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## Enhancing early literacy development of the children via finger games

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### Abstract

It is widely known that culture in any form has a great impact on forming education. At this point, we can see so many tools to be used as both cultural and educational mediators in teaching and learning process. Finger games is one the most important agents to educate the children in early years. Furthermore, finger games contribute to the development of children including language, cognitive, physical, social etc., domains. The aim of the study is to analyze and define the contributions of finger games to the early literacy development of the children in early years. In this process, 97 pre-service preschool teachers and 10 preschool master students were requested to respond the open-ended questions related to the usage and effects of finger games on early literacy development of the children. The data handled were aggregated on the basis of content analysis technique. As a last remark, some recommendations were made to the preschool teachers and parents about the use of finger games to facilitate the early literacy development of the children as an effective educational tool.

Keywords: Finger games, early literacy, preschoolers, educational tool, developmental domains.

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## 1. Introduction

For many centuries child folklore like tale telling, rhyming, counting jingles, finger games have played a crucial role in transmission of the culture from one generation to the other one. Theoretical support comes from developmental research on the gesture–language continuum, as well as language-learning theories such as the socially-based transactional model and the cognitively-based information processing model (Goodwyn, Acredolo & Brown, 2000; Just & Carpenter, 1992; McCune-Nicolich, 1981; Yoder & Warren, 1993). Natural gestures have been defined as actions produced by the whole body, arms, hands, or fingers for the purpose of communicating (Iverson & Thal, 1998). At this point, caregivers, teachers, mothers and grandmothers having good knowledge of children's folklore can facilitate the development of their offspring more successfully. They sometimes tend to play finger games to teach and to transmit the national treasure from one generation to their children as a verbal communication, as a transition from one activity to the other and as an effective teaching tool. Therefore, finger games are one of the most successful mediators ensuring both positive communication with an adult and the development of the language in Turkish educational system. It was supported that by the plays (Kabadayi, 2005), by the anecdotes (Kabadayi, 2005), by the riddles (Kabadayi, 2007), by the lullabies (Kabadayi, 2009), by the plays & metaphors (Kabadayi, 2012), by the counting jingles (Kabadayi, 2014), and by the counting jingles & metaphors (Kabadayi, 2016), like finger games, which have a great importance in intellectual and cultural faculty of children, cultural knowledge would be transmitted from one generation to others by protecting these verbal traditions and future child educators and folklore researchers will make good use of these treasures. Moreover, finger games are also an effective way of educating and teaching tools for the children from infancy to preschool period when their coordination of fine motor movements and language skills develop (Zirina, 2012). It seems that there is a lack of research and studies about finger plays in the literature though they play an important role in children's literacy development in other various domains. Although a spoken word quickly fades from a child's auditory attention, words accompanied by the gestures linger longer in the visual domain, thus providing more processing time (Just & Carpenter, 1992). It is clear that visual signs like finger games invite joint attention, an important pre-linguistic precursor to communication development (Acredolo, Goodwyn, Horobin & Emmons, 1999; Goodwyn, Acredolo & Brown, 2000). Furthermore, finger plays also help to develop children's communication skills. During this process, effective relationships and interaction between the child and adults, and later peers can also be formed. The more signs presented, the more opportunities there are for the child to share attention and intention with the conversational partner. When the signs and the words are used together they essentially cross-train mental representation skills of the children (Goodwyn & Acredolo, 1993; Petitto, 2000). The child gets new information about himself and his environment with the help of his parents and siblings in the natural atmosphere of the family via folk games like finger games, dancing and riding games (Kecskes, 2013). In two recent studies, both teaching gestures directly to children and increasing parent use of gestures supported verbal word learning (Longobardi, Rossi-Arnaud, & Spataro, 2012; McGregor, 2009). In addition to this, finger plays are rhythmical. They help to develop fine motor coordination and at the same time facilitate the development of cognitive processes - memory, thinking, language, attention, imagination, perception (Zirina, 2012). Further, Findings from the research in this area have shown that gestures accompanied by the words predict three critical early language-based domains: (a) lexical development (b) syntactic development in the transition to two-word utterances and (c) vocabulary size in kindergarten (Goodwyn et al., 2000; Acredolo & Goodwyn, 1988; Watt, Wetherby & Shumway, 2006). Besides the main game, phonetic exercises, finger games, recitation of poems and rhyming, talks, individual, group and frontal work can be used in the process of training and education for a better and faster understanding of information and vocabulary as the most diverse teaching methods (Gareeva, 2014). Ellis and Bilbatua (2013) pointed out that nursery rhymes, counting games, finger games, tongue-twisters are effective tools to facilitate the early mothering language. Xiaoping, Boqiong & Shanan, (2013) emphasized that the teachers also often used activities from the children's daily lives and games, and other ways to carry out bilingual education such as role-playing games, finger games etc., besides normal teaching

