

## Sarva Shiksha Abhiyan in Punjab: Scholastic Achievement of Second Standard Students

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### Abstract

To assess the scholastic achievement of students in Punjab, the study was carried out on a sample of 2<sup>nd</sup> standard students from 80 schools in 10 districts of Punjab. Students were tested on Baseline, Mid line and Final line assessment in the subjects of Punjabi, English and Mathematics. Significant differences in the scholastic achievement of 2<sup>nd</sup> standard students in Punjabi, English and Mathematics in Punjab were recorded on Baseline, Mid line and Final line assessment. The students in the districts with low literacy rate performed better in Punjabi than high literacy rate districts; in English students from high literacy districts performed better in FAS, while in Mathematics students from low literacy districts performed better in BAS; but in MAS and FAS students from high literacy districts performed better than students from low literacy districts. Female students of high literacy districts performed better than male students in all the subjects, i.e. Punjabi, English and Mathematics; on the other hand, in low literacy districts female students performed better at BAS and MAS in Punjabi and English. In Mathematics, male students outperformed female students at BAS and MAS, while female students performed better than male students at FAS. But in overall scenario, female students outperformed male students in all the three subjects.

**KEYWORDS:** SSA (Sarva Shiksha Abhiyan), BAS (Baseline assessment survey), MAS (Mid line assessment survey), FAS (Final line assessment survey)

### 1.0.Introduction

Our society is very fast shaping into a knowledge society where quality and relevance of education will play a crucial role in the economic development of our country. It can grow positively with good quality teaching, learning and efficient system. Various five year plans incorporated programs and strategies based on periodic assessment of the progress of education by the Ministry of Education; Education Commissions; and Committees on Education appointed by the Central and State Governments.

Sarva Shiksha Abhiyan (SSA) is a flagship programme by the Government of India for achievement of Universalization of Elementary Education (UEE) in a time bound manner. The 86<sup>th</sup> amendment to the Constitution of India has to provide free and compulsory Education to the Children of 6-14 years age group as a Fundamental Right. SSA is being implemented in partnership with State Governments to cover the entire country and address the needs of millions of children. New schools opened in those habitations, which do not have schooling facilities and infrastructure improvement through the provision of additional classrooms, toilets, drinking water, maintenance grant and school improvement grants. Existing schools with inadequate teacher strength are provided with additional teachers, while the capacity of existing teachers is being strengthened by extensive training, grants for developing teaching-learning materials and strengthening of the academic support structure at a cluster, block and district level. SSA vouch for quality elementary education including life skills and has a special focus on girls' education and children with special needs. SSA

also provides computer education to bridge the digital divide between haves and have not. (<http://ssa.nic.in>)

### **1.1. Major interventions under SSA**

According to Programme evaluation organization (2010) following are the major interventions under SSA:

- Provision for opening of new schools or for setting up EGS (Education Guarantee Scheme) centers in un-served habitations.
- Opening of Upper primary schools
- Interventions to mainstream out of school children, dropouts.
- Inclusive education and other activities.
- Block resource\ cluster resource centers
- Innovative activity in girls' education, early childhood care and education.
- Capacity building for teachers, training, teacher grant, recruitment of teachers
- Learning enhancement programs
- Civil works, additional classrooms, maintenance grant, school grant.
- Management cost, research & evaluation, community training

EdCIL (2005) reported the scholastic achievement of the students while assessing the effectiveness in the primary schools of four districts of India. In 2003, the results indicated average achievement in language declined in the states of Karnataka, Uttar Pradesh and Maharashtra while language achievement increased in the state of Orissa. The main objective of the study was to find out how various school and teacher variables affect students' achievement. The samples of schools selected for the study were the same as selected for Terminal Assessment Survey (TAS) of DPEP. The tests in language and Mathematics that have been used for testing students were the same as used in TAS, since the second objective of the study was to find out what the achievement level of students is over two to three years of termination of DPEP. A third objective of the study was to assess the level of literacy and numeracy attained by students who were about to complete their primary education, using appropriate tests of literacy and numeracy. The results of the test taken for numeracy skills revealed that more than half of the students scored below 40 percent in Karnataka, Maharashtra and Uttar Pradesh while more than 50 percent of the students scored above 40 percent in Orissa.

