

To Study the Preparation of Primary Level Students for Developing their Competencies in 3 R's in Reference to NEP 2020

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Abstract

Basic Literacy and numeracy are considered the basis of every policy of education. Over the years every Indian education policy is thriving hard to achieve the same and thus comes with various provisions to promote the upliftment of the same.

Thus, the study aims to highlight the basic process of mainstreaming foundation literacy. The study consisted of analyzing the achievement of 3R's by the medium of Universalization of Elementary Education was assessed.

Keywords: 3R's (Arithmetic, Reading, Writing), Primary Level Students 2020

Introduction

The 3R's are the cornerstones of education. However, as technology advances, more and more schools are compromising these fundamental concepts in order for kids to learn more and be able to interact with computers, software, and other technological devices. As basic and essential learning tools, the "three Rs" can be overlooked. Education has always gone beyond the basics of "reading, writing, and arithmetic." However, the "Three Rs" are tools with which a student can gain more knowledge in any subject. If a student can read and write, he or she can complete a research project and learn to type. If a student understands the basics of arithmetic, he or she can learn to program

complex algorithms or study science.

In a world preoccupied with numbers, whether it's someone's age, wage, academic percentage, weight, or social media followers, it's astonishing that only a few people can master Arithmetic. Others make do with basic technology, such as a calculator. Basic arithmetic is basic and ubiquitous, yet it becomes complicated in people's minds because they dread it. The societal shame of not being able to comprehend visibly simple sums perpetuates a dread of the all-pervasive subject, which is a bigger issue than we realize. In age, this incapacity in relation to a subject transforms into disdain and disinterest. Instead of feeding into their dread, it is critical to ensure the students understand the

relevance of the subject. Because of their ability to quantify and analyze risks in their economy, the early cultures thrived and died. To survive, we all require financial resources. Arithmetic is used in the daily grind's transactions. A person with good arithmetic skills might explore the world with only their brains, utilizing any currency. Because he or she understands how to use arithmetic to their advantage, they will be able to spend, save, and track their money without losing any experience. It is beneficial to one's social life. For example, if one has specific guests coming over, math skills would assist the host in determining the amount of food to order or cook, or if a family needs to build a house, arithmetic skills would enable them to figure their own land area and put it to the greatest possible use. Simply put, math enables you to function in a society in a harmonious and sustainable manner while conserving valuable resources.

It's also worth noting that, despite the importance of mathematics in one's life, those who can't understand or discern it dismiss it as technical jargon and begin to fear the topic. This trauma caused by a lack of understanding has a negative impact on one's social and emotional status.

The ability to write is a necessary skill. Writing is the fundamental criterion by which one's intelligence and learning will be assessed. Writing skills enhances our ability to communicate and think — it also helps us to explain and refine our thoughts to others and ourselves. Writing abilities are essential for effective communication. When compared to face-to-face or telephone talks, good writing skills allow you to transmit your message to a far bigger audience with clarity and ease. One of the least important reasons writing is important to students is because it can increase their level of confidence and

even their sense of achievement, too.

The NEP appreciated the necessity of 3R's and its importance for the country to become a vishwaguru. Big data analytics, artificial intelligence, machine learning, and blockchains are key technologies of today, and 3R's is the core of all of these technologies. Hence, it is critical to build the computation thinking capabilities of our youngsters. The NEP provides the necessary nourishment by making 3R's enjoyable and engaging using innovative methods from the foundational step itself.

Review of related literature

Mishra Preeti published a paper on 'Comparative study of school readiness of children with and without pre-primary education. School Readiness of children with and without pre-primary education, Parental Readiness of children with and without pre-primary education, School Readiness with and without pre-primary education, Basic Skills and Cognitive Skills of Readiness of children with and without pre-primary education, Physical and Motor Skills of children with and without pre-primary education, and Social and Emotional Skills of children with and without pre-primary education are all topics covered in this paper. Under the Descriptive Method of Educational Research, the study was done using the Normative Survey Method. For the sampling of schools, the researcher chose systematic random sample procedures. The sample of schools consisted of 30 schools because every fourth school was chosen from the list of recognized schools. According to the paper, there was a considerable difference in overall school readiness of children at the primary stage with and without pre-primary education and there

was a significant difference in school readiness of children at the primary stage with and without pre-primary education.

Bala Vivekanandhan published a paper on “A study of the effectiveness of E-learning in the functional literacy program among the illiterates” To collect data, the study used a descriptive research design using a variety of methodologies. The purpose of this study is to see how the CBFL module improves the quality of literacy learning in adult literacy classes by using an ICT approach. Focus Group Discussion, Content Analysis, and a Survey were used in the research project. Twenty field officials with more than seven years of experience were chosen for the Focus Group Discussion (FGD). There were general discussions with these specialists, after which questions were answered. The e-learning process was discussed in an engaging manner throughout the event. The study's findings suggest that there is still room for development. The e-learning module and content might easily replace expensive instructors and textbooks that aren't always available. As a result, e-learning modules have the potential to be useful.

