

IMPACT OF SARVA SHIKSHA ABHIYAN ON THE QUALITY OF SCHOOL EDUCATION

A CASE STUDY OF PATNA DISTRICT IN BIHAR

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Abstract : The purpose of this paper is to examine the quality of the elementary schools after the implementation of the SSA 2001, in Bihar. The study examined the effectiveness of Sarva Shiksha Abhiyan on quality of education in Patna district in Bihar through primary survey for the year 2006-2017. The indicators of quality of education are learning skills of students measured in terms of reading, writing of Hindi, English and Maths subjects. The study used simple statistical tools. The study concluded that the scheme has increased the enrolment ration but failed to improve the quality.

IndexTerms – Quality of education, SSA, learning skills, Patna, Bihar.

I. INTRODUCTION

Education is a dynamic process that starts from birth. It transforms human beings' life from ignorance to enlightenment. Education is a process of character building and expansion of intellect. Generally speaking, it is also a future investment that supports nation, economy, and society. Besides, education plays a crucial role in an individual, economy, society and at the country level. In the context of India, the term education is not new and has its roots from times immemorial as well as shares richness in this sector. Because children are the future of nation and nation builder too. From all the levels of education elementary education is a backbone for a nation, without the universalization of elementary education, no nation can think for development. However, elementary education is the foundation for children. If they get a regular and continuous education from their elementary stage, so there is a more chance to move for higher and higher education. This will accelerate the growth of children, as well as economic growth, will proceed. For this quality of education is also recognized internationally, among 17 sustainable development goal one of the goals is quality of education which should be achieved till 2030. If India wants to achieve the quality of education till 2030, it is required to focus on quality. So, to examine quality over quantity is necessary because the influx of children in government schools is another concern i.e. whether these students are getting favorable environment or not for their learning achievements. The main objective to universalize primary education and to impart the quality of education at elementary level all efforts were undertaken by both central and state government in Bihar after the implementation of Sarva Shiksha Abhiyan scheme in 2001. Moreover, this study tries to examine the quality of elementary education loopholes in government schools through primary survey. So, the question arises that whether learning skills hamper the quality of education? And the main objective of the study to evaluate the learning skills of the student through reading levels and arithmetic levels. The current study is based on the Patna district of Bihar. After doing an intense literature review, we have come across limited work done particularly at micro level on the quality of elementary education on Patna District of Bihar.

II. RESEARCH METHODOLOGY

The methodology section outline the plan and method that how the study is conducted. This includes Universe of the study, sample of the study, Data and Sources of Data, study's variables and analytical framework. The details are as follows;

2.1 Population and Sample

The present study focuses on Bihar which is having 38 districts. This current study is concentrated on center which is Patna capital of Bihar. While Patna is having 23 blocks. The sample is drawn from west part of Patna. Simple random sampling is used to conduct the study. In this study researcher surveyed "TEN" government school, among that five, is taken from an urban area and five is taken from the rural area. In case of student total hundred sample is drawn which is based on simple random sampling. However, from one to eight class is taken into consideration and from each class one or two students are drawn randomly to evaluate their cognitive skills or fundamental skills.

Table.2.1 Sampled Blockwise information				
Block Name	Rural/Urban	School Name	Class 1 to 5 (Sample Size)	Class 6 to 8 (sample size)
Patna Sadar	Urban	Government Urdu Middle School	6	4
Phulwari Sharif	Urban	Middle School Esopur	6	4
Phulwari Sharif	Urban	Rajkiya middle School	6	4
Patna Sadar	Urban	Middle School Patna City	6	4
Patna Sadar	Urban	Middle School Mangal Talab	6	4
Bihta	Rural	Utriyam Middle School	6	4
Danapur	Rural	Danapur Middle School	6	4
Bihta	Rural	Bihta Middle School	6	4
Naubatpur	Rural	Middle School Saharanpur	6	4
Naubatpur	Rural	Middle School Rajkiya	6	4
Total		10	60	40

Source: Primary Survey

2.2 Data and Sources of Data

In this study field survey is conducted by the researcher to collect the Primary Data. Secondary data is also employed in this research. These sources are ASER Center, DISE data, MHRD data, NUPEA.

2.3 Statistical tools and econometric models

This section elaborates the proper statistical/econometric/financial models which are being used to forward the study from data towards inferences. The detail of methodology is given as follows.

