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Techniques for Cognitive Development of Child at Early Ages

**Muhammad Ramzan, Ph.D., Khalida Praveen, M.A., and
Aijaz Ahmed Gujjar, Ph.D. Candidate**

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Abstract

The purpose of this study was to explore teacher's understanding and practices regarding techniques for the cognitive development of the children at ECED level. This study describes the brief background of the context of the study, teacher's profile, review of available literature, methodology used for the study and major finding of the study along with recommendations.

Several theories on cognitive development have been described in literature which emphasized on the importance of using specific techniques of teaching to develop children's cognitive skills and capabilities at early ages. The study employed a qualitative mode of research and field work was carried in the First ECED based school Aliabad Hunza. One teacher of grade three was selected as participant along with her students.

In this study we use interview and observation as the methods for data collection. The selected teacher was interviewed twice and observed in the classroom in action for more than six times.

Language in India www.languageinindia.com

12 : 3 March 2012

Muhammad Ramzan, Ph.D., Khalida Praveen, M.A., and Aijaz Ahmed Gujjar, Ph.D. Candidate

Techniques for Cognitive Development of Child at Early Ages

198

Interview transcripts and observation notes were compiled for analysis and read and reread using various themes that emerged from the research question.

Final findings and conclusions were drawn on the basis of analysis that involved a comparison between various themes and sub-themes. The finding of this study revealed that the teachers are aware of the concept of cognitive development and techniques required to ensure appropriate development of cognitive skills in young children. It is revealed that the teacher used several teaching techniques relevant to help children acquire cognitive development. However, the study also indicated that due to lack resources and limited exposure to professional development opportunities the teacher was unable to use the techniques in their true spirit.

Hence, the study recommends that the school management should ensure that the teacher avails professional development facilities to enhance her understanding of the concepts and practices related to cognitive development in young children. The study also highlights the need for conducting further research studies in the real context around the same topics and more importantly action research projects should be conducted with participation of the teachers.

Introduction

Great importance is associated with early childhood care and education throughout the world, and in all ages albeit adopted different approach in different contexts and the time in ancient time people considered child as a tabula-rasa and the age to admit to the class was about 6 to 8, but the recent theories shows that child begins to learn before his birth. So, due to this importance governments and Non-Government-Organizations (NGOs) have begun to work for the early childhood care and education, today the world's less than half of the children are participating in the early childhood care and education. Birth to eight years of age are very crucial age of child development but in our areas education of a child start with the age of five to six, at this stage child brain development is almost completes. In this age group children have curiosity to explore the thing around them.

The First ECED Centre in Hunza was Montessori Based School established in 2005. To fill the vacuum of early childhood education in Hunza, Association of Educational and Societies of Hunza (AESWSH) with the collaboration of AKRSP established a modal school. The First ECED centre Hunza, Montessori based School which is formally providing a platform to children of the valley. This provides a systematic education through one of the ECED education system widely practiced in the world.

It is also a Montessori's teacher training Centre to disseminate specific Montessori teaching

Language in India www.languageinindia.com

12 : 3 March 2012

Muhammad Ramzan, Ph.D., Khalida Praveen, M.A., and Aijaz Ahmed Gujjar, Ph.D. Candidate
Techniques for Cognitive Development of Child at Early Ages

training. So far two training sessions have been conducted for the teachers of both member and non-member schools, where more than 100 teachers were benefited under ECED trained teachers through specific Montessori material.

Review of Related Literature

Verma (2006) focuses on child's cognitive development during early childhood, which includes building skills such as pre reading language, vocabulary and numeric, beings from a child is born. The first eight years of life are the most fundamental in the development of human beings and their potential. According to Oxford Learner's Dictionary, "cognitive development is connected with mental processes of understanding" (p.285). As Woolflok (2002) defines "cognitive development is a gradual orderly change by which mental processes become more complex and sophisticated" (p.58). The capacity to learn, remember, and symbolize information, and to solve problems, exists at a simple level in young infants, who can perform cognitive tasks such as discriminating animating beings or recognizing small numbers of objects. During childhood, learning and information-processing increase in speed, memory becomes increasingly longer, and symbol use and the capacity for abstraction develop until a near-adult level is reached by adolescence.

Cognitive development should be based on child initiated activities, the environment in which this intervention takes place should be arranged so as to elicit the desire behaviors. Cognitive development is brought through the process of thinking. Therefore such methods of teaching should be used which emphasizes the use of reasoning and thinking.

According to Dunstetal as cited by Wilson (1998) "Responsive teaching methods are the instructional strategies of choice when promoting cognitive competence" (p.101).

The term "responsive teaching" demonstrates an instructional approach that employs social responsiveness (e.g., smiles, honor, hold close, and other forms of positive consideration) as a rein forcer to keep up or remind further desired behaviors from the child. Positive social reinforcers tend to apply powerful influences on the achievement of early cognitive capabilities. According to Dunstetal as cited by Wilson (1998) play activities offer many opportunities for manipulating, exploring, and practicing and thus highly recommended as place for nurturing the cognitive abilities of young children. Vygosky as cited by Woolflok (2002) states that learning pulls development to higher level means that other people play a significant role in cognitive development. Cognitive development involves developmental changes in children's awareness, knowledge, understanding, reasoning, and judgment.

