

Concept development among rural pre-school children

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■ **ABSTRACT** : The present study was carried out with an objective to study the effect of intervention on concept development among rural pre-school children. The sample for the study constituted 62 children in the age of 3-4 years who were attending Anganwadies in three adopted villages of Dharwad taluka. Information on concept was collected with the help of Boehm Scale. School based intervention programme was conducted for two months to improve children's knowledge about different concepts. The results indicated significant improvement in the concept development of children where in more number of children were fell under medium category at pre-test and after intervention more number of children were fell under high category of concept development. An intervention programme enhanced the cognitive abilities and knowledge of different concepts among the rural pre-schoolers.

■ **KEY WORDS** : Concept development, Pre-schoolers, Intervention

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Concept acquisition is key to cognitive development. Concept is one of the most important things to understand when teaching the children. The development of concepts is the linking together of ideas in a child's mind, so that they can process more complex lines of thought. The concepts provide an efficient way of organizing experience. They also serve as an important function for a range of cognitive tasks, including identifying objects in the world, forming analogies, making inferences that extend knowledge beyond what is already known. Concepts are a way to organize information. Without the ability to categorize and store observations and facts into associated categories, the overwhelming amount of raw data collected by a child's senses would be incoherent and would be unable to understand or act on it. As might be expected, then, most concepts are learned not through direct instruction but through children's experiences. As they encounter the who, what, where, when, why and how many of everyday events. Children accumulate information about categories of people, objects, locations, time, causes, functions and numbers. The most conservative estimate of children's concepts would be the number of words for which they know the meaning-roughly 40,000 by age 10 and 60,000 by age 19, which over the first two decades of life is roughly one new concept every

90 waking minutes (Anglin, 1993; Bloom, 2000; Miller, 1996). In truth, this figure radically underestimates the rate of concept acquisition because words often denote separate concepts and many concepts are expressed in word-combinations.

The child is endowed with certain biological inheritance at the time of his birth. He gets the knowledge of the external world through sense organs, which are the gateways of knowledge. With any child, some concepts may be fully and accurately developed, others only partially developed and still others quite inaccurate. Differences in particular areas appear from one child to the next depending on developmental level and experiences. The emphasis should start at an early stage, as these are critical years in a child's span since the rate of development is more rapid than at any other stage of development. To develop to his or her full potentials, a child, particularly in these years needs a stimulating environment. So, there is a need to know the concept development among pre-school children and provide the necessary intervention.

■ RESEARCH METHODS

Population and sample used for the study :

The population for the study was selected from three adopted villages in Dharwad taluka namely, Uppinbetageri,

Aminbhavi and Kotur village. The sample for the study was drawn from two Anganwadies from each village which were functioning at the time of survey. Total sample comprised of 62 children in the age group of 3-4 years. Out of these 62 children, 41 children constituted experimental group and 21 children constituted control group.

All the children were pre-tested for assessing their existing status of concept development. The level of cognitive concepts of pre-school children was measured in terms of child's level of performance by using Boehm test of Basic concepts (Revised). The scale consists of 50 pictorial items and arranged in appropriate order of increasing difficulty and divided evenly between two booklets – booklet 1 and booklet 2. A score of 1 for correct answers and 0 for wrong answers was assigned for item of the scale. Based on total scores, children were categorized as Low (0 - 16), Medium (17 – 33) and High (34 - 50).

The school based intervention was provided only to the experimental group children, with the help of developed stimulation package on cognitive and different concept development. The intervention was carried out in respective Anganwadies for a period of two months *i.e.*, two hours per day. It covers concepts like direction, social awareness, quantity, sequence and school readiness composites. After a gap of one month, both control group and experimental group children were assessed for post-test on concept development. Frequency and percentages were used to know the distribution of the children on concept development and students 't' test was used to know the gain in mean scores of children on concept development.

