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Effect of Ecological Factors: Contributing for Language Performance

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Language development in preschool years is extremely important as the transmission of competency is considered to be a function of the combination between biological and socio-cultural factors, including the cumulative set of interactions and transactions children have with their parents, teachers and peers as well as the influence of wider societal factors. The language learnt by the child is generally determined by the society or culture in which he is born, more specifically, by his home and school environment. As a seed develops into healthy plant depending upon the environmental factors, so is the case with child's ability to acquire language skills. The home environment is the first environment that a child gets. The quality of the environment inputs through the material, non-material processes has the ever lasting impact on child's language skills.

Jones and Adamson (1972) comparing two groups of boys matched in general intelligence but differing significantly in language ability found that the parents of high verbal competence as compared to those of low verbal competence interacted more with their children, provided more opportunities for the use of development of language, had higher academic and vocational aspirations for themselves and for children and had higher occupational status. So, the kind of environment the child gets, effects the level and quality of language he acquired, as some start to talk early this stage if they get right experiences and environment, their vocabulary increases steadily and rapidly. Therefore, this study was planned to assess the level of language development and the ecological factors which effect the language development of rural child.

MATERIAL AND METHODS

Hisar district from Haryana State (India) was considered due to easy accessibility; further three villages namely Chaudhriwas, Panihar and Bharian from Hisar- Block I and three villages namely Neoli Khurd, Matarsham and Jakhod from Hisar-Block II were selected randomly to represent rural sample. List of anganwadis from six selected villages of Block I and Block II was prepared. One anganwadi from each selected village was further identified on random basis to draw the sample. Further, a list of children in the age range of 4 to 5 years, enrolled with these anganwadis was prepared. These children were divided into two groups; one for the age group 4 to 4 ½ years and the other for 4 ½ to 5 years. For both the age groups a sample of 60 children each (total 120) was selected at random. For this study two variables were selected. Level of language development was taken as dependent variable and ecological factors were taken as independent variables. It includes personal, social and economic factors. Reynell Developmental Language Scale (RDLS-1985) was used to assess the language development of rural children. Self-structured and duly pretested interview schedule to measure profile of respondents, which include ecological factors, was prepared.To find out the effect of ecological factors on language performance of children, correlation coefficient was worked out.

RESULTS AND DISCUSSION

Level of Language Development

Table 1 highlights the language performance of rural children of 4 to 5 years and standard scores on three components of language development *viz.* Verbal Comprehension A (VCA), Verbal Comprehension B (VCB) and Expressive Language (ExLA). The table depicts that mean scores of rural respondents' performance on VCA of 4 to 4½ years and 4½ to 5 years were 49.56 and 52.90 respectively. Comparing with the standard of language scores, respondents of both the age groups were found below

Table 1: Mean scores of rural respondents on the performance of RDLS

Age (years)	*Components of RDLS*					
	VCA		*VCB*		*ExLA*	
	Rural	*Standard scores*	*Rural*	*Standard scores*	*Rural*	*Standard scores*
4 to 4½ (n=60)	49.56	53.50	47.24	52.00	41.76	49.50
4½ to 5 (n=60)	52.90	57.50	49.79	54.50	45.94	52.00
4 to 5 (n=120)	51.24	55.50	48.52	53.20	45.32	50.7

RDLS = Reynell Developmental Language Scale
VCB = Verbal Comprehension B
VCA = Verbal Comprehension A
ExLA = Expressive Language

the standard mean (MS = 53.50 and 57.50, respectively).

The data in table 1 further show the results of language performance on VCB. The mean language performance of 4 to 4½ years old and 4½ to 5 years old rural children was 47.24 and 49.79, respectively. In both the age groups, the respodnents performance on VCB was found below the standards.

Results regarding ExLA performance by the respondents as indicated in table, reveal the same trend. The mean scores of 4 to 4 ½ years old respondents was 41.76 and respondents of 4 ½ to 5 years old was 45.94. Further compared to the standards the performance was found below norms in both the age groups.

It is concluded from the results that in both the age groups respondents were found inferior in all the components than the standards given by Reynell. But in both the age groups children were found better on VCA component than VCB and ExLA component. Similar trend was observed in standard scores also.

The reason which can be attributed may be that the language development depends upon the kind of family interaction and the quality and quantity of exposure provided to the children. In rural area parents are not much aware regarding the need for providing stimulation to children and moreover the opportunities and facilities also lack in rural areas.

Ecological Factors and Language Development

Correlation coefficients were worked out to examine the relationship between the two variables *i.e.* language development and ecological factors and same are presented in table 2,3 and 4.

