

A Study of Perceptions of Teachers' and Students on Flipped Classroom

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Abstract:

Flipped classroom is a new form of learning in which students learn new content on line by watching audio, video at home and homework is done in class with teachers under the more personalized guidance of teachers and group discussion with peer students instead of lecturing. In traditional classroom, there is no room for personalized learning experience and students are not engaged in active participation. The objectives of the study are 1. to study teacher perceptions of learning experiences differ in a Traditional verse a flipped settings.2.to study students' perceptions of learning experiences in a Flipped Learning setting. 48 students were taken as population out of which 20 students were given instruction using Flipped learning. Percentage and frequency were counted for data analysis. Qualitative technique was used for data analysis. Some major findings are 1. Flipped classroom students are found more active than traditional classroom. 2. Flipped classroom students enjoy their learning without stress. 3. Traditional classroom students get bored in passive participation in class. 4. Flipped classroom students worked hard. 5. Flipped classroom students understand the learning process easily.

Keywords: Flipped classroom, Perception

1. Introduction

In the traditional pattern of classroom, teaching has been assigned to students to read textbooks, lecturing and doing the assignment outside of classroom writing the questions given at the end of the lesson. Moreover, here listening to teachers in classroom and taking down notes given by teachers and facing test in the classroom.

In the flipped learning model, teachers shift direct learning out of the large group learning and moving it into individual learning space. Teachers record and narrate screenshots of work they do on their computer desktops, create videos of themselves teaching and uploading videos on internet. Flipping the classroom or inverted teaching is a response to the idea that class time can be used to engage students in learning through active learning techniques. Flipping the classroom is the process of replacing traditional lectures with more student-centered learning strategies, such as active learning, group discussion, problem-based learning and peer instruction. Content deliver is moved outside of classroom. Students learn at home, then come to school to do the homework armed with questions and at least with some background knowledge.

Flipping also changes the allocation of teacher time, in traditional classroom teachers engages himself asking questions. In 1995, Eli Noam wrote, "as one connects in new ways (the internet), one also disconnects the old ways". Flipping changes teachers from "sage of the stage" to guide on the side", allowing the students to work on their own in groups throughout the session.

The philosophy behind the classroom is that teachers in traditional classroom were busy in delivering lectures with no time for students' problem and in flipping teachers spend time working with students

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who need their help in the classroom. The flipped classroom model frees up class time by removing much of the direct instruction from class so that the teacher is able to supervise collaborative learning experiences foster meta cognitive ability providing the opportunity for communication among diverse learners. The increasing demand of use of technology in classroom has changed the present teaching learning process and keeping in mind the new concept flipped classroom has been implemented in our syllabus of H.N.G. Uni, Patan and on the part of that the researcher feel essential to take the reviews of teachers and students regarding Flipped learning. Therefore, the purpose of this research study is to study the perceptions of teachers and students about Flipped Classroom.

2. History of the flipped classroom

In 1982, Baker had a vision of using electronic means instead of rote material outside of class. In 1995, online content management system allowed Baker to place lecture notes online and retrieve them to show during class meetings. He realized during a lecture that the students were capable of doing so and he realized he needed to make the class time more meaningful. He developed an action plan centered on four verbs clarity, expand, apply and practice.

Baker opined (2011) that "the basic concept I applied in that class was to move the rote transmission of information that had been the content of my lectures out of the classroom and to use the opened-up class time for the students to work on application of the principles form that content while I was there to see what they were doing, answer questions and make suggestions."

Sams and Bergmann are credited with popularizing the concept, perhaps the greatest contribution to flipping classroom has been the advent of the Khan Academy.

Strayer (2007) reported that in most instances where the classroom flip is used, the goal is to create an active learning environment during class meetings. Strayer's conceptual framework is derived from Piaget's theories of active learning.

"The classroom flip is usually motivated by a desire to learn through active participation in the classroom. Active means? Is not all learning active, whether from a book, a lecture or small group activity? Piaget says that learning occurs not when a person merely copies an idea, but when a person acts on it."

3. Need and importance of the study

As the days passing, the administrators, parents, teachers and students are tired of the rote learning, delivering lecture, giving notes and becoming teachers as the sage on the stage system that has taken place since long. Presently, each one is talking about the change and using new techniques and a shift from teacher centered class to student active leaning classroom, from limited to high frequency interactions between students and resources. One question that is constantly clicking the mind of the researcher how learning produces measurable academic gains that is the primary intent of this study. So, capturing teachers and students' perceptions of the flipped model have been studied.

4. Statement of the problem

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5. Definitions of the keyterms

5.1 Flipped Classroom

"Flipping the classroom is a "pedagogy-first" approach to teaching. In this approach in-class time is "repurposed" for inquiry, application and assessment in order to better meet the needs of the individual learners. Students gain control of the learning process through studying course material outside of class, using readings, pre-recorded video lectures and during class time, instructors become facilitators of the learning process by helping students work through problems individually and in groups."

5.2 Perception

Perception can be defined as our recognition and interpretation of sensory information. Perception is our sensory experience of the world around us and involves both the recognition of environmental stimuli and actions in response to these stimuli.

6. Objectives

1. To study teacher perceptions of learning experiences differ in a Traditional verse a flipped setting. 2. To study student's perceptions of learning experiences in a Flipped Learning setting.

