

Implementation of Cognitive Domain in Schools of Deferent Settings

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ABSTRACT Early childhood period is a crucial period and should be utilized properly for optimum development of cognitive aspect therefore teachers and parents should be conscious about this aspects in harvesting child's optimum potential. An investigation was carried out in Haryana and Union Territory of Chandigarh to know the implementation of activity related to cognitive domain in school of different settings. Present investigation was conducted on 58 purposively selected schools of rural, urban and periurban areas of Hisar district of Haryana and Union Territory of Chandigarh. Results revealed that there were discrepancies in school/reported data and observations made by the researchers. Data reported that there were not many differences between urban government and urban private schools in implementation of activities related to cognitive domain. Data further reported that very few schools in rural and peri-urban areas provided the activities for cognitive domain like development of five senses, volume, environment make believe play, symbolic reasoning.

INTRODUCTION

Cognitive development in young child is a complex process and its outcome depends on the quality of children experiences both inside and outside of the formal class room because young children go through a series of psychosocial and neurobiological changes. Children ability to acquire knowledge and then use it effectively to plan, monitor, and evaluate their own capabilities is better ensured during early years of life (Murlidharan and Asthana, 1991). This domain includes the physical knowledge, perception, logical mathematical knowledge, scientific understanding and critical thinking skills.

Environment from the six to seven years of life is very significant for cognitive development. Therefore, all kinds of facilities should be provided to the child to explore, to acquire to play and to interact with his peers for optimum education.

METHODOLOGY

Study was conducted in purposively selected state of Haryana and union territory of Chandigarh. Multistage sampling technique was used for sample selection. Pre and primary sections were selected purposively from rural, urban and peri-urban areas of Hisar district and Chandigarh. Two pre-schools laboratories one from Department of Human Development and Family Studies CCS HAU, Hisar and other

Laboratory Nursery School from Government Girls College, Chandigarh, Department of Child Development were also selected purposively. Further seven schools from each cultural settings i.e. rural, peri-urban area were selected randomly from both places - Hisar and Chandigarh. Sample from urban areas is consisted of fourteen schools, seven from private and equal number from public sector were taken randomly. To gather information, principal and schoolteachers were interviewed to know about status of cognitive domain. Data were collected through interview schedule and observation checklist. Descriptive analysis was used to draw inferences.

RESULTS AND DISCUSSION

Result revealed that 57.14 per cent urban private, 50 per cent urban government, 21.42 peri-urban and 14.28 per cent rural school were having plans for the development of five senses in children. However, both the laboratory. Pre schools were providing facilities in this aspect. Area wise distribution over both the locations revealed that the opportunities for the development of five senses in children was being provided but there was wide disparity between different areas as far as facilities are concerned.

The researcher observed that the teachers did not put efforts in order to develop the five senses in young children. It was also observed that only in few urban private schools one or two activities were planned for children to develop five senses.

On the other hand in govt. schools of both the places, the equipment and material were available but were not being used for the children. When teachers were asked they told that child would damage or break the material if allowed to use. Because the materials are being provided by the government only once in 3-4 years and teachers are answerable if any child damages the material during play that is why the material and aids are just lying as show pieces rather than being used for the development of young children. However, in two of the pre-schools in Chandigarh pre-school teachers were very hard working and were making extra efforts to prepare teaching aids for children (Singh, 2003).

Observations further revealed that children of both laboratory pre schools were given appropriate opportunities for 'developing children's five senses'. It is mainly due to the participation of under-graduate students with pre school laboratory children. Under-graduate students while performing their learning activities were providing lot of innovative ideas, material and activities to the young children for development of senses.

As development of five senses (viz., seeing, hearing, touching, smelling and tasting) in children is necessary for learning and formation of concepts. But due to lack of awareness, untrained teachers and inappropriate equipment and materials, the young children were not able to develop the five senses. Therefore, developmentally appropriate program should be planned and implemented by properly qualified and trained teachers.

The effectiveness of educational program on selected cognitive abilities was studied and found that preschool children performed significantly better in all three cognitive abilities implementing the appropriate program (Gill et al., 1990).

