

Examining the Relationship Between Language Skills and Social-Emotional Development of Children in Disadvantaged Districts

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INTRODUCTION

- The early childhood period, in which word, number and symbols are acquired and which the skills to use the voice and grammar structure of language develop, is quite important in terms of language development of the individual.
- In the development process, all development areas are closely associated. Especially language and social-emotional development areas continue their development by continuously supporting each other.



- Language development of children, who experience a rich environment with regards to their social-emotional experiences, will improve in the same direction.
- The use of language by children, who have sufficient conditions in terms of socio-economic perspective, is valued much in academic atmosphere and the language of them corresponds language of written expressions.
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- According to Heath (1982), the children who have less opportunities in terms of socio-economic conditions cannot meet this type of language in early childhood and it creates a disadvantage for them.



PURPOSE

- The purpose of this study, which is realized within the context of the project named “Analysis of the Social, Emotional and Health Development of Pre-School Period Children Living in Disadvantaged Regions”, is the investigation of the relationship that has been analyzed depending on several variables between **language development levels** and **social development levels** of children 48-72 months old.
- This relationship has been analysed depending on the **age, gender** and **education level** of children's **primary caregiver**.



METHODOLOGY

- In this study, descriptive survey method was used from quantitative research methods.
- Descriptive survey method provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. (Babbie, 1990).



- Participants of the study consist of **406 children** and **their families** who lived in Altındag – **a disadvantaged** district in Ankara.
- Children enrolled in public kindergartens and preschool classes that were affiliated to Ministry of National Education in Ankara.
- Within this context, language development of children were assessed via «**Peabody Picture Vocabulary Test**», and social-emotional development were assessed via «**Ages and Stages Questionnaires Scale (ASQ)**».



SAMPLE

- Table 1 : Demographic characteristics of the 406 participants

		f	%
Gender	Girl	203	50,0
	Boy	195	48,0
	Total	398	98,0
No answer		8	2,0
Age (month)	48 months (Between 45-50 months)	21	5,2
	54 months (Between 51-56 months)	31	7,4
	60 months (Between 57-72 months)	346	85,2
	Total	398	97,8
No answer		8	2,2
Total		406	100,0

- As seen in Table 1, 406 children compose the research sample, of which 203 are girls and 195 are boys. 21 of the participant children are 48 months old, 31 are 54 months old and 346 are 60 months old.



Table 2 : Demographic characteristics of the 406 participants

		f	%
The education level of children's primary caregiver	Elementary school	197	48,5
	High school	120	29,6
	Higher education	65	16,0
	Total	382	94,1
No answer		24	5,9
Total		406	100,0

- As presented in Table 2, primary caregivers included in the research sample consist of 406 individuals in total. 197 of this sample have primary school and secondary school degrees, 120 have high school degrees, and 65 have higher education degrees.



Findings & Discussion



■ Table 3 : Results of t Test analysis by gender for Peabody Scale

Gender	n	\bar{x}	Ss	t	p
Girl	203	63.45	12.91	-0.430	.667
Boy	195	64.02	13.15		

$p > .05$

- According to Table 3, boys have been found to have received relatively higher language scores compared to girls, which they obtained from Peabody scale points. However, this relationship is not significant ($p=0.66$).
- Gender is a variable, which is seen to create a difference in terms of the speed of language acquisition. In prior research, language acquisition of girls has been observed to develop a little earlier compared to boys (Dale, 2006; Eriksson, 2006). In this study, a significant difference was not found with regards to gender.



Table 4 : Results of t Test analysis by gender for ASQ Scale

ASQ	Gender	n	\bar{x}	Ss	t	p
Communication	Girl	201	56,69	20,38	1,345	0,179
	Boy	195	53,79	22,42		
Gross Motor	Girl	202	46,64	18,51	1,744	0,082
	Boy	195	43,40	18,46		
Fine Motor	Girl	201	47,87	17,68	2,410	0,016*
	Boy	195	43,41	19,12		
Problem Solving	Girl	202	39,17	13,24	1,242	0,215
	Boy	194	37,28	16,96		
Personal-Social	Girl	200	49,16	16,94	1,406	0,161
	Boy	194	46,65	18,49		

p<.05

- In Table 4, fine motor skills scores ($X=47.87$) of 48-72 months old girls are significantly higher than boys ($X=43.41$) ($p=.01$).
- The fact that girls achieved higher scores in all areas other than gross motor skills in studies completed regarding ASQ supports the research finding (Filgueiras a, Pires, Maissonette ,Fernandez , 2013). Since the establishment of end-plate connection, which is an important part of brain development, improves earlier in girls; cognitive and fine motor skills are thought to mature faster in girls.



