



ANALYSIS OF LEARNING ACHIEVEMENT OF STUDENTS AT ELEMENTARY LEVEL

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Abstract

The present study focusses on the analysis of base line and end line results in Odia and Social science subjects of class 8 learners. The objectives of the study were to study the status of Learning Achievement of students in language Odia and Social Science at beginning of class VIII in relation to gender, to study the status of Learning Achievement of students in language Odia and Social Science after 6 months of transaction in class VIII in relation to gender & to ascertain the difference between the result of baseline study and end line (after 6 months) study in respect of language Odia and Social Science. The study revealed that Boys and Girls don't differ in their achievement in language Odia & Social science in the base line study, Boys and Girls do not differ in their achievement in language Odia & Social Science in the end line (after 6 months) study and result of baseline study and the result of end line (after 6 months) study in language Odia and Social Science differ significantly.

Key words: Analysis, Achievement, Elementary, Result.

Introduction

Academic Achievement covers learning within curricular and co-curricular areas and remains in the focus of all associated in teaching learning activities. It includes achievement in the life of the school and outside the school. Family, school and environment influence learning achievement in the Social Science and Language (Odia) to a great extent. National Achievement Survey (NAS) 2017 reported that, overall achievement of students in Social Science and Language (Odia) in class VIII in Odisha is trailing behind the national average. The said survey observed that students from groups, comprising Scheduled Castes, Scheduled Tribes and General categories score significantly lower in Social Science and Language (Odia) than students at national level. Sun. J.C. Y and Wu, Y.T. (2016) the interaction in the flipped classroom had a positive effect on students' learning achievement. This model allows for adequate teacher-student interaction. Teachers can provide guidance and assistance to students frequently. Further, it is found from the regression analysis that locality of schools and social category contributes significantly to learning achievement in social science & mother tongue.

Learning Achievement is the level of students' success in learning the subject matter in school that are expressed in the form of scores obtained from the results of tests on a particular subject matter, (Shah, M. 2008).

Learning achievement is the acquisition of knowledge or skills that are developed by subject matter, usually indicated by test scores or numerical value is assigned by teachers, (Sincere,T,2004). Learning achievement may be affected by several things. The external factors and internal factors affect the achievement of this study, (Slameto, 2003).

Academic achievement analysis offers timely information that could be useful to know the successes and challenges that are found in the learning of the contents of the areas evaluated. It is helpful for the improvement of the educational system. Student achievement refers to the extent to which a learner has attained their short or long-term educational goals. Individual differences in academic performance are strongly correlated with differences in personality and intelligence.

Research shows that education in the mother tongue is a key factor for inclusion and quality learning. It also improves learning outcomes and academic achievement. This is vital to avoid knowledge gaps at elementary classes. Learning through mother tongue increases the ability of learning and comprehension. In our state Odia is the medium of instruction. So the students of Government Elementary schools in Odisha learn with the help of Odia language. Further we may understand that Odia is the official language of our state and the second official language of Jharkhand.

The social sciences encompass diverse concerns of society and include a wide a range of content, drawn from the disciplines of history, geography, political science and economics. The selection and organization of material into a meaningful social science curriculum is a challenging task. New dimensions and concerns are developing students' own life experiences. It is important to reinstate the significance of the social sciences by not only highlighting its increasing relevance for a job in the rapidly expanding service sector, but by pointing to its indispensability in laying the foundations for an analytical and creative mindset. It is often presumed that only natural and physical phenomena lend themselves to scientific inquiry, and that knowledge areas pertaining to the human sciences (history, geography, economics, political science etc.) cannot be, by their very nature "scientific".

Review of Related Literature:

Review of related literature plays a vital role or major step in research. It provides the rationale or basis for formulating hypotheses providing explanations and suggesting further researches. It helps the investigator to proceed on his work in the light of previous work or similar work and minimizes wrong move. Hence the investigators have gone through the following studies.

Sarmah, D & Borah, J (2019) conducted the study on "A study on the Academic Achievement of 8th Grade Students in English Language at Likabali Circle of Lower Siang District of Arunachal Pradesh", Vol. 7, Issue 3, pp: 514-521. The study revealed that performance of 8th grade students of Likabali Circle of Lower Siang District of Arunachal Pradesh in English language is poor. The average performance of the students is below 50% in English language. **Sreekanth, Y (2016)** presented the paper entitled as "Students' Educational Achievement at school Level: An Analysis across Social Categories", conference paper. The study reveals that higher socio-economic status has a positive influence on students' mean achievement and the performance of SC

and ST students is lower than that of OBC and General category students in general across the cycles. **Dev, M (2016)** studied on “Factors Affecting the Academic Achievement: A Study of Elementary School Students of NCR Delhi, India”, Journal of Education and Practice, Vol.7, No.4. The study reveals that General Mental Ability, home environment, Interest and academic achievement are significantly and positively correlated. Whereas the high score of girls indicates that they are superior to boys.

