



Quality of pre-school and its impact on cognitive development of children

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ABSTRACT

The significance of early childhood years has been well established through research evidences. According to Piaget, during early childhood, children learn through accommodating and assimilating new information they come across. The more the child is exposed to stimulating environment, the more he/she will learn. In India, the early childhood service is provided through government run Aanganwadis', Private pre-schools and pre-schools run by NGOs. The present study was undertaken to find out the quality of pre-schools and its impact on cognitive development of children. The data was collected from four pre-schools. From those four pre-schools, 80 children in the age group of 3-5 years were included in the sample. The findings of the study show a positive correlation between quality of pre-school and cognitive development of children. The children of private pre-school were found to lead ahead in cognitive development than children of pre-schools run by NGOs.

INTRODUCTION

It has been proved through research studies that 90 per cent of brain develops by the age of six years. Synaptic connections in the brain are formed when the child gets exposure to a new thing. Piaget has called it schema. Children make schema through adaptation and assimilation process. As far as cognitive development in early childhood is concerned. It is very concerned period of the child mental development. In childhood the main part of cognitive development are memory, reasoning, problem-solving and thinking which are continue through childhood. When we talk about the childhood than we also mention the work of the psychologist Jean Piaget. According to

Piaget children are not less intelligent but they think differently from adults because children learn actively. Children learn by doing and they are very curious to know about anything and their learning capacity is more than the adults. When children get any new information than they want to modify the whole information and do their work by their own style. Jean Piaget give three main stages of cognitive development: the sensory-motor stage- birth to age 2; the preoperational stage- age 2 to age 7; the concrete operational stage- age 7 to age 11 and he also gave one stage that is fourth one the formal operational stage, which starts from adolescence and to the adulthood. As children move from the preoperational stage, the most obvious change is an extraordinary increase in

representational, or symbolic, activity. Piaget acknowledged that language is our most flexible means of mental representation (Berk, 2001). To enhance the cognitive development a child needs exposure to stimulus environment having age appropriate equipment and materials. But in today's lifestyle where nuclear family and working mother has been becoming a trend, it is not possible to provide a stimulating and safe environment at home. According to Gardner's theory of multiple intelligence suggests that children have different strengths and weaknesses in their intelligence systems and that educator should instruct to accommodate different kinds of intelligence. According to the theory of mind research is focused on children's understanding of their own thought processes. From age 2 to 6 year children clear understanding of their world, people's actions, number concepts etc. In India there are different types of pre-schools running by the government under ICDS programme, private pre-schools and pre-schools run by non-governmental organizations.

Pre-school education system in India :

In India pre-school education is provided through three channels- Government, Private and non-government organization.

Public pre-schools:

The Government of India launched the Integrated Child Development Services (ICDS) scheme in 1975. In India, pre-school education is provided by private schools and government ICDS. Anganwadi centers, although found in every village visited and accessible to most children, are not attended by many children, as these are not the preferred choice of parents. This is particularly so, for those who can afford to pay for their child's education.

Private pre-schools:

As per the data of MWCD, only 45 per cent of children below 6 years are covered under ICDS programme. These schools not only establish in metropolitan cities but also in other cities, such as: Eurokids (+884 branches), Kidzee (+900 branches), Shamrock (+330 branches) etc. These are often established by local educated youth entrepreneurs and being unrecognized, are not required to conform to any specifications related to infrastructure, teachers, curriculum and so on.

Pre-schools run by NGOs:

In the private pre-schools some of the parents are not able to afford the charges of private school, so they are left the option of either making their children sitting at home. Than the some NGO are their which provide free education of these children those parents are not able to afford. Some NGO are Bodhshala, ICAD Education Trust etc.

Quality of pre-school :

A quality of pre school is a safe and engaging environment that prepares children for Kindergarten. Teachers whose professional background prepares them to show warmth, form supportive relationships with children, model enthusiasm and show regard for students' voices. Teachers who have learned through their professional preparation the best ways to maintain order in the class and help students regulate their own behavior. In these schools they focus on helping every child to learn, develop and gradually do things independently. They also provide daily opportunities for communication between parents and teachers.

It has been proved through many researches that quality of pre-school has an impact on cognitive development of the child. Early childhood education provided through anganwadi centers is lacking even the basic facilities required for the safety and education of children. It is due to lack of budget allocated to the ICDS programme. The government's priority is towards universalization of elementary education and secondarily to RMSA for secondary education. This has created a gap in early childhood education and this gap is being filled by the private players who are entering into this field of education. The mushrooming growth of these private pre-schools has been becoming a matter of concern because they do not even follow a minimum standard.

