EARLY CHILDHOOD CARE AND EDUCATION

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School Readiness and School Success

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Abstract

The study highlights the relationship between school readiness and school success. Factors influencing school readiness and school success have also been analysed. School success here means academic achievement/attainment of children in Class I. The study was both exploratory and descriptive in nature. The sample of the study consisted of 14 schools. Total 505 children of Class I and their performance using teacher made tests were observed throughout the year. Interaction was made with Heads of the selected school, Class I teachers and parents. Focus group discussions were held with children of Class I to gauge the factors influencing school success. It was found that parental education and parental income had emerged as important factors. Children with pre-school experience showed better performance. Experiences of ECE attained through various models of pre-schooling were found significant in predicting school success. Achievement in reading and numeracy was relatively lower in children up to 5½ years than those of above 6 years. Male children performed better than female children on reading and numeracy. Female children performed better on developmental activities.

Introduction

The first 6-8 years of a child's life, known as the early childhood years, are globally acknowledged to be the most critical years for lifelong development, as the pace of development during these years is extremely rapid, determining the cognitive and physical growth and laying the foundation for shaping the social and personal habits and values.

There is a growing body of research evidence to prove that the synoptic connections in the brain that are critical for the full development of the brain's potential take place during the early phase of childhood. Research has also indicated that if these early years are not supported by, or embedded in, a stimulating and enriching physical and psycho-social environment, the chances

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of the child's brain developing to its full potential are considerably, and often irreversibly, reduced. This finding immediately places a very large percentage of children in the developing world in poverty contexts 'at risk', in terms of their life chances¹ and what follows logically is the crucial importance of investing in these early years to ensure an enabling environment for every child. A sound foundation for life, which is not only the right of every child but also has immense bearing, in long-term, on the quality of human capital available to a country.

Early Childhood Care and Education (ECCE) and School Readiness

Early Childhood Care and Education (ECCE) has, in recent years, been receiving a great deal of attention of researchers and policy makers. It has globally been recognised as a critical input for human resource development. It includes two integrated aspects of care and education. Care is a comprehensive term that includes proper nutrition, medical attention, particularly in regard to immunization, security and safety and emotional support. The 'education' component includes stimulation activities for under three children and pre-school education programmes aimed at 3-6 year olds and extends to Class I and II to cover children up to the age of 8 years.

The experiences of early childhood have lifelong implications for our health, well-being and development, including our ability to become productive and socially-adjusted contributors of the society. There is clear evidence that gaps in children's development and learning at early childhood stage due to various reasons become detrimental by the time they reach school. As a result, children enter school with marked differences in the cognitive development, social skills and emotional maturity needed for success in the school environment. These differences are predictive of later academic and occupational success. Children who enter school without readiness to school tend to do less well in school and are more likely to engage in mundane activities. Ultimately, these children tend to have lower educational levels on leaving school. Children from low-income families are more likely to start school with limited language skills, health problems, and social and emotional problems that interfere with learning. The larger the gap at school entry, the harder it is to bridge at later stage. It becomes increasingly difficult and costly to change children's developmental trajectories as they get older, and is increasingly difficult to compensate early cognitive and noncognitive deficits as they grow.

One of the reasons why this is a matter of great concern is that it is a well-known fact that investments in the

¹ Position paper National Focus Group Report on ECCE, NCERT, 2006

early years are cost effective, yielding long-term social and economic benefits and yet large number of children in our country start school with poorly developed learning, emotional and social skills. With the increasing complexity of present-day living, children need to acquire active learning capacity for school success and for developing active learning capacity school readiness is one of the important components.

Redefining School Readiness

There is a significant shift in the conceptualisation of school readiness in the recent years. Previously, school readiness was understood on the basis of chronological age. Children were admitted into school when they reached the designated age. Now it has been conceptualised in terms of specific skills and competencies that could be measured and assessed against established norms and standards. We see in both the cases the focus was on the individual child and on the 'readiness' of the child for school. Children needed to demonstrate their 'readiness' and were accepted into school when they met these age or skills criteria. For example, they had to recite poem, narrate story, tell the names of fruits, vegetables, etc., in front of a group of people interviewing the child. More recently, the conceptualisation of what constitutes school readiness has broadened. It is no longer seen as applying only to the child, but now it is

looked as a shared responsibility. Children will not be able to enter school or ready to learn unless parents, schools and society provide the environment and experiences that support the physical, social, emotional, language and cognitive development of infants, toddlers and pre-school children.