Effect of Personal Factors on Language Development

A cursory look at the table 2 indicates that VCA of rural children was found highly and positively correlated with mother's education ($r = 0.57$, $P<0.00$) and father's education ($r = 0.55$, $P<0.00$). Other factors were found non-significant with language development.

Further probing of data highlight the same trend as results pertaining to VCB and ExLA revealed a highly significant and positive correlation with mother's education ($rs = 0.48$, $P<0.00$ and 0.45, $P<0.00$, respectively) and father's education ($rs = 0.40$, $P<0.00$ and 0.41, $P<0.00$, respectively).

The findings of this investigation got strength from the findings of Kastelova (1976)

Table 2: Correlation of personal factors and language development of rural children

Personal factors	*Components of language development*		
	VCA	*VCB*	*ExLA*
Ordinal position	0.01	0.03	-0.02
Sex	-0.12	-0.06	-0.01
Mother's age	-0.05	-0.04	-0.07
Father's age	0.02	0.02	-0.08
Mother's education	0.57***	0.48***	0.40***
Father's education	0.55***	0.45***	0.41***
Primary care taker	0.13	0.09	0.11

VCA = Verbal Comprehension A
VCB = Verbal Comprehension B
ExLA = Expressive Language
***Significant at P<0.00

who also revealed that parents' education had a positive effect on child's vocabulary. Hence, it can be interpreted that language performance of children is remarkably influenced by the educational level of parents. Educated parents possess more skills in providing an ablaze and conducive environment for the development of different concepts in children as they may have better comprehension and understanding of aspiration and needs of their children.

Effect of Social Factors on Language Development

Table 3 portrays the effect of social factors on language development. It is clearly visible from the data that all the three components of language development *viz.*, VCA, VCB and ExLA were found highly significant and positively correlated with caste (rs = .42, .37 and .27, P<0.00, respectively). Significant but negative correlation of VCA, VCB and ExLA with type and size of family was observed.

Table 3: Correlation of social factors and language development of rural children

Social factors	*Components of language development*		
	VCA	*VCB*	*ExLA*
Caste	.42***	0.37***	0.27**
Family type	-0.35***	-0.34***	-0.26**
Family size	-0.40***	-0.39***	-0.22**

VCA = Verbal Comprehension A
VCB = Verbal Comprehension B
ExLA = Expressive Language
**Significant at P<0.05
***Significant at P<0.00

The present findings are corroborated with the reports of Shum et al. (1988). They also reported that high caste family has better environment which helps them in enhancing their language. The reason was that high caste families have better social status, more means and resources leading to stimulating environment which is necessary for children's acquisition of various skills. As most of the families are converting into nuclear families and have less members which widens the communication gap between parents and children. Children of joint and large size families were found to be better in language ability than their counterparts.

Effect of Economic Factors on Language Development

Table 4 elaborates the effect of economic factors *i.e.*, parent's occupation and family income on language development (VCA, VCB and ExLA).

Table 4: Correlation of economic factors and language development of rural children

Economic	*Components of language development*		
factors	*VCA*	*VCB*	*ExLA*
Mother's occupation	-0.08	-0.04	-0.05
Father's occupation	0.42***	0.29**	0.25**
Family income	0.39***	0.36***	0.26**

VCA = Verbal Comprehension A
VCB = Verbal Comprehension B
ExLA = Expressive Language
**Significant at P<0.05
***Significant at P<0.00

Pursuance of the results show that VCA, VCB and ExLA of children was found significantly correlated with father's occupation (rs = 0.42, P<0.00; 0.29, P<0.01; 0.25, P<0.01, respectively) and income of family (rs = .39 and .36, P<0.00; .26, P<0.01, respectively).

The present findings are in tune with the findings of Saharan (1993), who found that parental occupation and family income were positively correlated with language development of children. It can be inferred that family occupation contributes to the quality of stimulation as service and business class parents are economically more sound and socially more active thus provide an enriching environment to their children. Better economic conditions of the family enables the parents to afford educational and stimulating material for their children.

Concludingly, it can be said that better the SES of family better will be the language development as families with high SES have more sources to provide better opportunities and conducive environment for the optimum development of their children.

KEY WORDS Ecological Factors. Components of Language Development. Rural Children. Hisar.

ABSTRACT To study the effect of ecological factors

on language performance of children a random sample of 120 children equally distributed in the age group of 4 to 4.5 years and 4.5 to 5 years from six selected anganwadis of rural Hisar was selected. Mean scores of all the children in both the age groups were found lesser for all the components of language development than the standards given in Test Manual. Correlation among variables show that components of language development *i.e.* VCA, VCB and ExLA was found significantly correlated with parental education, caste, father's occupation and family income.

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