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An Experimental Study of the Effect of Flipped Classroom Approach on Study Habits of B.Ed. Trainees

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Abstract

Flipped teaching is a new pedagogical approach to blended learning where classroom activities and homework are interchanged. This research paper discusses about the effectiveness of flipped classroom method in this technological era. The objective of this research paper is to see the effect of flipped classroom approach on study habits of B.Ed. trainees. This is an experimental study. Posttest control group design has been used to check the effectiveness of this method. 80 B.Ed. trainees are selected through simple random method of sampling. Two equivalent group has been made by the researcher based on their state rank while taking an admission in B.Ed. college of Azamgarh district affiliated to V.B.S.P.U., Jaunpur. Research hypothesis has been used by the researcher. After the experiment, researcher found that flipped classroom method is better than the traditional method of teaching in some aspects but during the treatment, the children of the experimental group were less interested in making notes because they were given the module, while the children of the control group were writing their own notes in the class because of the absence of the module. This shows that on one hand the module helped B.Ed. trainees a lot but on the other hand it made them dependent on them. In this technological era, this method is very useful to engage students. This method also promote active participation of the students. It also encourages self -paced learning.

Keywords: Flipped classroom, study habits, active participation, self-paced

INTRODUCTION: Bill Gates has rightly said: ***"Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is most important."***

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Lage et al. (2000) described that " Inverting the classroom means that incidents that have conventionally taken place inside the classroom now take place outside the classroom and vice versa." M.K. Kim et al. (2014) identified nine design principles for the flipped classroom, three of which were adopted and argued by Brame (2010): give a chance for students to obtain first exposure prior to class; offer stimulus to students to arrange for class; enlarge a mechanism to evaluate student levels of understanding. The other six principles were to give : plain connections between in -class and out-of-class activities ; distinctly explained and well organized instruction; sufficient time for students to carry out the assignments ; assistance for building a learning group; prompt/ adaptive reaction on individual or group works; and close and easy–to-access technologies. Flipped teaching is a pedagogical approach to blended learning where classroom activities and homework are interchanged **(Tucker 2012).**

The investigation of flipped classroom was based on the theory of **Bloom's revised taxonomy of cognitive domain.** This taxonomy provides or supplies six levels of learning. The explanation is organized from the **lowest level to the highest level.**

1. **Remembering**
2. **Understanding**
3. **Applying**
4. **Analyzing**
5. **Evaluating and**
6. **Creating**

Flipped classroom is composed of various components, such as :

- Video Collections
- PowerPoint Presentation (PPTs)
- Student Discussion
- Study Materials
- Teacher /Student Online Communication

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Study Habits :- Broadly speaking, any skill which boosts a person's ability to study, retain and recall information which assists in and passing exams can be termed a study skill, and this could include time management and motivational techniques. Here are some good study habits like : have a schedule, time management, making notes while teaching, plan their studies, set aside a follow-up day, keep official breaks in the schedule, silence and the library habit concentrate well, the average hours of study, regulate sleep on time , meals and eating habits, exercise daily, etc. All-in-One be determined and disciplined. By adopting the above study habits, a person will not only reach his study goals but also enjoy the whole process. Where as some bad study habits are wastage of time, bad peer groups, neglect others, hate others, not give importance to teachers, not completed their work on time, studying not in a sequential order, give importance to rote learning, etc.

Purpose of the study :-

The purpose of this study is to highlight about the effectiveness of flipped classroom approach on study habits of B.Ed. trainees. Many researches has been presented globally, but in a small district like Azamgarh, this kind of study is very difficult to find. So, in present era, there is a specific need of this kind of research.

Research Question :-

1. Does the flipped classroom approach significantly effect on study habits of B.Ed. trainees?

Objective :-

1. To study the effect of flipped classroom approach on study habits of B.Ed. trainees.

Hypothesis :- Research Hypothesis (HR) has been used in this study :

1. There is a significant effect of flipped classroom approach on study habits of B.Ed. trainees.

Delimitations :- The delimitations of the study are as follows :

- This study is delimited to the Azamgarh district.

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- The study is delimited to one Independent Variable –1) Treatment Variables : Teaching Approach (Flipped Approach and Traditional Approach)
  2) Attribute Variables : Area (Rural and Urban) and Stream (B.A., B.Sc. and B.Com.) and one Dependent Variable – study habits
- Only 80 B.Ed. trainees were selected for the investigation.