This rethinking of what constitutes school readiness has occurred in the context of our increasing understanding of the importance of the early years of childhood. This includes research on brain development, the influence of risk and protective factors, and the nature of the environmental or ecological factors that contribute to parents, schools and society functioning for all round development of child.

Domains of School Readiness

Good, C.V. (1973) in the Dictionary of Education describes readiness as "willingness, desire and ability to engage in a given activity, depending on the learner's level of maturity, previous experience and mental and emotional set." School readiness is also defined as "the preparedness of a child for beginning formal schooling". It is defined as "the child's attainment to enable him/her to fulfill school requirements and to assimilate curriculum content and it is also the ability of the child to perform certain developmental tasks in accordance with his/her chronological age" in the developmental domains as given below.

The child:

- is able to participate in basic physical exercises, such as ball games, running and climbing;
- can follow directions and work independently;
- is not disruptive in class;
- is sensitive to other children's feelings;
- enjoys playing with other children;
- likes to learn new things and can participate in group activities, such as story reading and role-play;
- is able to verbally express his needs, wants and thoughts; and
- is able to appreciate beauty, takes interest in creating something of his/her choice;

School readiness, therefore, is the result of physical-motor, socio-emotional, cognitive and language development and manifested in terms

of the developmental milestones children should be able to achieve before they enter school. School readiness is not restricted to cognitive development but is multidimensional, involving physical, social and emotional development as well as general approaches to learning.

Factors Associated with Children's Readiness for Success in School

As mentioned above, an attempt was made to gauge the influence of School Readiness on school success. School success here means academic achievement.

Children with pre-school education background had performed well on school readiness than children without pre-school education at the beginning of Class I.

There is significant difference between children with pre-school education and children without pre-

Table 1: Readiness levels of children with pre-schooling and without pre-schooling

Pre-school	N	Mean	S.D	t value	Significant/Non Significant
Experience					
With	362	32.141	5.759	6.635*	Significant
Without	143	28.486	5.026		

^{*} Significant at 0.05 level

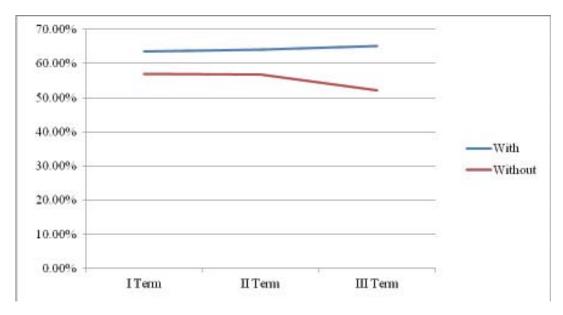


Figure 1: Termwise Achievement of pupils with and without pre-school background in curricular and co-curricular areas

education in their readiness to school.

Pupils with and without pre-school experience were compared at the end of terminal tests conducted by the teacher. It was found that pupils with pre-school education had performed better in all the three terms than the pupils without pre-school experience as shown in the figure above.

Pre-school exposure could be one of the factors or the major factor playing important role in achievement of pupils in curricular or co-curricular activities.

Gender and School Readiness

The readiness level of boys and girls were compared to see if any difference exists in their readiness to schooling.

Table 2: Gender diffference in school readiness

Gender	Mean	S.D.	t-value
Male	31.233	5.932	
Marc	01.200	0.002	
Female	30.919	5.738	0.64

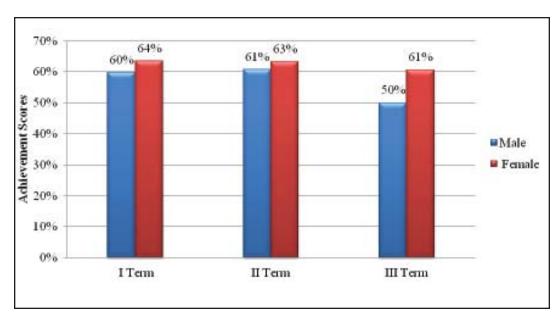


Figure 2: Showing term-wise performance of boys and girls in Class I

It was found that male children performed better than female children on school readiness.

