# Scenario of the Scholastic Achievement of the students in Sishu Siksha Kendras 

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#### Abstract

: The study tries to explore the Scholastic Achievement level of the students of the Sishu Siksha Kendras (SSKs). An attempt has been made to look into the grade wise, competency wise strength and weakness of the Scholastic Achievement level of the students. The paper also highlights gender wise achievement level of the students. To achieve the findings, a standardised test was conducted on 286 students of class IV from 20 SSKs of Howrah district where as 145 boys and 141 girl students appeared. In West Bengal, West Bengal Board of Primary Education introduced seven point grading system at the primary level. The achievement in thirty seven competencies in total in three subjects was observed and it is presented in subject and competency wise. A t-test was formulated to compare the scores of Scholastic Achievement in different subjects separately and together between boys and girls. Some competencies in all three subjects are achieved in greater extent but some are not. So there may be a gap in the Continuous Comprehensive Evaluation (CCE) and remedial or correctional measures. It is also apparent that difference exists in between boys and girls in Scholastic Achievement on Bengali but no difference exists in between them on Mathematics, Environmental Studies and overall.


Keywords: Sishu Siksha Kendra(SSK), Scholastic Achievement, seven point grading system, Competency wise achievement level, Continuous Comprehensive Evaluation(CCE)

## Introduction

NEP-1986 highlighted on universal access, universal enrolment, universal retention with qualitative improvement in primary education. So, universalisation of elementary education has two aims such as, A) ensure $100 \%$ enrolment and B).maintain the quality of the Scholastic Achievement of the students. Therefore, the present education system not only tries for $100 \%$ enrolment but also gives its attention on measures to improve the Scholastic Achievement of the learners to bring about changes as well as to achieve its goal. Scholastic Achievement is an indicator of a learner's quality based on the assessment of each learner's learning ability (Department of Curriculum and Instruction Development , 1994, p. 47). It is a change in behaviour and experience as a result of learning, training, and teaching (Katawanij, 2006, p. 38). Achievement level of student at a particular stage of education indicates to what extent the student has acquired the competency level which is necessary to bridge the next higher stage of education. Sishu Siksha Kendra (SSK) is an educational institution which has been established in West Bengal during 1997-98 under P \& RD department for universalisation of primary education, where also the focus is given on measures to improve Scholastic Achievement of the learners.

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## Background

At the time of introduction of SSKs during the year 1997-98, in 4 districts of West Bengal namely Bankura, Bardhaman, Purba Medinipur, Paschim Medinipur where the primary schools were far from 1 km radius SSKs were established. In Howrah district SSKs were introduced in the year of 2000-01, when 15677 learners were taken care by 526 Sahayikas in 213 SSKs. After that time period the growth of SSKs was in increasing mode, where in the year of 2009-10, 307 SSKs were established in which 872 Sahayikas were appointed to look after 28010 learners from the age group 5-10 years. But after that time period the trend of the growth of the SSKs was in decreasing mode, where in the year of 2020-21, there remain only 268 SSKs in which 16384 learners were taught by 572 Sahayikas. There are several factors which are responsible for the gradual decrease of the SSKs as well as their students and the Sahayikas, few of them are like poor infrastructural facilities of the SSKs, no new appointment of the Sahayikas, poor job satisfaction of the Sahayikas, poor teaching learning process, poor Scholastic Achievement level of the learners etc.

## Rationale:

From the year 2010-11, SSKs at primary school level have faced several problems. Major among them is poor Scholastic Achievement level of the learners. So, there is a need to discuss the Scholastic Achievement level of the students of the SSKs both at state and district level. As it is a relatively new concept, research studies are very few. This paper is a review of studies and surveys attempting to summarize the results and draw broader conclusions.

## Objectives:

To study the

1. Scholastic Achievement level of the students of the Sishu Siksha Kendras (SSKs) of Howrah districts.
2. grade wise, competency wise strength and weakness of the Scholastic Achievement level of the students of class IV of the SSKs of the Howrah district on three subjects such as Bengali, Mathematics and Environmental Awareness.
3. gender wise Scholastic Achievement level of the students.

## Method of the study:

This is a descriptive survey type of study.

## Sampling technique and Sample size

Multistage random sampling technique has been adapted. In Howrah district, there were 16 blocks under two sub division namely Howrah sadar and Uluberia where remain 268 SSKs in which 16384 learners were taught by 572 Sahayikas. To study the Scholastic Achievement of the students all 286 students (among them 145 boys and 141 girls' student) in class IV of 20 SSKs , from 4 Blocks (each five from one block) under two subdivisions (each 2 from one subdivision) of Howrah district in West Bengal were selected.

