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Assessment of the Three R Skills among Primary School Students

Sanjeev Kumar Jha*

Abstract

Reading, wRiting and aRithmetic are the three fundamental learning tools. The present research was an attempt to study the development of the three R Skills. For this purpose researcher developed a three R Skills test. The test was administered on the 200 students selected with systematic sampling technique from four schools. The data was analysed by using statistical techniques like mean, standard deviation and t-ratio. Research concluded that development of reading and writing skills of girls is higher than boys whereas arithmetic skill of girls and boys is equally developed. The three R skills of rural and urban students are equally developed.

Education is a process of teaching, training and learning especially in school to improve knowledge and develop skills. Primary education is the root of whole education system. At this level development of some basic skills take place. As only a strong foundation can be the base for a marvellous building. So, it is necessary to have good foundation for better development of students.

Primary education has always remained a subject of great concern. Large numbers of programmes and schemes have been initiated by the Government to realise the goal of universalisation of Primary Education. Consequently a large number of schools open with emphasis on universal enrolment and retention with focus on quality of education. Curriculum renewal and preparation of good books have been a continuous process. A large number of teacher training programmes, improvement in infrastructural facilities, upgradation of schools and recruitment of teachers have been made in the last few decades.

The Concept

Reading, writing and arithmetic are three fundamental learning tools. One

* *Project Junior Consultant,* Department of School and Non-Formal Education, National University of Educational Planning and Administration, New Delhi

of the main aims of primary education is to develop adequate mastery over these learning tools. Reading, wRiting and aRithmetic (3Rs) are the three leading skills without which learning of any subject at any level is not possible. So, development of an individual neither in subjects nor in daily life aspect is possible without the proper development of 3R skills.

The three Rs (as in the letter R) refer to the foundations of a basic skills-orientated education programme within schools: reading, writing and arithmetic. It first appeared in print as a space-filler in "The Lady's Magazine" in 1818, it is widely quoted as arising from a phrase coined in a toast given by Sir William Curtis MP in around 1825 (wikipedia.org).

Universalisation of Elementary Education (UEE) has five parameters, (a) Universal Access, (b) Universal Enrolment, (c) Universal Retention, (d) Universal Goal Achievement (i.e., if a student gets proper education then one should get one's goal), and (e) Equity, but UEE is not achieved yet in according to these parameter. One of the major reasons of non-achievement of universalisation may be that the emphasis has been on the mass expansion rather than on the quality of education which has considerably deteriorated.

Ravi (2004) found that (1) there was an inter-relationship between the receptive variables such as reading and listening in Tamil and English language, and (2) it was indicated that the growth and development was indicative of receptive skills such as intelligence, aptitude and scholastic achievement of the primary school children. ASER (2005) found that the levels of learning in Class I and Class II undoubtedly determine the learning at higher standards. In Kerala, by Class V 81.4% children can read Class II level texts while in Orissa, by Class V only about 56.5% could read at that level. However, in order to sustain this level of reading and arithmetic, it is now important to strengthen the base of learning in Class I and Class II. The report procured from the Orissa Child Census (OCC) and from the Child Tracking System (CTS) is also interesting. There are children out of school at a higher extent which shows towards the weak base of the children and need to stabilise and strengthen. Singh (2008) found that here is no significant difference in mathematic achievement between boys and girls as well as no significant difference between achievement of rural and urban students at the end of Class V in Language, Mathematics and Environmental Studies.

Need of the Study

Numerous initiatives have been taken for universalisation of primary education; the enrolment in primary schools has risen approximately ten times. However, the quality of education seems to have suffered. Research studies conducted at both national and state levels point out low levels of learning in schools. Poor achievement at primary stage is a

major factor resulting in drop-outs from schools. In the fifth Class, more than 47% students are not able to read the books even of second class. They are not able to solve simple multiplication and division problems (ASER). It is the status of the students even after four years of primary education.