activities. Another important aspect is that finger plays foster the feeling of security in children. Finger plays calm down the children as they are cheerful and joyous; and they include repeated movements that are very important aspect in the child's development. Therefore, they help to develop a safe base to prevent problem behaviors because during the play a child is together with the most important person and it helps to develop child's emotional and social world (Zirina, 2012). Undiyaundeye (2013) advised us to encourage our baby to imitate our actions through clapping our hands, and playing finger games like pat-a-cake **to nurture an infants' language development**. In the research Alberto & Troutman, (2009) carried out, one of the teachers mentioned that s/he began the class with "finger games", and after making the activity, s/he sang "songs between the activities" as transition. In the research, Ozen, Ergenekon, Kurkcuoglu & Genc (2013), most of the teachers (8) mentioned that they sang songs and play finger games and rule play with their students and some of them (3) stated they played investigative and manipulative plays with their students while very few of them (2) mentioned that they played imaginative play with their students. Due to the fact that children act by finger and body movements when the jingles are recited they improve their language and physic-motor developments (Guleç & Geçgel, 2005). Sometimes, some concepts, numerals, vocabulary can be taught by finger games by showing and moving the fingers themselves to enhance their literacy development. In Turkish language culturally some names were given each finger as in many other languages like "thumb finger, pointer finger, middle finger, ring finger, and sparrow finger." We can teach to children some literature piece via children songs accompanied by finger puppets, which have been of great importance in the facilitation of the child's development (Cinar, 2010). Using fingers accompanied by songs and rhymes has a tendency to expand their vocabulary and concept treasure due to the development of the cognitive processes when a very large part of the passive vocabulary transfers to the active vocabulary (Zirina, 2012). Cinar (2010) also emphasized the role of finger puppets in the story telling process the preschool teachers often used in Turkish language activity courses in preschool settings while classifying the other puppets comprising hand puppets, spoon puppets, palm puppets, ring puppets, and the like. Finger games also provide the teachers effective feedback in teaching learning process in preschool settings. The teachers can evaluate themselves whether they could manage to teach to the preschoolers what they planned. In addition to this, the teachers can evaluate the preschoolers both as an individual and as a group. Further, the teachers can also evaluate themselves together with the preschoolers whether the preschoolers could do what the teachers showed them as finger games.

This study was conducted to analyze the contributions of finger games to the early literacy enhancement of children besides the other their developmental domains from preschool teachers' perspectives.

## **2. Methodology**

In this study, qualitative method was used to aggregate the data handled. It is used to go deeper into issues of interest and explore nuances related to the problem at hand. Common data collection methods used in qualitative research is focus groups, triads, dyads, in-depth interviews, etc. (Mora, 2010). Qualitative researchers commonly use one or more of 3 basic strategies for collecting data. One of the important strategies to collect the data is to question participants directly about their experience (*interviews*). The common instruments used to collect data are interview and observation (Russell & Gregory, 2003).

