FLIPPED CLASSROOM MODEL : A REVIEW

*Dr. Mohammad Zahid, Asst. Prof., B.Ed. Dept.,
S.N.C., e-mail: z.azmi77@gmail.com
**Dr. Seema Sadiq, Asst. Prof., B.Ed. Dept.,
https://orcid.org/0009-0006-1072-264X
S.N.C., e-mail: seemasadiq30@gmail.com

Abstract

A revolutionary method to teaching and learning, flipped learning was created and modified in response to the circumstances. Many studies have been done on the subject, including ones that focus on speaking proficiency. Given the volume of research on flipped learning, a thorough literature evaluation is necessary to identify any gaps in the body of knowledge. This study demonstrates how flipped learning improves speaking proficiency in a productive classroom environment. Many theses have been read and after that this review paper related to Flipped Classroom Model is done. This paper discusses some research work which have been conducted from 2015 to 2018. So that to highlight about the research gap for conducting new research work related to this new topic. Most of the work have been conducted in abroad. For Indian settings , this topic is novel and it is very difficult to find this type of research work related to Flipped Classroom Model. This paper helps to new research scholars to find knowledge gap about this topic.

Keywords : Flipped Classroom, speaking, flipped model, experimental.

Introduction : Flipped learning is a transformative teaching and learning approach that offers innovative teaching and learning activities. It transforms the traditional instructional strategy in the teaching and learning process (Karagöl & Esen, 2018). Flipped learning is a pedagogical paradigm that was underlined by constructivism theory that facilitates students' engagement in the classroom by providing an active teaching methodology that changes the traditional learning time; the activity that will be done at home and something the students used to do at home will be done in the classroom (Bergmann & Aaron, 2012; Fan, 2022; Gentile et al., 2022).

It offers more autonomy to be responsible for their prior learning before the classroom practice (Bārdule, 2021; González-Zamar & Abad-Segura, 2022). This approach can be implemented to accommodate the lack of learning time or practice in conventional classrooms with promising benefits.

Flipped learning has been developed massively since the 2000s when the integration of technology in education. Popularized by Jonathan Bergmann and Aaron Sams, flipped learning has become an effort to transform the learning activity to increase students' engagement and performance (Tan et al., 2015).

Bergmann and Aaron (2012) cite five key benefits of implementing flipped learning in teaching: active learning and engagement, personalized pace, better use of classroom time, increased student responsibility, and enhanced teacher-student interaction. The implementation of flipped learning potentially boosts speaking achievement and skill. Aburezeq (2020) found that the implementation of flipped learning could improve students' speaking skills and achievement. Additionally, flipped learning is effective for speaking skills through self-regulated learning, interaction, motivation, and achievement (Santhanasamy & Yunus, 2022). Furthermore, flipped learning affect positively to students speaking proficiency by promoting learner autonomy and engagement in the learning process (Abdullah et al., 2019; Haerazi, 2023; Marliana, 2022).

Flipped learning studies have been studied in all language skills, listening, speaking, reading, and writing, especially speaking as a productive skill. Numerous researchers have researched flipped learning and speaking skills; they were studied both independently and dependently. However, the correlation of how flipped learning affects speaking competency yet cannot be identified. Despite the massive research in flipped learning, the existing literatures potentially put some gaps. Many studies have focused on flipped learning and speaking separately; both can work synergically to improve teaching and learning quality (Karagöl & Esen, 2018).

The recognition of flipped learning and speaking competency in educational contexts, recently produced ample studies. A systematic literature review is necessary to be conducted to understand the effect of flipped learning on speaking competency. Furthermore, it can be a milestone to see the gaps between flipped learning and speaking competency for further research. This systematic literature review discusses the research conducted in flipped learning and speaking competency and many more variables.

Methodology : From 2015 to 2018 many theses work have been read and present it in this paper one by one. So that to highlight about the research gap for conducting new research work related to this new topic. Most of the work have been conducted in abroad . For Indian settings this topic is novel . And it is very difficult to find this type of research work related to Flipped Classroom Model.