▪ **Table 5 : Results of Anova Test analysis by Child 's Age in Months for Peabody Scale**

Peabody Picture Vocabulary Test	N	\bar{x}	Ss	F	p	sig. difference
48 month	21	57,19	12,37	10,705	0,000*	*60 mth with 48 mth *60 mth with 54 mth
54 month	30	55,27	11,88			
60 month	346	64,79	12,75			

$p < .05$

As Table 5 is analysed, a significant difference due to age is seen in Peabody scale scores ($p=.00$). When differences among age groups are examined, language development of 60 months old children ($\bar{x}=64.79$) were found to be higher than 48 months old ($\bar{x}=57,19$) and 54 months old ($\bar{x}=55,27$) children.

In addition to this, researches in the literature stress that Word usage, rates of correctly answering to words and recipient language levels increase by age, and support the finding of this research (Lempert, 1985; Slobin, 1988). Age is an important variable in both brain development and language acquisition in conjunction with increasing experiences. Therefore, it can be stated that children enrich their language acquisition together with their increasing age and by learning more and various new words with the support of rich environmental stimuli.



■ **Table 6 : Results of Anova Test analysis by Child 's Age in Months for ASQ Scale**

Child 's Age in Months		N	\bar{x}	Ss	F	p	sig. difference
Communication	48 month	21	65,16	7,56	5,945	0,003*	*60 mth with 48 mth
	54 month	30	64,67	13,77			
	60 month	344	53,96	22,12			*60 mth with 54 mth
Gross Motor	48 month	21	49,76	12,30	3,091	0,047*	*60 mth with 54 mth
	54 month	30	51,83	10,30			
	60 month	345	44,18	19,27			
Fine Motor	48 month	21	49,76	11,78	3,029	0,049*	*60 mth with 54 mth
	54 month	30	52,73	9,53			
	60 month	344	44,91	19,22			
Problem Solving	48 month	21	43,95	6,93	5,687	0,004*	*60 mth with 54 mth
	54 month	30	45,50	20,14			
	60 month	344	37,32	14,83			
Personal-Social	48 month	20	48,65	11,57	2,242	0,108	none
	54 month	30	54,50	8,02			
	60 month	343	47,43	18,42			

$p < .05$

- As Table 6 is analysed, a significant difference in the scale scores of 48-72 months old children in ASQ scale's communication ($p=.00$), gross motor ($p=.04$), fine motor ($p=.04$) and problem solving ($p=.00$) sub-dimensions according to age variable is seen.
- When the differences in ages are viewed, **48 months old** children are observed to receive higher scores ($X=65.16$) than others in communication skills. **54 months old** children on the other hand, are seen to receive higher scores than others in gross motor skills ($X=51,83$), fine motor skills ($X=52,73$) and problem solving skills ($X=45,50$).



▪ **Table 6 : Results of Anova Test analysis by Child 's Age in Months for ASQ Scale**

- Conducted studies point out the development of word number and variety, better self expression and communication skills together with the increasing age. Moreover, together with age, it is observed that control in motor skills increase and balance is more easily maintained. With the influence of cognitive and language development, children obtain the skill of being able to advance more different and creative solutions in their problem solving skills together with age (Mervis, Bertrand, 1994; Aksu-Koç et al., 2011; Shaffer, 1999; Benard, 1996).
- The fact that data was collected from children in socio-economically disadvantaged regions and the education level of primary caregivers of these children to be low might have been effective in research findings to be concluded different than the literature. Because, families with low education levels might have remained incapable in providing adequate opportunity and support for their children's development.



■ **Table 7 : Results of Anova Test analysis by education of primary caregivers' for Peabody Scale**

Education Of Primary Caregivers	N	\bar{x}	Ss	F	p	sig. difference
Elementary and Middle School	197	62,64	13,27	1,453	0,235	None
High school	120	65,04	12,17			None
Higher education	65	64,58	13,25			None

$p > .05$

Although according to Table 7 Peabody scale scores of children, whose primary caregivers' education level is high school, have been found to be relatively higher; a **significant relationship is not existent** ($p = .23$).