It is supposed that mastery over learning tools, i.e. 3R skills must take place at this level. If the students are not able to develop these skills at primary level then they are not able to achieve necessities of the life through education. Consequently, she/he will fail to get further education. It seems that all efforts are being made only for mass expansion rather than excellent quality of education. Although drop-out is managed low at this level with some measures but educational status of the students is still under criticism. The eleventh Five Year Plan places the highest priority on education as a central instrument for achieving rapid and inclusive growth.

The mass failure has definitely something wrong at the core. It leads the researcher to study the level of mastery over the fundamental tool, i.e., 3R skills of the students at primary level. On the basis of findings appropriate measure for development of the three R can be taken.

Objectives of the Study

1. To assess the three R skills of Class V students of Municipal Corporation schools of Delhi.

2. To compare the level of three R skills, i.e., reading, writing and arithmetic of the students in relation to gender.

3. To compare the level of three R skills, i.e., reading, writing and arithmetic of the students in relation to locality.

Methodology

Survey method was employed to collect data.

Sample

The sample comprised 100 students from four schools of Municipal Corporation, Delhi. Out of four schools, two schools each were selected from rural and urban areas. One each of boys and girls from the chosen schools. Class V was chosen for the study because up to Class V, four years schooling has taken place.

The students were selected through systematic sampling technique. Systematic sampling technique was justified and defined. List of all students from the attendance register can be used for the study.

Table 1 : Sample

Sample	Boys	Girls	Total
Rural	25	25	50
Urban	25	25	50
Total	50	50	100

Tools used

With the help of primary level text-books of NCERT and a teacher who

is teaching at Class V in MCD School, a self developed Question Paper-cum-Answer Sheet was developed for Hindi medium along with 15 flash cards.

Question Paper-cum-Answer Sheet

It consists of three sections A, B and C. Section A deals with Reading (for reading skill 15 flash cards were also used). Section B deals Writing and section C deals with Arithmetic. Question Paper-cum-Answer Sheet was developed in Hindi.

Section A: Reading Section

Paragraph:

A paragraph (in Hindi) consisted of approximately 100 words with five questions based on the paragraph. As well as 15 flash cards were prepared for the purpose of reading skills.

Section B: Writing Section

There was a question to write 10 sentences on the topic "My School" (in Hindi).

Section C: Arithmetic Section

Two questions each based on Addition, Subtraction, Multiplication, Division and word problems. Total 10 questions were developed.

Scoring Procedure

Scoring of Paragraph: Questions related to paragraph consist of two marks each. One mark was awarded in case of correct answer but inappropriate language and two marks in case of correct answer with correct language. One mark for each correct word reading and zero mark for incorrect reading from flash card.

Writing: Two marks for each correct sentence if sentence is about school and language is correct and one mark if sentence is about school but language is inappropriate. In other cases zero mark was awarded.

Arithmetic: Two marks for a correct answer and one mark for partially correct answer. Partially correct means ideas about concept are correct but calculation may be wrong. Similarly if students collect idea from word problem one mark, if s/he could solve correctly then two marks.

So, the range of the score is 0-65.

Table 2: Maximum Score of Each Section

S. No.	Skill	Maximum Score
1.	Reading	25
2.	Writing	20
3.	Arithmetic	20
Total		65

Administrating Tools

The tool was administered in three sessions in each of the schools. In the first session, paragraphs and writing related question was asked to the students to answer. It was about a 40minute session. The second session was for flash cards reading. It was 15 minutes session, one minute for each flash card. Third session was for arithmetic, it had 4 minutes for each question, so 40 minutes for this session. But time was not strictly

followed. Sufficient amount of time was given to students as required by them.

Statistical Techniques Used

For the proper analysis and interpretation the statistical techniques like mean, standard deviation and t-ratio were used.