7. Scope, limitations and delimitations

For the present study, students studying in B.Ed. of Secondary Teachers Training College, Visnagar of Mehsana District of Gujarat state affiliated to H.N.G. Uni, patan were taken for the experiment.

8. Research questions

- 1. How do teacher perceptions of learning experiences differ in a Traditional verse a flipped setting.
- 2. What are students' perceptions of learning experiences in a Flipped Learning setting.

9. Research methodology

9.1 Methodology

Design Replications design was used that involved one teacher, and two groups of students participating in a traditional classroom setting for one and a flipped classroom environment for another group.

Procedure First of all, three units from semester 1 Microsoft word, Excel and Power point were selected for experiment. Flipped learning students were given video lessons downloaded from internet and some of the websites were also given for online assignment before attending a class. The students are required to watch video lectures at home and once this is completed, they were encouraged to discuss online using whats app, facebook.etc. and come to class with questions. When they come in classroom, they were given project work and were engaged completing practical work and collaborate each other. Teacher played the role of the guide.

In Traditional Classroom, students were taught contents just once keeping the teacher on centre of the class without any practical and group discussion. Since Both groups received instruction with a similar knowledge.

9.2 Population and Sample

For the present study, students studying in two-year B.Ed. of Secondary Teachers' Training College, Visnagar, Mehsana of Gujarat state during the year 2024-25 were taken as the sample for the study. There is total 54 students in the class as per the new curriculum framework of NCTE. Out of 54 students, 20 students were selected for Flipped learning and 25 students were taken for traditional learning.

9.3 Data Collection

Teachers' perceptions were taken by observation of students learning through flipped classroom and traditional classroom. For Students perceptions 8 Questions were asked on five point scale (strongly agree, agree, not agree, disagree, strongly disagree) on this survey to gauge students thoughts on how the flipped and traditional delivery method and affected their learning.

9.4 Data Analysis

The Qualitative technique was used for data analysis. Frequency was counted.

10. Analysis and interpretation of data

Question wise analysis and interpretation was done, response options for each question were as follows.

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No.	Questions	Strongly	Agree	Neutral	Disagree	Strongly
		Agree	0		0	Disagree
1	I communicated a lot with other students.	10%(2)	0%	5%(1)	70%(14)	15%(3)
2	I had more communication with the teacher.	15%(3)	0%	30%(6)	55%(11)	0%
3	I had to work hard in this course.	65%(13)	10%(2)	10%(2)	10%(2)	05%(1)
4	I learned more in this course.	60%(12)	10%(2)	10%(2)	15%(3)	5%(1)
5	The learning activities I worked on deal with real life applications.	45%(9)	20%(4)	10%(2)	20%(4)	5%(1)
6	The material content helped me in learning better.	35%(7)	20%(4)	5%(1)	20%(4)	20%(4)
7	Now, I applied my out of class room experiences in class.	5%(1)	10%(2)	70%(14)	0%	15%(3)
8	Please provide your suggestions about delivery of the course.					

10.1 Perceptions of Students learnt through Flipped Classroom Table 1: The Qualitative results of the student's perceptions learnt through Flipped Classroom

In question no. 1 the majority of students did not agree that they communicated a lot with other students. In question no 2, students did not agree that they did not have any more communication with teachers. In question no. 3 students work hard in this course. In question no. 4, 5 and 6 majority of students learned more, deal with real life situation and given content helped them learning better. In question no. 7 majority of students are neutral. They did not say anything. It is interesting that students did not talk much more with teacher and with peer students but they agree that they learnt more this type of material helped them in real life and they said that they worked hard in this course.

Moreover, student perceptions of the flipped classroom were as varied as the students. They got more enjoyment in learning as they have learnt at home. Students worked in group that makes them learn actively and they did not get boring. Students also complain that most of the students did not know English language and the videos were in English. So, they got problem in understanding it. Videos in mother tongue helped them a lot in learning.

10.2 Perception of Teacher of Flipped Classroom and Traditional Classroom

The teacher revealed that flipped method was sound pedagogy. The videos helped them learning better as they no longer needed to rely on the textbook for skill instruction. Some students searched material on internet on their own and learnt better and come with some questions in class. They enjoyed better in class because they have learnt the content earlier. When they were asked in class for doing the practical assignment, they did it with the help of peer students where they get problem. They found learning actively without any stress.

The teacher found that traditional classroom was not sound. Students were totally rely on teacher. They did not ask any questions. They just remained passive listener. They did not enjoy the learning and became stressful at the end of each lesson.

11. Findings

The major findings of the study are as follows:

- Students in the flipped classroom demonstrated higher levels of engagement and active participation compared to those in the traditional classroom.
- Flipped classroom students reported enjoying their learning experience with reduced stress levels.
- In contrast, students in traditional classrooms often experienced boredom due to passive participation.
- Flipped classroom students exhibited greater effort and diligence in their studies.
- Students in the flipped classroom showed a better understanding of the learning process.

12. Conclusions and discussions

This study illustrates that using the Flipped Classroom concept is a great help for the students. The flipped concept facilitates interaction among students and between students and their instructors. Flipped instruction makes learning better. They show good attitude towards learning. Further research should be conducted on experimental and control group keeping all the measures. A strong teacher work ethic is necessary with the flipped approach.

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