Review Of Related Literature :

Khoo (2015) found that the influence of flipped pedagogy on student learning of threshold concepts in an introductory undergraduate course was examined by instructors in the faculty of engineering at a New Zealand university. As part of the three-week intervention, they substituted conventional weekly lectures with a series of short video lectures. The lab was modified to accommodate collaborative problem-solving activities. Interviews, questionnaires, class observations, and video analytics were used to obtain information. The flipped lesson was well received by the pupils, according to the findings. Many students, on the other hand, did not attend video lectures because they believed group activities were more beneficial to their learning. They recommended that current techniques for motivating students to watch videos be revised in order to optimise learning possibilities.

Before the class, digital information **(Rahman et al. 2015)** serves as a reference and recommendations. Students initially use technology in the form of audio, video, and through an educational portal, which they find beneficial to their learning process. To guarantee successful involvement among students, it focuses on various group activities such as in-class activities and other combinations of inquiry-based learning. The flipped classroom is a technique that can create knowledge and skills to meet the needs of 21st-century learning. In gathering examination sessions, the Student may not be dynamic. As a result, the flipped classroom's implementation has the potential to regulate the present traditional class in the proper bearing, resulting in a strong learning environment for pupils. The creators believe that the learner's learning should be sustained after their school days have ended.

Azlina et al. (2015) investigated the impact of the flipped Classroom on students' success after implementing the flipped Classroom method. The flipped Classroom has been proven to be ideal for STEM (Science, Technology, Engineering, and Mathematics) and to

have a positive impact on students' success in schools and higher institutions. Higher education in the twenty-first century places a strong focus on the use of innovative educational technologies. Only 15 students took part in this study, which is considered a small sample size for the overall analysis. To enjoy the benefits of the flipped classroom, this activity is expanded to include a large number of pupils. The authors feel that there is an opportunity and scope for research work in the flipped classroom to investigate and grow in the direction of acquiring an excellent and quality education.

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 .

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Rameswari, G, and Kasinathan, O (2016) studied about the efficacy of the Flipping Strategy in Teaching Disadvantaged Students in Inclusive Settings **.** The study's goal was to assess the effectiveness of the flipped method with a focus on children who were socially, culturally, and intellectually disadvantaged. The experimental group was taught using a flipped technique, whereas the control group was taught using traditional style. It was decided

to use a pre-test and post-test design. For thirty days, the experiment was conducted. The identical accomplishment exam was offered to both groups as a retention test once more. The data was examined using statistical procedures such as the mean, SD, and t-test. The findings revealed that (i) there was no significant difference in pre-test performance between the control group and the experimental group (ii) there was a significant difference in post-test performance between the control group and the experimental group (iii) there was no significant difference between pre-test and post-test in the control group students (iv) there was a significant difference between pre-test and post-test in the experimental group students (v) in terms of the rate progress , experimental group students are far ahead to the control group students (vi) significant difference is found between pre and post test in the experimental group; but no significant difference is seen in the control group (vii) the obtained results showed that flipped strategy was more effective than the traditional method in teaching science, and it enabled socially, culturally, and academically disadvantaged groups and improve their performance considerably.

Kaushal Kumar, B. et al. (2016) investigated the influence of the flipped classroom on high school mathematics concept learning. The study's goals were :

I. To determine the impact of a flipped classroom learning environment on students' learning achievement and motivation.

II. To see how flipped classrooms affect learners at various levels of achievement when it comes to learning arithmetic topics .

The Achievement Test in Mathematics and the Course Interest Survey were the instruments utilized. This study employed a quasi experimental design with a pre-test and post-test phase . The study's population consisted of high school students who were separated into control and experimental groups. For data analysis, the statistical procedures t-test, analysis of covariance, and multivariate analysis of variance were employed. The findings revealed that I there was a significant difference in learning achievement and motivation between the two groups, with the Flipped classroom students outperforming the traditional method students, and (ii) there was a significant difference in the performance of low achievers in the experimental and control groups.

Morton & Colbert-Getz (2016) studied that flipped classroom encourages higher-order thinking skills. The University of Utah School of Medicine researchers designed an experimental study to test the hypotheses that 1. Students in a flipped classroom would perform better than students in a lecture classroom on a higher cognition exam and 2. There would be no difference in performance on a lower cognition exam. In 2013, 101 students received 30 hours of anatomy instruction through lectures, while 104 students received 30 hours of anatomy instruction through a flipped format in 2014. Exam questions were divided into two categories: knowledge (low cognition) and analysis or application (high cognition) (higher cognition). Mann Whitney tests revealed that flipped classroom students fared better on analysis questions ($p=0.03$) than lecture class students, but no differences in knowledge items ($p=0.70$) .

