



EFFECT OF FLIPPED LEARNING ON ACHIEVEMENT IN ENGLISH OF IX GRADERS IN RELATION TO ACADEMIC ANXIETY

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Abstract

With the advancement of science and technology, visible changes have occurred in almost all the spheres of life, especially in the field of education. The role of teacher has also changed as per the needs of today's learners. The teachers of the 21st century are well acquainted with the challenges and problems faced by this age learners. They know the importance of acquisition-based learning and participation-based learning. To address the need of individualized as well as collaborative learning, several innovative approaches have emerged. Flipped learning is one of such strategies to provide opportunity to learners for individualized learning, to be an active participant in classroom learning as well to learn in collaboration. Flipped Learning is a methodology that helps the teachers to design active learning during class time by providing beforehand learning material and assignments to be viewed and completed at home or outside the classroom. The present study aimed to study the effect of Flipped learning on achievement in English of IX graders in relation to academic anxiety For the purpose of present investigation a pre-test and post-test factorial design was employed. In order to analyze the data, a 2x2 analysis of variance was used for the two independent variables viz. instructional treatment and academic anxiety.

Keywords: Flipped Learning, Achievement, Academic Anxiety



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Introduction: In the recent decade, Flipped classroom has emerged as the student-centered teaching strategy. It is based on the idea of changing the role of the teacher from “sage on the stage” to “guide on the side” as advocated by King (1993). It was pioneered by two high school teachers in Colorado named Jonathan Bergmann and Aaron Sams. A flipped classroom is a type of blended learning and an instructional strategy which provides the opportunity of self-paced learning and increases student engagement in classroom activities. It aims to increase knowledge retention and provide opportunity to work on live problem solving during class time. The flipped classroom model is based on the idea that traditional teaching is inverted in the sense that what is normally done in class is flipped or switched with that which is normally done by the students out of class. Thus, instead of students

listening to a lecture in class and then going home to work on a set of assigned problems, they read course literature and assimilate lecture material through video at home and engage in teacher-guided problem-solving, analysis and discussions in class.

Flipped learning shifts the classroom environment from passive to active, as the students are well prepared with the content matter and take active participation in classroom learning activities. It focuses on higher order thinking skills such as analyzing, evaluating, and creating and keeps the students engaged in classroom. The teacher provides notes, videos, assignments related to the topic prior to the students. The students go through the learning material at their own pace, note down their doubts and take greater responsibility for their own learning. This approach relies on understanding the difference between information and knowledge acquisition, providing students with active learning possibilities. During class time, the teaching is focused more on providing meaningful learning opportunities, providing feedback using a variety of pedagogical strategies and ensuring proper understanding. The focus is more on exploration, finding meaning and application of knowledge.

Proponents of flipped classroom enlist various advantages of inverting teaching and learning according to the flipped classroom model. (Gilboy Heinerichs & Pazzaglia (2015), Betihavas et al.,(2015).

The principal goals of flipped learning are as-

- To provide opportunity for active learning.
- To enable students to learn at their own pace.
- To make the classroom an active learning environment.
- To facilitate the teacher to help the students individually.
- To encourage student understanding.
- To promote student collaboration with peers.
- To create a supportive and engaged learning environment.
- To encourage purposeful homework.
- To ensure student accountability.
- To engage and prepare the students for meaningful learning.

Academic Anxiety: Academic anxiety is a kind of state anxiety which refers to the upcoming danger from the environment of the academic institutions including teacher, particular subjects like Mathematics, Science and English etc. It can become more detrimental over time. The anxiety level related to certain academic tasks increases as a student's academic

performance suffers. (Huberty, 2012). Anxiety can be classified in three sections and academic anxiety is situation specific form of anxiety related to academic circumstances.

Academic anxiety leads to academic difficulties and reduce attention and concentration (Eyesnck & Derakshan, 2011). The era of competition exerts pressure on students which results in anxiety and affects the mental health of students. Academic anxiety is a deliberating factor which impacts on students' academic achievement. It can cause a decrease in attention span, concentration, memory which definitely affects the performance of individual.

No doubt some level of anxiety is required for the individual to take up all the responsibilities seriously but at the same time both high and low levels of academic anxiety have harmful effects on performance, achievement and also on health.

In the present era, with the huge development in science and technology, several innovative approaches have emerged. Also there is competition in all the spheres of life, especially in the field of education. It all results in pressure and urge to achieve more in today's competitive world. So the students have to work hard to survive and be successful. The related literature reveals that the traditional and innovative methods have to used together to make the teaching learning environment congenial for facing the rising global challenges.

Statement of the Problem:

“Effect of Flipped Learning on Achievement in English of IX Graders in Relation to Academic Anxiety”

Objectives of the Study:

1. To compare the achievement of groups taught through Flipped Learning strategy and Traditional l method of teaching in English.
2. To study the achievement of groups with high and low Academic Anxiety.
3. To examine the interaction effect of instructional strategies and Academic anxiety on achievement in English of IX graders.

Hypotheses-

H0 1: There exist no significant difference in achievement in English of IX graders taught through Flipped learning strategy and traditional method of teaching.

H0 2: There exists no significant difference in achievement in English of the groups having high and low academic anxiety.

H0 3: There exist no significant relationship between instructional strategies and academic anxiety on achievement in English of IX graders.