Srivastava, Bala, Saxena and Arora (2009) conducted a study to assess scholastic achievement and literacy level of children at the primary stage in Language and Mathematics in Karnataka, Orissa and Uttar Pradesh. By Terminal Assessment Survey (TAS) for assessing the literacy and numeracy level of students in Orissa, there was a decrease in the mean score in Mathematics and an increase in mean score in language between TAS and Repeat Assessment Survey (RAS). In Uttar Pradesh, in both the district achievement scores showed decline in language and mathematics scores between TAS and RAS. In Karnataka too, the achievement scores showed considerable decline. Hence literacy and numeracy level of children who had reached the last grade of primary cycle in Uttar Pradesh and Orissa was much below the level that was expected after four years of schooling.

Programme Evaluation Organisation (2010) observed that the quality of learning varies considerably between states like Uttar Pradesh, Haryana, Himachal Pradesh, Rajasthan, Madhya Pradesh, Maharashtra, Bihar, West Bengal, Tamil Nadu, Andhra Pradesh, Assam, Chandigarh and Puducherry for both rural and urban samples. Achievement tests in English, Local Language and Mathematics for class II (primary) and class VI (upper primary) students revealed that the performance of students in

reading and verbal skills were better than in writing skills. The mean scores of students of primary classes (class II) in writing tests in urban schools were higher than in rural schools. In comparison to mean marks of 54, 30 and 54 in writing tests of Arithmetic, English and local language respectively, of rural students, urban mean scores were 69, 35 and 74 resp.

ASER (2012) in its report covered the learning levels of standard 1<sup>st</sup>- 2<sup>nd</sup> students and in Punjab observed that 86.3% children can read letters, words or more successfully and 88.7% children can recognize numbers (1- 9) or more successfully.

The Sarva Shiksha Abhiyan mission strives to secure the right to quality basic education for all children in the 6-14 years age group and the norms of SSA, are: Retention of all children till the upper primary stage by 2010, bridging of gender and social category gaps in enrollment, retention and learning, ensuring that there is a significant enhancement in the learning achievement levels of children at the primary and upper primary stage are the major objectives of SSA. The research by Srivastava, Bala, Saxena and Arora (2009); and Programme Evaluation Organisation (2010) revealed that despite massive interventions in primary education, students are still below the expected achievement level in our various states. Various government and private organization have conducted studies to assess the academic achievement of students, but independent research in this is still very few hence there is an urgent need to study the scholastic achievement of students with respect to various quality related interventions of SSA; as the result of study will provide a real picture on the scholastic achievement of students.

## 2.0.Objectives

- To study the scholastic achievement in written expression of 2<sup>nd</sup> standard primary school students of Punjab in the subjects of Punjabi, English and Mathematics on BAS, MAS and FAS.
- To study the scholastic achievement in written expression of 2<sup>nd</sup> standard male and female students of primary schools of Punjab in the subjects of Punjabi, English and Mathematics due to various SSA interventions.
- To study the scholastic achievement in written expression of 2<sup>nd</sup> standard students of primary schools of Punjab in the districts with high literacy rate and districts with low literacy rate due to various SSA interventions.

## 3.0.Hypotheses

H<sub>1</sub>0: There is no significant effect on the scholastic achievement in written expression of 2<sup>nd</sup> standard primary school students of Punjab in the subjects of Punjabi, English and Mathematics on BAS, MAS and FAS due to various SSA interventions.

H<sub>2</sub>0: There is no significant difference in the scholastic achievement in written expression of 2<sup>nd</sup> standard male and female students of primary schools of Punjab on BAS, MAS and FAS in the subjects of Punjabi, English and Mathematics due to various SSA interventions.

H<sub>3</sub>0: There is no significant difference in the scholastic achievement in written expression of 2<sup>nd</sup> standard students of primary schools of Punjab on BAS, MAS and FAS in the subjects of Punjabi, English and Mathematics in the districts with high and low literacy rate due to various SSA interventions.