2.3.1 Descriptive Statistics

To achieve the objective of the present study structured questionnaire is prepared which is based on close end option. The questionnaire includes the information regarding infrastructure facility and learning achievements of students. Various tools and techniques are used to collect the relevant information, these techniques are face to face interview, observation method. To conduct this study focused group are headmaster and student.

To evaluate the learning achievements of students, testing tools are made which is mentioned below:

- Reading skills are tested in their own language i.e. “Hindi”.
- Arithmetic skills are tested on the basis of simple “Division”, “Subtraction” and “Number Recognition”.
- English skills which are based on “Capital Letter”, “Small Letter”, “Words” and “Sentences”.

However those students who are capable of reading words and sentences, they are also asked to translate into Hindi. There are total five different sample are made to test the skills of the student. Under this study standard 2 class book is the highest difficulty level, to evaluate the learning skills of students. The idea is borrowed from “ASER CENTER” and their methodology is also employed in this research.

To examine the raw data simple statistical tools and mathematical tools are used with the help of Microsoft Excel.

2.3.2 Derivation of Educational Quality Index (EQI)

Before saying the educational quality achievement of Patna district in Bihar. Let us derive the educational quality index.

$$\text{Composite Educational Quality Index (EQI)} = \frac{\sum Q_i M_i}{\sum M_i} = \beta, \quad 0 \leq \beta \leq 1$$

Where

β represents the quality of education

Q represents weightage of a quality

M represents number of estimated students

Expansion form of composite Educational quality Index

$$(EQI) = \frac{\sum Q_i M_i}{\sum M_i} = \frac{\sum q_{mk} m_k}{\sum m_k} + \frac{\sum q_{mj} m_j}{\sum m_j} + \frac{\sum q_{mp} m_p}{\sum m_p}$$

Where,

m_k , represents a number of students who attempt different variable of reading i.e. story, para, word, letter, and beginner.

m_j represents a number of students who attempt different variable of math i.e. division, subtraction, number recognition 10-99, number recognition 1-9 and beginner

m_p represents the number of students who attempt different variable of English reading i.e. a sentence, word, small letter, capital letter, beginner.

However, to measure the educational quality index four criteria are made such as (table 3.2)

- 1) Beta equal to one represents the perfect quality of education ($\beta=1$).
- 2) Beta Greater than one and less than 0.50 shows moderate quality of education ($1 > \beta > 0.50$).
- 3) If beta is less than or equal to 0.50 represents low quality of education ($\beta \leq 0.50$)
- 4) On the other hand if Beta is equal to zero shows no quality of education ($\beta=0$)

Where beta value lies between zero to one ($0 \leq \beta \leq 1$).

III. RESULTS AND DISCUSSION

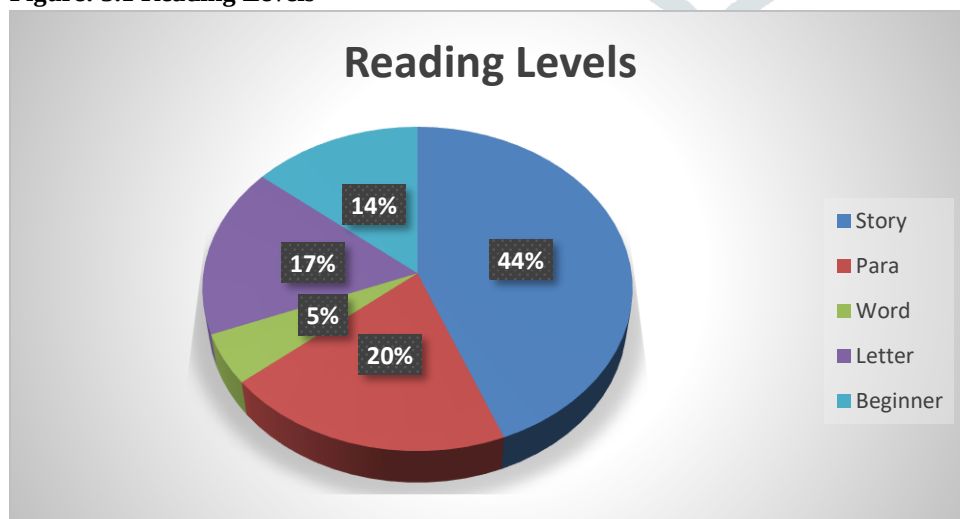
3.1 Learning skills of student

Learning skills of the student is one way to measure the quality of elementary education. It is important to know whether they are learning fundamental skills or not. This is a stage when a student develops their cognitive skills or fundamental skills.