Thiyagu, K. (2017) studied the efficiency of Vodcast among B.Ed. Trainees in teaching Mathematics. The study's major goal was to determine the effectiveness of Vodcast in teaching Mathematics to B.Ed. students. The investigation was conducted using an experimental technique. The study's sample consisted of 48 B. Ed students from Tuticorin District's Dr. SivanthiAditanar College of Education. For the selected material, the tools were Video Podcast and a Mathematics Achievement Test. The statistical analysis of data was done using the mean, standard deviation, and t-test. Pupils in the experimental group performed better as compared to the control group; but there was no significant difference in gain scores between the control and experimental groups in terms of achieving application objectives in the pre-test. The researcher also discovered that there was no significant difference between the control and experimental groups in their pre-tests, but that there was a significant difference in their post-tests . In the post-test, the experimental group performed better than the control group. In the post-test, there was a significant difference between control and experimental group students' achievement of knowledge, understanding, and application objectives, as well as a significant difference between the experimental group's pre-test and post-test scores in their achievement of knowledge, understanding, and application objectives. After receiving the Video podcast therapy, the experimental group improved on all three levels of learning objectives.

Marta et al. (2017) focused on the influence of students' adoption of the flipped classroom methodology as well as their experiences with out-of-class sessions. This study is for a numerical analysis course, and the opinions of students are gathered to assess the level of

acceptability of this new teaching technology. The findings indicated that students accepted the flipped classroom to a great degree. Students are also happy with the substance of out-of-class videos and prefer to tackle problems with faculty aid during in-class sessions. For out-of-class use, YouTube videos and pre-recorded video learning objects were posted. Because most students are familiar with mobile applications and online portals, out-of-class learning materials are flexible and easy for students to utilize any gadget for classroom sessions and improve self-learning abilities.

Neela Pathare (2018) investigated the impact of the Flipped Classroom Strategy in Higher Education . The study's goals were (i) identify appropriate topics from the Environmental Education syllabus for use in a Flipped Classroom Strategy, (ii) prepare a programme using a Flipped Classroom Strategy for teaching selected topics in Environmental Education to student teachers, and (iii) determine the effectiveness of the programme using a Flipped Classroom Strategy for teaching selected topics to student teachers. The investigation was conducted using an experimental technique. The data was collected using just the Experimental Group design after the test. Purposive sampling was used to pick twenty-four students who had Environmental Education as a subject and split them into two groups at random. Twelve students were in each of the experimental and control groups. Some of the films were created by the teacher for educational purposes. Some movies were downloaded from YouTube, and there were also written materials supplied. Cooperative methods such as Think, Pair, Share, group idea mapping, debate, problem solving, and group discussions were utilized in class .Mean, SD, and the t-test were used to evaluate the data. The findings indicated that (i) Flipped Classroom Strategies are successful for teaching environmental education themes to student teachers, and (ii) student teachers get in-depth understanding of environmental education topics.

Dipti Parida and Atasi Mohanty (2018) investigated the influence of flipped teaching on students' performance in Indian schools. The study's major goal was to compare the impact of flipped teaching to standard teaching methods in secondary schools for English and Odia medium students. The researchers used a pre-post quasi-experimental design. The study comprised 8th grade Science teaching courses to determine the efficacy of the techniques. The study's sample consisted of 180 samples that were chosen using

a purposive sampling approach. Statistical approaches such as mean, SD, t – test, ANOVA, and 2×2×2 factorial ANOVA were used to evaluate the data. The findings were

1. Flipped teaching considerably enhanced students' performance in Science at the secondary school level, according to the data.

2. Students in English medium schools performed better than students in Odia medium school.

Discussion :

In recent years, the flipped classroom has become one of emerging technologies in education and it can be a standard of teaching-learning practice to foster students' active learning in higher education (Hamdan, McKnight, & Arfstrom, 2013). The flipped classroom is an approach to teaching and learning activities where students watch a video lesson outside the class and have hands-on activities in the class. Halili and Zainuddin (2015) note that the flipped classroom or reverse classroom is an element of blended learning, integrating both face to-face learning in the class through group discussion and learning outside the class by watching asynchronous video lessons and online collaboration.

