EXCELLENT PUBLISHERS

Flipped Learning in Higher Education – A Special Study on Teachers Discernment in Virudhunagar District

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Abstract

Flipped classroom model can also be particularly useful in large lecture courses where student engagement and interaction are usually minimal. When students receive the lecture outside the class, they can use time in class with their peers more effectively by breaking up into smaller discussion groups or engage in other in-class activities. Instructors also make more effective use of their time by reviewing content that students actually need help with and guiding student discussions. The Flipped Learning model also allows for differentiated learning in classes of all sizes, since students can review the lecture content at their own pace and ask questions on their own time. This article discusses the flipped learning discernment both in teacher's motivational factors and how the teacher's ambience plays a vital role in developing students learning attitude. This research deals with the teachers of Virudhunagar district both self-financing and aided stream regardless of their income and experience. Totally 140 teachers working in Virudhunagar district are taken into study with structured questionnaire.

Introduction

Flipped Learning is especially applicable to higher education settings for a variety of reasons. The in-class discussion and enrichment activities allowed by moving content delivery outside of class time provide opportunities for students to develop critical skills needed in the 21st century, including critical thinking, creativity, communications, and collaboration. Flipped classroom model can also be particularly useful in large lecture courses where student engagement and interaction are usually minimal. When students receive the lecture outside the class, they can use time in class with their peers more effectively by breaking up into smaller discussion groups or engage in other in-class activities. Instructors also make more effective use of their time by reviewing content that students actually need help with and guiding student discussions. The

Flipped Learning model also allows for differentiated learning in classes of all sizes, since students can review the lecture content at their own pace and ask questions on their own time. Flipped classroom refers to a blended learning strategy where students watch video instruction or engage in online learning activities on their own time, opening class time to individual support and higher-level engagement with the concept (Aghaei *et al.,* 2019; Gündüz and Akkoyunlu, 2019; Yang and Chen, 2019). The term flipped classroom was coined in 2012 by two high school chemistry teachers, Bergmann and Sams (2012), who began teaching with this model in 2007. Flipped Learning Model has spread to many other teachers and instructors within K-12 and college and university settings. Sams and Bergmann started the Flipped Learning Network™ in 1992 to provide educators with the necessary knowledge, skills, and resources to implement the Flipped Learning Model

(Sherrow *et al.,* 2016). Educators, scholars, researchers, practitioners, technologists, and thought leaders in flipped learning formed the Flipped Learning Global Initiative (FLGI) in 2016 (Birgili *et al.,* 2021). FLGI supports the adoption of flipped learning worldwide, and it contributed to replacing the term "flipped classroom" with "flipped learning". The change in terminology reflected an expanded understanding of flipped learning as an approach independent of teaching and learning environments, rather than a class organisation like in a physical classroom. In a flipped learning setting, instructors make lessons available to students wherever convenient. Instructors may deliver this information by recording and narrating screencasts, demonstrating, explaining concepts using computers, creating videos of themselves teaching, or creating online video lessons.

Challenges on Flipped Classroom

Flipped Learning is almost a new model for teaching and, as such, there are challenges to its implementation in higher education institutions.

Course Redesign

The most common difficulty that faculty face on Flipped classroom is extra time and effort required to redesign an existing course. Many teachers teach multiple courses, often at multiple locations, and may have other professional activities making it hard to find the time to flip a course. Teachers who have flipped their courses have frequently remarked that it does require additional authentic work and a willingness to experiment with different methods. Flipped course is an initial large time investment, but this pays off in terms of lighter future workloads and students' deeper learning. The planning required at the beginning of implementing a flipped course means less work to the next year around, as resources and activities can be used over again from year to year.