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## Tool and its administration

The Scholastic Achievement level test for class IV was constructed by Md. Kutubuddin Halder , Department of Education, Calcutta University, the supervisor of the present study under the guidance of late Dr. S. Chakrabarty, Department of Education, Calcutta University in the year 2001. That test has been scanned to learn how far it is appropriate to administer in respect of present syllabus as it was prepared beyond textbooks to evaluate the competencies.

## Collection of data

The achievement test of the student of class IV was administered at the end of academic session with the help of Sahayikas and Samitii Education Officers. The test was for 2 hours duration. The test was administered in a fare free atmosphere which was created by the invigilators and the Sahayikas. Help was given in case of difficulties faced by the student; this is to dispel the initial state of nervousness. The answer sheets were collected and scored .The information collected has been cross verified.

## Treatment of the data

For quantitative analysis of data, ratio percentage, mean, standard deviation, $t$-test was applied. In West Bengal, West Bengal Board of Primary Education introduced seven point grading system at the primary level. These are A+ Grade (from 90 to $100 \%$ marks),A Grade ( from 80 to $89 \%$ marks),B+ Grade (from 70 to $79 \%$ marks), B Grade ( from 60 to $69 \%$ marks ),C+ Grade ( from 45 to59\% marks), C Grade ( from 25 to $44 \%$ marks ) D Grade ( below $25 \%$ marks). In this present study, A+,A Grades are considered as very good, $\mathrm{B}+, \mathrm{B}$ Grades are considered as good, $\mathrm{C}+, \mathrm{C}$ Grades are considered as average result for class IV standard and D Grade is considered as Class III standard.

## Findings of the Study

## 1. Grade wise Scholastic Achievement level of the students

Grade wise Scholastic Achievement level of the students of three different subjects namely Bengali, mathematics and Environmental Awareness has been shown in the following table 1:

Table 1: Gradewise Scholastic Achievement level of Class IV students in different subjects

|  | Gradewise <br> Percentage of <br> Students in <br> Language | Gradewise <br> Percentage of <br> Students in <br> Mathematics | Gradewise Percentage <br> of Students in <br> Environmental <br> Awareness | Gradewise <br> Percentage of <br> Students in Three <br> Subject together |
| :--- | :---: | :---: | :---: | :---: |
| D | 17.13 | 23.08 | 0.35 | 3.15 |
| C | 26.92 | 36.36 | 3.50 | 19.58 |
| C+ | 23.08 | 14.34 | 5.94 | 27.27 |
| B | 17.48 | 11.19 | 9.44 | 24.48 |
| B+ | 12.24 | 7.34 | 11.54 | 16.78 |
| A | 2.80 | 5.24 | 31.82 | 7.34 |
| A+ | 0.35 | 2.45 | 37.41 | 1.40 |

In West Bengal, West Bengal Board of Primary Education introduced seven point grading system at the primary level. These are A+ Grade (from 90 to $100 \%$ marks), A Grade ( from 80 to $89 \%$ marks),B+

Grade (from 70 to $79 \%$ marks),B Grade ( from 60 to $69 \%$ marks ), C+ Grade ( from 45 to59\% marks),C Grade ( from 25 to $44 \%$ marks ) D Grade ( below $25 \%$ marks). In this present study, $\mathrm{A}+, \mathrm{A}$ Grades are considered as very good, $\mathrm{B}+, \mathrm{B}$ Grades are considered as good, $\mathrm{C}+, \mathrm{C}$ Grades are considered as average result for class IV standard and D Grade is considered as Class III standard. Achievement level of class IV students in different subjects is shown in Table 2 and it is observed from the table that $1.4 \%$ and $7.34 \%$ students obtained A+ and A Grade respectively. It is also found from the study that $17.13 \%, 23.08 \%$ and $0.35 \%$ students obtained D Grade i.e. below $25 \%$ in Bengali, Mathematics and Environmental Studies respectively.
It is found from the Table. 1 that, $1.40 \%, 7.34 \%, 16.78 \%, 24.48 \%, 27.27 \%$ and $19.58 \%$ students obtained A+, A , B+, B , C+ and C Grade respectively. It indicated $96.85 \%$ of the students of class IV maintained the standard and remaining $3.15 \%$ students belongs to class III level. It is also observed from the study that 49 , out of $286(17.13 \%)$ students obtained D-Grade i.e. below $25 \%$ in Bengali. It means that these 49 students could not read and write the simple sentences in their mother tongue. Not only that out of $286,66(23.08 \%)$ and $10(0.35 \%)$ students obtained D-Grade i.e. below $25 \%$ marks in Mathematics and Environmental Studies respectively but it is also observed that out of three subjects the performance of students was very poor in Mathematics but it was best in case of Environmental studies. Only $2.45 \%$ students obtained A+ Grade in Mathematics and more than $60 \%$ students scored below $50 \%$ marks. But $96 \%$ students scored above $60 \%$ marks in Environmental Studies.

