Flipped classroom in India before and after COVID 19: A systematic review

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Abstract- This paper presents a comprehensive analysis of contemporary academic literature to examine the benefits and difficulties of flipped classroom implementation in India before and after COVID 19 and to analyse the influence of flipped classrooms on the academic performance of future teachers. The review reported on 34 studies- 31 research articles and 3 PhD dissertations- published from 2013 till 2023. According to this analysis, Indian literature has recently given a lot of attention to the "flipped classroom" concept. The National Education Policy 2020, adopted by the Indian government in 2020, also calls for a shift in the focus of education away from content instruction and towards teaching students how to think critically, solve problems, be creative and multidisciplinary thinkers, as well as how to innovate, adapt, and absorb new knowledge in cutting-edge and evolving fields—skills that cannot be learned through conventional methods alone. The flipped classroom emerged as the best solution to make education more immersive, complete, integrated, learner-centred, inquiry-driven, discovery-oriented, discussion-based, adaptive, and, of course, enjoyable. The findings show that, on the one hand, flipped classrooms are playing an increasingly important role in promoting student engagement, high order thinking, self-efficacy, and self-regulated learning. On the other hand, there is a research gap and a significant vacuum in Indian research literature regarding the lack of in-depth studies specifically focusing on teacher education. This review could serve as a reference point for understanding how cutting-edge pedagogies like the flipped classroom are implemented in accordance with educational policy 2020.

Keywords: Technology, flipped classroom, student engagement, self efficacy, Policy

INTRODUCTION

Education no longer entails passively listening to the teacher, but that era is quickly disappearing. In the past, education was teacher-centred, but today it is student-centred. What is expected of students in the twenty-first century has likewise undergone a paradigm shift. The time has come to consider an entirely new framework for the teaching and learning process that fully takes advantage of technological improvements to meet the demands placed on students in the twenty-first century. India is not an exception to the global dissemination of knowledge and information using faster and better digital platforms. The sharing of knowledge and information around the world is facilitated by newer, quicker web tools and platforms. Technology-assisted learning is expanding and offering the teaching and learning process a new facet. The scope and diversity of courses have continued to grow, and the abrupt COVID-19 crisis in early 2020 has accelerated universities' adoption of online instruction even further (Tang et al., 2020). Teachers at all levels of education were compelled by the pandemic to switch to a blended learning approach. There is a strong likelihood that face-to-face instruction combined with online courses will establish themselves as "the new normal." Such initiatives are essential. Numerous internet tools, apps, and educational methodologies were created as a result. Educational institutions now employ a wide range of tactics thanks to innovation in teaching. Flipped classroom is a well-known example. Among educational institutions, this approach generated a lot of interest. Two of the main benefits of technology-enhanced flipped classroom learning are the flexibility of the workload and the ability for the students to choose when and what they learn. Additionally, studies have shown that online learning is pedagogically promising since its self-paced and student-centred approach promotes deeper learning (Tang et al., 2020). According to Crews & Butterfield (2014) and Thai, De Wever & Valcke (2017), the flipped classroom is a flexible and well-researched educational technique that encourages active learning through the power of peer learning. The National Education Policy 2020, adopted by the Indian government in 2020, also calls for a shift in the focus of education away from content instruction and towards teaching students how to think critically, solve problems, be creative and multidisciplinary thinkers, as well as how to innovate, adapt, and absorb new knowledge in cutting-edge and evolving fields—skills that cannot be learned through conventional methods alone. The flipped classroom emerged as the best solution to make education more immersive, complete, integrated, learner-centred, inquiry-driven, discovery-oriented, discussion-based, adaptive, and, of course, enjoyable.
According to Economic Times, The Indian School of Business (ISB) was one of the first management schools in the nation to implement the "flipped classroom" to instruct students in a course on making entrepreneurial decisions in 2013. Following that, it began to receive attention from all academic fields as a result of its ability to create interactive classrooms, which is currently a necessity for students of this era. Only a small number of people knew about it by 2015, but because of technical advancements its awareness whooped in 2016, and educators started experimenting on it. However, the proportion of adoption and researches on flipped classroom fell since it is challenging to embrace anything new because individuals are hesitant and afraid to adopt new strategies. As the method of instruction has been founded on a model for memory and faithful reproduction of what has been taught for years, in which the student takes on a passive role and the teacher is the main character in the story. The flipped classroom approach, which aims to alter the logic of teaching organisation by presuming that the student has access to the material in advance and emphasizing the use of technology for learning enhancement, is the active methodology that attracted attention and graph of studies raised in 2018. And in 2019, because of the unexpected pandemic, teachers and students were forced to accept it because online learning had its own problems and traditional teaching was no longer an option.