Azim Premji Foundation (2004), Status of Learning Achievements in India: A Review of Empirical Research. The study reveals that performance of learners not only depends upon school inputs but also influenced by many other socio-economic contextual factors. **Saroh, T (2015)** A Study on Academic Achievement of Elementary School Students in East Siang District of Arunachal Pradesh, International Journal of Humanities & Social Science Studies (IJHSSS), Vol. II, Issue: III. The study reveals that the students poor academic achievements indifferent subjects in the selected district of Arunachal Pradesh. The findings also revealed the very low academic achievement of both male and female students in mathematics subject respectively. **Goyal, S (2007)** Learning Achievements in India: A Study of Primary Education in Orissa, Document of the World Bank. This indicates there is much room for improving the cost-effectiveness of public sector education provision. Among other determinants, we find that social group, household wealth and mother’s literacy have significant but small impacts on test scores.

Mishra, A. M. studied on “Impact of Teaching in Local Dialect on the Tribal Children Living in Remote Tribal Area”, Rajeev Gandhi Shiksha Mission, Raipur. The study reveals that RTE Act stipulates that there should be a classroom for every teacher. This means the number of classrooms required for a school would be same as teachers required for that school. There are about 24 percent schools with shortage of classroom at primary level and about 26 percent at upper primary level. **Kujue, P. K & Krishna, D (2019)** conducted the study on “Analysis of English Language Learning Outcome among Tribal Students of Class VIII of Government Schools of Gumla District, Jharkhand”, Pedagogy of Learning, Vol. 5 (2), Page 25-36. The study revealed that students have difficulty in understanding and comprehending the language, its grammar and its usage. Language learning outcome of tribal learners is found to be inadequate and appropriate pedagogical practices have to be adopted to ensure better quality learning.

Beka, M. B. (2016) studied on Mother Tongue as a Medium of Instruction: Benefits and Challenges, International Journal of Innovative Language, Literature & Art Studies 4(1):16-26.

The study revealed that learning in mother tongue boosts their self- confidence, psychological stamina, self-expressive skills, clarity of classroom communication and instruction (concepts, abstracts, meanings, and other instructional elements are easily understood), academic achievement and overall quality education. Some students reported that use of mother tongue as a medium of instruction at earlier grades contributed to low competencies in other languages and greatly contributed to writing, spelling, reading, and pronunciation errors in English and other languages usage. Among the predictor variables included in the study, mothers’ level of education, fathers’ and mothers’ occupation were found to be important predictors of students’ attitude towards mother tongue as a medium of instruction.

Dash, M & Nanda, G. C (2021) studied on Learning Achievement of Class- VIII Students in Science in relation to Locality of School, Gender and Social Category , AJMRR, Volume-2, Issue-4.

The study revealed that:

- i. Rural students perform better than their urban counterparts.
- ii. General students demonstrate better learning achievement with a mean score of 31.82 as compared with SEBC, SC and ST students with mean scores of learning achievements 30.12, 18.09 and 11.87 respectively.
- iii. It is found from the regression analysis that locality of schools and social category contributes significantly to learning achievement in science.

Nishanthi, R. (2020) conducted the study on “Understanding of the Importance of Mother Tongue Learning”, International Journal of Trend in Scientific Research and Development (IJTSRD), Volume 5, Issue-1. The study revealed that learning to speak in the mother tongue is very necessary for a child’s comprehensive development. Being fluent in the mother tongue, which is also known as the native language, benefits the child in numerous ways. It associates him to his culture, ensures enhanced cognitive development, and supports in the learning of other languages.

