

# Effect of Constructivist Approach on Academic Achievement of Elementary School Students in Hindi

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## ABSTRACT

The present study was attempted to find out the effect of constructivist approach on academic achievement of elementary school students in Hindi. Experimental design consisting of one control and one experimental group was followed. Pre-test of academic achievement in Hindi was given to seventh class students. 60 students of VII class were selected via purposive sampling. 30 students was treated as experimental group and give treatment according to the lesson plans prepared by using constructivist approach and 30 students was treated as control group using traditional method of teaching. Elementary school students taught by constructivist teaching approach exhibit significant higher level of academic achievement in Hindi as compared to those taught by traditional method of teaching.

**Keywords:** Academic Achievement, Constructivist approach, Effect, Traditional Method etc.

Constructivism is basically a theory based on observation and scientific study about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, explore, and assess what we know. Constructivism is a learning theory based on the idea that new knowledge is “constructed” on top of learners’ existing knowledge. According to the theory, students are not “empty vessels” that need to be “filled.” Rather, students’ existing knowledge serves as an important foundation for new learning. This approach to teaching and learning requires that teachers take the time to get to know students in depth, and to integrate what they learn about students into their instruction. In other words, a constructivist classroom is a student-centred classroom. Academic achievement is a complex phenomenon. It is the core of educational growth. Its importance can be judged when we realize that fuller and happier life, which we wish for every child, would be impossible unless she/he has attained a high degree of proficiency in school subjects. In the present academic or educational age, accomplishment quotient or achievement quotient is the most commonly used term to indicate the level of academic achievement of pupils in general or in specific subject-matter. Thus, achievement indicates the relative position of an individual in a group,

regarding his accomplishments, proficiency or performance in a given skill or a body of knowledge.

### **Objectives:**

1. To construct the Constructivist Approach for teaching concepts of Hindi Grammar to seventh class students.
2. To study the effect of Constructivist Teaching Approach on Academic Achievement of Elementary School Students in Hindi.

**Hypothesis:** There will be no significant difference in the efficacy of constructivist teaching approach as compared to traditional method of teaching on academic achievement of elementary school students in Hindi.

### **Delimitations:**

1. The study was delimited to seventh class students.
2. The study was delimited to only one school.
3. Concepts of Academic Achievement were delimited to Academic Achievement in the subjects of Hindi Grammar only.
4. The sample of the study was collected through Purposive Sampling.
5. The experiment was limited to only seven days of the academic session.

**Design:** Experimental design consisting of one control and one experimental group was followed to pursue the study. Pre-test of academic achievement in Hindi was given to seventh class students. Constructivist Model in the subject of Hindi was administered to the experimental group for 7 days and the traditional teaching capsule was given to the control group during these 7 days. At the end of the experiment, post-test in academic achievement to measure the acquisition of concepts of Hindi was given to the students of both the groups.

**Sample:** In the proposed study, investigator was selected 60 students of VII class on the basis of academic achievement in Hindi in grade VI and knowledge of Hindi from Jasdev Public School, Kauli, Patiala via purposive sampling. Out of these 60 students, 30 students was treated as experimental group and give treatment according to the lesson plans prepared by using constructivist approach and 30 students was treated as control group using traditional method of teaching.

### **Research Tools:**

- One self made Academic Achievement test (Criterion test) for the one topic of Grammar- “Verbs and its Types” in the subject of Hindi for seventh class was framed; to be used for pre-test as well as post-test.
- Instructional Material (Teaching Episodes) for implementing Constructivist Teaching Approach in Hindi (Developed by the Investigator).
- Instructional Material in Hindi Based on Traditional Method of Teaching (Developed by the Investigator).

### **Discussion and Results:**

**Analysis related with Initial Behaviour of the Students:** For this purpose, the criterion test (pre-test) was administered. The possible range of scores on the pre-test was 0 to 20. In the present study the scores for the experimental group A and Control group B ranged from 6 to 13. The values of means and SDs on the pre-test score for the three groups are shown in table 1.

**Table 1: Means and SDs of Criterion Test (Pre-Test) Scores of Subjects of Groups A and B**

| Group                                   | No. of Subjects | Mean | SD   | t-value | Remarks |
|---|-----------------|------|------|---------|---------|
| <b>A Constructivism</b>                 | 30              | 9.97 | 1.54 | 0.1     | NS      |
| <b>B Traditional Method of Teaching</b> | 30              | 9.93 | 1.59 |         |         |

NS: Not Significant

The mean values for the two groups came out to be 9.97 and 9.93 respectively. These values show that the initial behaviours regarding the knowledge of Hindi of two groups were very similar. The t-value of criterion test (pre-test) is shown in Table as 0.01 which were found to be non-significant. Thus, all the two groups were found to be homogeneous with regard to their initial behaviour i.e. knowledge of Hindi.

**Analysis related with Terminal Behaviour of the Students:** In the second part, the terminal behaviour of the experimental group A and control group B was determined on the completion of the treatment. For this purpose the criterion test in Hindi (post-test) was administered. The values of means and SDs on the post-test score for the two groups are shown in table 2.

**Table 2: Means and SDs of Criterion Test (Post-Test) Scores of Subjects of Groups A and B**

| Group                                   | No. of Subjects | Mean  | SD   | t-value | Remarks     |
|---|-----------------|-------|------|---------|-------------|
| <b>A Constructivism</b>                 | 30              | 15.27 | 1.72 | 2.75**  | Significant |
| <b>B Traditional Method of Teaching</b> | 30              | 14.17 | 1.37 |         |             |

\*\*Significant at 0.01 level

The mean values for the two groups came out to be 15.27 and 14.17, respectively. These values show that the terminal behaviours regarding the knowledge of Hindi of two groups were different. The pre-test mean scores and standard deviation of Hindi Achievement showed minor difference. This insignificance of difference is attributed to the fact that the two groups were almost equated on their level of Hindi achievement through pre-test to avoid any inherent difference in the group. On administering the post test for the same to the group A and B the mean difference were significant at 0.01 level.



**Figure: Mean Scores of Hindi Achievement**

In table 2 the t-value of criterion test (post-test) was revealed as 2.75 which was highly statistically significant at both levels of confidence. It means that the difference in mean scores of post test of the two groups was not by chance, but due to the influence of the treatment on the students. Hence, the hypothesis, “There is a significant difference in the efficacy of constructivist teaching approach as compared to traditional method on the academic achievement of elementary school students in Hindi” was rejected.

**Conclusions:** On the basis of results of the study Elementary school students taught by constructivist teaching approach exhibit significant higher level of academic achievement in Hindi as compared to those taught by traditional method of teaching.

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