3.1.1 Reading Levels

This is one way to check the quality of elementary education through reading abilities in their own language. Reading levels has been framed in five difficulties level “Beginner”, “Letter”, “Word”, “Para”, and “story”. However, 14 percent is not able to read, 17 percent is at the letter level, 5 percent at the word level, 20 percent is at the para level and 44 percent is at story level figure 3.1.

Figure: 3.1 Reading Levels

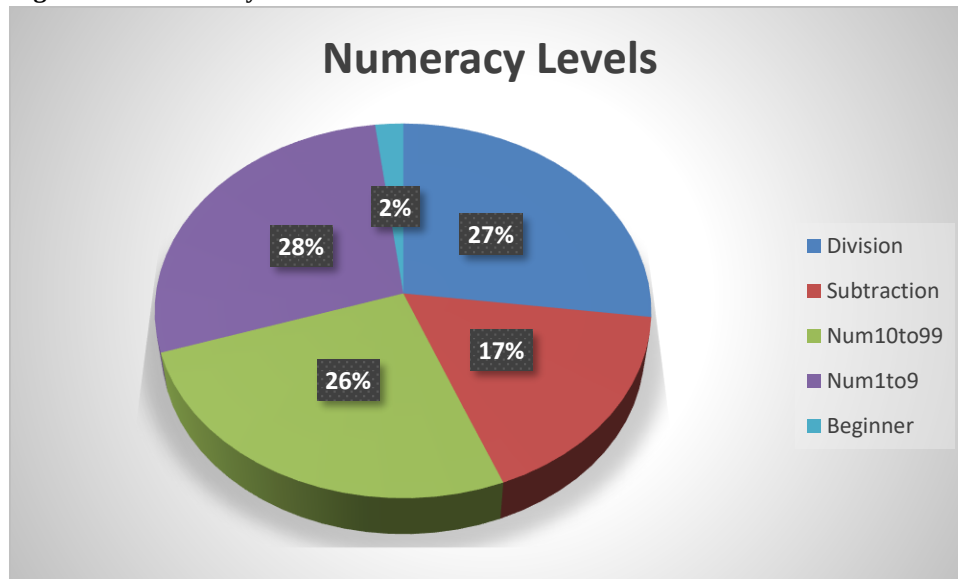


Source: Primary level survey

3.1.2 Numeracy Levels

Simple arithmetic knowledge is necessary to deal with day to day requirement. Numeracy level is another way to check the quality of elementary education. This is also framed in five different difficulties level to evaluate their arithmetic knowledge. The highest proportion of student falls in the group of Division and Number recognition 1 to 9 i.e. 27 and 28 percent respectively. On the other hand, 17 percent of student can do simple subtraction and 26 percent of student can identify the number of 10 to 99 and 2 percent still falls under the category of nothing figure 3.2.