RESEARCH FINDINGS AND DISCUSSION

Distribution of children on concept development at pre-test and post-test is presented in Table 1. Results of the table revealed that in control group during pre test about 66.66 per cent of children had medium level of concept development

and 33.33 per cent had low level of concept development. None of the children belonged to high category of concept development. During post-test about 85.71 per cent of children were in medium level of concept development, followed by low category (9.52 %) and only about 4.76 per cent of children were in the category of high level concept development.

Distribution of children on concept development at pre-test and post is presented in Table 1 and Fig. 1. It is clear from the table that at pre-test majority of children of experimental group had medium level (75.60 %) of concept development and about 24.39 per cent had low level of concept development. None of the children belonged to high level of concept development. After the intervention programme the post-test results showed that more number (85 %) of children from experimental group belonged to high level of concept development compared to control group (4.70 %) and none of them belonged to low level of concept development. These results are also supported by a study conducted by Manocha and Narang (2008) who found that pre-school children who received intervention showed significant gains in concept

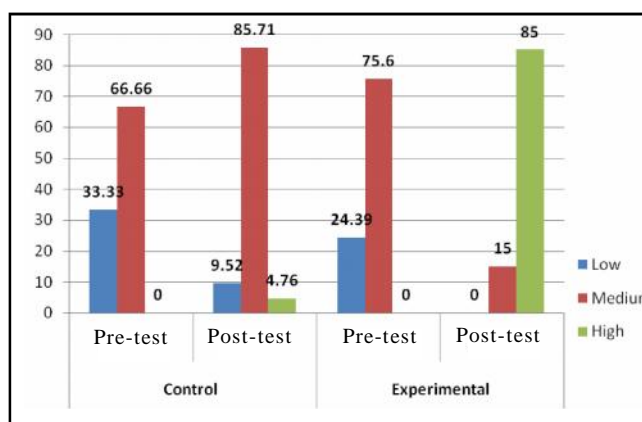


Fig.1: Percentage distribution of pre-school children on concept development

Concept development	Control		Experimental	
	Pre-test	Post-test	Pre-test	Post-test
Low	7(33.33)	2(9.52)	10(24.39)	-
Medium	14(66.66)	18(85.71)	31(75.60)	6(15.00)
High	-	1(4.76)	-	34(85.00)
Total	21(100.0)	21(100.0)	41(100.0)	40(100.0)

Figures in parenthesis indicate percentages

Concept development	Pre-test Mean (SD)	Post-test Mean (SD)	t-test
Control group	20.00 (7.18)	25.05 (6.53)	2.38*
Experimental group	19.22 (6.12)	41.55 (8.78)	13.30**

* and ** Indicate significance of values at P=0.05 and 0.01, respectively

development as compared to control group. Rani (2001) found mean gain in different aspects of cognition in three study groups and significantly higher mean gain in concept development of experimental group children.

Table 2 shows the comparison of mean score of concept development of children before and after intervention. The result indicated that the mean score of concept development of experimental group children at pre-test were found to be 19.22 as compared to post-test 41.55 and the gain in mean score was found to be 22.33 compared to control group. Post testing revealed significant differences in the performance of control and experimental group children. The higher gains of experimental group in concept development may be attributed to their exposure to the intervention programme through stimulus booklet. From the table it is clear that 't' values found to be statistically significant at 1 per cent level of probability indicating that the intervention programme imparted through stimulation package for pre-school children was found to be effective in improving concept development of children. An intervention programme through stimulus enhanced the cognitive abilities of children. After implementation of intervention programme, majority of children achieved medium to high level of cognitive abilities and different concepts. Kumari (1994) also reported that intervention programme enhanced concept development of children. After implementation of intervention programme, majority of children achieved medium to high level of concept development. Saharan (1993) too observed similar results and revealed that a need based intervention programme, if suitably designed and implemented can cause dramatic improvement in cognition of pre-school children.

Thus, it can be concluded that pre-school children who received intervention exposure showed significant gains in

conceptual development as compared to control group children from similar backgrounds. An intervention programme enhanced the cognitive abilities and knowledge of different concepts among the rural pre-schoolers.

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