

Effectiveness of Flipped Learning in the Academic Achievement of Secondary School Students in Hindi

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Abstract:- Flipped learning is a pedagogical approach where the conventional method of classroom-based learning is inverted, in which students are provided learning materials before attending the class. The class time is utilised to deepen understanding of the subject matter by promoting discussion among students and problem-solving activities under the supervision of teachers. Flipped learning is a learner centred model in which class hours are used for exploring topics in greater depth and for creating meaningful learning experiences. In flipped learning online videos / study materials about the subject to be taught are provided to students much earlier before they attend the class. The purpose of the present study was to test the effectiveness of Flipped learning in the academic achievement of students in Hindi. Experimental method was adopted for the study. The sample consists of 100 IXth Standard students selected from a Secondary School in Kerala. There were 50 students in the experimental group and the other 50 in the control group. The experimental group was exposed to Flipped learning and the control group was taught through the traditional method of instruction. The result of the study shows that the achievement of students exposed to Flipped learning was greater than that of their counterparts who were taught through traditional method of instruction.

Keywords :- *Flipped Learning, Innovation, Knowledge Construction, Collaborative Learning*

I. INTRODUCTION

The objective of Hindi language education in Kerala at School level is to make the learner master the language skills and use them effectively. But it is seen that there is huge gap between the attainment of the said objectives and the expected status achieved through the present instruction methods used. As the Official language of India, due importance should be given to modernize the instructional methods and strategies used in Hindi language instruction so that learning of Hindi becomes more appealing to students. Several creative and constructive innovative strategies are available to achieve this purpose. Flipped learning is one of the major innovations where the benefits of Information and Communication Technology (ICT) are effectively used in teaching-learning process. Instructional methods based on ICT can be effectively used in Hindi language instruction by providing learners access to information and thereby

promoting interaction and communication. ICT can be used in language teaching in a pedagogically sound way by understanding the individual needs of the learners. As ICT facilities are readily available now, the teacher can effectively blend them in teaching - learning process. Activity oriented teaching strategies blended with ICT supported instructional material should be adopted in the schools for effective learning.

The term ‘flipped learning’ came into use in the early mid-2000s when it was popularised by Jon Bergman and Aaron Sams (Bergmann and Sams 2012). The concept of flipped learning was introduced much earlier. Eric Mazur, Professor of Harvard University in 1990 had succeeded in developing a model of ‘Peer instruction’. In this model study material was provided to learners to study and reflect on before the actual class and the class time was utilised to encourage deeper cognitive thinking through peer interaction and instructor challenge. Eric Mazur called this “just in time teaching” (Crouch and Mazur 2001) and this model was later modified and developed integrating technological elements. At the International Conference on College Teaching and Learning in 2000 a presentation was delivered on ‘The Classroom Flip: Using Web Course Management Tools to Become a Guide by the Side’ (Baker 2000). It developed the ‘flip’ concept and emphasized the role of Learning Management Systems in delivering materials to students before class.

Technology orientation and activity centred learning are the key aspects of flipped learning strategy. This is an innovation in teaching where the learning material is delivered often online, outside the classroom. It can be considered as a modified type of Blended learning. In traditional teaching scenario, students complete homework at their homes. But in Flipped classrooms students work out home works sitting in the class through group activities.

In the traditional way of classroom setting, the teacher is the central focus of instruction and the primary disseminator of knowledge. In a classroom with traditional style of instruction, lessons are taught explaining the contents through lecture. Student engagement in the traditional classrooms may be limited to activities in which students work independently or in small groups on some tasks designed by the teacher. Classroom discussions are typically teacher centric. In Flipped learning, students are provided opportunities to watch on-line videos on the areas

under study, outside the classroom. They are free to watch the video in the IT lab or at their own homes. Students are directed to watch the videos carefully and note down the important aspects. For this, proper guidelines provided by the teachers, is of utmost importance. Students can watch the video many times also, in order to get a clear cut idea about the subject matter. The second important stage in Flipped learning is doing the home work which is not supposed to be done by students sitting in their homes. They have to complete the home work while in the class through collaborative efforts. The home works given should be suitable to trigger creative thinking abilities in learners. Problem solving activities, debates, group discussions, laboratory experiments, role play, preparation of mind maps and concept maps are given to students as homework which are highly beneficial for construction of knowledge, by students.

