



Effectiveness of Flipped Classroom to Class 9th Students' Achievement in Urdu

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Abstract

The National Education Policy 2020 emphasizes the integration of Information and Communication Technology (ICT) in the teaching-learning process, with a focus on blended learning approaches. One such approach advocated by NEP 2020 is the use of the flipped classroom model. In this study, the effect of the flipped classroom model on students' achievement in Urdu was investigated. Employing an experimental method with a non-equivalent post-test control group design, students from a school in Bhopal city, Madhya Pradesh, were randomly assigned to either the experimental group or the control group. The analysis revealed a significant effect of the treatment on achievement scores in Urdu, even after controlling for pre-test scores. These findings underscore the effectiveness of the flipped classroom intervention in optimizing learning outcomes.

Keywords: Flipped Classroom, Language Teaching, Urdu Language and Achievement

1. Introduction

National Education Policy 2020 advocates to increase ICT in Teaching-Learning process. NEP 2020 seeks potential in Blended Learning, as it includes the elements of online as well as offline learning. Blended learning refers to the educational approach of integrating digital learning environment with traditional in-person classroom teaching. The flipped classroom model is the popular model of Blended Learning used in educational setup, seeking to leverage technology to restructure the learning process and optimize the effectiveness of face-to-face classroom interactions. In a flipped classroom setup, students are encouraged to access digital learning materials through a cloud-based platform outside of class time. These materials, such as video lectures, podcasts, recordings, and articles, aim to convey the majority of necessary knowledge from teacher to student before each class session. Consequently, this approach enables teachers

to dedicate classroom time to supporting students in activities, leading discussions, and facilitating engagement.

Prefum, Yoko Enomoto (2015) “Exploring a Flipped Classroom approach in a Japanese language classroom: a mixed methods study” The study discovered that implementing a flipped classroom model necessitates a substantial investment of time initially, as it involves creating lecture videos and designing lessons. However, the practice of delivering instruction through video lectures outside of class resulted in more active engagement during classroom sessions, leading to an increase in the frequency of interactions within the classroom. Although quantitative analysis revealed no statistically significant difference in learning outcomes between the experimental group (EG) and the control group (CG), descriptive analysis indicated learning improvements in the EG. Moreover, qualitative data indicated that students held positive attitudes towards the flipped classroom approach. **Bothina Abdelshaheed (2017)** Using flipped learning model in teaching English language among female English majors in Majmaah university for English Language Teaching, found positive attitude of students towards Flipped Classroom moreover students scores high who were taught through Flipped Classroom. **Halili, S.H. and Ramas, S. (2018)** found that primary school teachers accepted the Flipped Classroom approach for teaching Tamil language. **Given Lee and Amanda Wallace (2018)** conduct a study entitled “Flipped learning in the English as a foreign language classroom: outcomes and perception” found that the students studied in Flipped Classroom setting got higher numbers than those studied in traditional classroom setting. The majority of students participating in this study appeared to derive enjoyment from English learning within a flipped classroom setting. Furthermore, the instructor observed higher levels of engagement among students in the flipped classroom compared to those in the traditional classroom. The study also delves into the pedagogical implications for enhancing English teaching effectiveness. **Hamzeh Haghighi, et.al. (2018)** studied about “Impact of Flipped Classroom on EFL learners’ appropriate use of refusal: achievement, participation, perception” retrieved that the students of the flipped classroom group displayed higher levels of engagement with the course material and demonstrated significantly better performance in the post-test compared to their counterparts in the traditional group. Survey responses indicated that a majority of participants in the flipped group enjoyed learning English within a flipped learning environment and were receptive to using Telegram as a suitable platform for language learning. The researchers provide insights into the effects of flipped classrooms on the appropriate utilization of English refusals, participants' perceptions of the flipped learning experience, their degree of involvement both in and out of the classroom, their assessment of the online platform Telegram, and offer practical implications based on these findings. **Jun Wang & Clare Wright (2018)** Enhancing beginner learners oral proficiency in a Flipped Chinese foreign language classroom, fluency of students increases, moreover students invest more time in learning and Flipped Classroom helps establishing positive attitude towards the course. **Najmi, Ali H. (2020)** studied about “The effectiveness of flipped clear approach on student achievement in English language in Southern border School” found that the students taught through Flipped Classroom achieve higher scores than those taught through traditional approach. **Mücahit öztürk & Ünal Çakiroglu (2021)** in their study “Flipped learning design in EFL Classrooms: implementing Self-

regulated learning strategies to develop language skills” revealed that the employment of self-regulated learning strategies had a beneficial impact on the enhancement of foreign language proficiency within the flipped classroom framework. There was a notable advantage for the group utilizing the platform integrated with self-regulated learning strategies, as evidenced by superior performance in speaking, reading, writing, and grammar assessments. However, no significant difference was observed in the results of the listening tests.