Faculty Workload

As compared to traditional learning flipped classroom have high workload not designing the course along but also preparation of videos and practical explanations. Teachers find it helpful to work with one or more colleagues to flip a course. Co-teaching is often cited as an advantage; instructors can make the videos together, switch off making the lessons for each unit, or have one make the videos and the other create classroom activities, including assessments. It is important for instructors and professors to be properly trained on how to infuse Flipped Learning into their classes; it's not just about a video. Many schools have put together information to help faculty explore flipped teaching, where instructors can find assistance in their centres for teaching and learning.

Student Buy-in

Another significant challenge to implementing the Flipped Learning model is achieving student buy-in. While some students struggle with the traditional lecture method, others have become so used to that style that they have a hard time adjusting to something new and innovative. The active learning tasks that are characteristic of a flipped course require students to put in more effort during class and to stay current with the pace of the course.

Student Evaluations

Student evaluations of flipped courses in higher education have varied, with some favouring the hands-on, peer-instruction activities in class and others finding it difficult to follow. Sometimes students felt the same professor half the average rating in his flipped course compared to his traditional course. It is unclear if this is caused by student resistance to any form of change, the inexperience of the professor with the new format, a genuine dislike from students, or another factor.

Different students have different styles of learning and some will tend to favour the flipped model while others will not. As students and faculty become more experienced with the approach, it is likely that opposition will decrease.

Review of related literatures

The study show (Aşıksoy and Özdamlı, 2016; Wanner and Palmer, 2015), the impressions expressed by respondents on the relevance of various strategies and techniques on their self-perceived motivation were quite good, with the Kahoot! quizzes being one of the best-valued resources. In this sense, it should be noted that the effectiveness of gamification and some related ludic elements such as points, levels, or prizes can provide fun and interaction, and thus increase motivation and promote student participation. Furthermore, as Fontana (2020) and Park and Kim (2021) point out, gamification can enhance social relationships through which students can share information, learn from each other and

entertain themselves through these online platforms, which are even more significant during the pandemic period associated with social distancing and the need to protect oneself and others. Notwithstanding, as suggested by Mekler *et al.,* (2017) the underlying motivational mechanisms should be the subject of further empirical research.

Regarding student teachers' perceptions of their own learning, the data show their positive impressions, which are in line with other studies on the implementation of this approach (Foldness, 2016; Love *et al.,* 2014). It seems obvious that participants were interested in understanding effective methodological shifts that support more flexible and active ways of learning under the current pandemic situation. According to the data, students' attitudes towards flipped education, which has shifted from prioritizing traditional lecture-based lessons to more student-centered and autonomous learning methods, were receptive to this technology-based active learning approach. Students valued most positively the use of a wider range of online resources, the development of more frequent interactions, not only teacher-student but also peer-to-peer, and new ways of managing knowledge and content. Other research studies also agreed on the appropriateness of these alternative approaches during coronavirus disease because of their great deal of flexibility, their free access to online academic resources, and their interactive learning environments, among other reasons (Chick *et al.,* 2020; Lapitan *et al.,* 2021). In this sense, the use of a full set of IT tools, such as a modern LMS with a user-friendly interface and effective collaboration tools, would allow for flexible resource management, which favors the search, sharing, and application of knowledge among students (Basilaia and Kvavadze, 2020; Zainuddin and Perera, 2018).

Statement of the Problem

Higher education institutions have adopted flipped learning in recent years, and it is worthwhile to examine how the users have perceived such a change. While many research studies focused on students as participants, this study examines the Teachers' perception of flipped learning. The present study is conducted based on Teachers discernment on flipped learning in higher education in Virudhunagar District and data were analyzed based on information gathered from higher education Teachers both Government and Self-financing.

It also covers the comparison of both Aided and self-financing teachers of Virudhunagar District towards flipped learning on the perspective of self-motivational factors in their flipped classes and students' development in flipped learning.