## 2. Competency-wise achievement level

The achievement in thirty seven competencies in total in three subjects was observed and it is presented in subject and competency wise. Competency wise achievement level of students in Bengali in 20 SSKs is shown in Table2. The six competencies of Bengali namely comprehension, construction, power of description, dictation, handwriting and spelling was measured. It is observed that there are inter SSKs and intra SSKs variations in achieving

Table 2: Competency wise achievement level of students in Bengali in 20 SSKs

| Percentage of students in different competencies |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { SSK } \\ & \text { S } \end{aligned}$ | Comprehensio <br> n | Sentence Constructio n | Power of Descriptio n | Dictation <br> Ability | Handwritin <br> g | Spellin <br> g | Total |
| A1 | 90.00 | 41.67 | 43.33 | 47.50 | 41.67 | 45.83 | 53.33 |
| A2 | 54.00 | 48.33 | 40.00 | 29.00 | 33.75 | 33.33 | 39.80 |
| A3 | 82.00 | 43.33 | 36.00 | 36.00 | 37.50 | 38.33 | 46.60 |
| A4 | 77.69 | 52.56 | 52.69 | 52.69 | 50.00 | 48.08 | 56.69 |
| A5 | 77.62 | 60.32 | 42.38 | 56.67 | 47.02 | 48.02 | 55.86 |
| B1 | 80.00 | 58.93 | 40.00 | 41.79 | 29.91 | 39.29 | 48.93 |
| B2 | 65.63 | 35.71 | 17.19 | 17.50 | 10.55 | 16.67 | 27.50 |
| B3 | 69.29 | 42.26 | 32.50 | 21.79 | 20.54 | 20.83 | 35.57 |
| B4 | 67.65 | 53.43 | 31.47 | 50.59 | 38.60 | 40.20 | 47.35 |
| B5 | 69.00 | 51.67 | 37.00 | 37.00 | 39.38 | 32.50 | 45.00 |
| D1 | 76.04 | 54.17 | 55.83 | 66.67 | 56.25 | 54.86 | 61.79 |

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| D2 | 53.75 | 18.23 | 32.19 | 27.81 | 37.96 | 23.96 | 32.94 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| D3 | 58.68 | 27.19 | 32.63 | 37.63 | 35.19 | 36.40 | 39.42 |
| D4 | 74.44 | 51.85 | 42.78 | 50.28 | 43.06 | 40.28 | 51.44 |
| D5 | 77.00 | 65.83 | 32.50 | 57.50 | 46.25 | 48.33 | 54.50 |
| J1 | 86.11 | 45.37 | 41.11 | 50.00 | 38.89 | 43.52 | 52.33 |
| J2 | 82.69 | 24.36 | 46.15 | 48.08 | 50.00 | 43.59 | 51.54 |
| J3 | 67.27 | 53.64 | 45.00 | 55.00 | 56.82 | 51.52 | 54.09 |
| J4 | 65.87 | 38.77 | 31.74 | 40.00 | 39.40 | 41.67 | 43.48 |
| J5 | 69.09 | 44.32 | 31.36 | 36.14 | 38.64 | 43.94 | 44.09 |
| Total | 72.19 | 45.60 | 38.19 | 42.98 | 39.57 | 39.56 | 47.11 |

Competencies in Bengali. The comprehension competency measured by ability to comprehend simple paragraph in Bengali. Only in one SSK (D1) achievement level is more than $60 \%$.
Overall performance of students in different competencies in Bengali subject is shown in Figure 2 and it is revealed that the average achievement level in comprehension $72.19 \%$ i.e. almost $30 \%$ students could not comprehend the simple paragraph in their mother tongue. Similarly, about $55 \%$ students could not even construct the simple sentences in their mother tongue. Observation, language, consistency and imagination for picture comprehension ability were given to evaluate the 'power of description' in the test. Only $38.19 \%$ on an average were able to do it correctly. It is really an area of great concern. Correctness, speed, punctuation (comma and full stop), completion and neatness for evaluation of dictation ability were taken into consideration. The average performance level is $42.98 \%$. Ability of writing alphabet in correct shape, gap between letters within the words, neatness, completion of letters were considered for assessing handwriting. The result is also not good ( $39.57 \%$ in average). More than $60 \%$ students were unable to spell common Bengali word rightly. So a large portion of students could not read with comprehension and write correctly in Bengali.