Rationale of the Study

The National Achievement Survey (NAS) provides information about the knowledge and abilities of students in government and government-aided elementary schools. These are based on tests of students of Classes III, V and VIII. The NAS are conducted under the Government’s flagship programme Samagra Shiksha Abhiyan (SSA), which has been successful in ensuring greater access, equity and quality in elementary education. Test scores in the report are presented on a scale from 0 and 500. The national average was set to 250 and the standard deviation was set to 50. This means about 70% of students could potentially score between 200 and 300, and 95% of students could score between 150 and 350. NAS is not a test for each individual student or school. NAS results are based on carefully selected samples of students, further weighted by population to be generalized to the individual state. The ‘Standard Error’ is an estimate of the likely variation that may occur. For example if the average language score for students in a State was 247 with an estimated standard error of about 2.1 scale point, then the ‘true’ value of the State’s average language score lies on the range of 244.9 to 249.1. If you want to look into these results in more depth please refer to the individual state report produced separately or the national report.

The cited studies reveal that analysis of result helps for improving the learning achievement of the learners. After reopening of schools, a base line test was conducted to know the position of learners in the subject like, Mother tongue (Odia), Mathematics, Social Science and English. The result of base line test in all subjects in Angul block was analyzed to know the status of the block. But it is noticed that performance of students in class VIII of Angul block in the subject like Social Science and Language (Odia) is poor in comparison to the students of all other blocks in Angul district. Hence, it was decided to conduct the study entitled as “**Analysis of Learning Achievement of Students at Elementary Level.**”

Operational Definitions

- **Analysis:** Careful examination of different parts or details of something. The result or learning achievement of learners will be examined in different areas related to their strength weakness.
- **Learning Achievement:** Learning achievement can be meant the result achieved by students in learning process. In this study, the learning achievement refers to the students' achievement in the subjects like Social Science and Language (Odia).

Objectives of the Study

- To study the status of Learning Achievement of students in language Odia and Social Science at beginning of class VIII in relation to gender.
- To study the status of Learning Achievement of students in language Odia and Social Science after 6 months of transaction in class VIII in relation to gender.
- To ascertain the difference between the result of baseline study and end line (after 6 months) study in respect of language Odia and Social Science.

Hypotheses of the Study

- i. There is no significant difference between boys and girls in their achievement in language Odia in the base line study.
- ii. There is no significant difference between boys and girls in their achievement in Social Science in the base line study.
- iii. There is no significant difference between boys and girls in their achievement in language Odia in the end line (after 6 months) study.
- iv. There is no significant difference between boys and girls in their achievement in Social Science in the end line (after 6 months) study.
- v. There is no significant difference between the result of baseline study and the result of end line (after 6 months) study in language Odia.
- vi. There is no significant difference between the result of baseline study and the result of end line (after 6 months) study in Social Science.

Delimitation

- The present study was delimited to the Government Elementary and Secondary Schools of Angul Block in Angul District.
- The present study was delimited to the Learning Achievement of two subjects like Social Science (History, Political Science, Geography and Economics) and Language (Odia) of class VIII students.

Method of the Study

In order to analyze the learning achievement of students of class VIII in Angul Block, the survey method was followed to collect the required data.

Design of the Study

The researcher followed the baseline test and end line (after 6 months) test design to conduct the present study.

Population of the Study

All the class VIII students of Angul Block in Angul District of Odisha were the population of the present study.

Sample of the Study:

60 number of class VIII students of 06 number of Elementary and Secondary Schools in Angul Block of Angul District were selected as sample.

Tools:

In the present study, questionnaire for Baseline Test in language (Odia) and Social Science (History, Political Science, Geography and Economics) of class VIII constructed by the Directorate of TE and SCERT, Odisha, Bhubaneswar were used to conduct the baseline study.

The questionnaire for End line Test in language (Odia) and Social Science (History, Political Science, Geography and Economics) was constructed by the investigators organizing a workshop with teachers, CRCCs and experts who are working in the schools and teacher education institutions. Former faculties of education were involved to finalize the tools.

All the items were objective type only. The credit of one mark was given to each correct answer. 15 items were in the test of language (Odia) and 15 items were in the test of social science. 30 minutes time was given for language (Odia) and Social Science subjects each. Proper instruction was given how to answer the questions. In the instruction, it was mentioned that the result would be kept confidential would no way influence their carrier. Before administration of the tests proper rapport was developed and learners were motivated to respond all the items.

Procedure of Data Collection

Odia versions of questionnaire of both the subjects like Odia and Social Science in class VIII were administered during baseline study and end line study to obtain the data. Prior to administer the test, proper rapport was developed with the school authorities, teachers and students. After baseline study (Pre-test) six months intervention was given. Then after end line study (post test) was conducted. No time limit was imposed but all the students were requested to respond to all the items. Students were instructed to put a tick (\checkmark) mark in the correct response of the options provided in the response sheet.