REVIEW OF RELATED LITERATURE

Lal (2016) used the Moodle service at the University of Kerala's Virtual Learning In the flipped classroom, Alakawi (2016) studied the influence of CALL on Egyptian EFL learners' listening skills. The study focused on using technology both inside and outside of the classroom to improve students' listening skills. The research included 40 students from Alexandria University's English department who were studying EFL. The experiment and control groups were divided into two groups in this quantitative investigation. Because the experimental courses were flipped, they were provided an audio or video recording of the lecture to help them prepare for the next lecture activities, which included listening comprehension questions. The use of CALL in the flipped classroom was shown to be helpful in improving the listening skills of Egyptian EFL students .

Sunita, S (2018) conducted research at Andhra Medical College in Visakhapatnam on students' perceptions of the flipped classroom teaching method. To assess medical students' opinions of flipped classroom as a teaching tool, a descriptive cross sectional study was done among 163 first-year MBBS students at Andhra Medical College. Prior to the poll, students were exposed to the flipped classroom way of teaching on two occasions. A systematic questionnaire was utilized to assess students' attitudes about flipped classroom technology. A five-point Likert scale was used to gather responses, ranging from strongly disagree to strongly agree. The ratings ranged from 0 to 4, with 0 being the lowest and 4 being the highest. Microsoft Excel was used to examine the data. The majority of pupils thought that the flipped classroom is more engaging than the regular classroom, according to the data. The majority of students considered videos and other online learning materials to

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be engaging. The MBBS students believe that a flipped classroom is an effective teaching and learning approach.

Chowdhury and Ghose (2014) examined at the influence of parental practices on adolescents' study habits. This research has sought to determine whether various parenting styles have an impact on study habits. 620 individuals ranging from class VII to second-year college students, were the sample. The majority of data analysis was done using bivariate correlations. According to the findings, there is a strong link between parental practices and a good study habit. Parents must be realistic about their expectations of their children, as well as their own beliefs in order to install good study habits.

Lawrence (2014) investigated the relationship between study habits and academic success of higher secondary school pupils. The survey method was used. The study used the Study Habits Inventory by V.G. Anantha (2004) and the Quarterly Achievement Test Questions to collect data from 300 students in 13 higher secondary schools. Standard Deviation, 't-test, ANOVA, and Pearson's Co-efficient Correlation were used to compute the significant difference between the means of each pair of groups. After analyzing the data the researcher found no significant difference between study habits and academic achievement of students of senior secondary school.

METHODOLOGY

Population

The population of this research study are all the 2-years B.Ed. colleges affiliated to V.B.S. Purvanchal University, Jaunpur, situated in Azamgarh district.

Sampling Technique and Sample :

Simple Random Sampling method has been used to select the sample. 80 students from one B.Ed. college (M.A. BEG P. G. College) has been selected. This table clearly shows about the sample —

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(Sample Distribution)

Samples	Experimental group	Control group
Total N=80	**N=40**	**N=40**

Tools Used in The Study :- In order to meet the needs, aims and objective of the present work, the following tools were adopted :

- **Module :** The module has been constructed and developed by the researcher to used as a flipped material. Researcher taught experimental group through this module.
- **Study Habits Inventory :** Standardized Study Habits Inventory (M.N.Palsane and A.Sharma (SHI – PS), updated version 2014, has been used by the researcher.

Method And Design of The Study :- Experimental method has been used for the research study. In this experimental method two group has been made as Control and Experimental group. In this experimental study, the researcher has used **Posttest Control group design.**

The present study aims at examining the effect of Flipped Classroom method on study habits of B.Ed. trainees. Hence, the effect of the independent variable on the dependent variables taken in the present study was measured and inferences have been also drawn. **Experiment:-** Researcher has started experiment for one month. Two group have been divided by using their state rank. Experimental group has been taught through Flipped Classroom method. For the Control group, the investigator adopted the traditional lecture method. To control any external effect on the experiment, researcher had taken full precautions. Module had only given to the experimental group students in the class time.

Experimental Validity:- The experimental validity has two kinds of threats, namely Internal Validity and External Validity (Truxillo, Bauer & Erdogan, 2016). Both validity had been controlled by the researcher.

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Administration of the Tool :- The researcher administered study habits inventory by M.N.Palsane and A.Sharma (SHI – PS) for getting information after completing the experiment.

Data Collection Procedure :- After the successful completion of the experiment the researcher has collected data as per the need.

Statistical Techniques:- Using SPSS 21, the statistical techniques were performed. The Paired Sample t- test statistical technique has been used to assess the data once it was collected using standardized forms.