Figure 1: Average competency wise achievement level in Bengali (in percentage)


Different competencies in Mathematics were measured by 14 items. These are concept of heavy and light ( Item 24 ), ascending and descending the number ( Item 25), ability to calculate of simple addition ( Item 26 ), ability of simple subtraction ( Item 27 ), addition in decimal ( Item 28 ), subtraction in decimal (Item 31 ), simple multiplication (Item 30 ), multiplication in decimal (Item 31 ) , simple division in two digit s as divisor (Item 32 ), simple division in decimal (Item 33 ), simple application of multiplication rule (Item 34 ), simple application of division rule (Item 35 ), simple application of meter and centimetre 9 Item 36 ) and time in hour, minute and second ( Item 37 ). After

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implementation of SSA period, SSK wise performance of students in different items in Mathematics subject is shown in Table 3.

Table 3: Competency wise achievement level of student in Mathematics in 20 SSKs

| Percentage of students given correct answer in various items |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SSKS | Weigh <br> t <br> Perce ption Q. 1 <br> (3) | Ascen ding Order Q. 2 (3) | Comp <br> utatio <br> n of <br> Addit <br> ion <br> Q.3-4 <br> (6) | $\begin{gathered} \hline \text { Com } \\ \text { putat } \\ \text { ion } \\ \text { of } \\ \text { Subt } \\ \text { racti } \\ \text { on } \\ \text { Q.5- } \\ 6(6) \\ \hline \end{gathered}$ | Com <br> putati <br> on of <br> Multi <br> plicat <br> ion <br> Q.7-8 <br> (6) | Comp <br> utatio <br> n of <br> Divisi <br> on <br> Q.9- <br> 10 (6) | Applic <br> ation of Multipl ication Q.11(5 | Applica tion of Divisio $\begin{gathered} \mathrm{n} \\ \mathrm{Q} .12(5) \end{gathered}$ | Appli cation of Subtra ction Q.13( 5) | App licat ion of Add itio n <br> Q. 1 4(5) | Total <br> Marks <br> in <br> Mathe <br> matics |
| A1 | $\begin{gathered} 100.0 \\ 0 \end{gathered}$ | 100.00 | 72.22 | $\begin{gathered} 16.6 \\ 7 \end{gathered}$ | 88.89 | 38.89 | 0.00 | 0.00 | 0.00 | 0.00 | 38.00 |
| A2 | 90.00 | 60.00 | 90.00 | $\begin{gathered} 33.3 \\ 3 \end{gathered}$ | 50.00 | 36.11 | 60.00 | 0.00 | 60.00 | $\begin{gathered} 32.0 \\ 0 \end{gathered}$ | 52.20 |
| A3 | $\begin{gathered} 100.0 \\ 0 \end{gathered}$ | 100.00 | 96.67 | $\begin{gathered} 90.0 \\ 0 \end{gathered}$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 34.40 |
| A4 | 97.44 | 92.31 | 74.36 | $\begin{gathered} 46.1 \\ 5 \end{gathered}$ | 56.41 | 41.03 | 60.00 | 63.08 | 80.00 | $\begin{gathered} 50.7 \\ 7 \end{gathered}$ | 62.92 |
| A5 | 95.24 | 95.24 | 75.40 | $\begin{gathered} 47.6 \\ 2 \end{gathered}$ | 59.52 | 42.06 | 80.95 | 85.71 | 41.90 | $\begin{gathered} 43.8 \\ 1 \end{gathered}$ | 63.62 |
| B1 | 98.81 | 100.00 | 83.33 | $\begin{gathered} 45.2 \\ 4 \end{gathered}$ | 64.29 | 30.95 | 77.14 | 92.86 | 98.57 | 60.0 | 71.36 |
| B2 | 97.92 | 66.67 | 75.00 | $\begin{gathered} 37.5 \\ 0 \end{gathered}$ | 46.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.00 |
| B3 | 95.24 | 40.48 | 65.48 | $\begin{gathered} 13.1 \\ 0 \end{gathered}$ | 46.43 | 9.52 | 44.29 | 18.57 | 37.14 | $\begin{gathered} 27.1 \\ 4 \\ \hline \end{gathered}$ | 37.00 |
| B4 | 98.04 | 82.35 | 73.53 | $\begin{gathered} 32.3 \\ 5 \end{gathered}$ | 32.84 | 23.53 | 36.47 | 50.59 | 77.65 | $\begin{gathered} 64.7 \\ 1 \\ \hline \end{gathered}$ | 53.24 |
| B5 | 96.67 | 90.00 | 71.67 | $\begin{gathered} 38.3 \\ 3 \end{gathered}$ | 3.33 | 3.33 | 32.00 | 30.00 | 36.00 | $\begin{gathered} 36.0 \\ 0 \end{gathered}$ | 38.80 |
| D1 | 92.36 | 76.39 | 79.86 | $\begin{gathered} 11.8 \\ 1 \end{gathered}$ | 39.58 | 22.22 | 45.00 | 36.67 | 65.00 | $\begin{gathered} 38.3 \\ 3 \end{gathered}$ | 47.04 |
| D2 | 91.67 | 43.75 | 56.25 | $\begin{gathered} 12.5 \\ 0 \end{gathered}$ | 7.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.25 |
| D3 | 95.61 | 73.68 | 79.82 | $\begin{gathered} 37.7 \\ 2 \end{gathered}$ | 36.84 | 15.79 | 32.63 | 45.26 | 46.32 | $\begin{gathered} 17.8 \\ 9 \end{gathered}$ | 44.79 |
| D4 | 93.52 | 72.22 | 66.67 | $\begin{gathered} 25.9 \\ 3 \end{gathered}$ | 4.63 | 34.26 | 18.89 | 34.44 | 55.56 | $\begin{gathered} 41.1 \\ 1 \end{gathered}$ | 40.72 |