Cognitive skills are categorized in the result (Table 1) as visual memory, verbal memory, make believe play, classification, seriation, sequential thinking, problem solving, identification and symbolic reasoning. Data related to opportunities for enhancing different 'cognitive skills'

Table portrays the area-wise picture of activities to enhance the different cognitive skills. It was observed that in urban government and urban private school the maximum emphasis on the activities related to identification skills (78.57% and 92.85% respectively) while the least

preferred activity in urban government school was to make believe play (14.28%) and in urban private school it was symbolic reasoning (21.42%). On the other, hand in peri urban and in rural schools the most preferred activities were about the development of classification skill (50% and 71.42% respectively). However, in peri urban area activities related to sequential thinking were also equally important (50%). The least preferred activities in peri urban area as well as in rural area was again related to the development of make believe play which was not at all being performed. Out of the two laboratory nursery tested only one at Chandigarh was found to be conducting all the activities related to the development of cognitive skills (Table 1) except in visual and verbal memory skills.

Data regarding development of different concepts in children (viz.; colour, shape, pre-number, number space, time, volume, weight, temperature, environment, life and death) highlighted that majority of activities are being covered in present curriculum of schools at both the places, i.e.; Hisar and Chandigarh (Table 1). However, concept development regarding volume, weight, temperature, environment, life and death are not being given due consideration at both the places. Area wise distribution of schools conducting activities on above said concept shows that development of colour, shape, pre-number, number were the concepts reported by majority of urban private, urban govt. peri-urban and rural schools i.e. 85.71-100 per cent (Table 1). Whereas less emphasized activities in urban government were regarding concept formation on space (28.57%), volume (14.28%), weight (21.42%), temperature (14.28%), life and (21.42%); in urban private pre-schools, life (28.51%), death (14.28%), in peri-urban schools time (7.14%), temperature (7.14%), environment (28.57%); in rural schools, time (28.57%), temperature (21.42%), death (21.42%). Both the laboratory nursery school were conducting activities to develop all the concepts (Table 1).

Rao (1980) studied concept development in young children. It was observed that conservation of mass develops is early as four years, conservation of weight around the five year and volume concept in the later years.

Observation done by researcher disclosed that in schools of Chandigarh, the number concept was promoted (by verbalizing) more than other concepts where as development of colour concept

Table 1: Areawise existing status of educational program for young children regarding cognitive domain

S. No.	Aspects	Response	Urban Govt. N=14	Urban Pvt. N=14	Peri-Urban N=14	Rural N=14	Pre-school Lab N=2
1.	<i>Development of Five Senses</i>						
a.	Sight	Yes	7 (50)	8 (57.14)	3 (21.42)	2 (14.28)	2 (100)
b.	Hearing	Yes	7 (50)	8 (57.14)	3 (21.42)	2 (14.28)	2 (100)
c.	Touch	Yes	5 (35.71)	9 (64.28)	2 (14.28)	2 (14.28)	2 (100)
d.	Taste	Yes	5 (35.71)	8 (57.14)	-	-	2 (100)
e.	Smell	Yes	7 (50)	8 (57.14)	3 (21.42)	2 (14.28)	2 (100)
2.	<i>Opportunities of Enhancing the Skills of</i>						
a.	Visual memory	Yes	7 (50)	8 (57.14)	3 (21.42)	2 (14.28)	-
b.	Verbal	Yes	6 (42.05)	7 (42.85)	2 (14.28)	4 (28.57)	-
c.	Make believe play	Yes	2 (14.28)	4 (28.57)	-	-	1 (50)
d.	Classification	Yes	6 (42.85)	12 (85.71)	7 (50)	10 (71.42)	1 (50)
e.	Seriation	Yes	9 (64.28)	12 (85.71)	5 (35.71)	5 (35.71)	1 (50)
f.	Sequential thinking	Yes	8 (57.14)	9 (64.28)	7 (50)	5 (35.71)	1 (50)
g.	Problem solving	Yes	3 (21.42)	11 (78.57)	4 (28.50)	4 (28.57)	1 (50.00)
h.	Identification	Yes	11 (78.57)	13 (92.85)	6 (42.85)	9 (64.28)	1 (50.00)
i.	Symbolic reasoning	Yes	3 (21.42)	3 (21.42)	1 (7.14)	1 (7.14)	1 (50.00)
3.	<i>Activities for Formation</i>						
a.	Color	Yes	14 (100)	14 (100)	13 (92.85)	8 (57.14)	2 (100)
b.	Shape	Yes	12 (85.71)	14 (100)	10 (71.42)	8 (57.14)	2 (100)
c.	Pre number	Yes	12 (85.71)	14 (100)	9 (64.28)	12 (85.71)	2 (100)
d.	Number	Yes	8 (57.14)	14 (100)	14 (100)	6 (42.85)	2 (100)
e.	Space	Yes	4 (28.57)	7 (50)	6 (42.85)	7 (50)	2 (100)
f.	Time	Yes	11 (78.57)	10 (71.42)	7 (50)	4 (28.57)	1 (50)
g.	Volume	Yes	2 (14.28)	7 (50.00)	1 (7.14)	-	2 (100)
h.	Weight	Yes	3 (21.42)	8 (57.14)	5 (35.71)	6 (42.85)	2 (100)
i.	Temperature	Yes	2 (14.28)	7 (50)	1 (7.14)	3 (21.42)	2 (100)
j.	Environment	Yes	5 (35.71)	9 (64.28)	4 (28.57)	-	2 (100)
k.	Life	Yes	3 (21.42)	4 (28.51)	6 (42.85)	6 (42.85)	2 (100)
l.	Death	Yes	3 (21.42)	2 (14.28)	5 (35.71)	3 (21.42)	2 (100)
4.	Provision of 3 R's (Reading, writing and arithmetic.	Yes	7 (50)	14 (100)	13 (92.85)	8 (57.14)	2 (100)
5.	Development sense of right and wrong	Yes	14 (100)	14 (100)	13 (92.85)	14 (100)	2 (100)