Figure: 3.2 Numeracy Levels

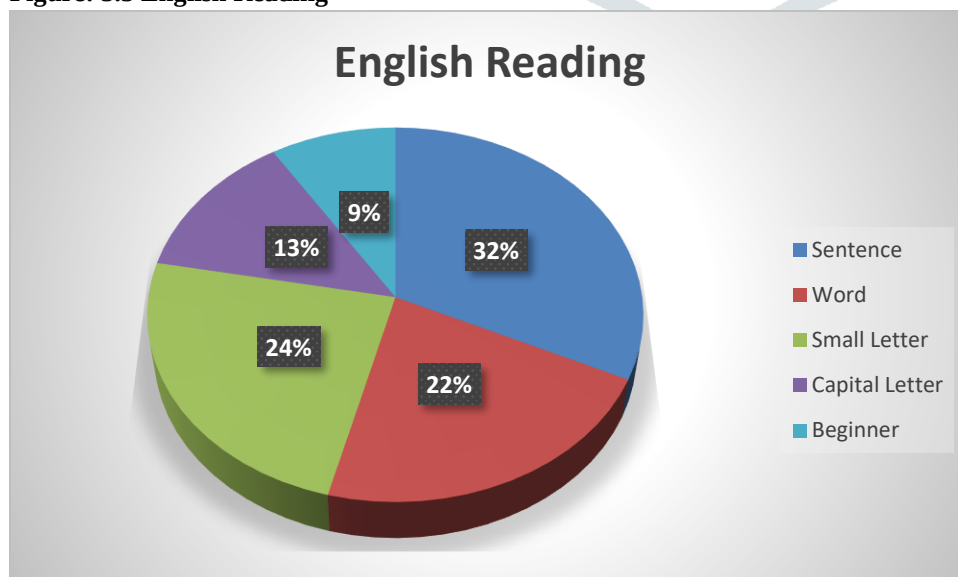


Source: Primary level survey

3.1.3 English Skills

In the era of 21st-century knowledge about English is necessary from the very beginning, this helps to compete with other state or country. So, it is required to evaluate student's ability to read English. Interestingly, only 32 percent can able to read full sentence nearly 70 percent cannot able to read the sentence. While 22 percent could read the only word, 24 percent and 13 percent could identify the small letter and capital letter respectively, 9 percent is still beginner figure 3.3.

Figure: 3.3 English Reading

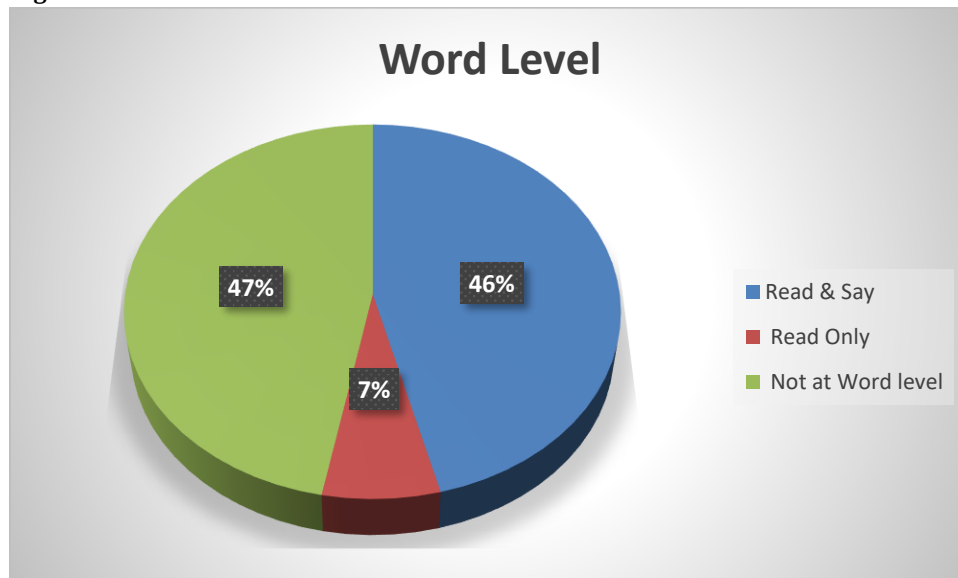


Source: Primary level survey

3.1.4 Word reading

It is also important to mention, whether those students who are at word level can identify the meaning of that word or not. Unfortunately, 47 percent of student can able read-only and 7 percent cannot even read and identify the meaning of given words. On the other hand, 46 percent of a student at the elementary level is able to read and identifying the meaning also figure 3.4.