### **2.1. Research questions**

The participants were requested to respond the questions below:

*Which domains of the preschoolers do you think finger plays develop?*

*In what activities do you employ finger plays in preschool settings?*

*Why do you think finger plays are important for preschoolers?*

**2.2. Sample**

In this study, 100 preschool pre-service teachers and 10 master students enrolled in preschool department and child development of Necmettin Erbakan University participated in the research. 97 of the preservice teachers responded the open – ended questions. 10 master students who are currently working as preschool teachers in one of the preschool institutions in any part of Turkey also answered the questions mentioned above. All of the participants were supposed to get “*Play development of the children*” courses during their education period.

**2.3. Analytical procedure**

The analysis of the finger plays had five stages: (1) Conducting stage: 110 questionnaires sheet including 3 open-ended questions each were conducted to 100 preservice preschool teachers and 10 master students majoring preschool education. 97 questionnaires from pre-service teachers and 10 questionnaires from master students totally 107 questionnaires returned. (2) Coding and classifying: Each questionnaire was subjected to the content analysis technique. They were analyzed and scrutinized under certain categories. They were analyzed by 3 master preschool students who were enrolled in master program of Institute of Educational Sciences of Necmettin Erbakan University in content analysis technique. (3) Developing category: They were classified under certain developmental domains of children such as language, cognitive, social, physical, and the like. For the other question, the activities the preschool teachers and the master students the usage of the finger plays was ranked such as language, art, music, play and nature and science and the like. In addition to this, for the last open-ended questions the opinions of the preschool teachers and the master students were quoted about the importance of the usage of the finger plays in preschool settings.

**3. Findings and discussion**

In this part, the data handled through questionnaire comprising 3 open-ended questions are analyzed and 2 of the open ended questions will be given in tables and 1 of them will be shown in quotations.

**Table 1. Participants’ opinions of the finger games to children’s developmental domains**

<i>Developmental Domains</i>	Pre-service teachers		Master students	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
Language Domain	81	84,3	10	100
Cognitive Domain	81	84,3	10	100
Psycho-motor Domain	76	79,1	8	80
Physical Domain	57	59,3	9	90
Social Domain	56	58,3	10	100
Emotional Domain	35	36,4	7	70
Total	386*	100*	54*	100*

\*The participants rated more than one option.

In Table 1. both the pre-service teachers’ and the master students’ opinions of the finger games to children’s developmental domains were analyzed. The contribution of the finger games to the developmental domains of the children were scrutinized as at rate of 84, 3 percent of their language; at rate of 84,3 percent of their cognitive; at rate of 79,1 percent of their psycho-motor; at rate of 59,3 percent of their social; at rate of 58,3 percent of their social; at rate of 36,4 percent of their emotional domains respectively. The pre-service preschool teachers were of the opinion that the contribution of the finger games to the language (% 84, 3) and cognitive (% 84, 3) domains of the children as in the

first rank while, they pointed out that the contribution of the finger games to emotional (% 36,4) domains of the children as in the last rank.

As for the master students, they put forward that the contribution of the finger games to the language (% 100) cognitive (% 100) and social (% 100) domains of the children as in the first rank while, they stated that the contribution of the finger games to emotional (% 70) domains of the children as in the last rank as the pre-service teachers did. Gonen et al., (2010) found that % 80,6 of the teachers employed “conversation”, % 49,7 of them used “finger games”, % 49,1 of them used riddles and %18,9 of them employed “children songs” everyday pre language activity.

**Table 2. Distribution of Participants’ Employment of Finger Games in Preschool Activities**

Activities	Pre-service teachers		Master students	
	F	%	f	%
Turkish Language Activity	82	85,4	10	100
Drama Activity	33	34,3	6	60
Play Activity	33	34,3	9	90
Transition Activity	33	34,3	8	80
Music Activity	24	25	7	70
Leisure Time Activity	6	6,2	5	50
Art Activity	6	6,2	4	40
Nature & Science Activity	6	6,2	4	40
Total	223*	100*	53*	100*

\*The participants rated more than one option.