2-Significance of the Study

Technology advancement is fast in today’s world, each and every field of life is not untouched from it. So far, education also. It is the need of the hour to habituate the teachers and students with technology for Teaching-Learning. NEP 2020 advocated for Blended Learning and Flipped Classroom is the most applied model of Blended Learning. Many studies conducted on Flipped Classroom and revealed that it is helpful in increasing achievement, interaction time and students’ engagement in learning. Many studies conducted on language learning through Flipped Classroom, but most of the studies conducted for Foreign Language Learning and not for mother tongue. No study was found for Urdu language learning through Flipped Classroom.

3-Operational definition of the Variables

Operational definition of the Variables are as follows:

- 1- Flipped Classroom: “Flipped classroom is a type of blended learning where students are introduced to content at home and practice working through it at school.” -teachthought.com
- 2- Achievement in Urdu: Achievement Test was developed by the Researcher on all the topics taught through flipped classroom.

4- Objectives

Objectives of the Study was:

- 1- To study the effect of Flipped Classroom on Students’ Achievement in Urdu

5- Hypothesis

Hypothesis of the Study was:

H₀₁ -There will be no significant effect of Treatment on mean score of Achievement in Urdu of students taught through Flipped Classroom and Traditional Classroom

H₀₂ -There will be no significant effect of Treatment on adjusted mean score of Achievement in Urdu of students taught through Flipped Classroom and Traditional Classroom when previous year’s score is taken as covariate

6- Delimitations

The study is limited to:

- 1- Class 9th students only
- 2- Bhopal city only

7- Methodology of the study

Experimental method was employed for the study.

7.1- Research Method and Design

Non-equivalent Post-test control group design was employed for the study.

Group 1 (Experimental) X O1

Group 2 (Control) - O2

7.2- Sample and Sampling Technique

Simple Random Sampling Technique was used for the selection of the school for present study. The sample was selected from Bhopal city, Madhya Pradesh. Randomly selected one school. The experiment was conducted in 2022-2023 Session. There were 2 sections of class IX, i.e., section 'A' and 'B'. Section 'A' was designated as Experimental Group and taught through Flipped Classroom and section 'B' was designated as Control Group and taught through traditional classroom.

Table 1: Group-wise Distribution of Sample

Group	Total
Experimental Group	67
Control Group	53
Total	120

7.3- Tools

Lesson Plan, YouTube Videos and Achievement Test were used for the treatment and data collection. Ten lesson plans were prepared based on Flipped Classroom. Five out of ten videos were created by the researcher. The achievement test in Urdu was developed by the investigator, taking into consideration the contents taught.

7.4- Development of Achievement Test in Urdu

The Achievement Test was divided in three sections. Section 1 is multiple choice questions, section 2 is match the column and section 3 is fill in the blanks. All the items are objective type. There are 30 questions, 2 marks allotted for each item and maximum marks for the test was 60. Time allowed was 60 minutes.

7.5- Procedure of data collection

After taking necessary permission from school authority, the treatment was given to experimental group i.e., teaching through Flipped Classroom and the control group was taught through traditional classroom teaching. Total ten lessons were taught. Special emphasis was placed on ensuring that the content taught was same for both groups. An Achievement test was administered to both groups after the completion of the ten lessons.