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| D5 | 96.67 | 80.00 | 81.67 | $\begin{gathered} 50.0 \\ 0 \end{gathered}$ | 53.33 | 55.00 | 0.00 | 0.00 | 0.00 | 0.00 | 39.40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J1 | 94.44 | 100.00 | 81.48 | $\begin{gathered} 14.8 \\ 1 \end{gathered}$ | 74.07 | 55.56 | 84.44 | 97.78 | 82.22 | 0.00 | 65.22 |
| J2 | $\begin{gathered} 100.0 \\ 0 \end{gathered}$ | 84.62 | 64.10 | 1.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.92 |
| J3 | 86.36 | 81.82 | 92.42 | $\begin{gathered} 45.4 \\ 5 \end{gathered}$ | 43.94 | 42.42 | 65.45 | 89.09 | 80.00 | $\begin{gathered} 36.3 \\ 6 \end{gathered}$ | 64.09 |
| J4 | 94.20 | 88.41 | 68.12 | 6.52 | 31.16 | 2.90 | 0.00 | 0.00 | 0.00 | 0.00 | 24.00 |
| J5 | 95.45 | 72.73 | 63.64 | $\begin{gathered} 28.0 \\ 3 \end{gathered}$ | 38.64 | 18.94 | 60.91 | 16.36 | 10.91 | 9.09 | 37.73 |
| Total | 95.48 | 80.03 | 75.58 | $\begin{gathered} 31.7 \\ 2 \end{gathered}$ | 38.90 | 23.63 | 34.91 | 33.02 | 38.56 | $\begin{gathered} 22.8 \\ 6 \end{gathered}$ | 43.99 |

It is observed from the Table 3 that achievement of concept of subtraction in decimal, simple application of 'meter and centimetre' and concept of 'time in hour, minute and second' competencies are low in majority of SSKs. It is also found that most of the students did not solve the easy sum (Item 33) related to simple division in decimal (Figure 2)

Figure 2: Average competency wise achievement level in Mathematics (in percentage)


To identify the area of weakness of the students to attain the competency of the data were further analyzed and it is found that more than $75 \%$ students did not solve the simple division in decimal. This is indeed quiet alarming. It is evident from the answer scripts that there are 16 types of errors committed by the students in the given 'Division in decimal'. In all cases, the students do not check or verify the result by the concept "Dividend= Divisor * Quotient + Remainder" and they do not have the idea of changing place of decimal while dividing by 10 .
Competency wise achievement level in Environmental Studies was also analyzed. SSK wise performance of students in seven competencies of Environmental Studies subject is performed in Table
4. and it is observed that performance is more or less good in each SSK in each competency except the competency of the concept of state (province), country and continent and there are inter SSK as well as intra school variations in achieving competencies.