In Table 2 the usage of the finger games in the preschool activities by both the pre-service teachers and the master students were revealed. The pre-service teachers stated to employ the finger games in their activities as rate of 85,4 percent in their Turkish language; 34,3 percent in their drama, in their play, and in their transition from one activity to other; 25 percent in their music; at rate of 6,2 percent in their leisure, in their art and nature & science activities in order. The pre-service teachers employed the finger games in Turkish language activity (% 85,4) the most and in their leisure, art and nature & science activities(% 6,2) the last.

The usage of the finger games in the preschool settings activities by the master students were employed as at rate of 100 percent in their Turkish language; 100 percent in their play; at rate in their transition from one activity to other, 70 percent in their music; at rate of 50 percent in their leisure and at rate of 40 percent in their art and nature & science activities in order.

The master students were of the opinion that the usage of the finger games in Turkish language activity (% 100) the most and in their art and nature & science activities (% 40) the last. Arnas, Erden, Aslan & Comertbay, (2003) supported that the preschool teachers employed “finger games” most in pre-story telling activity.

As for the importance of the fingers game for children, this part was explained by the excerpts held and selected from both pre-service teachers and from master students in question randomly.

M 3: *“While playing finger games children develop their world. They can animate the events and the heroes in real by using their fingers and hands and they think that they are alive and they try to feel the atmosphere they created. The finger games teach them new words and help them to develop their fine motor and gross motor skills.”*

The participant stated that the children learned while they were entertaining via finger games.

P 21: *“The teacher can employ finger games related to the animals s/he is teaching the unit of the animals; they can also reserve a place for short expedition in science & nature studies”.*

It can be inferred that finger games also involve and develop the children’s’ natural intelligence.

P 34: *“The teachers involve the finger games related to the unit of our body and our health and they*

*can manipulate the finger games in the unit of "who am I?"*

It is understood from the teacher's quotation that the finger games also enhance the children's kinesthetic intelligence.

M 7: *"The finger games about "our home & family" can be employed in the introduction of section of the our house and the members of our family"*

It can be seen from this quotation that children's' socio-emotional intelligence can be developed via finger games on "our sweet home & its members"

P 67: *"The finger games related our social environment can be used to show the children how their social relations with the others should be"*

Form this quotation it can be inferred that the finger games develop children's' interpersonal intelligence.

M 9: *"The finger games about numerical provide children to learn mathematical concepts and numerical effectively"*

In this way, mathematical intelligence of the children can be developed via finger games, too.

P 86: *"The teachers can manipulate the finger games to introduce the "natural events" and the "time". S/he can teach some natural concepts like rain, snow, night, daylight, sun and moon, etc."*

Natural intelligence of the children can be enhanced through the finger games effectively.

#### **4. Conclusion and recommendations**

This article more systematically considers the roles and the contributions of the finger games to the early literacy development of the children, as well as the other developmental domains of them such as social, mathematical, inter personal, kinesthetic, musical etc., domains. In addition to theoretical and pragmatic context considerations embraced by reviewed researchers, the pre-service teachers' and the master students' opinions about the contributions of the finger games to the children's various developmental domains, mostly to the early literacy development of them in Turkish context was necessary to display in respect of forming literature base for the future studies.

In the first part of the open-ended questions, both the pre-service teachers and the master students stated that the finger plays made some contributions to the development of children comprising language, cognitive, psycho –motor, physical, social, and emotional domains. It was found out that there was no discrepancy between the opinions of pre-service teachers and master students about the opinions of the finger games to the children's developmental domains.

In the second part of the open-ended questions, both the pre-service teachers and the master students put forward that they employed the finger games more or less at the similar rate in the activities they carried out in preschool settings. They stated to use the finger games in the activities including Turkish language, drama, play, transition, music, leisure time, art, and science & nature respectively. It seemed that there was no considerable difference between the use of finger games the pre-service teachers and the master students employed in the activities mentioned above.