Flipped learning tactics combine a variety of other cooperative learning techniques with technological tools for engagement. To better their understanding of clinical aspects of biochemistry and to learn about students' perceptions, studied the Flipped classroom activity with mind mapping (Sabale & Chowdary, 2019); Jigsaw method (Uppal & Uppal, 2020) and Poll Everywhere (Gubbiyappa et al., 2016). These were found as an effective teaching-learning method as a teaching learning tool for Medical students. They discovered that jigsaw groups offer numerous opportunities for creative idea exchange and engaging and meaningful participation. Additionally, students enjoyed learning from their classmates and thought it helped them have a deeper understanding of the subject. Highly positive feedback was noted by the majority of students on flipped class from the studies of Goothy et al (2019); Sabale & Chowdary (2019); Sreegiri S. (2018). The mean scores after comparing flipped and traditional were not found to be significant in the quantitative findings of Agarwal et al. (2019) while Angadi et al (2019) and Roopashree et al. (2018) discovered the intervention changed the classroom interactions and helped students understand the subject better.
The only piece of writing that is solely dedicated to professors is a qualitative research scooping study conducted on 26 professors from different universities in Punjab, New Delhi, and Meghalaya by Sandhu et al. (2019) to determine the level of awareness of a flipped classroom approach in North India and the level of interest in seeing this methodology tested in higher education classrooms. Despite their lack of understanding of flipped classes, the participants generally had positive opinions of them, the results showed. This suggests that it would be helpful to raise teachers' awareness of the flipped classroom methodology and to provide them with the appropriate training to implement this methodology. It also suggests that using a social networking platform like What's App to facilitate flipped classes may be taken into account.

Malik & Rani (2023) conceptual paper shed light on the contributions of Flipped classroom which creates awareness about methodology and motivates to opt it. Sharma's (2018) theoretical investigation, which adopts a constructivist learning philosophy, gathers a few experiences related to the issue. In the paper, the author makes the following claim: "Active learning and socio-constructivist theories of education are the foundation of the flipped classroom method. She also collated instructional techniques that can be combined with the flipped classroom method.

In the study of Priyadarshini M, & Vinayaga Sundaram B. (2018), Flipped classroom pedagogy has proven to be an effective methodology to improve the higher-order thinking skills for higher education. The proposed Flipped classroom strategy has enhanced the performance of the learners and proven to be a positive learning strategy for the engineering courses. The effectiveness of Flipped classroom can yield better results and performances only when the students actively participate in the in-class and out-class activities. The findings of Bhat et al. (2020); Kavitha, D., & Anitha, D. (2018), indicated a positive correlation, depicting students in flipped classrooms have higher academic achievement and more favourable attitudes towards the mode of instruction than those in traditional classrooms. Preethi (2019)& Sophia et al (2016) observed the impact and efficacy of flipped on English language and grammar and proved that this methodology can help a great deal in building the intrinsic motivation of the learners where the student develops an interest in language without considering the external factors of marks or grades. Gender wise comparison was done by Anbalagan & Jayachitra (2019) on flipped classroom and found girls are more satisfied with the flipped classroom approach when compared with boys. Elementary pupils were equally enthusiastic about the flipped classroom strategy. Hajari, B., Padmanabhan, V., Sharma, H. L., and Chowdhry, M. (2016), among others. demonstrated in their findings the possibility of a technique to raise elementary school pupils’ levels of engagement and self-efficacy.

Conclusion
The 34 papers were assembled with an emphasis on the Flipped Classroom, where it has made contributions to a number of sectors including: secondary levels of education, teacher education, business administration, language engineering, and medical education. India is one country where the Flipped model has been expanding. The research that is provided here centres on several Indian subjects. The findings demonstrate that, on the one hand, it is challenging to ensure that our students are learning, but that, on the other hand, if we attempt to reflect on our pedagogical practise while using active methodologies, particularly the flipped classroom, which served as the focus of our study, we find potential for active classes to grow.

REFERENCES:


