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An Assessment of Various Competencies Reflected in ECE Curriculum 2007 among Children in Government Primary Schools in Haripur, Khyber Pakhtunkhwa

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ABSTRACT

This survey research was focused on assessing various competencies developed among the children of Early Childhood Education (ECE) classes at primary level subject to the National Curriculum 2007 for Early Childhood Education. The researchers developed the objectives: to examine the different competencies of the ECE students given in the curriculum 2007; to make comparison of these competencies of students studying in primary schools for boys, girls and both genders; and to find out the differences in their competencies of ECE students study in urban, semi urban and rural primary schools. A self-developed test used to measure competencies of children in different learning areas given ECE curriculum 2007. After validation and confirmation of reliability, this test was administered to 1200 children selected from 120 sample schools selected through random sampling technique. The collected data were analyzed using frequency, mean score, ANOVA and Post hoc test. The mean scores of ECE students for all competencies were found slightly above average. A significant difference was observed in mean scores among the boys only, girls only and mixed gender ECE in all learning areas. The students studying in urban and semi-urban schools were better than rural schools students.

KEYWORDS: Early Childhood Education, personal and social development,

1. INTRODUCTION

Early Childhood Education (ECE) denotes pre-primary education while pre-primary education focuses on learning through play, ECE also encompasses health and nutrition provisions (Evans, Meyers, & Ilfeld, 2000). Previous research (Calman & Tarr-

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Whelan, 2005; MacEwan, 2013; NICHD, 2006) have brought to light that ECE plays a vital part in preparing students to be a good citizen. Moreover, high quality education in the early days of students has lasting effects on their cognitive development and motivation for learning different things. This phase of early learning is a very important stage in the life of students in term of showing an encouraging attitude, having positive physical interaction, giving response to communications, questioning, reading, and keenly inspiring constructive conduct. While observations of process features may be difficult to measure, the (NICHD, 2006) points out that positive features correlate with positive process features. Various cognitive skills start performing make positive results in language acquisition in terms of all skills involving multifaceted cognitive processes. The later performance of students wholly depends on the learning opportunities provided to the learners. This depends on the kind of environment which has been provided to the kids in terms of academic and psychological needs at the early stages (Bowman, Donovan, & Burns, 2001).

The academic attainment at early age of the student determines predicts his/her future gain or loss by providing within and outside the school environment. It is essential for the schools to offer sufficient prospects for the growth and development of children otherwise they may upset their coming academics (Heckman, 2011).

A child is the feeblest younger on the earth. It is not possible for this child to stay alive freely through its long infancy. In this childhood, the child not only requires help for physiological growth, the child also requires help to become a socially accepted member of the society. The socialization of the child requires the orientation through knowledge, skills and deposition. In other words, a child needs to be socialized, acculturated and provided with knowledge and skills of survival. This can only be possible through education in early childhood, one of the most vulnerable stages in life. In Pakistan, the required age for ECE is 3 to 5 years (GOP, 2009).

In Pakistani government schools, right from independence and even presently, traditional teaching methods are being used for teaching of 3 – 5 years of age children, which are not compatible with the progressive tendencies of child motivated teaching and learning approaches. However, some efforts are made within the public-sector

schools using Adopt-a-School Program to improve the learning environment of ECE. In this country, there is no separate teacher for teaching of katchi class and even the curriculum that has been not used for teaching of katchi, normally some portion of the books of Grade 1 are used for to teach. No formal Teacher training program is available for teachers in most of the public sector universities and teacher training institutes (Shakil, 2002). In Pakistan, ECE enrolment was in 2005-06 (7.13 million), 2006-07 (8.32 million), 2009-10 (8.76 million), 2010-11 (9.41 million), 2011-12 (9.51 million), 2012-13 (9.28 million), and 2013-14 (9.27 million). An increase in Pre-Primary enrolment is seen from 2005-12 but decline in 2012-14 (GOP, 2007a, 2010, 2011, 2012, 2013, 2014).

The National Education Policy (NEP) (1998-2010) expresses about the institutionalization of ECE class (GOP, 1998). There was no system for provision of ECE in government schools for majority of children. The World Education Forum (WEF) (2000) proposed six goals of Education for All (EFA), among these goals the first goal was to provide ECE to every child which is reflected in NEP 2009 programs. The Federal Ministry of Education (MOE) Pakistan prepared a plan reflected in Education Sector Reforms (ESR), so in this respect ECE is started through Action Plan (2001-2004) in education (GOP, 2002a).

ECE is an educational opportunity provided through formal and informal modes using public or private education systems. These initiatives are used to bridge gaps between rich and poor families. The provision of education to masses in general and ECE in particular help to reduce the poverty in society. In Pakistan, ECE curriculum has been implemented without providing ECE trained teachers, in multi- grade classrooms, no additional funds are provided and engaging primary teachers for ECE and others classes up to grade 5(UNESCO, 2006). In Khyber Pakhtunkhwa province ECE is provided 3 to 5 years children before admitted to formal education at the age of five (Mustafa, 2012).

National ECE curriculum has been developed first time in March 2002, by Federal Ministry of Education, Curriculum Wing, to meet the needs of young learners (GOP, 2002b). This ECE curriculum 2002 was implemented in selected parts of the country, some school heads considering the significance of ECE and on demand of locality started early education. The teacher training was made available. In 2007, the

ECE curriculum was revised among curricula for ECE to XII. This ECE curriculum classifies six vibrant learning areas; personal and social development, language and literacy development, basic mathematical concepts development, the world around us, health, hygiene and safety and creative art (GOP, 2007b). In this study, the researchers tried to assess the level of attainment of these six competencies of early childhood education among students enrolled in government primary schools of district Haripur, in the light of ECE curriculum 2007.

Objectives of the Study:

The study has following objectives:

- examination of the competencies of children in the six different areas of learning as identified in ECE curriculum 2007;
- comparison of the competencies of children of primary schools for boys only, girls only schools and schools catering to both genders; and
- differences in the competency level of children from rural, urban and semi-urban government schools

To achieve the objectives of study the following research methodology was used.

2. RESEARCH METHODOLOGY

This study was a quantitative descriptive survey in nature. At first stage, ten percent of the total population (1200) in district Haripur was selected as a sample. A total of 120 primary schools (60 boys and 60 girls) and 1200 ECE class students (319 only boys, 430 only girls) ten students (600 rural, 334 urban: and 366 semi-urban) from each school, were randomly selected.

Using the guidelines given in NCECE (GOP, 2007b), a test was developed for ECE class students to assess the six competencies of early childhood education. The test comprised 32 items, for competencies 1 to 6: personal and social development (child can express his/her likes and dislikes, willing to share and work with peers, understand culture, knows religion, responsibilities etc.); language and literacy (Child can talk, describe objects, events, enjoy listening stories/poems, handle books etc.); basic mathematical concepts (understand color, size, weight, texture, count 0-9 simple number operation, recognize basic geometric shapes, measurement etc.); the world around us

(understand family members, people, plants, animals and places around him/her etc.); health hygiene and safety (Sense of balance, agility and coordination, importance of safe and hygienic practices); and creative art (draw and color, work with low cost material in groups, cut and tear paper to make objects etc.) with number of items for each competency 6, 7, 4, 5, 3 and 7 respectively. Content validity of the test was determined by the teacher educators of Regional Institute of Teacher Education (RITE) Haripur and subject experts of Directorate of Curriculum Development and Teacher Education (DCTE) Abbottabad. A six-point rating scale (excellent, very good, good, average, poor, no response, assigning the numbering as 6,5,4,3,2,1 respectively) was to assess the abilities of ECE students. To determine the reliability of the test, it was piloted by administering it to 50 students (other than sampled) and to rectify language ambiguities. The reliability (0.927) was calculated by applying Cronbach's alpha test and Guttman split-half was 0.888.

The data collected through this test were entered in excel sheets to calculate mean scores, standard deviations, ANOVA, and POST HOC test. After analysis and interpretation of data results were drawn.