Demographic And General Inquiries :-

Flipped Classroom – Study Habits :- The table below indicates that 37.5% respondents have C level of study habits whereas 25% respondents have A level, 15% respondents have D level, 12.5% respondents have B level and 10% respondents have E level of study habits in the flipped method of teaching. The distribution of study habits appears to be uneven, with no absolute majority in any category.

The following bar chart also shows taller bar corresponding to the same.

Table and Graph : 4.1

F – Study Habits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	10	25.0	25.0	25.0
	B	5	12.5	12.5	37.5
	C	15	37.5	37.5	75.0
	D	6	15.0	15.0	90.0
	E	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

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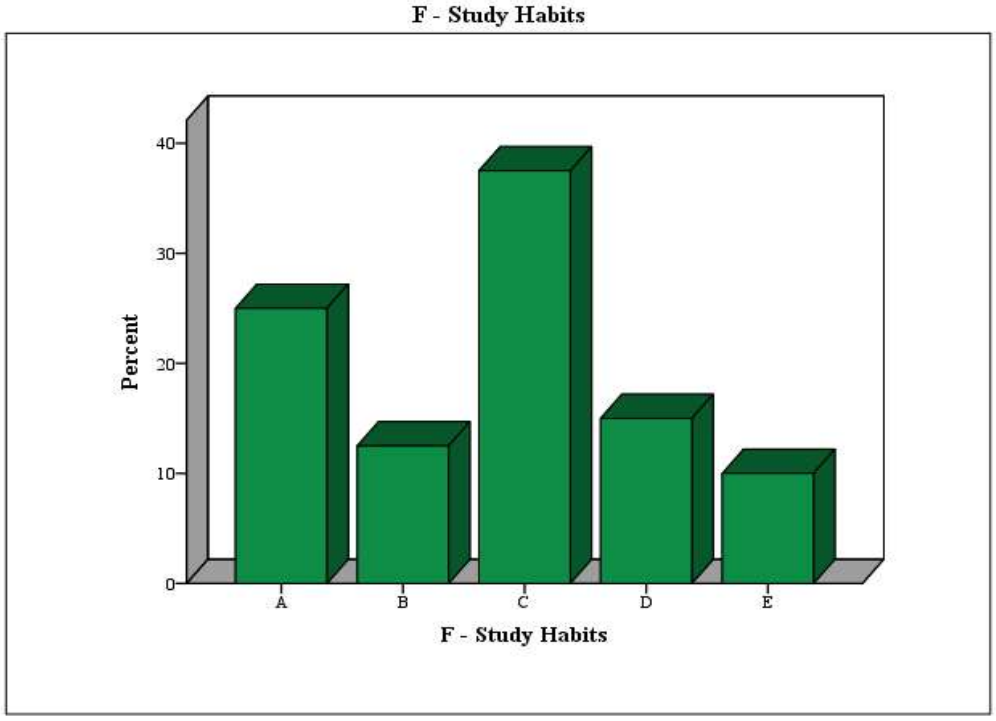

Traditional Method - Study Habits :- The table below indicates that 42.5% respondents have level E of Study Habits whereas 27.5% respondents have level D of Study Habits , 25% respondents have level C of study habits , 2.5% respondents have A and B level of study habits in the traditional method of teaching.

The following bar chart also shows taller bar corresponding to the same.

Table and Graph : 4.2

T – Study Habits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A	1	2.5	2.5	2.5
	B	1	2.5	2.5	5.0
	C	10	25.0	25.0	30.0
	D	11	27.5	27.5	57.5
	E	17	42.5	42.5	100.0
	Total	40	100.0	100.0	