## 4.0.Methodology

The details of the methodology followed in the present study are as follows:

**4.1. Sample:** The study was conducted on a random sample of 80 primary schools of Punjab. Ten districts were selected randomly; 5 districts of high literacy rate

and 5 of low literacy rates. Further from each district, 2 blocks were selected randomly and from these blocks four primary schools were randomly selected. The sample consisted of 1130 students of 2<sup>nd</sup> class with 435 students from districts with a high literacy rate and 695 students from districts with low literacy rate. Out of the selected sample, 556 were males and 574 were females.

- 4.2. Design:** A survey method was used for the purpose of present investigation. Baseline assessment, Mid line assessment and Final line assessment at the interval of 2 months was done in all the selected schools.
- 4.3. Tools Used:** Baseline, Mid line and Final line assessment, achievement tests were developed and standardized by the investigator for the subjects of Punjabi, English and Mathematics.
- 4.4. Procedure:** After the selection of the sample students of 2<sup>nd</sup> class were tested for written expression in Punjabi, English and Mathematics on Baseline, Mid line and Final line assessment. After Baseline assessment a gap of 2 months was given for the Mid line assessment and after 2 months Final line assessment was done.

### 5.0. Analysis and Interpretation of Results:

The data were analyzed to determine the nature of the distribution of scores by employing mean and standard deviation. Percentage analysis was done to analyze the progress if any, in the scholastic achievement at Mid line and Final line assessment. For a comparative analysis of scholastic achievement scores of students in the subjects of Punjabi, English and Mathematics on BAS, MAS and FAS; the Non-Parametric tests i.e. Friedman test and Wilcoxon Mann-Whitney- U is used. The detailed analysis is presented as follows:

**5.1. Analysis of Scholastic Achievement Scores:** The scholastic achievement of students at three assessment levels in percentages for the subjects of Punjabi, English and Mathematics in the phases of BAS, MAS and FAS is presented in table 1.

**Table 1. Scholastic Achievement of 2<sup>nd</sup> standard students of Punjab**

Subjects	BAS (in %)	MAS (in %)	FAS (in %)
Punjabi	22.92	37.52	56.54
English	21.94	45.22	59.64
Mathematics	19.64	45.48	68.31

From table- 1, it is clear that only 22.92% students in Baseline; 37.52% from Mid line and 56.54% in Final line assessment were able to write Punjabi correctly. For English 21.94% students on Baseline; 45.22% of Mid line and 59.64% of Final line assessment were able to write English correctly. For Mathematics this percentage was 19.64% on Baseline; 45.48% of Mid line and 68.31% of Final line assessment. The results revealed that there was continuous progress in achievement in all the three subjects.

### 5.2. Districts' Literacy Rate wise analysis of Scholastic Achievement Scores

On the basis of literacy rate; 5 districts having a high literacy rate and 5 districts having low literacy rate in Punjab were selected. The results of the scholastic achievement of students in percentages are presented in the Table 2 in districts with high literacy and low literacy rate:

**Table 2. District literacy rate wise Scholastic Achievements of 2<sup>nd</sup> standard Students**

Districts	Phases	Punjabi (%age)	English (%age)	Mathematics (%age)
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<b>High literacy</b>	BAS	18.16	11.49	19.31
	MAS	36.09	40.45	49.88
	FAS	56.32	62.29	75.17
<b>Low literacy</b>	BAS	25.89	28.48	19.85
	MAS	38.41	48.20	42.73
	FAS	56.69	57.98	64.02

From table-2, a clear cut difference is observed in the baseline, mid line and final line assessment of students of high and low literacy districts in Punjabi, English and Mathematics respectively for the subjects of Punjabi, English and Mathematics. For the subject of Punjabi at BAS 18.16% of students from high literacy districts and 25.89% students from low literacy districts were able to write Punjabi; on MAS 36.09% students from high literacy districts and 38.41% students from low literacy districts; and on FAS 56.32% of high literacy and 56.69% students from low literacy districts were able to write only Punjabi successfully. For subject of English on BAS 11.49% students of high literacy; on MAS 40.45%; and FAS 62.29%, while from low literacy districts on BAS 28.48%; and on MAS 48.20%; and on FAS 57.98% students were able to write successfully. For subject of Mathematics, students from high literacy districts on BAS 19.31%; on MAS 49.88%; and on FAS 75.17%; while from low literacy districts on BAS 19.85%; on MAS 42.73%; while on FAS 64.02% were able to solve Mathematical problems successfully. In the subject of Punjabi students from low literacy districts performed better than high literacy district students. In English students from low literacy districts performed better than high literacy districts on BAS and MAS respectively, while students from high literacy districts performed better on FAS than students from low literacy districts. In Mathematics students from low literacy districts performed better than students from high literacy districts on BAS while for MAS and FAS students from high literacy districts performed better than students from low literacy districts.