Data Analyses and Interpretation:

Table 1: ECE students' competencies (gender wise schools), Mean (SD) for all competencies				
Competency	Boys only school N=319	Girls only school N=430	Mixed gender school N=451	F (p) df=2, 1197
Personal and social development	3.70 (0.99)	3.36 (0.94)	3.45 (0.86)	12.820 (0.000)
Language and literacy	3.77 (0.88)	3.37 (0.87)	3.46 (0.83)	20.306 (0.000)
Basic mathematical concepts	3.87 (0.90)	3.41 (0.85)	3.59 (0.84)	26.162 (0.000)
The world around us	3.42 (0.98)	3.12 (0.79)	3.31 (0.86)	11.657 (0.000)
Health, hygiene and safety	3.23 (0.95)	3.01 (0.84)	3.07 (0.85)	6.126 (0.000)
Creative art	3.24 (0.86)	2.94 (0.80)	3.12 (0.79)	13.222 (0.002)

Students of boys' only schools have mean (3.70) and Standard Deviation (0.99), girls' only schools have mean (3.36) and Standard Deviation (0.94) and mixed gender

schools have mean (3.45) and Standard Deviation (0.86) for personal and social development (competency-1). Students of boys' only schools have mean (3.77) and Standard Deviation (0.88), girls' only schools have mean (3.37) and Standard Deviation (0.87) and mixed gender schools have mean (3.46) and Standard Deviation (0.83) for "Language and literacy" (competency-2). Students of boys' only schools have mean (3.87) and Standard Deviation (0.90), girls' only schools have mean (3.41) and Standard Deviation (0.79) and mixed gender schools have mean (3.59) and Standard Deviation (0.86) for Basic mathematical concepts (competency-3).

Students of boys' only schools have mean (3.42) and Standard Deviation (0.98), girls' only schools have mean (3.12) and Standard Deviation (0.79) and mixed gender schools have mean (3.31) and Standard Deviation (0.86) for "The world around us" (competency-4). Students of boys' only schools have mean (3.23) and Standard Deviation (0.95), girls' only schools have mean (3.01) and Standard Deviation (0.84) and mixed gender schools have mean (3.07) and Standard Deviation (0.85) for "Health, hygiene and safety" (competency-5). Students of boys' only schools have mean (3.24) and Standard Deviation (0.86), girls' only schools have mean (2.94) and Standard Deviation (0.80) and mixed gender schools have mean (3.12) and Standard Deviation (0.79) for "Creative art" (competency-6)

Values of ANOVA, (f 12.820, p 0.000) for personal and social development, (f 20.306, p 0.000) for language and literacy development, (f 26.162, p 0.000) for basic mathematical concepts development, (f 11.657, p 0.000) for the world around us, (f 6.126, p 0.002) for health, hygiene and safety and (f 13.222, p 0.000) for creative art, indicate that there are statistical differences for all six competencies among the students of boys only, girls only and mixed gender schools.

Students in boys only schools score significantly higher in competency 1 (personal and social development) personal and social development, competency 2 (language and literacy development), competency 3 (basic mathematical concepts development), and competency 5 (health, hygiene and safety) than do students in girls only and mixed gender schools. Students in boys only schools score significantly higher in competency 4 (the world around us), and competency 6 (creative art) than do students

in girls only schools. Students in mixed gender schools score significantly higher in competency 3 (basic mathematical concepts development), competency 4 (the world around us), and competency 6 (creative art) than do students in girls only schools.

Table 2: ECE students' competencies (location of schools), Mean (SD) for all competencies				
Competency	Rural School N=600	Urban School N=430	Semi-urban school N=451	F (p) Df=2, 1197
Personal and social development	3.47 (0.91)	3.43 (0.98)	3.55 (0.94)	1.346 (0.261)
Language and literacy	3.50 (0.81)	3.42 (0.94)	3.62 (0.90)	4.007 (0.018)
Basic mathematical concepts	3.59 (0.86)	3.53 (0.97)	3.70 (0.83)	2.788 (0.062)
The world around us	3.29 (0.87)	3.13 (0.82)	3.37 (0.93)	5.572 (0.004)
Health, hygiene and safety	3.11 (0.87)	2.98 (0.84)	3.17 (0.93)	3.505 (0.030)
Creative art	3.07 (0.81)	3.01 (0.82)	3.20 (0.83)	4.620 (0.010)

Students of rural schools have mean (3.47) and standard deviation (0.91), urban schools have mean (3.43) and standard deviation (0.98) and semi-urban schools have mean (3.55) and standard deviation (0.94) for personal and social development (competency-1). Students of rural schools have mean (3.50) and standard deviation (0.81), urban schools have mean (3.42) and standard deviation (0.94) and semi-urban schools have mean (3.62) and standard deviation (0.90) for “Language and literacy” (competency-2). Students of rural schools have mean (3.59) and standard deviation (0.86), urban schools have mean (3.53) and standard deviation (0.97) and semi-urban schools have mean (3.70) and standard deviation (0.83) for Basic mathematical concepts (competency-3).