Mukhopadhyay, Manjusha published a paper on An investigative study of the state of literacy and primary education in selective Calcutta slums with multi-religious and multilingual dwellers.

The study looks at the state of literacy in Calcutta's multireligious and multilingual slums. Simultaneously, the problems of basic education in CMC schools' slums must be investigated. Three different sorts of tools have been developed and tested on slum populations and CMC schools in those areas. The information gathered from the tools was processed and analyzed. On the basis of the data, the image that emerges is that the rate of

literacy in those slums is extremely low in comparison to the rest of the Calcutta Corporation area. As a result, illiteracy is widespread among multi-religious and multilingual slum dwellers. Once again, the picture of primary education in the United States is bleak and the slum areas are also very gloomy. A large portion of School going children are dropouts. In comparison to non-slum area schools, slum children in both the Hindus and Muslim communities drop out in large numbers though there is variation in dropout between those two religions. Again, in respect of languages, there are also differences in dropout between slum and non-slum schools.

Kovas Yulia published a paper on Literacy and Numeracy Are More Heritable than Intelligence in Primary School. In a UK sample of 7,500 pairs of twins measured longitudinally at years 7, 9, and 12, the researcher analyses heritabilities of numerous measures of reading, numeracy, and g. They find that reading and numeracy inequalities between children are much more heritable than g at ages 7 and 9, but not at age 12. The rationale for this unexpected discovery, according to the researcher, is that universal education in the early school years minimizes environmental disparities, allowing individual differences to be accounted for more by genetic differences. The heritability of g, on the other hand, grows during development as people choose and create their own settings based on their genetic proclivities.

Need of the study

Since Independence, various policies have mentioned Basic numeracy and foundational literacy as a core component to be achieved for providing universal and quality education to all.

Various recommendations and provisions were also established in the same light to facilitate the upliftment and promotion of 3R's (Reading Writing and Arithmetic). However, even after so many policy recommendations and provisions the target of basic literacy and foundational numeracy was not achieved.

In light of the same NEP 2020 comprehensively talked about achieving the same target under early childhood care and education by comprehensively talking about 3R's (Reading, Writing, Arithmetic), provisions, bodies, testing agencies involved in playing a significant role in the achievement of the same.

Thus the study focuses on existing ASER trends and data that identify the gaps in Achieving 3 R's and the role of NEP 2020 in curbing the gap if any.

Methodology

The research is descriptive in nature and it is qualitative research in which the researcher is critically analyzing the existing data of ASER trends overtime till 2020 and then referring to the NEP 2020 to bridge the gap of the learning outcomes in basic literacy and numeracy.

Objectives

The objective of the study is to:

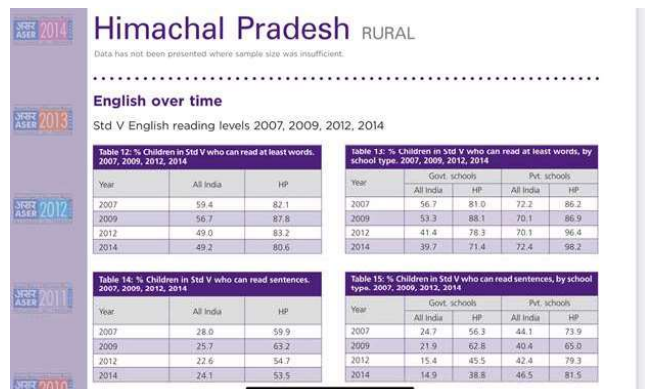
1. To study the 3 R's level of Rural Primary Schools in India.
2. To reflect upon the suggestions made by NEP 2020 in regards to the 3 R's of education.
3. To analyze the condition of Private and Government Schools of Rural India in

accordance with the 3 R's of Education.

4. To identify the learning gaps in relevance to the infrastructure and TLMs

Findings

As per the data interpretation, it is analyzed that out of all levels of schools (Government, Government Aided, Private), Government Aided schools still lack the basic required amenities and the students are still unable to read, write and do calculations as per their age and class, for which the suggestion and area are still needed to be catered.



The following data had been taken from ASER (Annual Status of the educational report) facilitated by PRATHAM that focuses on the educational achievement of Rural India. The finding of the report over the year 2007,2009,2012,2014 showcases the English reading level of rural youth of India.

The status shows a consistent decline in reading skills of children in Standard V. The target of 80.6% is achieved in the rural part of Himachal Pradesh which leaves the expected outcome.

Maharashtra RURAL
Data has not been presented where sample size was insufficient.