An experimental study was conducted to study the effectiveness of Flipped learning with a sample of 100 Secondary School students selected from Kollam district in Kerala.

II. PROBLEM SELECTED FOR THE STUDY

Effectiveness of Flipped learning in the academic achievement of Secondary School students in Hindi.

A. Objective of the Study

To test the effectiveness of Flipped learning in the academic achievement of Secondary school students in Hindi in Kerala

B. Hypothesis of the Study

Flipped learning strategy is more effective than the traditional method of teaching Hindi in the Secondary schools of Kerala

C. Sample Selected for the Study

The sample selected was 100 IXth Standard students selected from a Government School in Kollam district, Kerala. There were 50 students in the experimental group and the other 50 in the control group

D. Tool Used for the Study

Lesson transcripts prepared by the investigator for Flipped learning and traditional method of teaching Hindi and a video presented as part of the experimental study.

E. Methodology Used for the Study

Post- test experimental method was adopted for the study. The investigator prepared lesson manuals based on Flipped learning and traditional method of teaching. For the experimental study a poem from the text book of class IX titled ‘ Bache kam par ja rahe haim’ (‘Children are going to work’) was selected which is a poem on child labour. Initially a video on child labour was prepared by the investigator and sent through Whatsapp. As this facility was not available in the case of few students the video was presented to the students prior to one day before the actual class. Proper guidance was given to students prior to watching the video. After presenting the video home works in the form of debate, group discussion, poster designing were provided. The control group was taught through traditional method of instruction. After the experiment achievement test was conducted.

F. Statistical Techniques Used in the Study

Arithmetic Mean, Standard deviation and Critical ratio

III. ANALYSIS OF DATA

The Results of test of significance of the difference between the means of Post-test scores of Flipped learning group and the Control group on academic achievement

Post-test					
Groups	N	Mean	SD	C.R.	Level of Sig.
Flipped learning	50	24.8	3.51	3.12	0.01
Control	50	14.6	4.92		

Table 1:- shows the details of the test of significance of difference in mean Post test scores of academic achievement between the students exposed to Flipped learning and control group using ‘t’ test. The mean scores of the experimental and control groups are 24.8 and 14.6 respectively. The standard deviation of the experimental group is 3.51 and that of the control group is 4.92. The level of significance obtained is less than 0.05, showing significant difference in the post-test scores of the experimental group and the control group. This shows that, the students who were exposed to the experimental group, made significant improvement in their level of academic achievement over their counterparts in the control group exposed to the prevailing teaching method adopted in schools.

IV. TENABILITY OF THE HYPOTHESIS

The Hypothesis of the study was Flipped learning strategy is more effective than the traditional method of teaching Hindi in the Secondary schools of Kerala. The analysis shows that the students who were exposed to the experimental group, made significant improvement in their level of academic achievement over their counterparts in the

control group exposed to the prevailing teaching method adopted in schools and hence the Hypothesis is accepted.

V. CONCLUSION

One of the major objectives of Flipped learning is to engage students in active learning where students are exposed to collaborative learning, peer assisted learning and problem-based learning. In Flipped learning, the role of the

teacher changes to that of a facilitator by empowering students to take control of their own learning. Students take responsibility, interact meaningfully and they gain a deeper understanding of the content. The role of the students changed from passive recipients to active knowledge builders. In Flipped learning, students work together under the guidance of the teacher. This increased interaction and co-operation helps to create a learning community that encourages them to construct knowledge together in a meaningful way. The results of the study also indicate that Flipped learning is more effective than the traditional method of teaching Hindi.

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