Analysis and Interpretation

Assessment of the three R skills

Analysis of the three R Skills development of the students in relation to sex of the students

Interpretation

There is significant difference in mean scores of reading skill of boy and girl students (Table 4). The null hypothesis is that there is no significant difference between mean scores of reading skill development of boy and girl students

Table 3: Mean Scores the three R Skills

Skill	Sample	Maximum Marks	Mean	SD	Percentage
Reading	100	25	17.17	3.2	68.68
Writing	100	20	10.46	4.7	52.30
Arithmetic	100	20	13.16	3.5	65.80
Total	100	65	40.79	5.9	62.75

Interpretation

Overall 3R skills mean score is 62.75 per cent. So, healthy development of 3R skills has taken place at Class V level. Writing skill is least developed among three R skills. Reading skill development is highest followed by arithmetic skill.

is rejected. So, the reading skill of girls is significantly higher developed than that of the boys students (Table 4 and Figure 1).

There is significant difference in mean scores of writing skill of boys and girls students (Table 4). The null

Table 4: Three R Skills in relation to the gender of the students at the Primary Level

Skill	Gender	Number	Mean	SD	SE_M	t-value	p	Significance
Reading	Boy	50	16.36	3.5	.50	2.58	.001	**
	Girl	50	17.98	2.6	.37			
Writing	Boy	50	9.94	5.3	.76	1.09	.05	*
	Girl	50	10.98	4.0	.57			
Arithmetic	Boy	50	12.60	3.4	.48	1.59	.483	NS
	Girl	50	13.72	3.6	.51			
Total	Boy	50	38.90	6.9	.97	3.32	.001	**
	Girl	50	42.68	4.1	.58			

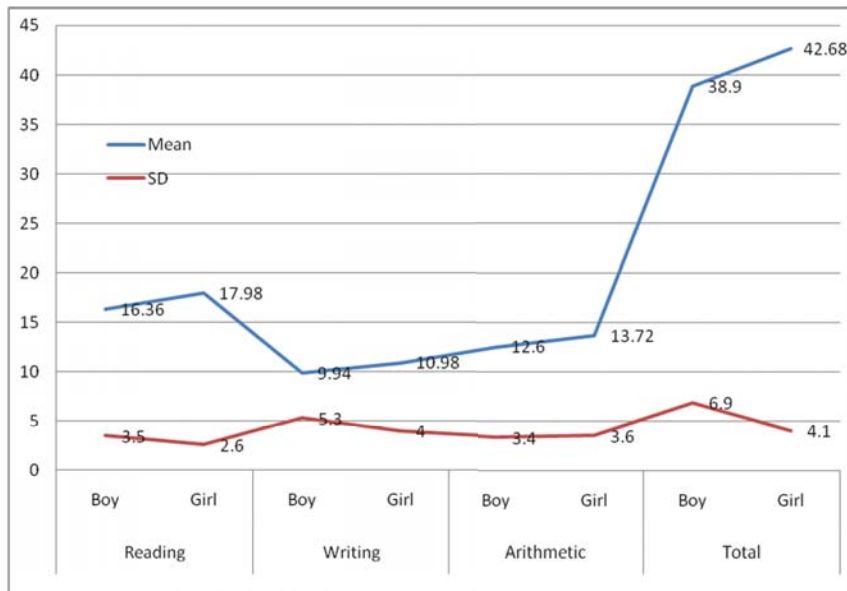* if p<.05, ** if p<.01 and NS if not significant

Figure 1 : 3R Skills Scores of Primary School Students in relation to gender of the Primary Level students

hypothesis that there is no significant difference between mean scores of writing skill development of boy and girl students is rejected. So, the writing skill of girls is significantly higher developed than the boys students (Table 4 and Figure 1).

There is no significant difference in mean scores of arithmetic skill of boys and girls students (Table 4). The null hypothesis that there is no significant difference between mean scores of arithmetic skill development of boys and girls students is accepted.