Table 4: Competency wise achievement level in Environmental Studies

| Percentage of students giving correct answer |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SSKS | Livin <br>  <br> Non <br> Livin <br> g <br> Orga <br> nism | Democrati c \& Social Awarenes s | Free from Orthodox y | Scientific <br> \& General <br> Awareness | Social <br> Benefactor <br> s | Hill <br> Mount <br>  <br> Island | Province <br> Country <br>  <br> Continen <br> t | Total |
| A1 | 87.50 | 100.00 | 100.00 | 83.33 | 100.00 | 100.00 | 50.00 | $\begin{gathered} 87.3 \\ 3 \end{gathered}$ |
| A2 | 68.13 | 93.33 | 100.00 | 74.29 | 100.00 | 80.00 | 90.00 | $\begin{gathered} 80.2 \\ 0 \end{gathered}$ |
| A3 | 90.00 | 80.00 | 100.00 | 82.86 | 93.33 | 100.00 | 40.00 | $\begin{gathered} 84.3 \\ 3 \end{gathered}$ |
| A4 | 75.48 | 82.05 | 92.31 | 84.62 | 84.62 | 92.31 | 80.77 | $\begin{gathered} 81.3 \\ 3 \end{gathered}$ |
| A5 | 70.39 | 92.06 | 100.00 | 83.67 | 93.65 | 90.48 | 90.48 | $\begin{gathered} 83.1 \\ 0 \end{gathered}$ |
| B1 | 89.73 | 92.86 | 100.00 | 82.65 | 97.62 | 100.00 | 82.14 | $\begin{gathered} 89.2 \\ 9 \end{gathered}$ |
| B2 | 53.71 | 66.67 | 87.50 | 64.29 | 81.25 | 43.75 | 43.75 | $\begin{gathered} 61.6 \\ 9 \end{gathered}$ |
| B3 | 83.04 | 100.00 | 100.00 | 72.45 | 95.24 | 92.86 | 82.14 | $\begin{gathered} 84.5 \\ 7 \end{gathered}$ |
| B4 | 78.86 | 86.27 | 76.47 | 71.43 | 68.63 | 64.71 | 94.12 | $\begin{gathered} \hline 75.7 \\ 6 \end{gathered}$ |
| B5 | 77.50 | 90.00 | 90.00 | 72.86 | 86.67 | 90.00 | 80.00 | $\begin{gathered} 80.0 \\ 0 \end{gathered}$ |
| D1 | 84.64 | 97.22 | 95.83 | 92.86 | 65.28 | 91.67 | 77.08 | $\begin{gathered} 86.2 \\ 5 \end{gathered}$ |
| D2 | 63.48 | 52.08 | 87.50 | 72.32 | 91.67 | 81.25 | 46.88 | $\begin{gathered} \hline 68.3 \\ 1 \end{gathered}$ |
| D3 | 66.61 | 75.44 | 94.74 | 96.99 | 92.98 | 84.21 | 68.42 | $\begin{gathered} 81.3 \\ 2 \end{gathered}$ |
| D4 | 89.06 | 83.33 | 94.44 | 96.03 | 100.00 | 100.00 | 69.44 | $\begin{gathered} 90.7 \\ 2 \end{gathered}$ |
| D5 | 80.94 | 96.67 | 100.00 | 85.71 | 100.00 | 100.00 | 100.00 | 89.5 |


|  |  |  |  |  |  |  | 0 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| J1 | 86.81 | 100.00 | 100.00 | 85.71 | 100.00 | 100.00 | 100.00 | 91.7 <br> 8 |
| J2 | 65.63 | 92.31 | 84.62 | 80.22 | 87.18 | 100.00 | 42.31 | 75.7 <br> 7 |
| J3 | 75.57 | 90.91 | 72.73 | 90.91 | 78.79 | 72.73 | 95.45 | 83.4 <br> 5 |
| J4 | 64.27 | 79.71 | 78.26 | 91.93 | 91.30 | 65.22 | 78.26 | 78.8 <br> 3 |
| J5 | 76.28 | 87.88 | 95.45 | 90.26 | 95.45 | 86.36 | 81.82 | 85.5 <br> 0 |
| Total | 76.38 | 86.94 | 92.49 | 82.77 | 90.18 | 86.78 | 74.65 | 81.9 <br> 5 |

Figure 3. Average competency -wise achievement level in Environmental Studies (In Percentage)


It appears from the bar diagram (Figure 3.) that it is inspiring; to see that the students' performance was good in the items related to the concept about social benefactors and were free from orthodoxy. To measure the competency of the concept of free from orthodoxy the question was framed as follows: what should you do in case of illness? For answer of the question it had three alternatives i.e. (a) to fall back upon tricks of village sorcerer, (b) to consult a doctor and take medicine and (c) to use bangles and metal blocks and pray to God. About $92 \%$ students have underlined the alternative answer of (b). Similarly to judge the democratic value the question 'What will you do if anybody belonging to other religion?" was given. The alternative answers were (a) should be hated and despise; (b) should be love and co- operated and (c) should be treated enmity. Majority of students is opted the alternative answer of (b). These are the quality of good citizen. The average performances of the students are not good in Mathematics and even in Bengali but it is better in Environmental studies. It indicates that 'experimental and social learning' have contribution to acquire those knowledge. There is no tangible impact of infrastructure or intelligence on quality which is pervasive in nature. Some competencies in all three subjects are achieved in greater extent but some are not. So there may be a gap in the continuous comprehensive evaluation and remedial or correctional measures.