Gender and Achievement Levels

It was found that achievement level of female pupils was better than males.

Age and School Readiness

An attempt was made to study the

readiness level of pupils belonging to different age groups. Table below shows comparison between the means and analysis was done using One Way ANOVA.

F value is 3.666 at df 2, 505 which is greater than table value. Hence there is a significant difference in the school readiness of children between different age groups. Average level of readiness

Table 3: Age and School Readiness of Children

Agewise	Mean	S.D.	F-value
5-5½ years (Group I)	30.148	5.222	
5½-6 years (Group II)	30.830	6.117	3.666
Above 6 years (Group III)	31.897	5.832	

for children up to $5\frac{1}{2}$ years was found relatively lower than those of above 6 years.

Age and Achievement Levels

An attempt was also made to study the performance of pupils of different age groups. Group 1 comprised pupils between 5 and 5½ years, Group II comprised pupils between 5½ and 6 years and Group III had pupils above 6 years.

Table 4 indicates the percentage of marks attained by pupils in different age groups. Achievement of pupils between $5-5\frac{1}{2}$ years was relatively lower than those of above 6 years. It was found that the school readiness and achievement level of lower age group

children was lower. It may be advisable for the children to start pre-schooling at the age of 4+ (2 years of pre-schooling) before the start of formal schooling at the age of 6 years.

Parents' Education and School Readiness

School readiness of those children whose both parents were educated was found better than those having single parent educated or both parents uneducated.

Parents' Education and School Success

School readiness and school success of children of regular income parents were found better than daily wages parents.

Table 4: Age and Termwise Achievement of children

Agewise	No. of	I Term	II Term	III Term
	Children			
5-5½ years (Group I)	121	59.85	60.87	57.58
5½-6 years (Group II)	189	61.54	60.96	58.97
Above 6 years (Group III)	195	62.79	63.70	60.70

Table 5: Parents' Education and School Readiness of Children

Parents' Education	Mean	S.D.	F-value
Single educated parent	30.340	5.256	
Uneducated parents	28.344	4.980	36.747
Both parents educated	33.552	5.929	

Table 6: Parents' Education and Achievement of Children

Parents' Education	N	Achievement scores			
Single educated		Mean	S.D.	F-value	
parents	191	252.605	62.0116	31.056	
Uneducated parents	122	231.321	51.877		
Both parents educated	192	303.178	65.695		

Table 7: Parents' Education and School Readiness of Children

Parents Income	Mean	S.D.	t-value
Regular income	49.447	12.158	10.788
Daily waging	46.746	15.404	

Parents' Income and School Readiness of Children

Children of parents having regular income were having higher scores on school readiness as compared to children of parents having daily wages.

Parents' Income and Achievement of Children

Achievement of children having regular

Table 8: Parents' Income and Achievement of Children

Parents		Achievement Scores			
Income	N	Mean	S.D.	t-value	
Regular	213	316.922	60.504	17.482*	
income					
Daily waging	253	228.851	48.209		

N=39 (no information/unemployed)
* t-value significant at 0.05 level of significance, degree of freedom (464)

parental income was higher as compared to children having parental income on daily basis.

Pre-school Setting and School Readiness

Pre-school setting may be one of the important variables for school readiness. The different four settings taken into consideration in the study were: (i) pre-school education in anganwadis, (ii) pre-school education in private schools, (iii) pre-school education in government MCD schools and (iv) children coming to school directly from home.

Table 9: ECCE Programme Models and School Readiness of Children

School Readiness					
Models	No.	Mean	S.	D.	
of	of				
Pre-	children				
school					
MCD	100	29.550	53.0	5.250	
Angan- wadis	77	28.818	70.1	4.394	
Private	185	34.924	54.6	5.120	
Direct	143	28.486	63.8	5.026	

It was found, as evident from Table 9, that children coming from private pre-school setup were having highest mean score on school readiness, followed by MCD, Anganwadi and children directly coming from home.