Table 8 : Results of Anova Test analysis by education of primary caregivers' for ASQ Scale

		N	\bar{x}	Ss	F	p	sig. difference
Communication	Elementary school	196	53,35	20,97	4,474	0,012*	* Elementary school with Higher education * High school with Higher education
	High school	119	55,60	21,98			
	Higher education	65	62,40	19,93			
Gross Motor	Elementary school	196	43,21	19,81	6,438	0,002*	* Elementary school with Higher education * High school with Higher education
	High school	120	44,62	17,79			
	Higher education	65	52,52	13,81			
Fine Motor	Elementary school	195	44,09	18,49	4,676	0,010*	* Elementary school with Higher education * High school with Higher education
	High school	120	45,59	19,34			
	Higher education	65	52,07	15,39			
Problem Solving	Elementary school	196	37,51	15,79	2,206	0,112	None
	High school	120	38,34	15,26			
	Higher education	64	42,05	12,11			
Personal-social	Elementary school	196	47,14	18,44	3,567	0,029*	* Elementary school with Higher education * High school with Higher education
	High school	119	46,66	17,54			
	Higher education	64	53,34	14,09			

p<.05

- As Table 8 is examined, a statistically significant difference is seen in ASQ scale's communication (F=4.47, p=.012), gross motor (F=6.43, p=.00), fine motor (F=4.67, p=.01) and persona social (F=3.56, p=0.29) sub-dimensions of 48-72 months old children according to the education status of primary caregivers.



Table 8 : Results of Anova Test analysis by education of primary caregivers' for ASQ Scale

- According to the results of differences between groups; children of parents with higher education degrees appear to be higher in communication, gross motor, fine motor and personal-social skills.
- Research emphasizes that mothers with higher education levels behave more consciously in the child raising process, and therefore their children are healthier in developmental terms. Especially because the children of mothers with higher education acquire their language and cognitive development skills earlier, they become more successful academically. (Sticht & McDonald, 1990; Benjamin 1993).
- Since mothers, who received higher education degrees, can use different resources effectively in reaching information; they can be more successful in creating more opportunities for their children by providing rich stimuli. This situation on the other hand may play an important role in supporting all developmental areas of children.



■ Table 9 : Results of Correlation Analysis Between Peabody and ASQ Scale

Ages and Stages Questionnaires Scale (ASQ)		Peabody Scale
	Communication	,103(*)
	Gross Motor	,077
	Fine Motor	,153(**)
	Problem Solving	,112(*)
	Personal-social	,054

****.** Correlation is significant at the 0.01 level (2-tailed).

*****. Correlation is significant at the 0.05 level (2-tailed)

- Examination of Table 9 reveals a positive but low level relationship between Peabody scores and ASQ scale's **communication** ($r=.10$, $p=.05$), **fine motor** ($r=.10$, $p=.01$) and **problem solving** ($r=.10$, $p=.11$) sub-dimension scores.
- Büyüköztürk(2010) emphasized that an « r » value between .00-.30 means low level, between .30-.70 means medium level and between .70- 1 means a high level correlation.



- As the related literature is analysed; children, whose language skills developed quickly and are high, are seen to use more complex words and to be able to express themselves easier. This situation enabled the children to be more successful in using effective problem solving strategies (Bridges, 1979; Landry, S. H., Miller-Loncar, C. L., Smith, K. E., & Swank, P. R. 2002). As the vocabularies of children increase, they can be more successful in verbalising the problems they face and in finding solutions for them.
- In addition, the literature stressed the possibility of experiencing various troubles in the fine motor skills of children, who have problems in language development (Hill, 2001; Iverson & Thelen, 1999). In addition to this, studies showing that children, who more actively use fine motor skills including gestures and mimics are more successful in expressing their feelings and emotions effectively, support the conclusion of this study (Evans & Harrison, 2001; Iverson and Braddock, 2011). According to this, it can be stated that a child, whose grasping by hand, effective use of finger muscles and hand-eye coordination are developed, can have a rich vocabulary by increased sensitivity to different sounds, words and letters, and can express her/himself better.
- Besides, research indicates that children with high language development have a better communication with their peers and adults, since they use understanding and listening skills more effectively. This situation assures the socialising abilities of children to develop better. (Nwora & Gee, 2009; Tomatis 1991) Starting from this point of view, children who can use different and various number of words can be stated to have an opportunity to better understand what they listen and to better transfer their thoughts. This situation may play a role in their developments through using effective communication skills more actively.



Results

In this research it was concluded that,

- Children with a high **language development** can use **communication skills** better,
- Children with a high **language development** can use **fine motor skills** better, and
- Children with a high **language development** can use **problem solving skills** better.



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