## 3. Gender-wise Achievement Level

The achievement test was conducted on 286 students of class IV from 20 SSKs where as 145 number of boys and 141 number of girls students appeared.

Table 5: $t$-values for comparison of the scores of Academic Achievement in different subjects separately and together between Boys and Girls

| Subjects | Bengali |  | Mathematics |  | Environmental <br> Studies |  | Total |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Gender | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| N | 141 | 146 | 141 | 146 | 141 | 146 | 141 | 146 |
| Mean | 22.16 | 24.99 | 21.69 | 21.64 | 41.16 | 40.41 | 87.01 | 84.94 |
| SD | 10.612 | 10.208 | 10.846 | 11.098 | 7.572 | 7.848 | 19.28 | 19.96 |
| t-values | $2.286^{* *}$ | $0.036^{*}$ | $0.829^{*}$ | $0.892^{*}$ |  |  |  |  |
| Sig | 0.023 |  | 0.971 | 0.408 | 0.522 |  |  |  |

*Stand for significant at 0.05 level $* *$ stand for in significant at 0.05 level of significance
In case of scholastic achievement in language as well as in Bengali among boys and girls students, the obtained t-value is 2.286 which is significant at 0.05 level of significance. Therefore null hypotheses is rejected and there is a difference in scholastic achievement in Bengali in between boys and girls. In case of Mathematics, Environmental studies and overall scholastic achievement the $t$-values are 0.036, 0.829 and 0.892 respectively which are insignificant at 0.05 level of significance. So it is also apparent that no difference exists in between boys and girls in scholastic achievement on Mathematics, Environmental studies and overall.

## Discussion:

This part makes an attempt to discuss and interpret in details the important findings and results on basis of collected primary data regarding i) the grade wise, ii) competency wise iii) gender wise achievement level of the students of class IV of the SSKs of the Howrah district on three subjects such as Bengali, Mathematics and Environmental Awareness. The achievement test was framed in three parts based on three subjects namely Bengali, Mathematics and Environmental Studies. Full marks of each subject are 50. The total marks of the entire test are 150. All 286 students in class IV of 20 SSKs present on the date of test were taken. It was found that most of the students could not do well in Mathematics. Out of 14 competencies in Mathematics 'Subtraction in decimal', achieved by only $7.01 \%$ students, 'Multiplication in decimal', achieved by only $3.5 \%$ students, 'Division in decimal', achieved by only $0.7 \%$ students. This is alarming. At the time of data collection decimal system was exist on their syllabus but in the present modification decimal system is out of syllabus. So their problem has been partly solved by the West Bengal Board of Primary Education. 'Concept of hour, minute and second' could also not be achieved by the most of the students, only achieved by the $11.92 \%$ students. Application of multiplication, subtraction and division , achieved by more or less $21 \%$ students .Similarly in Environmental Studies, the competency 'the concept of state ,country and subcontinent' could not be achieved by the $43 \%$ students and the competency 'the motion of the earth' could not be achieved by the $57 \%$ students. These indicate that there may be some hard spots which shall be given more importance with special focus with innovative teaching learning process. Some successes of innovative teaching learning process across the globe have already been discussed in chapter 2 . So there is a need of
qualified subject teacher. There is tangible infrastructural development in SSA period but impact of that development has not been transformed into quality of education. Actually these SSKs are getting the students from comparatively lower socio economic background. Arumugam and Bhat (2020) researched on the learning outcomes of the backward communities. They concluded that the academic achievement of these backward communities is very low. There is a perception of common people that a Private Primary School is better in quality than a Government Primary School. The comparatively economically sound people of the locality have left the enjoyment of the government aided school facilities. It is observed that in earlier, most of the Sahayikas being local were exceptionally exposed to the individual guardians or local people. So the students and the guardians were familiar with them. Sahayikas could not only ensure daily attendance of students but also took to care individually of all students. But now West Bengal had not recruited Sahayikas for several years, so the $3^{\text {rd }}$ or $4^{\text {th }}$ Sahayika from one SSK have to go another SSK to teach where the SSK is suffering from lack of Sahayikas. Usually she is unfamiliar with the students and guardians and unable to take care of individual students. It is another fact that in recent times common people are interested to send their children in private schools as their good perception about these schools and lack of facilities of government aided pre primary education in this rural area. So not only the upper middle class and middle class people but also comparatively economically stable families in the localities admitted their children at the Private English Medium Schools which have been established in the last decade within 1 km radius of this school. Now Government aided SSK is designated as poor school. The Government aided SSKs have not only lost the faith of common people but are dishonoured by the Sahayikas of the SSKs. They do not admit their own children to their SSKs. As a result the number of students has been decreased.
In addition, the physical environment of these SSKs is dirty, unclean and unhygienic. Even the SSKs are running without regular sweeping and unhygienic sanitary arrangement. There is no provision of sweeper or any other Group D staff. According to the Sahayikas, guardians are in strong opinion that his ward is not going to school for sweeping or other work of sanitation. So they are discouraging these. Sahayikas do not dare to make the students to do these works at the present socio political condition. Health card was issued but there is no system of regular health check up of the students of the SSKs. It is also found that there is lack of sitting arrangement in the SSKs and lack of pen, pencils, exercise books and other teaching learning materials to study the first generation learners. It is to be noted that there is no mechanism for the development of areas of weakness in scholastic achievement of students of disadvantaged group.
Another cause may be, non detention policy have been followed in true spirit. As a result, the students are promoted to next class without proper learning. So Continuous Comprehensive Evaluation is needed to be implemented effectively.
Another cause may be the lack of motivation of the Sahayikas due to overloading non academic activities such as Midday meal arrangement, Census and Election Duty, Pulse Polio, supervision of civil works, household surveys etc. Boruah,S .J.L. (2010) found that the scholastic level of a student has been seen significantly rising by constant availability of support and motivation. Zheng,Z. and Mustappha,S.M. (2022) observed that motivation and personal skill development has direct impact on student's learning outcomes.
Sahayikas are not involved in curriculum construction or in the preparation of district education plan. They are unwilling to be posted to remote areas. There is no provision of qualified subject teacher for English, Mathematics, Science, Computers.