The present study is undertaken to find out the quality of these private pre-schools and pre-schools run by non-government organization and how it is affecting the cognitive development of children. As it has been found through review of researches pertaining to this field that very few researchers has been done in this area and especially researches on comparison of private and pre-schools run by NGO is very scarce. To fill this research gap the present study has been taken.

Chopra (2015) conducted study on early childhood

care and education in the context of right to education (2009). The data was collected from different types of ECCE centers such as ICDS, Private Nursery School, Experimental Play School, Nursery Schools run by MCD Delhi. The findings of the study shows that none of the early childhood programme observed in the study was recognized by any regulatory body for early childhood education. Medium of instruction was observed to be Hindi in majority of the programmes observed, except programmes in BRS.

Peisner (2004) conducted study on child care and its impact on Young children development in the context of to examine the issues around the effects of child care quality on children's development, both in the short-term, during the pre-school years, and over the longer-term, into elementary school and found positive associations between child care quality and children's cognitive development.

Gormley *et al.* (2005) conducted study on the Effects of Universal Pre-K on Cognitive Development in the context of the proposition that universal pre-K programme financed by state government and implemented by the public schools can improve rereading, prewriting, and pre numeracy skills for a diverse cross-section of young children.

Arora *et al.* (2007) conducted a comparative study of cognitive development of ICDS and Non-ICDS children (3-6 years). The aim of the study is to find out the age of onset of different cognitive abilities of children and the impact of non-formal education on cognitive development of children. It was found in the study that cognitive ability of children increases with their age. A significant difference was also found in cognitive development of ICDS and non-ICDS children.

Goswami (2015) conducted study on the children's cognitive development and learning in the context of how children of primary age develop, think and learn to find out that how the brain depend on the development of multi-sensory networks of neurons distributed across the entire brain.

National Institute of Child Health and Human Development Early Child Care Research Network (2003) conducted a study on quality on child care and its effect on outcome in early childhood. The result shows that there is a positive association between child care quality and children's cognitive development and social competence during the pre-school years.

Kontos *et al.* (1995) conducted a study on quality in family child care and relative care. The result suggest that children who attend better quality child care during the pre-school years demonstrate better cognitive and social skills during this time period, after accounting for differences in family background characteristics that are also related to children's development.

Objective :

- To find out the quality of private pre-schools and pre-schools run by Non-governmental organization
- To find out the cognitive development of children of private pre-schools and pre-schools run by non-governmental organization
- To find out the cognitive development of children of private pre-schools and pre-schools run by non-governmental organization with respect to gender
- To find the relationship between the quality of pre-school and cognitive development of children.

MATERIAL AND METHODS

Locale of the study :

The locale of the study was Jaipur city.

Sample size :

The sample for the present study included 4 pre-schools of Jaipur city. Among these 4 pre-schools 2 were private pre-schools and 2 were the pre-schools run by NGOs. From these 4 pre-schools 80 children was selected by using stratified random sampling technique.

Tool description :

To know the quality of pre-school a standardized tool developed by CECED department of Ambedkar Universty, New Delhi was used. To measure the cognitive development of children the test of Pandey (1992) was used.

Administration :

The test will be administered individually and orally, in an exclusively private room. There was no time limit. The child is given sufficient time to complete all the test items.

Scoring:

Given one mark for each correct answer. Scored each sub-test by hand as it s performed. The total scores

constituted the 'raw' score of the subject. Find out the standard scores of the subject as per his age on the given age norm table.

OBSERVATIONS AND ANALYSIS

The Table 1 shows the significant difference (t value is significant at 0.05 level of significance) in quality of private pre-schools and pre-schools run by NGOs. So the Ho.1 which states that "There is no significant difference between the quality of private pre-schools and pre-schools run by Non-governmental organization" is rejected. The mean value shows that quality of private pre-schools (Mean= 50.5) are on higher side than quality of pre-schools run by NGOs (Mean= 42.5).

The Table 2 indicates that the correlation between quality of pre-school and cognitive development is highly significant ($r= 0.84$). That means if the quality of pre-school is enhanced it would have a positive impact on cognitive development of children.