Figures in parenthesis indicate percentage.

was more emphasized in pre-schools of Hisar. Although, the respondents reported that the concepts of colour, shape and numbers were being developed in the children but the observations showed that these were not developed by applying appropriate means and activities by teachers. Further no efforts were being made to develop concepts regarding time, space, volume, weight, temperature and environment (Singh, 2003).

The area wise distribution of provision for 3 R's depicted that almost all pre-schools of urban private (100%) and peri-urban (92.85%); almost half of the rural (57.14%) and urban government (50%) were conducting activities to develop 3R's. Both the laboratory nursery schools were also reported for teaching 3 R's to the children. The low percentage of schools dealing in 3R's in Hisar area is due to the fact that sampled schools were also included Anganwadi centers in which teaching of 3 R's is not a part of the curriculum. This fact also reduced the number of urban government schools dealing in 3R's when an area wise data were observed. (Table 1).

No uniform curriculum was observed over all pre-schools for the development of 3R's however all the sampled schools were conducting one or the other activity to develop this concept. A personal observation and discussion with teachers revealed that such activities were more because of the choice of parents however mostly teachers were against this. Actually parents wanted that schoolteachers to prepare children for formal schooling where understanding of 3R's is more important.

Therefore parents need to be educated that development of concept of 3R's depend on the readiness of the child rather than need.

The pre-school children are ready to learn the moral judgements and during this stage they should be prepared to develop a sense of differentiating between right and wrong. Table highlights that most of the schools of Hisar and Chandigarh

irrespective of their location reported to providing activities to children for development of "sense of right and wrong".

Observation suggested that discipline in schools be maintained in the form of check on wrong behavior among children. The children were checked for wrongdoing and disobedience, on the other hand they were appreciated and encouraged for positive behavior. Observations also showed that in some of the pre-schools it was very difficult for teacher to tackle the children might be due to of poor teacher child ratio rather than incompetence of teacher. The teachers were more interested in maintaining discipline than teaching children about right and wrong-doing.

CONCLUSION

Results of the investigation suggest that early childhood period is crucial period and should be utilized properly for optimum development of cognitive and other aspects of development. Therefore, teacher and parents should be conscious about this aspect in harvesting child's optimum potential. But unfortunately majorities of parents are not educated and even qualified parents are not aware of importance of method of learning during the pre school years. The Learning environment should be construct in such a way, which stimulates optimum cognitive growth of the children.

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