According to Essa (2003) cognitive development of infants is promoted best when they are in a safe, loving environment where their basic needs are met. This environment must be rich in appropriate stimuli and sensory experience that helps children to explore and learn about their world.

Methodology

Research Question

How do the teachers understand and practice techniques specific to cognitive development of children in ECED classroom?

Research Design

According to the nature of information required and to fully explore and understand the topic under study, we decided to use qualitative research approach. We explored the understanding and practice related to techniques which teachers use for cognitive development of children at ECED 3rd. By using the qualitative research, it made me able to use multiple data collection methods from which we knew, about the techniques that teachers apply for the cognitive development of children in ECED 3rd class.

Case Study

In this study, we used case study method to explore the understanding and practice of teachers with reference to the techniques for cognitive development of children in an ECED three class. Gay (1987) states that “primary purpose of the case study is to determine the factors and relationship that have resulted in current behavior status of the subject of study” (p.21). We used the case study methods in this study because it seemed the appropriate to answer my questions similarly. Cohen, Manion and Morrison (2002) state, “Case study provides, a unique expel of real situations, enabling researchers to understand ideas more clearly than simply by presenting them with abstract theories or principles” (p.181). Case study design also allowed us to use multiple sources of data collection such as, teacher interview and observation of teacher.

Research Context and Sample

The study conducted in the First ECED centre Hunza Montessori based school Aliabad. This is one of famous ECED centres where children are provided a variety of activities through games the whole environment is attractive. Sampling is a process of selecting individual from

Language in India www.languageinindia.com

12 : 3 March 2012

Muhammad Ramzan, Ph.D., Khalida Praveen, M.A., and Aijaz Ahmed Gujjar, Ph.D. Candidate
Techniques for Cognitive Development of Child at Early Ages

population. We conducted our study in ECED III class with one teacher who manages the class and all students became secondary participants of the study. To select a sample to conduct a research the researchers selected the sample with the characteristic which are relevant to the research problem. We compiled my data in the First ECED centre Hunza Montessori based school. We selected class 3rd teacher as sample from all population. So, teachers of class 3rd represent all the class 3rd teachers of Hunza region. This was representative of the whole area.

Instrument of the Study

The present research study planned to identify the techniques for cognitive development of children an ECED at class 3rd; as such the data was collected from the teachers the First ECED centre Hunza Montessori based school Aliabad through semi-structured interviews and classroom observation.

Data Analysis

Bogdan and Biklen (1998) Data analysis is the process of systematic search and arrangement of the interview transcripts, field notes and other material that are collected to enhance one's own understanding of them and to present the findings to other. We transcribed in descriptive form.

The purpose of data analysis is to observe and analysis the techniques for cognitive development of child at early ages. This exercise provides an opportunity to know teachers understand and practice techniques specific to cognitive development of children in ECED classroom in detail and to analyze the finding in a significance way. The procedure of data analysis involved reading and re-reading of the data to see what is the difference and similarities and what output come from whole process. We read the interview and observations many times. We listened to the tape many times and analyzed it. From analysis of all the data we have read the information many times and tried to make sense of the problem. This rose up from the data through scaring.

Findings

The findings of the study is that the study shows that the teacher's perceived cognitive development is one aspect of child development, when changes are occurred in the mental processes and child thinking become more and more complex. Analysis of the data suggests teacher used many techniques of teaching for example oral work, self-study, problem solving, drill work, group work, and hand on activities. Group work and pair work are good techniques for young children where they learn from each other". This shows that children learn how to talk other as well as listen to all viewpoints of discussion. Through this children develop their cognition themselves.

The finding shows that teaching techniques are very important in ECED classes. These year are crucial where child thinking, seeing, observing, testing, and touching is involve. Concrete props and visuals aids during teaching make students active learner.

Recommendations

This study recommends that the teacher should study literature on the topic to enhance her conceptual pedagogical understanding of the same. It is also recommended that the teachers should explore training opportunities to improve practical skills in using teaching techniques relevant to the cognitive development in children. It is further recommended that the teacher should use more and more hands on and minds on activities to help children development their cognitive abilities. The teacher lacked practice skills related to using techniques appropriate to children cognitively, the school requires to offered professional development opportunities for the teacher in this specific area.

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Muhammad Ramzan
Associate Professor
Department of Educational Development
Karakoram International University, Gilgit, Pakistan
Dr.ramzan@kiu.edu.pk

Language in India www.languageinindia.com

12 : 3 March 2012

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Khalida Praveen
Ex Student of M A.
Department of Educational Development
Karakoram International University, Gilgit, Pakistan

Aijaz Ahmed Gujjar
Lecturer
Federal College of Education
H-9, Islamabad, Pakistan
Seek_to_learn@yahoo.com

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