Many studies have found positive associations between child care quality and children's cognitive

development and social competence during the pre-school years (Whitebook *et al.*, 1989; Kontos *et al.*, 1995 and Myers, 2004). The study of Zaveri (1993) found that children from pre-schools in rural villages of Gujarat scored higher on several measures of cognitive ability administered at the end of the second year of primary school than did a control group of children from the same villages who had not attended pre-schools, controlling for social differences.

As far as difference in cognitive development of children in private pre-schools and pre-schools run by NGOs with respect to gender is concerned, the t value shown in Table 4 is non-significant. That means there is no difference in cognitive development of boys and girls in both types of pre-schools. Therefore the Ho.3 which states that "There is no significant difference between the cognitive development of children of private pre-schools and pre-schools run by non-governmental organization with respect to gender" is accepted.

The Table 4 indicates a highly significant difference between cognitive development of children in private

Quality of pre-school	Mean	Std. deviation	t value
Ngo pre-school	42.5	4.60	2.39
Private pre-school	50.5	1.11	

	n	r	p
Quality of pre-school and cognitive development	80	0.84 ^{NS}	0.02

NS=Non-significant

Types of pre-school	Sex	n	Mean	Std. deviation	t value
Ngo pre-school	Boys	20	89.75	13.63	1.02 ^{NS}
	Girls	20	94.40	15.12	
Private pre-school	Boys	20	107.15	19.98	0.029 ^{NS}
	Girls	20	106.95	24.11	

NS=Non-significant

	NGO pre-school (Mean)	Private pre-school (Mean)
Physical facility	7	8.5
Teaching learning material	24.5	57
Teaching learning method	16.5	23

Types of pre-school	n	Mean	Std. deviation	t value
Ngo pre-school	40	92.08	14.40	3.61*
Private pre-school	40	107.05	21.85	

schools and pre-school run by the NGO ($t=3.61$). Thus the Ho.2 “There is no significant difference between the cognitive development of children of private pre-schools and pre-schools run by Non-governmental organization” is rejected. The mean value shows that children of private pre-schools are on higher side in their cognitive score ($m= 107.5$) as compared to children of pre-schools run by NGOs ($m=92.8$). The result supports the result found in the Table 4 which says that private pre-schools are better in quality than pre-schools run by NGOs. Although both types of pre-schools undertaken in the study are found to have equally qualified teachers but a difference was found in their teaching style, infrastructure facilities and learning materials which are important factors contributing to cognitive development of children.

The Table 5 indicates the difference in mean value of criteria undertaken in the study to measure quality of pre-schools in the present study. As far as the above areas of quality of pre-schools is concerned private pre-schools lead far ahead than pre-schools run by NGOs. The mean value of availability and use of in private pre-schools is more than twice ($m= 57$) the mean value of teaching learning materials in pre-schools run by NGOs ($m= 24.5$). As further we see from the table that the teaching learning method is better in the private school ($m= 23$). The teachers of private pre-schools were observed to show more enthusiasm while interacting with children, more planned before conducting the lessons and more equipped with learning materials as compared to teachers of pre-schools run by NGO.

Conclusion:

The aim of the present study is to examine the quality of pre-school and its impact on cognitive development of children. The result reveals a positive correlation between quality of pre-school and cognitive development of children. That means the cognitive development of children is enhanced with better quality of pre-school education. As per the standard quality framework the dimensions to measure quality is infrastructure and physical facilities, teachers qualification and experience, teaching learning materials, curriculum and teaching learning process. The private pre-schools were found to lead ahead in providing quality pre-school education as compared to pre-schools run by NGOs. In the absence of regulatory body there are no minimum eligibility criteria in terms of educational background of the owner to open

a pre-school. In the absence of knowledge of developmental pattern of early childhood years and lack of skills to facilitate a safe and stimulating environment these private pre-schools are mere a downward extension of primary education.

The pre-schools run by NGOs have been trying to facilitate early childhood education especially to disadvantaged children but with the limited fund and parental pressure they mostly focus on teaching 3R's which is not recommended for early childhood education. Most of them are running in rented shabby places with minimum teaching learning materials and hiring teachers from nearby communities. These all dilute the quality of pre-schools and ultimately the sufferers are little children.

There are other factors which effect the cognitive development of children such as educational background of parents, their SES, curriculum followed in the pre-schools, teacher's qualification and experience etc. So a further study can be done with a larger sample and with those factors.

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