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Universal retention and irregular daily attendance are difficult challenge due to seasonal migration, negligence and indifference of parents' sibling care and economic backwardness.
In case of scholastic achievement among boys and girls students, the obtained t - values in case of Mathematics, Environmental studies and overall scholastic achievement are $0.036,0.829$ and 0.892 respectively which are insignificant at 0.05 level of significance. So it is also apparent that no difference exists in between boys and girls in scholastic achievement on Mathematics, Environmental studies and overall. This finding is not in consonance with the finding of Singh, A.B. (2019) who found that achievements in academics are seen to be more in numbers among the female students. Illahi and Khandai (2015) in their study found that females have high levels of academic outcomes. Paschim Banga Sarva Shikha Mission (2010) found that in West Bengal only 44\% could achieve marks $60 \%$ and above \& performance level of girls are Lower than that of boys.

## Conclusion:

On the basis of the findings it is concluded that the scholastic achievement level of the students is not up to the mark. A large portion of students could not read with comprehension and write correctly in Bengali. It is also found that most of the students did not solve the easy sum related to simple division in decimal. So there was development in quantity aspects but there was no observable change in qualitative achievement of the students which is the ultimate goal. In spite of all these it is a matter of satisfaction that gender is not an issue with respect to scholastic achievement of the students. It is due to the SSK is getting the students with comparatively lower socio economic background as well as poor merit. There is a perception of common people that a private or Government primary school is better in quality than a SSK. So the students with comparatively better socio economic background are going to private or Government primary schools. In this situation only $3.15 \%$ students have got D grade which is quiet good enough. Moreover in same SSK, some Sahayikas are following traditional methods of teaching, some Sahayikas are trying few modern methodologies half heartedly and some Sahayikas are trying full heartedly ultimately which are not effective for the students scholastic achievement. It is found that there is a SSK with single Sahayika. She cannot able to take classes as she is engaged in non academic activities like Mid day meal arrangement, Census and Election Duty, Pulse Polio etc. So the teaching learning process is totally collapsed. Only for this reason many meritorious students left the SSKs and took admission in a primary school. As new methodologies like activity based learning, peer group learning, cooperative and collaborative learning etc could not be practiced properly without one dedicated Sahayika for each class. So the findings of the study cannot support this provision of RTE and recommended for at least four Sahayikas for four classes. There is also need of qualified subject teacher for at least Mathematics and English. Moreover entire teaching learning and evaluation system needs a radical change to activity based learning with proper teaching learning materials and continuous comprehensive evaluation system. Sahayikas should be involved in curriculum construction or in the preparation of district education plan. They should be posted to their familiar areas' SSKs for their job satisfaction. If the Sahayikas will have got satisfaction from their job they might be devoted themselves full heartedly which would help to increase the Scholastic Achievement of the students.

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