poveikio efektyvumas buvo vertintas palyginant PIECES rezultatus prieš ir po daryto poveikio.

Rezultatai. Penki iš šešių vaikų poveikio grupėje pagerino žaidimo įgūdžius, o penkių vaikų iš lyginamosios grupės žaidimo įgūdžiai išliko tokie patys ar prastesni nei vertinant pirmą kartą. **Išvados.** Dėl žaidimo intervencijų didėjo vaikų žaidimų kompleksškumas, vaikų žaidimai vystėsi nuo tyrinėjimo prie sudėtingesnių vaidmenų žaidimų. Užuominos, modeliavimas ir pastiprinimas yra metodai, padedantys efektyviai skatinti žaidimo įgūdžių vystymąsi.

Pagrindiniai žodžiai: žaidimas, ankstyvoji vaikystė, intervencijos.

Received: 3 November, 2011

Accepted: 26 October, 2011