### 5.3. Analysis of Scholastic Achievement scores in relation to Gender

The analysis of scholastic achievement scores of 2<sup>nd</sup> standard male and female students in the subjects of Punjabi, English and Mathematics is presented in table 3.

**Table 3. Scholastic achievement of 2<sup>nd</sup> standard Male and Female students' of Punjab**

Subjects	Gender	BAS (in %)	MAS (in %)	FAS (in %)
Punjabi	Male	19.06	31.11	51.61
	Female	26.65	43.72	61.32
English	Male	18.52	42.08	58.09
	Female	25.26	48.25	61.14
Mathematics	Male	19.06	46.58	67.08
	Female	20.20	44.42	69.51

It's evident from table- 3 that out of 556 male students only 19.06% on BAS; 31.11% on MAS; and 51.61% of FAS; were able to write Punjabi correctly. For English this percentage was 18.52% on Baseline; 42.08% of Mid line; and 58.09% of the Final Line assessment survey. In Mathematics only 19.06% male students in Baseline; 46.58% at Mid line; and 67.08% of Final line assessment; we're able to solve Mathematical problems correctly.

Out of 574 female students only 26.65% students at Baseline; 43.72% at Mid line; and 61.32% of Final line assessment were able to write Punjabi correctly. For English this percentage was 25.26% at Baseline; 48.25% at Mid line; and 61.14% in Final line assessment survey. For Mathematics only 20.20% students at Baseline; 44.42% at Mid line; and 69.51% of Final line assessment were able to solve Mathematical problems correctly. In overall scenario, in all the surveys, female students outshine the male students.

Further, the analysis of scholastic achievement scores in the subjects of Punjabi, English and Mathematics of the 2nd standard male and female students belonging to high and low literacy districts is presented in table 4:

**Table 4. Gender wise Scholastic Achievement of 2<sup>nd</sup> standard Students of High and Low Literacy Districts**

Districts	Gender	Phases	Punjabi (%age)	English (%age)	Mathematics (%age)
High literacy	Male	BAS	16.20	9.25	16.20
		MAS	29.16	35.18	49.07
		FAS	51.38	60.61	74.07
	Female	BAS	20.09	13.69	22.37
		MAS	42.92	45.66	50.68
		FAS	61.18	63.92	76.25
Low literacy	Male	BAS	20.88	24.41	20.88
		MAS	32.35	46.47	45.00
		FAS	51.76	56.47	62.64
	Female	BAS	30.70	32.39	18.87
		MAS	44.22	49.85	40.56
		FAS	61.40	59.43	65.35

From the table- 4, it is clear that in high and low literacy districts males and females performed differently in subjects of Punjabi, English and Mathematics at base line, mid line and final line assessment. Female students of high literacy districts performed better than males in Punjabi, English and Mathematics at BAS, MAS and FAS; whereas female students from low literacy districts performed better than males at BAS and MAS in Punjabi and English but male students performed better at BAS and MAS in Mathematics while female students performed better at FAS.

#### **5.4. Comparative Analysis of Scholastic Achievement scores of students in Punjabi, English and Mathematics on BAS, MAS and FAS**

For the present sample on the basis of Skewness and Kurtosis, Shipiro- Wilk test p- value, Histograms, Normal Q- Q plots, it was observed that present sample was not normally distributed. Hence, non- parametric tests were used instead of parametric tests to analyse the data. The Friedman test for Ranks was used to find the significance of difference between the three surveys. The results of the comparison of three assessment surveys are presented in mean rank in table 5.