Result of Baseline Study:**Table: 1**

Difference between boys and girls in their achievement in Language Odia & Social Science

Sl. No	Groups	Odia				Social Science			
		N	Mean	S. D	't' Value	N	Mean	S. D	't' Value
01	Boys	30	9.3	4.51	0.596	30	8.9	5.565	0.599
02	Girls	30	10	4.58		30	8.166	3.755	

* Not significant at 0.01 and 0.05 levels.

The table no. 1 shows that the obtained 't' value is 0.596 which does not exceed from the value 1.96 at 0.05 level and 2.58 at 0.01 level. So it is inferred that, there is no significant difference between boys and girls in their achievement in language Odia in respect of base line study. Hence, the hypothesis "There is no significant difference between boys and girls in their achievement in language Odia in the base line study" is retained.

As the 't' value is 0.599 which does not exceed from the value 1.96 at 0.05 level and 2.58 at 0.01 level. So it is inferred that, there is no significant difference between boys and girls in their achievement in Social Science in respect of base line study. Hence, the hypothesis "There is no significant difference between boys and girls in their achievement in Social Science in the base line study" is retained.

Result of End line Study**Table: 2**

Difference between boys and girls in their achievement in Language Odia & Social Science

Sl. No	Groups	Odia				Social Science			
		N	Mean	S. D	't' Value	N	Mean	S. D	't' Value
01	Boys	30	12.5	1.5	0.251	30	11.336	2.975	0.75
02	Girls	30	12.667	1.24		30	11.834	2.105	

* Not significant at 0.01 and 0.05 levels.

The table no. 2 shows that the obtained 't' value is 0.251 which does not exceed from the value 1.96 at 0.05 level and 2.58 at 0.01 level. So it is inferred that, there is no significant difference between boys and girls in their achievement in language Odia in respect of end line study. Hence, the hypothesis "There is no significant difference between boys and girls in their achievement in language Odia in the end line (after 6 months) study" is retained.

As the obtained 't' value is 0.75 which does not exceed from the value 1.96 at 0.05 level and 2.58 at 0.01 level. So it is inferred that, there is no significant difference between boys and girls in their achievement in Social

Science in respect of end line study. Hence, the hypothesis “There is no significant difference between boys and girls in their achievement in Social Science in the end line (after 6 months) study” is retained.

Comparison of the Results

Table: 3

Result of Baseline Study and End line Study in Odia & Social Science

Sl. No	Groups	Odia				Social Science			
		N	Mean	S. D	't' Value	N	Mean	S. D	't' Value
01	Boys	30	10	4.58	4.194	30	9.083	5.07	3.416
02	Girls	30	12.584	1.375		30	11.584	2.59	

* Significant at 0.01 and 0.05 levels.

The table no. 3 reveals that the obtained 't' value is 4.194 which exceed from the value 1.96 at 0.05 level and 2.58 at 0.01 level. So it is inferred that, there is significant difference between baseline and end line results in their achievement in language Odia. Hence, the hypothesis “There is no significant difference between the result of baseline study and the result of end line (after 6 months) study in language Odia” is rejected.

As the obtained 't' value is 3.416 which exceed from the value 1.96 at 0.05 level and 2.58 at 0.01 level. So it is inferred that, there is significant difference between baseline and end line results in their achievement in Social Science. Hence, the hypothesis “There is no significant difference between the result of baseline study and the result of end line (after 6 months) study in Social Science” is rejected.

Findings of the Study

The findings of the study are stated below.

- i. Boys and Girls don't differ in their achievement in language Odia & Social science in the base line study as $p < 0.05$ & 0.01 .
- ii. Boys and Girls do not differ in their achievement in language Odia & Social Science in the end line (after 6 months) study as $p < 0.05$ & 0.01 .
- iii. Result of baseline study and the result of end line (after 6 months) study in language Odia and Social Science differ significantly as $P > 0.05$ and 0.01 .

Conclusion

Present study revealed that the academic achievement mean score of the students of class VIII in language Odia and Social Science differ significantly. It was ascertained that there exist no significant difference between the academic achievement of boys and girls in language Odia and Social Science at class viii in relation to baseline study and end line study. The study also revealed that the mean score of boys were found to be more than that of the girls in relation to baseline and end line study. The in-service training programmes, workshops of teachers & CRCCs, various exposure and academic support facilitate the teachers for transaction of learning materials in language Odia and Social Science in an effective manner which reflected in the end line test.

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