The Present study has the following objectives that include to analyze the Teachers discernment on students' developmental factors on flipped learning. To compare the Aided and Self-financing teachers' discernment in relation to Flipped-Classroom-based learning. And also to offer suitable suggestions on the basis of the findings of the study

Sampling Design

Higher education teachers working in Virudhunagar District is the main source of primary data are collected through a structured questionnaire. As the area of study is limited in Virudhunagar District of Tamil Nadu and as the total population is numerable, the researcher has proposed the sampling techniques for the selection of respondents. 140 respondents were selected and included in the study from various taluks of Virudhunagar District who have working in Government and Self-financing schools. Convenience sampling was used for the survey. The questionnaires were distributed to the respondents in the selected sample and the data was used to analysis

Type and Sources of Data

The primary data are used for this research. The primary data are collected by using questionnaire method.

Tools for Analysis

Tools and Techniques used for the study involves statistical tools like Henry Garretts Ranking technique, used to analyze and interpret the best motivational factors to flip the teacher's classes and Mann-Whitney U tests were used to examine the significant relationship on the discernment of both the aided and self-financing teachers have the same.

Analysis and Findings

Teachers Discernment on students' development through flipped learning

Technology- driven models, such as the flipped classroom (FC),which provide students with direct access to video lectures, slides, and other teaching resources on online educational plat-forms, have gradually gained visibility and relevance (Bergmann and Sams, 2012). This discussion-oriented approach has

accelerated well-structured independent learning, allowing teachers to provide feedback and assistance through innovative resources and learning management systems (LMS) in parallel with the implementation of collaborative problem-solving activities and group discussions in face-to-face lessons(López *et al.,* 2016).

Some of the influencing factors are identified as motivational factors among the teachers of sample area and ranked by them most preferable to least. Henry Garrett's Ranking technique was applied and the results are given below;

The above Table presents the results obtained through Henry Garrett's Ranking technique and shows the "Students' Developmental factors on flipped learning" evaluated by the same technique. It is evident that "Make students the centre of learning" ranked as number 1with mean score of 124.7, "Dealing with absences" is ranked as number 2 with a mean score of 122.5, "Improves the students team-based skills" is ranked as number 3 with a mean score of116.7, "Better faculty to student interaction" is ranked as number 4 with a mean score of 114.7, "Improves students critical thinking" ranked as number 5 with mean score is 110.8, "Improve learning outcomings" ranked as number 6 with a mean value of 101.2, "Improve students participation and engagement" is ranked as number 7 with mean score of 87.9, "Increases problem solving skills " is ranked as number 8 with a mean score is 80.8, "Encourage high scoring" is ranked as number 9 with mean score of67.6, "Compensate for limited classroom space is ranked as 10 with a mean score of 53.9 and "Differentiate learning is ranked as 11 with a mean score of 45.

Comparison of Teachers discernment towards Flipped Learning

The flipped classroom allows the teachers to be flexible in the way they teach their students. Generally, it is not a requirement for them to flip their entire class. They can prefer to flip even just a single lesson or instead create a blended learning experience that combines the elements of a traditional and flipped classroom. In Virudhunagar District Management Schools also plays a vital role in applying technology based learning from the point of view of both teachers as well as students. Apart from their salary stream and experience they are eager to learn and apply the technology mode learning. Flipped classroom learning makes the student technology oriented and resourceful. The below table helps to anlyse the perception of both self-financing and aided school teachers.

The above table shows descriptive statistics, consisting of two categories of measures: measures of central tendency (mean) and measures of variability (standard deviation). Mann-Whitney U tests were conducted to examine whether the Aided and Self-financing teachers' discernment of their self-perceived motivation in relation to Flipped-Classroom-based learning. However, Mann–Whitney U tests revealed no significant differences between Teachers of Aided and Self-financing experience in this approach and those without, with the former feeling more motivated than the latter to learn new active methodologies, link them to their future teaching practice, improve their autonomy or interact socially more effective. It is observed that self-financing teachers have high self-perceived than aided teachers' perception towards flipped learning to the education of the students. There are no significant differences were identified between both aided course and self-financing teachers towards their flip the courses.