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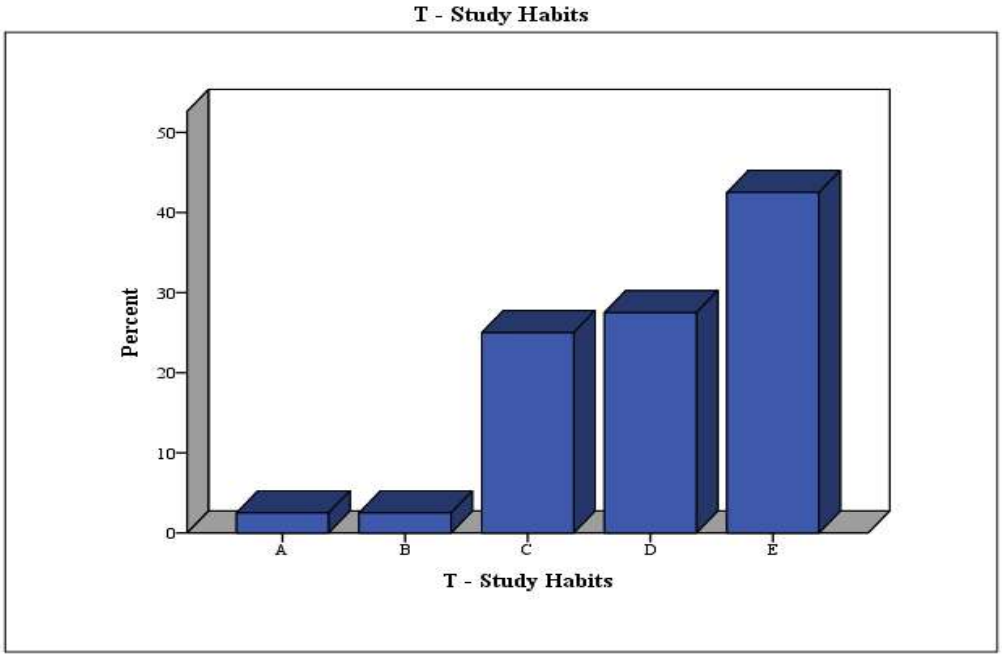

Hypothesis Testing :-

1. **There is a significant effect of flipped classroom approach on study habits of B.Ed. trainees.**

In order to prove this hypothesis, researcher has used **Paired Sample t-Test.** It has been conducted to check the statistical difference between the traditional and flipped methods of teaching.

The paired sample t-Test' results show that there is a statistically significant difference in study habits between the flipped and traditional methods of teaching. For pair of variable, the mean difference is as follows:

Mean difference in Study Habits = -1.325, p= 0.000

We can see that as the p-values given are less than 0.05 level of significance. It indicates that the differences are unlikely to be attributable to chance. As a result, we can infer that, when compared to the traditional style of teaching, the flipped classroom approach has a substantial effect on study habits of B.Ed. trainees.

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It should be close to zero if the populations means are equal. The mean difference between the Flipped method of teaching on Study Habits of B.Ed. Trainees and the Traditional method of teaching on Study Habits of B.Ed. Trainees is statistically significant at $\alpha = 0.05$. This is because 'Sig. (2-tailed)' or $p<0.05$. From the below table attached, the Sig. (2-tailed) column, shows the significance values.

Table 4.3

Paired sample t-test									
		Paired Differences					t	df	Sig.(2-tailed) p-value
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	F-Study Habits T-Study Habits	-1.325	1.591	0.252	-1.834	-0.816	-5.266	39	0.000

Therefore, from the given results below, we can state that there is a significant effect of flipped classroom approach on study habits of B.Ed. trainees. We can also state that there is a significant difference between the traditional and flipped methods of teaching.

Results and Discussion :- The mean difference in study habits is -1.325, indicating that the flipped technique may be connected with improved study habits among B.Ed. trainees. Based on these findings, it is possible to conclude that the flipped classroom approach has a substantial effect on study habits of B.Ed. trainees when compared to traditional teaching methods. Under flipped method of teaching we can see that there is insignificant relationship shown when controlled by area and stream. When area and stream are controlled for, there is no substantial association on study habits. Under traditional method of teaching we can see that there is significant relationship shown. So, there is a considerable association on study habits when area and stream are adjusted for.

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In summary, the data show that, when compared to the traditional technique, the flipped classroom approach has a significant favorable influence on study habits of B.Ed. trainees. These findings emphasize the need of taking into account a variety of elements when developing an instructional methodologies in the B.Ed. program. The study looked at how the flipped classroom approach affected study habits in B.Ed. trainees. During the treatment, the children of the experimental group were less interested in making notes because they were given the module, while the children of the control group were writing their own notes in the class because of the absence of the module. This shows that on one hand the module helped B.Ed. trainees a lot but on the other hand it made them dependent on them. Module is very helpful for the experimental group B.Ed. trainees in positive way but some negative impact had also shown here during experiment.

In spite of challenges posed by flipped classrooms, it can still be effective, hands-on approaches to improve learners' achievement by involving them creatively and constructively in their learning. Both approaches (Blended and Flipped approach) combine judiciously with traditional face-to-face learning.

Conclusion:- In conclusion, these findings have important implications for teacher education programs and educational institutions. Incorporating the flipped classroom concept into teacher education can improve instructional quality and student learning results. The flipped classroom encourages students to become active participants in their education by promoting an interactive and collaborative learning environment, resulting in improved motivation and engagement. Overall, this study adds to our understanding of the flipped classroom approach's potential as a transformational pedagogical tool.

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