In the third part of the open-ended question consisting the role and the importance of the finger games for the children in question, both the pre-service teachers and the master students quoted that the finger games could be used for the children to enhance mostly their early literacy as well as their interpersonal, social, emotional, mathematical, psycho –motor, physical, natural and kinesthetic domains.

Preschool teachers are required to manipulate the finger games to facilitate not only children's early literacy development but also their various domains such as language, cognitive, psycho –motor, physical, social, and emotional ones as well. Furthermore they should use the finger games in the activities including Turkish language, drama, play, transition, music, leisure time, art, and science & nature.

## References

- Acredolo, L. P., Goodwyn, S. W., Horobin, K. D., & Emmons, Y. D. (1999). The signs and sounds of early language development. *Child psychology: A handbook of contemporary issues*, 116-139. Acredolo L., & Goodwyn S. (1988). Symbolic gesturing in normal infants. *Child Development*, 59,
- Alberto, P.A., & Troutman, A.C. (2009). *Applied behavior analysis for teachers* (8 th Ed.). New Jersey: Pearson Education, Inc
- Arnas, A., Erden, S., Aslan, D., & Comertpay, B. (2003). Okul öncesi öğretmenlerin günlük programda yer verdikleri etkinlikler ve bu etkinliklerde kullandıkları yöntemler. G., *Haktanır (Ed.) OMEP Dünya Konsey Toplantısı ve Konferansı Bildiri Kitabı (ss. 435–450) İstanbul: Ya-pa.*
- Baltimore, M.D., Paul H. Brookes. Just M. A., Carpenter P. A. (1992). A capacity theory of comprehension: Individual differences in working memory. *Psychological Review*,
- Cinar, H. (2010) *Analyzing the story telling techniques the preschool teachers used in Turkish language activity course: Karaman sample* (Unpublished Master Dissertation). Institute of Social Sciences of Selcuk University, Konya.
- Ellis, L., & Bilbatua, L. (2013). Bringing up bilingual children: Choices and challenges. *Voces Hispanas*, 10, 20-26.
- Gonen, M., Unuvar, P., Bicakci, M., Kocyigit, S., Yazici, Z., Orcan, M., Aslan, D., Guven, G. and Ozyurek, A. (2010) Study of how preschool education teachers implement language activities, *Mehmet Akif Ersoy University Journal of Faculty of Education*, 19, 23-40.
- Goodwyn S., Acredolo L., Brown C. (2000). Impact of symbolic gesturing on early language development. *Journal of Nonverbal Behavior*, 24, 81–103.
- Gulec Cakmak, H. & Gecgel, H. (2005). *Cocuk edebiyati*. Ankara: Kok Yayıncılık.
- Iverson, J., Thal, D., Wetherby, A., Warren, S., & Reichle, J. (1998). Communicative transitions: There's more to the hand than meets the eye. *Transitions in prelinguistic communication*, 7, 59-86.
- Kabadayi, A. (2005). Cumhuriyet devrinde Konya'da oynanan çocuk oyunlarının cesitli degiskenler acisindan degerlendirilmesi. *Uluslararası İnsan Bilimleri Dergisi*, 2(1), 2-19. Retrieved from <http://www.insanbilimleri.com>.
- Kabadayi, A. (2005). Nasreddin Hoca fikralarının okul öncesi eğitimde kullanılması için bilgisayar odaklı bir model önerisi. *Uluslararası İnsan Bilimleri Dergisi*, 2(2), 2-20. Retrieved from <http://www.insanbilimleri.com>.
- Kabadayi, A. (2007). Sosyal bir ders materyali olarak bilmecelerin çocukların gelişim alanlarına katkılarının incelenmesi: Konya örneği. *Uluslararası İnsan Bilimleri Dergisi*, 4(2), 2-17. <http://www.insanbilimleri.com>.
- Kabadayi, A. (2009). Ninnilerin cocugun gelişim alanlarına katkılarının içerik acidan incelenmesi: Konya örneği. *Uluslararası İnsan Bilimleri Dergisi*, 6, 1. Retrieved from <http://www.insanbilimleri.com>
- Kabadayi, A. (2012). Analysing “children-playground-play” metaphors based on pre-serviceteachers’ views. *Energy, Education Science and Technology Part B: Social and Educational Studies*, 4(1), 365-372.
- Kabadayi, A. (2014). Contributions of the “Counting Jingles” to children in plays from teachers’ perspectives. *Procedia - Social and Behavioral Sciences*, 143, 458 – 462.
- Kabadayi, A. (2016). Turk kulturundeki çocuk oyunlarında “saymaca-ebe-oyun alanı” üzerine öğretmen metaforları. *Journal of Human Sciences*, 13(2), 3252-3265. doi:10.14687/jhs.v13i2.3893
- Kecskes, M. (2013) The role of folk games in education. *Practice and Theory in Systems of Education*, 8 (1), 19-24.
- Longobardi E., Rossi-Arnaud C., Spataro P. (2012). Individual differences in the prevalence of words and gestures in the second year of life: Developmental trends in Italian children. *Infant Behavior Development*, 35(4), 847–859.
- McCune-Nicolich L. (1981). Toward symbolic functioning: Structure of early pretend games and potential parallels with language. *Child Development*, 52, 785–797.
- McGregor W. B. (2009). *Linguistics: An introduction*. New York, NY: Continuum International Publishing Group.
- Mora, M. (2010). Quantitative vs. *Qualitative Research—When to Use Which*.
- Moudarisovna Gareeva, A. (2014) Formation of lingual identity in preschool institutions of the Republic of Tataristan, *Asian Social Science*, 10(24), 231-236.