Students of rural schools have mean (3.29) and standard deviation (0.87), urban schools have mean (3.13) and standard deviation (0.82) and semi-urban schools have mean (3.37) and standard deviation (0.93) for “The world around us” (competency-4). Students of rural schools have mean (3.11) and standard deviation (0.87), urban schools have mean (2.98) and standard deviation (0.84) and semi-urban schools have mean (3.17) and standard deviation (0.93) for “Health, hygiene and safety” (competency-5). Students

of rural schools have mean (3.07) and standard deviation (0.81), urban schools have mean (3.01) and standard deviation (0.82) and semi-urban schools have mean (3.20) and standard deviation (0.83) for “Creative art” (competency-6)

Values of ANOVA, (f 4.007, p 0.018) for language and literacy development, (f 5.572, p 0.000) for the world around us, (f 3.505, p 0.030) for health, hygiene and safety and (f 4.620, p 0.010) for creative art, indicate that there are statistical differences for 2nd, 4th, 5th and 6th competencies among the students of urban, semi-urban and rural schools. Values of ANOVA, (f 1.346, p 0.261) for personal and social development, and (f 2.788, p 0.062) for basic mathematical concepts development indicate that there are no statistical differences for these 1st and 3rd competencies among the students of urban, semi-urban and rural schools.

Students in semi-urban schools score significantly higher in competency 2 (language and literacy) than do students in rural schools. Students in rural and semi-urban schools score significantly higher in competency 4 (the world around us) than do students in rural schools and students in urban school score higher than do students in urban schools. Students in semi-urban schools score significantly higher in competency 5 (health, hygiene and safety) and competency 6 (creative art) than do students in urban school.

3. RESULTS AND DISCUSSION

Overall mean scores for the results of each competency were found slightly above average. Mean scores range from 3.87 to 2.94 with standard deviation range from 0.79 to 0.99 for all competencies of early childhood education students; personal and social development, language and literacy, basic mathematical concepts, the world around us, health hygiene and safety and creative art for all categories of schools. Some of the results are similar with (Malik, Sarwar, & Khan, 2010). The findings of (ASER, 2013) for grade 1 reading of Urdu/Pashto/English alphabets and number recognition also support the results of this study in language and arithmetic development (Saeed, 2013).

The calculated values of ANOVA for all six competencies have significance level $p < 0.05$, therefore the students studying in boys only, girls only and mixed gender

schools had statistically significant difference in all competencies. Students in boys only schools score significantly higher in competency 1 (personal and social development) personal and social development, competency 2 (language and literacy development), competency 3 (basic mathematical concepts development), and competency 5 (health, hygiene and safety) than do students in girls only and mixed gender schools. Students in boys only schools score significantly higher in competency 4 (the world around us), and competency 6 (creative art) than do students in girls only schools. Students in mixed gender schools score significantly higher in competency 3 (basic mathematical concepts development), competency 4 (the world around us), and competency 6 (creative art) than do students in girls only schools. The results of this study are not same as the previous studies (Fichnova, 2002; Kamakil, 2013; Paguio & Hollett, 1991; Tegano & Moran III, 1989; Zachopoulou & Makri, 2005).

Implications and Recommendations:

For early childhood education, pre-primary education is considered as a basic step. This study reveals that performance of the pre-primary students is either average or below average which is alarming situation for local, provincial and federal decision making people. There are very limited opportunities for pre-service to get specialization in early childhood education and there is no separate seat available in public sector schools. At least one teacher from each ECE providing school should receive intensive in-service training. Recourses should be provided to every school to establish required learning corners as suggested in National Curriculum for Early Childhood Education (GOP, 2007b).

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