Reading over time
Std III Reading levels 2006-2014

Table 4: % Children in Std III who can read at least a Std I level text- 2006-2014

Year	All India	MH
2006	48.1	66.1
2007	49.2	74.9
2008	50.6	74.8
2009	46.6	74.6
2010	45.7	72.6
2011	40.4	69.5
2012	38.8	59.3
2013	40.2	57.7
2014	40.3	54.1

Table 5: % Children in Std III who can read at least a Std I level text, by school type- 2006-2014

Year	Govt. schools		Pvt. schools	
	All India	MH	All India	MH
2006	45.8	65.8	58.4	69.7
2007	46.7	74.7	61.7	79.2
2008	46.9	74.8	63.9	74.1
2009	43.8	74.5	58.2	75.7
2010	42.5	72.3	57.6	75.8
2011	35.2	62.6	56.3	72.2
2012	32.4	58.6	55.3	63.9
2013	32.6	57.0	59.6	62.5
2014	31.8	52.9	59.0	60.0

Table 6: % Children in Std V who can read at least a Std II level text- 2006-2014

Year	All India	MH
2006	53.1	59.6
2007	58.9	74.2
2008	56.3	75.0
2009	47.4	74.8

Table 7: % Children in Std V who can read a Std II level text, by school type- 2006-2014

Year	Govt. schools		Pvt. schools	
	All India	MH	All India	MH
2006	51.4	40.1	60.9	57.6
2007	56.7	73.7	69.0	74.9
2008	53.1	74.3	67.9	76.3
2009	50.3	71.6	63.1	77.6

In the same view, the ASER report represents the reading proficiency of III standard students which seems to have the shocking status of 40.3% at the national level and poor level at the state level, pointed out to be 54.1%. This also shows the relative decline in the achievement status of reading proficiency and foundational literacy.



Table 9: Distribution of children's ability to recognize numbers within each grade 2019

Std	Not even 1-9	Number recognition (1-9)	Number recognition (11-99)	Total
Std I	8.2	18.5	73.4	100
Std II	1.9	10.5	87.6	100
Std III	1.3	11.5	87.3	100

Early numeracy tasks are progressive. Each row shows the distribution of children's ability to recognize numbers within each grade. For example, among children in Std I, 8.2% children cannot even recognize numbers up to 9, 18.5% children can recognize numbers up to 9 but cannot recognize numbers up to 99, and 73.4% can recognize numbers up to 99.

Table 10: % Children who can correctly do 1-digit and 2-digit numeracy tasks by grade 2019

Std	1-digit				2-digit			
	Oral word problem addition	Oral word subtraction	Relative comparison (1-9)	Numeric addition	Numeric subtraction	Relative comparison (11-99)	Numeric addition	Numeric subtraction
Std I	36.8	28.4	62.7	78.3	64.8	44.9	8.7	15.8
Std II	66.1	60.0	88.4	89.3	76.6	66.2	46.1	38.7
Std III	85.1	68.2	88.5	88.1	82.2	80.9	66.2	40.2

Each row shows the variation in children's ability to do 1-digit and 2-digit numeracy tasks within a grade. For example, among children in Std I, 36.8% can do a 1-digit oral word addition problem, 28.4% can do a 1-digit oral word subtraction problem, 62.7% can do a 1-digit relative comparison task, and so on.

Data is not presented where sample size is insufficient.
ASER 2019

ASER report 2019, depicts the numeracy ability of students in different standards. The percentage is around 73.4% to the skill of mathematical operation revolving around 66.2%, representing the lack of achievement of the target planned.

Suggestions

Based upon the data analysis and interpretations along with prevailing schemes and NEP 2020, the following suggestion to different educational stakeholders can be given

- Increasing 'community' participation.
- Revamping the teacher education (TE) system - not giving administrative, work, etc.
- Develop a center of excellence for teacher education.
- Create a national discourse and parameters around the importance of good quality school leadership.
- Develop methods of identifying and grooming potential school leaders/headteachers
- Work on improving the social image and status of teachers.
- Counsel the stakeholders regarding the programs initiated by CBSE such as SAFAL, Vidya Pravesh, and NIPUN BHARAT.
- Playful activity-based and collaborative project works and learning environment.
- Technical competency needs to develop in children to be school ready and school to be child ready in which the school and policymaker should lay down curricular principles which are clear and understood by school and stakeholders.
- There should be a special cadre system for Pre-Primary teachers who possess specialization in Pre-Primary instructions.
- The focus should not be on enrollment but on attendance.
- Move out of the conventional knowledge and learning, and adopt a path for Application based learning and teaching

- The guardians should promote activity-based learning for brainstorming and critical thinking of the child.
- Using guided play and scaffolding as a method of teaching.
- Pictorial representation and textbooks shall be promoted for easy understanding and connection building to the learning.
- Spatial, Seriation, Pattern recognition, mathematical understanding shall be developed by Hands-on learning practice.
- Situational based analysis - Conflict an empathy-based shall be given to the child for better understanding and comprehension

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