**Table 5. Friedman test for Ranks: To Compare BAS, MAS and FAS in the Subjects of Punjabi, English and Mathematics**

Phases	Ranks		
	Mean Rank		
	Punjabi	English	Mathematics

<b>BAS</b>	1.76	1.70	1.63
<b>MAS</b>	1.98	2.04	2.01
<b>FAS</b>	2.26	2.26	2.36

From table- 5, it is clear that on rank scores, there is a progressive increase in the scholastic achievement of students in Punjabi, English and Mathematics on Baseline assessment survey, Mid line assessment survey and Final assessment survey. The significance of difference can be checked from table- 6 of Test Statistics.

**Table 6. Test Statistics**

	<b>Punjabi</b>	<b>English</b>	<b>Mathematics</b>
<b>N</b>	1130	1130	1130
<b>Chi-</b>	524.94	606.59	801.14
<b>df</b>	2	2	2
<b>Asymp.</b>	.000	.000	.000

From table- 6, it is clear from the Chi square,  $X^2$  (df= 2, N= 1130) is 524.94 (BAS), 606.59 (MAS), 801.14 (FAS). As  $p < 0.05$  shows that significant differences exist in the scholastic achievement of students in Punjabi, English and Mathematics on BAS, MAS and FAS. Hence null hypothesis  $H_0$  stating that there is no significant effect on the scholastic achievement in written expression of 2<sup>nd</sup> standard primary school students of Punjab in the subjects of Punjabi, English and Mathematics on BAS, MAS and FAS due to various SSA interventions got rejected. Hence, to further find the difference in scholastic achievement of students in relation to gender and district literacy rate, the Non- parametric test, i.e. Wilcoxon Mann-Whitney U is used to find the difference between the Baseline assessment survey and Mid line assessment survey; Baseline assessment survey and Final assessment survey; and Mid line assessment survey and Final assessment survey.

### 5.5. Comparison of Scholastic Achievement of Students in relation to Gender

For comparing the scholastic achievement of students on Punjabi, English and Mathematics in BAS, MAS and FAS in relation to gender; the Non- parametric test, i.e. Wilcoxon Mann-Whitney U is used and results are presented in table 7 and 8

**Table 7. Wilcoxon Mann-Whitney U test: Comparison of Scholastic Achievement of Students in relation to Gender**

	<b>Sex</b>	<b>N</b>	<b>Mean Rank</b>		
			<b>Punjabi</b>	<b>English</b>	<b>Mathematics</b>
<b>BAS</b>	Male	556	543.72	546.17	562.73
	Female	574	586.60	584.23	568.18
	Total	1130			
<b>MAS</b>	Male	556	529.30	547.79	571.69
	Female	574	600.56	582.66	559.50
	Total	1130			
<b>FAS</b>	Male	556	537.65	556.73	558.54
	Female	574	592.48	574.00	572.24
	Total	1130			

From table- 7 it is clear that female students outperformed male students in Punjabi and English in BAS, MAS and FAS as their mean rank scores are higher than male students. In Mathematics male students were better than female students only in MAS; hence it can be concluded that female students were better than male students

in Punjabi, English and Mathematics. The significance of statistical difference can be confirmed from table 8 of test statistics for the Wilcoxon Mann-Whitney U test.

**Table 8. Wilcoxon Mann-Whitney U- Test Statistics: Scholastic Achievement of Students in relation to Gender**

<b>Subjects: Punjabi</b>	<b>BAS</b>	<b>MAS</b>	<b>FAS</b>
Mann-Whitney U	1.475	1.394	1.441
Wilcoxon W	3.023	2.943	2.989
Z	-3.033	-4.376	-3.289
Asymp. Sig. (2-tailed)	.002	.000	.001
<b>English</b>	<b>BAS</b>	<b>MAS</b>	<b>FAS</b>
Mann-Whitney U	1.488	1.497	1.547
Wilcoxon W	3.037	3.046	3.095
Z	-2.734	-2.083	-1.046
Asymp. Sig. (2-tailed)	.006	.037	.295
<b>Mathematics</b>	<b>BAS</b>	<b>MAS</b>	<b>FAS</b>
Mann-Whitney U	1.580	1.561	1.557
Wilcoxon W	3.129	3.212	3.105
Z	-.407	-.728	-.876
Asymp. Sig. (2-tailed)	.684	.467	.381