Sample:

The sample of the study consisted of 80 students of IX class from public secondary schools in Jalandhar City. The study was conducted on two intact groups viz. experimental and control group. Random sampling technique was used to select the sample.

Design: The present study was experimental in nature. A pre-test post-test factorial design was employed. To analyze the data 2x2 analysis of variance was used for two independent variables-instructional strategies and academic anxiety.

Tools Used: The following tools were used for the data collection-

- ✓ An Achievement test in English(developed by the investigator)
- ✓ Instructional material based on flipped learning strategy and traditional method of teaching on the selected topics of English Grammar (Developed by the investigator)
- ✓ Academic anxiety scale for children by Singh and Sengupta (2013)

Analysis and Interpretation of the Results:

Analysis of Descriptive Statistics-The data was analyzed to determine the nature of distribution of scores by employing mean and standard deviation. The two way analysis of variance was used to test the hypotheses related to teaching strategies and academic anxiety levels.

Table 1: Showing means and SD of Achievement Scores for different groups

Academic Anxiety Groups	Flipped Strategy		Learning Traditional Method of N			Total Mean	SD		
	N	Mean	SD	N	Mean			SD	
High	23	8.59	5.95	21	4.48	2.71	44	5.54	4.43
Low	17	4.15	3.07	19	3.38	2.38	36	3.63	2.82
Total	40	6.91	4.53	40	3.75	2.85	80		

It may be observed from the table 1 that the mean scores of flipped learning (M=6.91) is higher than the traditional method of teaching (M=2.85). This indicates that flipped learning strategy is more effective than the traditional method of teaching. It is also seen that the mean of the two groups i.e., high and low academic anxiety is 8.59 and 4.15 respectively. It can be concluded that the gain mean with flipped learning strategy has shown significant difference for high and low academic anxiety groups.

Analysis of Variance on Achievement Scores:

The mean of different sub-groups, sum of squares, degrees of freedom, mean of sum of squares and the F-ratio have been presented in Table 2.

Table 2: Showing Summary of Analysis of Variance (2x2) factorial design-

Source of Variance	Sum of Squares	df	Mean of Squares	F-ratio
Flipped Learning Strategy(A)	109.4	1	109.4	11.5**
Academic Anxiety (B)	92.93	2	55.82	4.74**
Interaction (AxB)	56.54	2	28.63	2.78
Error	1083.11	114	09.50	

*** Significant at 0.01 level*

Main Effects-**Flipped Learning Strategy (A)**

It is observed from Table 2 that the F-ratio for difference in mean gain scores of Flipped learning strategy and traditional method of teaching is 11.5, which in comparison to the table value was found significant at 0.01 level of significance. It indicates that the groups were not different beyond the contribution of chance. Hence the hypothesis H₀ 1: There exist no significant difference in achievement in English of IX graders taught through Flipped learning strategy and traditional method of teaching is rejected. The result revealed that the achievement in English of Flipped learning strategy was more than the traditional method of teaching.

Academic Anxiety (B):

Table 2 shows that the f-ratio for difference in means of the two groups of academic anxiety are 4.74, which in comparison to the table value was found significant at 0.01 level of significance. It shows that the two groups were different in respect of achievement scores. Hence the hypothesis H₀ 2: There exists no significant difference in achievement in English of the groups having high and low academic anxiety stands rejected. The result indicates that the achievement of students in English thought through flipped learning strategy has significant difference for high and low academic anxiety groups.

Interaction Effect (AxB):

Table 2 shows that the F-ratio for the interaction between treatment and academic anxiety groups is 2.78, which in comparison to the table value was not found significant at 0.05 level of significance. It indicates that the two variables do not interact with each other.

Thus, the hypothesis H0 3: There exist no significant relationship between instructional strategies and academic anxiety on achievement in English of IX graders stands accepted. The flipped learning and traditional method of teaching yielded equal levels of achievement for high and low academic anxiety level for the students.

Conclusion: On the basis of above discussion, it can be concluded that the present study reveals that achievement score in English of the students taught through flipped learning strategy was significantly higher than those taught through traditional methods of teaching. Moreover, the gain mean score with flipped learning strategy was more for high academic anxiety group as compared to low academic anxiety group. However the difference in mean gain scores for interaction effect of instructional strategies and academic anxiety did not proved to be significant. The study recommends the use of flipped learning strategy for better performance, achievement and better learning outcomes of students.

Educational Implications: The flipped learning strategy provides the advantages of both face-to-face classroom teaching and online mode of instruction. Many of the classroom activities such as listening lectures, taking notes, solving exercises, participating in quizzes, class assignments etc. can be done online in advance. This proves beneficial for the students having different learning styles. The provision of self-paced learning and 24x7 access to learning material as well as increased flexibility results in increased level of learning, increased level of retention and increased level of student engagement.

The findings of the present study proved that flipped learning based instructions were found to be effective in increasing students' achievement as compared to traditional teaching strategy. So, teachers can integrate these instructions in the teaching learning process. The best features of online learning and face-to-face traditional form of teaching can be combined to get best results in terms of student's achievement.

The present times demand curriculums integrate technology with the teaching learning practices to improve the achievement levels of the students, particularly the language skills. The importance of this study lies in its practical value and its contribution to the pedagogical body of knowledge in teaching of English.

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