Table 10: Pre-school Setting and Term-wise Achievement

		I Term	II Term	III Term
MCD	Mean	53.25	54.09	52.120
	S.D	14.474	14.517	18.193
Angan-	Mean	52.324	52.662	49.882
wadi	S.D	15.340	14.681	17.626
Private	Mean	73.367	74.243	52.12
	S.D	14.350	14.690	18.192
Direct	Mean	57.021	56.796	52.239
	S.D	16.909	17.183	22.833

Pre-school Setting and Achievement of Children

The achievement of children coming from private schools was highest in first and second term but becomes more or less at par with MCD and direct entry children. The direct entry children were found better in achievement score than MCD and anganwadi children in all the three terms.

School Readiness and School Success

It was found that children with low school readiness attained low scores in achievement test conducted in curricular areas like Language, Mathematics and Arts. Children with moderate school readiness attained medium achievement scores and children with high school readiness in comparison to others scored high in Class I.

It can be visualised from the above data that school readiness is playing an important role in the achievement at early primary grades especially in Class I. Hence, in early childhood education programmes, school readiness component should be strengthened. Making children ready for schooling is important for school success.

Factors Influencing School Success

Data was subjected to multiple regression analysis to see the relative contribution of difference between the predictors such as pre-school experience, parents' educational level, gender, age, education, income, family support, teacher behaviour, attendance

Table 11: Relating School Readiness with School Success

N	School	N	Mean of	Mean
	Readiness		School	of
	Level		Readiness	Achievement
	High	184	37.850	363.252
505	Medium	155	31.272	261.324
	Low	166	24.730	161.253

Table 12: Regression Analysis of factors influencing School Success

Predictors	Unstandardised		Standardised	t	Sig.
	CoefficientsCoefficients				
	В	Std. Error	Beta		
(Constant)	-87.257	27.834		-3.135	.002
Gender	-23.493	6.059	123	-3.877	.000
Age	-10.762	3.942	088	-2.730	.007
With Pre-school	21.605	8.948	.102	2.415	.016
Attendance	3.083	.330	.306	9.333	.000
Parents'	-1.036	4.546	008	228	.820
Education					
Parents' Income	26.259	5.901	.169	4.450	.000
Family Support	3.189	2.864	.039	1.113	.266
Teacher	16.619	1.825	.399	9.108	.000
Behaviour					

Table 13: Dependent Variable School Success

R	R Square	Adjusted	F	Sig.
		R Square		
0.717	0.514	0.504	52.202	0.000

in pre-school were considered for predicting school success.

The result shown in Table 13 suggested that the F value obtained (52.202) is significant at .05 level for (10, 503) degrees of freedom. This indicated that the model is significant in predicting school success.

Pre-school/ECE experiences, attendance, parents' income and teacher behaviour were found highly significant in predicting school success. Gender and age of the child was found

significant in predicting school success. It indicated that girls performed better than boys in Class I but they showed lower school readiness in comparison to boys at the beginning of Class I. Smaller age group children performed better than older age group in development activities but in academic activities smaller age group performed lower than older age group. Teacher behaviour in classroom is also significant in predicting school success. Regular attendance in class had

emerged as an important factor in developing school success. The index of predictability is 0.717 and percentage variance accounted for variables is 51.4 (R square × 100). This suggested that 51.4% of the variance in the dependent variable is attainable to the variation of the variable/predictors.

CONCLUSION

The results of the study along with literature review provide evidence that the intervention of attending ECE has benefits for children. The Right to Education Act, 2009 is also reinforcing, ensuring, and expecting that all students regardless of their ethnicity or economic status receive quality education they need in order to be successful students and productive citizens of the country. Schools need to provide students the necessary skills, so they can perform and exhibit positive results in beginning when they are in early primary grades and continuing through elementary education and moving towards higher education.

For creating an environment of active learning right from the beginning of the schooling, it is essential that learning experiences of children are built upon the already acquired levels of school readiness.

Effective investment in the early

years reaps lifelong gains. Study highlights that the young children's neural connections remain open to environmental influences during their pre-school years and, perhaps as a result, early childhood programmes are much more effective in overcoming socio-economic disadvantages than the interventions made in later years. Therefore, investment in programmes and services in early childhood brings the most powerful, most enduring and most cost-effective results. School readiness ensures children start school on the best possible trajectory for later life. Considerable investment is required in the strategies, services and programmes that support school readiness. The environmental factors have shown great relevance to readiness levels of children. Parental education and parental income have emerged as important factors. Preparation of educational plans to compensate for this disadvantaged population of children is a challenge for personnel engaged in ECE.

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