Figure: 3.4 Word Level

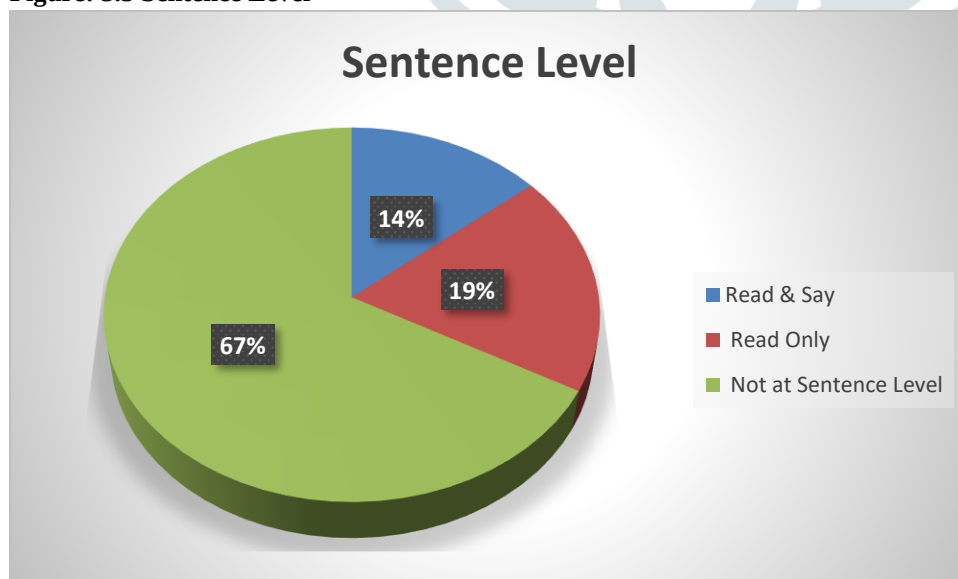


Source: Primary level survey

3.1.5 Sentence Level

Although, the distressing picture is that high proportion of student cannot read the sentence of class two level textbook and a small section of student can read and identify the meaning also. There is 14 percent of student are able to know the meaning of a sentence and 19 percent can only read and rest of them i.e. 67 percent cannot even read the sentence figure 3.5.

Figure: 3.5 Sentence Level



Source: Primary level survey

3.2 Educational Quality Index

An Educational Quality Index is made for reporting the quality of education. Because it tells us how bad or good quality of education students are getting in their learning period. To test the educational quality index, students are the focused group. There is three variable to measure educational quality index namely “Hindi Reading”, “Math” and “English Reading”. Every variable is further categorized into five subcategories such as for Hindi Reading is Story, Para, Word, Letter, and Beginner, for Math Division, Subtraction, number recognition 10-99, number recognition 1-9 and Beginner and for English Reading Sentence, Word, Small Letter, Capital Letter, and Beginner. It is assumed here for Hindi reading story is the highest difficulty level, for math division is the highest difficulty level and for English reading sentence is the highest difficulty level. It is further assumed highest difficulty level is the benchmark for the student. However, quality education can be achieved if students pass the highest difficulty level.

Table: 3.1 Educational Quality Index (EQI)

Educational Quality Index (EQI) Value	Levels of Quality Concern
$\beta=1$	Perfect Quality
$1>\beta>0.50$	Moderate Quality
$\beta\leq 0.50$	Low Quality
$\beta=0$	No Quality

Source: Own Compilation

The educational quality index reflects a depressing picture of student’s quality in Patna district of Bihar. Unfortunately, the quality of elementary education is at a critical level, because the beta value is less than 0.50 i.e. Hindi Reading 0.29, Math 0.23 and English Reading 0.26 respectively. On the other hand, the quality of elementary education is more distressing in math and English reading. Although, if we compare Hindi Reading and English Reading, students relatively is quite well in their own language rather than other language Table 4.2.

Table 3.2 Estimated Educational Quality Index (EQI)

Educational Quality Index	Hindi Reading	Math	English Reading
$\beta\leq 0.50$	0.29	0.23	0.26

Source: Own Compilation

However, it important to know the average quality of elementary education of Patna district in Bihar. The average quality of elementary education is 0.26, which indicates the overall quality of elementary education is at a critical level. The overall quality is measured by simply taking the averages of all the variables i.e. reading, math, English reading.

3.5 Conclusion

It is necessary to focus the simultaneous improvement on quantity and quality of elementary education. Unanimously, implementation of Sarva Shiksha Abhiyan has addressed the problem of enrolment ratio and basic infrastructure facility, but it failed to address the problem of quality of elementary education in India. This current study measures the quality of elementary of Patna District in Bihar which is a major limitation of this study.

The above finding reveals that enrollment ratio and infrastructure has improved to some extent in Patna district of Bihar. On the other hand, the dark side of this finding is poor learning skills of students. Low level of learning skills is a long-term consequence of individual life. Because the low quality of elementary education reduces the chance for higher education and better economic opportunities for future.

There are various factors responsible for poor quality of elementary education such as higher pupil-teacher ratio, absenteeism of students and teachers all these factors adversely affect the quality of elementary education. On the basis of learning skills of student educational quality index is made which shows a low quality of education in Patna.

The various scheme has been implemented for elementary education, the SSA scheme is helpful to increase enrolment number of student in elementary education. But Indian scheme is failed to address the quality of elementary education, which is now concerned for various policymaker and researcher. Manufacturing quantity without quality is an obstacle to move on a higher level of education, it will be a further repercussion on human well-being and economic upticks.

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