Table 5: 3R Skills Score in relation to locality of the students at Primary Level

Skill	Locality	Number	Mean	SD	SE_M	t-value	p	Significance
Reading	Rural	50	16.94	3.3	.47	0.713	.690	NS
	Urban	50	17.40	3.1	.43			
Writing	Rural	50	10.58	5.2	.74	0.250	.189	NS
	Urban	50	10.34	4.2	.60			
Arithmetic	Rural	50	12.90	3.5	.50	0.732	.828	NS
	Urban	50	13.42	3.5	.49			
Total	Rural	50	40.42	6.3	.90	.785	.360	NS
	Urban	50	42.68	5.4	.78			

* if p<.05, ** if p<.01 and NS if not significant
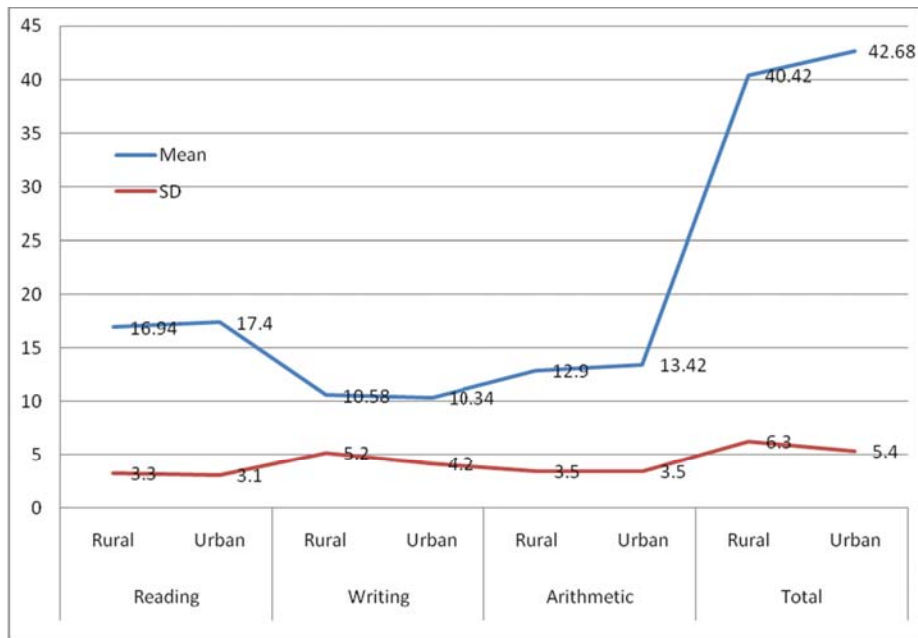
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Figure 2: 3R Skills Scores in relation to locality of the students at Primary Level

So, the arithmetic skill of girl and boy students is equally developed (Table 4 and Figure 1).

Interpretation

There is no significant difference in mean scores of reading, writing and arithmetic skills of rural and urban students (Table 5). The null hypotheses 'there is no significant difference between mean scores of reading skill development of rural and urban students', 'there is no significant difference between mean scores of writing skill development of rural and urban students' and there is no significant difference between mean scores of arithmetic skill development of rural and urban students as accepted. So, the reading, writing and arithmetic skills of rural and urban students are equally developed (Table 5 and Figure 2).

Conclusion

The study concluded that a healthy development of the three R skills among primary school students as mean score was 62.75. Reading and writing skill of girls and boys students are equally developed whereas arithmetic skill of girl students is significantly higher developed than the boys. There is no significant difference in the three R skills development among rural and urban students. The finding is also supported by the survey (NCERT. 2008).

But the two R skills (reading and arithmetic) is approximately

60 per cent on the other hand writing skill is just 50 per cent, so, there is a need to focus on writing skill for proper development of three R skills although some concern should also be given for other two R skills. It is necessary to develop necessary mastery over learning tools as only a strong foundation can hold a beautiful and long lasting building.

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