Flipped classroom is also known as a student-centred approach to learning where the students are more active than the instructor in the classroom activity. In this case, the instructor acts as a facilitator to motivate, guide, and give feedback on students' performance (Sams & Bergmann, 2012). The flipped classroom allows students to watch the video according to their preferred time and need, and they can study at their own pace; this type of activity also increases students' collaborative learning outside the class. Thus, by flipping the class, the students will not spend so much time listening to long lectures in the classroom but will have more time to solve problems individually or collaboratively through with peers.

In implementing flipped classroom, remembering and understanding as the lowest levels of cognitive domain are practiced outside the class hour (Krathwohl & Anderson, 2010). Few studies focused either on teaching a particular or a combination of language

skills. This indicates that there is ample research gap in the use of flipped method particularly in India.

Research Gap

(i) Synthesis of Reviews on Flipped Classroom Model in India

The Indian studies reported the following conclusions - According to Dipti Parida and Atasi Mohanty (2018) found that flipped teaching significantly improved learners' performance . However, the performance of the English medium students was substantially better than Odia/Vernacular medium students. The author of Gurpret Kaur (2018) reveals that gain achievement scores in mathematics taught through the flipped Classroom model were found significantly higher than that of the problem-solving strategies group.

According to Prabhavathy Amma Pappathy, V.A. and Rexlin Jose, G. (2018) found that experimental group those who were studied the materials through Mobile Blogging had high score. Rajendra Prasad, M. and Renukadevi, A. (2016). Further, the researcher also reveals that the classroom to classroom interactions bring new joyful environment among the students and encourage them to actively participate in discussions.

According to Mugundan, V. (2018) found that the iPad assisted instruction has a higher Mean score. Further, this study also recommended iPad assisted instruction is proved to be more effective compared to the conventional method of teaching. The investigator Neela Pathare (2018) concluded that Flipped Classroom approach was found to be effective for teaching the topics in 41 Environmental education to the student teachers and also the student teachers acquire deep knowledge about the topics in Environmental Education.

Kombaiah, P. and Lenin, S. (2017) found a significant relationship between the usage of mass media and performance In the Science of High school students. The investigators Swati, S. and Divya, K. (2017) Concluded that Flipped classroom approach will help in increasing the skills of students critical thinking skills, analytical skills, problem-solving skills, learning skills. The related study of the present research reveals that a smart classroom improved the achievement of ninth standard students in Science.

(Thilagavathy, T. and Bala Ayyappan, S. (2017)). Thiyagu, K. (2017) concluded that Vodcast in learning Mathematics Method students performed better than the traditional method in their gain scores of learning objectives knowledge and understanding.

(ii) Synthesis of Reviews on Flipped Classroom Model in abroad

The investigators Jdaitawi and Malek (2019) found that the Flipped classroom strategy can be used to promote self-regulated learning and enhancing students' social connectiveness.. According to Bhattacharjee, Suchismita (2019) conclude that flipped classroom as an effective way forward when combined with a traditional method as adopted under the hybrid approach.

Amstelveen, Raoul (2019) found that video lectures helped them to learn more Mathematics. in comparison to learners in the non-Flipped classroom who did not use video lectures. According to Cheng, Li et al. (2019) concluded that the Flipped classroom instructional technique is thought to be a good way to structure learning experiences to enhance students' learning results. The investigator's Yu, Zhonggen (2019) found that Mobile device-aided Flipped English Class (MFC) is profoundly more positive than that in conventional Video-aided Flipped English Class (VFC). The researchers Cilli-Turner et al. (2018) reveals that the positive effects on learning and retention rates that active learning Brings to the classroom.

Winter and Joshua W. (2018) flipped Learning benefits average achieving students through differentiated instruction. The investigators Nielson, Perpetua Lynne (2018) found a significant improvement in the students' performance and course satisfaction with the flipped classroom. According to Caverly, Gregg (2017) concluded that the flipped classroom changed their engagement level toward mathematics.

Conclusion : It is difficult to draw any conclusions from these studies. They have been highly varied in nature. A number of studies as reviewed here have attempted to identify effect of Flipped Classroom Approach on Academic Achievement. In view of these remarks it was felt that there was the need for more and more studies to be conducted in

this area with a new orientation. In India very few studies have been done on the flipped classroom approach. This is a new concept in India.

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