Recommendations

This article examines Teachers' self-perceived motivation and learning regarding students' development through flipped model of learning. The result shows that, "Make students the center of learning", "Dealing with absences" and "Improves the student's team-based skills" ranked the top three positions. It explains that student's improvement through flipped learning is possible, but "Differentiated Learning" ranked at least position. The Flipped Learning model also allows for differentiated learning in classes of all sizes, since students can review the lecture content at their own pace and ask questions on their own time. But the respondents opinioned that it was difficult, it shows that they need to learn about handling classes at large with acceptable evaluation methods.

The data obtained in this study showed a positive self-perceived motivational approach on flipped classroom, both in Aided stream teachers and Self-financing stream teachers. There is no significant difference on teachers' discernment regarding flipped learning. According to the results, participants felt sufficiently motivated irrespective of the income and experience, to learn new active methodologies and to improve their future teaching practice. Thus, this new learning phase did not especially affect their interest in the traditional model, and they were willing to participate and collaborate to do better in the future. As the comparative research shows respondents were more willing to actively participate in the Flipped learning model than the traditional model.

Table.1 Students' Developmental factors on Flipped learning

Students' Developmental factors	Mean Score		Rank
Make students the centre of learning	17464	124.7	I
Dealing with absences	17149	122.5	II
Improves the student's team-based skills	16344	116.7	III
Better faculty to student interaction	16060	114.7	IV
Improves students critical thinking	15506	110.8	V
Improve learning outcomes	14164	101.2	VI
Improve students' participation and engagement	12318	87.9	VII
Increases problem solving skills	11316	80.8	VIII
Encourage high scoring	9463	67.6	XI
Compensate for limited classroom space	7549	53.9	X
Differentiate learning	6304	45.0	XI

Source: Primary Data

Table.2 Comparison of Teachers discernment towards Flipped Learning

Perception	College	N	Mean	SD	Mann-Whitney U	P value
Excel in class learning	Aided	70	3.08	1.08	2406.01	0.304
	Self-financing	70	3.43	1.09		
Implement new active methodologies	Aided	70	3.32	1.03	2589.40	0.730
	Self-financing	70	3.74	1.00		
Improves future teaching practices	Aided	70	3.58	1.02	2486.60	0.468
	Self-financing	70	3.86	1.01		
Improves my autonomy in teaching	Aided	70	3.40	1.13	2676.50	0.985
	Self-financing	70	3.45	1.05		
Effective social interaction is possible	Aided	70	320	1.08	2602.00	0.787
	Self-financing	70	3.34	1.16		
Excel in online lessons	Aided	70	3.02	1.16	2528.50	0.582
	Self-financing	70	3.58	1.01		
Improves students scoring	Aided	70	3.66	1.09	2597.00	0.659
	Self-financing	70	3.78	1.02		
Students get good grades	Aided	70	3.34	1.01	2550.00	0.621
	Self-financing	70	3.34	0.98		

Source: Computed data; 5% level of significance

The flipped classroom needs much more work than the traditional classroom, because teachers should prepare for the work involved in setting up a flipped classroom, from assuring access to technology among students to preparing the content itself, to ensuring that the equipment to be used is up to standards. Any sign of lack of effort can lead to the failure of the flipped classroom experience. Findings in the study showed that both teachers of self-financing and aided course have no significant relationship between adopting flipped learning model classroom to the students and had a significant and positive effect on student learning. The study also attempted to examine the most student development factors from the view point of teachers. Results showed that teachers' perception in flipped learning makes the students centre of learning.

The findings of this research cannot be the representative of current teaching and learning processes that drive Teacher's motivation, as the results are drawn from a single experience and it would be advisable for the analysis to be compared with actual learning outcomes and impacts of this model. Therefore, there is a need for further study of these newly emerging e-learning

scenarios due to the restrictions or lock- downs, as well as the complex set of interrelated factors affecting their implementation. In addition, further research is required to analyses the lower value items within this approach to customize them according to learners' specific interests and needs.

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