From table- 8, it is evident that the significance of statistical difference in the subject of Punjabi on the Wilcoxon Mann- Whitney U test statistic and associated significance is 1.475 ( $p < 0.05$ ) on BAS; on MAS 1.394 ( $p < 0.05$ ); and on FAS 1.441 ( $p < 0.05$ ). In English Mann- Whitney U test statistic and associated significance is 1.488 ( $p < 0.05$ ) on BAS; on MAS 1.497 ( $p < 0.05$ ); and on FAS 1.547 ( $p > 0.05$ ). For Mathematics Wilcoxon Mann- Whitney U test statistics and associated significance is 1.580 ( $p > 0.05$ ) on BAS; on MAS 1.561 ( $p > 0.05$ ); and on FAS 1.557 ( $p > 0.05$ ). Hence the null hypothesis  $H_0$  stating that there is no significant difference in the scholastic achievement in written expression of 2<sup>nd</sup> standard male and female students of primary schools of Punjab on BAS, MAS and FAS in the subjects of Punjabi, English and Mathematics due to various SSA interventions is rejected on BAS, MAS and FAS of Punjabi; and for BAS and MAS in English; but null hypothesis is accepted for English on FAS; and for Mathematics null hypothesis is accepted for BAS, MAS and FAS.

#### **5.6. Comparison of Scholastic Achievement of students in relation to Literacy rate of Districts**

For comparing the scholastic achievement of students on Punjabi, English and Mathematics in BAS, MAS and FAS in relation to Literacy rate of districts; the Non-parametric test, i.e. Wilcoxon Mann-Whitney U is used and results are presented in table 9 and 10.

**Table 9. Wilcoxon Mann-Whitney U test: Comparison of Scholastic Achievement of Students in relation to Literacy rate of Districts**

	District	N	Mean Rank		
			Punjabi	English	Mathematics
BAS	High literacy	435	538.61	506.44	563.10
	Low literacy	695	582.33	602.46	567.00
	Total	1130			
MAS	High literacy	435	557.42	538.60	590.35
	Low literacy	695	570.56	582.34	549.95



	Total	1130			
FAS	High literacy	435	564.22	580.49	604.22
	Low literacy	695	566.30	556.12	541.26
	Total	1130			

From table- 9 it is clear that on mean rank scores, students from low literacy rate districts outperformed high literacy rate districts, students in Punjabi on BAS, MAS and FAS; in English students from low literacy rate districts performed better on BAS and MAS but on FAS students from high literacy rate districts performed better. In Mathematics students from low literacy rate districts performed better only at BAS; while on MAS and FAS students from high literacy rate districts outperformed students of low literacy rate districts.

**Table 10. Wilcoxon Mann-Whitney U - Test Statistics: Scholastic Achievement of Students in relation to Literacy rate of Districts**

<b>Punjabi</b>	<b>BAS</b>	<b>MAS</b>	<b>FAS</b>
Mann-Whitney U	1.395	1.476	1.506
Wilcoxon W	2.343	2.425	2.454
Z	-3.010	-.785	-.122
Asymp. Sig. (2-tailed)	.003	.432	.903
<b>English</b>	<b>BAS</b>	<b>MAS</b>	<b>FAS</b>
Mann-Whitney U	1.255	1.395	1.446
Wilcoxon W	2.203	2.343	3.865
Z	-6.713	-2.543	-1.437
Asymp. Sig. (2-tailed)	.000	.011	.151
<b>Mathematics</b>	<b>BAS</b>	<b>MAS</b>	<b>FAS</b>
Mann-Whitney U	1.501	1.404	1.343
Wilcoxon W	2.450	3.822	3.762
Z	-.283	-2.348	-3.916
Asymp. Sig. (2-tailed)	.777	.019	.000

From table- 10 it is clear that Wilcoxon Mann- Whitney U test statistic and associated significance is 1.395 ( $p < 0.05$ ) on BAS; on MAS 1.476 ( $p > 0.05$ ); and on FAS 1.506 ( $p > 0.05$ ) in Punjabi. In English Wilcoxon Mann- Whitney U test statistic and associated significance is 1.255 ( $p < 0.05$ ) on BAS; on MAS 1.395 ( $p < 0.05$ ); and on FAS 1.446 ( $p > 0.05$ ). For Mathematics Wilcoxon Mann- Whitney U test statistic and associated significance is 1.501 ( $p > 0.05$ ) on BAS; on MAS 1.404 ( $p < 0.05$ ); and on FAS 1.343 ( $p < 0.05$ ). Hence the null hypothesis  $H_0$  stating that there is no significant difference in the scholastic achievement in written expression of 2<sup>nd</sup> standard students of primary schools of Punjab on BAS, MAS and FAS in the subjects of Punjabi, English and Mathematics in the districts with high and low literacy rate due to various SSA interventions is rejected for BAS of Punjabi and English; MAS of English and Mathematics; and for FAS of Mathematics. But is accepted for MAS and FAS of Punjabi; for FAS of English; and BAS of Mathematics.

The results of Mann- Whitney U test for mean rank further illustrate that on mean ranks, students of low literacy rate districts performed better than high literacy rate districts on BAS, MAS and FAS on the subject of Punjabi; on the subject of English, students of the districts with high literacy rate out performed students of low

literacy rate districts on FAS; but in Mathematics students of high literacy rate districts performed better on MAS and FAS.

**6.0. Conclusions:** The following conclusions were drawn from the results:

- A significant increase in the scholastic achievement of 2<sup>nd</sup> standard students in Punjabi, English and Mathematics in Punjab was recorded.
- Female students performed better on BAS, MAS and FAS than males in Punjabi and English, on the other hand male students performed better only at MAS in Mathematics, but in overall survey girls outperformed the boys.
- Students of low literacy rate districts performed better in Punjabi than high literacy rate districts; whereas in English students from high literacy districts performed better on FAS; while in Mathematics students from low literacy districts performed better on BAS; but on MAS and on FAS students from high literacy districts performed better than students from low literacy districts. Majority of the times students from low literacy districts performed better than the students from high literacy districts, but it was also observed that with the advancement of academic session towards MAS and FAS, students from high literacy rate districts performed better than students of low literacy rate districts.
- There is a positive increase in the mean rank scores of Punjabi, English and Mathematics from BAS to MAS and finally to FAS. It shows that with the SSA interventions at MAS and FAS students' scholastic achievement has increased.
- Test statistics for gender also show that there was a significant difference in the scholastic achievement of male and female students in Punjabi on BAS, MAS and FAS; but in English there was significant difference only on BAS and MAS. On the other hand, there was no significant difference in the scholastic achievement of male and female students in the case of Mathematics. It was also observed that with the advancement of academic session towards MAS and FAS, male students and female performed equally on the scholastic achievement level.
- Test statistics in case of districts also showed that in Punjabi there was a significance difference in the scholastic achievement of students from high literacy rate district and low literacy rate districts only on BAS; in English significant difference was only in BAS and MAS; while in Mathematics there was a significant difference in the scholastic achievement of high literacy rate districts and low literacy rate districts only at MAS and FAS.

### 7.0. Discussion

Sarva Shiksha Abhiyan includes various interventions for the fulfillment of achievement of Universalization of Elementary Education; like innovative activities for girl's education, capacity building of teachers, training, teacher grant, recruitment of teachers and learning enhancement programs and the present study has shown that these interventions has a positive impact on the scholastic achievement of students in Punjabi, English and Mathematics. These results are in contrary to the previous studies (EdCil, 2005 and Srivastava, Bala, Sexena and Arora, 2009) which showed a decline in the achievement of primary school students. ASER (2012) in its report covered the learning levels of standard 1<sup>st</sup>- 2<sup>nd</sup> students and in Punjab only in reading and observed that 86.3% children can read letters, words or more successfully and 88.7% children can recognize numbers (1- 9) or more successfully. The present study investigated the written expression of students and a progressive increase was found in the written expression in case of Punjabi, English and Mathematics. Study of ASER (2012) and present study showed that in Primary schools of Punjab, along with reading, there was a progressive change in the scholastic achievement of students in written expression also. Hence it may be concluded that Sarva Shiksha Abhiyan

interventions are helpful in increasing the scholastic achievement of students in Punjabi, English and Mathematics in Punjab.

### **8.0. References**

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