Kabadayi, A. (2017). Enhancing early literacy development of the children via finger games. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 01, pp 401-408. Available from: [www.prosoc.eu](http://www.prosoc.eu)

- Ozen, A, Ergenekon, Y, Kurkcuoglu, B. U. & Genc, D. (2013) Opinions of special education teachers about activity-based intervention. *Hacettepe University Journal of Faculty of Education* 44, 262-274
- Petitto L. A. (2000). On the biological foundations of human language. In Emmorey K., Lane H. (Eds.), *The signs of language revisited: An anthology in honor of Ursula Bellugi and Edward Klima*. Mahway, NJ: Lawrence Erlbaum Assoc. Inc.
- Russell C. K., Gregory D. M. (2003). Evaluation of qualitative research studies. *Evidence Based Nursing*, 6(2), 36-40.
- Undiyaundeya, F. A. (2013) Using play as strategy for language development in infants. *Beder University Journal of Educational Sciences*, 3(1), 92-99.
- Watt N., Wetherby A., Shumway S. (2006). Prelinguistic predictors of language outcome at three years of age. *Journal of Speech, Language, and Hearing Research*, 49, 1224–1237.
- Xiaoping, Y., Boqiong, T. & Shan, W. (2013) A case study of Uygur-Chinese preschool bilingual education kindergarten A in the Hotan area of the Xinjiang Uygur Autonomous Region. *Issues in Early Education (Problemy Wczesnej Edukacji)* 3 (22) 62-73.
- Yoder P. J., Warren S. F. (1993). Can developmentally delayed children's language development be enhanced through prelinguistic intervention? In Kaiser A. P., Gray D. B. (Eds.), *Enhancing children's communication: Research foundations for intervention* (pp.35–62). Baltimore, MD: Brookes.
- Ziriņa, T. (2009). Facilitation of Child Language Development through Using Finger Plays in Toddler's Age. *Ad verba liberorum*, 1(1), 57-61.