8- Data Analysis and Interpretation

Objective-wise analysis and interpretation are as follows:

8.1- Effect of Flipped Classroom on Achievement in Urdu

Objective 1: To study the effect of Flipped Classroom on Achievement of Class 9th Students

The data were analyzed with the help of Percentile, mean, standard deviation and Variance for achievement in Urdu. The results are depicted in table- and interpretations are given below:

Table 2: Percentile, mean, standard deviation and Variance for achievement in Urdu

Mean	46.1791	
Median	48.0000	
Mode	60.00	
Std. Deviation	1.156	
Variance	133.786	
Range	44.00	
Sum	3094.00	
Percentiles		
	15	32.4000
	25	38.0000
	50	48.0000
	75	58.0000
	95	60.0000

Table 3 reveals that the mean is approximately 46.17, which is around 76%. Generally, this kind of achievement is not found in students taught through the traditional method of teaching. Therefore, it can be concluded that the Flipped Classroom was found to be effective in terms Achievement in Urdu.

Hypothesis H₀₁: There will be no significant difference between scores of Achievement in Urdu of experimental and control group students of 9th class

Table 3: t-test scores for Achievement in Urdu

	Groups	N	Mean	Std. Deviation	Std. Error Mean	df	t	Remarks
Post-Test Achievement in Urdu	Experimental	67	46.17	11.56	1.41	118	10.45	Sig at .01 level
	Control	53	27.28	7.05	.96			

Table 4 reveals that the mean achievement score in Urdu for the experimental group is substantially higher (46.17) compared to the control group (27.28). The t-value of 10.45 indicates a significant difference between the mean scores of the experimental and control groups. With a significance level of 0.01, suggesting strong evidence to reject the null hypothesis.

Therefore, the null hypothesis (H₀) is rejected and conclude that there is a significant difference between the achievement scores in Urdu of the experimental and control groups.

This suggests that whatever Flipped Classroom has had a statistically significant impact on their achievement in Urdu compared to the control group.

H₀₂: There will be no significant difference in achievement scores of 9th class students when pre-test scores were taken as covariate

Table 4: Summary of the Results of Analysis of Covariance for the Effect of Treatment on Achievement in Urdu

Source of Variance	SS	df	MS	F-Value	Sig.
Intercept	12212.54	1	12212.54	132.673	.000
Pre-Test	644.72	1	644.72	7.00	.009
Treatment	11091.61	1	11091.61	120.495	.000
Error	10769.87	117	92.05		
Total	193744.000	120			

*Significant at .01 level

Table 5: Descriptive Statistics of Control and Experimental Groups for Achievement in Urdu

Groups	Mean	SD	N
Experimental	46.46	1.17	67
Control	26.91	1.32	53
Total	48.7167	11.19639	60

***Covariate** appearing in the model are evaluated at the following value: Pre-Test Scores in Achievement in Urdu = 24.0833.

The above table shows that both the pre-test scores and the treatment have a significant effect on achievement scores in Urdu. Controlling for pre-test scores, the treatment (experimental vs. control) still significantly influences achievement scores in Urdu. The descriptive statistics further confirm that the experimental group has a higher mean achievement score compared to the control group.

The findings did not support the null-hypothesis that there will be no significant difference in achievement scores between the experimental and control groups, even when controlling for pre-test scores as a covariate. Therefore, the null hypothesis (Ho) is rejected

Therefore, it can be concluded that the treatment has a significant impact on improving achievement scores in Urdu among 9th grade students, independent of their pre-test scores.

Results

The analysis indicates that the treatment has a significant effect on achievement scores in Urdu, even after adjusting for pre-test scores, suggesting the effectiveness of the treatment intervention.

Educational Implications

For Policy Makers:

Policy makers should consider the implementation of Flipped Classroom methodologies within educational institutions. Allocating resources and providing support for training teachers.

For Principals:

Principals should encourage teachers to explore and implement effective teaching strategies such as Flipped Classroom approaches.

For Teachers:

Teachers should embrace Flipped Classroom techniques as a means to improve student learning outcomes. Teachers can engage students in active learning experiences both inside and outside the classroom. They should design interactive and multimedia-rich instructional materials to enhance student engagement and comprehension.

For Curriculum Development:

Curriculum developers should incorporate Flipped Classroom approaches and other evidence-based instructional strategies to enhance student achievement across diverse subject areas.

Suggestions for further studies

Further research is warranted to explore the long-term effects of Flipped Classroom interventions on student learning outcomes and retention. Additionally, studies should investigate the transferability of these findings to other grade levels, subjects, demography and educational contexts. Researchers can delve deeper into the mechanisms underlying the effectiveness of Flipped Classroom approaches and identify factors that mediate or moderate its impact on student achievement.

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