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Research Article

Awareness and Perceptions of Tertiary Students of Arunachal Pradesh towards Flipped Classroom

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Abstract:
The goal of the paper is to review the awareness and perceptions of tertiary students towards flipped classroom approach. A mixed-method research paradigm has been employed to accomplish the objectives of the present work. The tertiary students, of Arunachal Pradesh, India were the target populations of the study. Total of 150 students was drawn as a study sample through a simple random sampling technique. Data was collected using a self-made questionnaire consisting of 21 items and Focus Group Discussion (FGD). The study showed that most of the tertiary students of Arunachal Pradesh are aware of the flipped classroom and perceived that flipped classroom provided learners to increase motivation, self-discipline, increase self-confidence, better student-teacher interaction with the additional opportunity to seek help immediately from their peers whenever they faced any questions
Keywords: Awareness,Flipped classroom Approach, Tertiary Students, Arunachal Pradesh

Introduction:

The education purpose is to satisfy the needs of the dynamic society is the current situation. So, the educationsystem also keeps on changing to ensure the demand of society. There are incredible advantages provided by the flipped classroom to the professionals, learners and researcher scholarsrelated to gathering information based on academics and professionals' topics and a lot more. We had been trying to include technology inside the classroom since long back but still not succeeded completely. Out of many such initiatives Massive Open Online Course(MOOC) is one. It is one of the recent year's discoveries worldwide which connect teachers and learners around the world. In which through media and technology one can learn according to their interest. The blended classroom is also one of the best methods which are used in many institutions today. The blended classroom is a combination of using both online and offline teaching-learning experiences where the students are trained by both conventional method of teaching and through electronic and online media. One of the recent innovation in the education field is flipped classroom which became very popular as a way of introducing technology inside the classroom and outside the classroom. It is a student-centered and inspired by the constructivist approach where collaborative learning, critical thinking, communication skill, and interactive learning environment are mostly focused. The method used in flipped classroom is opposite to the conventional method teaching where the learners are exposed to the materials initially before the class through videos and online reading. During the lecture time they are supposed to perform the difficult task like problem-solving, clarification of doubts, group discussion, and debates that enhances the student's knowledgeviz. communication skills, decisiveidea, and different innovative ideas.In the current literature on there are numerous explanations for Flipping the Class room (FTC)[1]. Different authors explain the content in their lectures (e.g., explaining the tutorials on problem solving). One problem in defining FTC was to consider the videos and computational technology before the commencement of the lecture[10].Various researchers describe FTC as instructional videos that are studied by the students through online prior to the lecture [13, 16, 24, 29, 33]or by obtaining the system based one to one training out of the classroom[11, 23]. Initially, [21] utilized the concept of flipped classroom and then it got famous as dynamic teaching. Explanation offered by Bergmann &Sams in 2012 formed as the foundation for many flipper classroom research. They explain as it is a technique where the students are able to view the instructions anytime and anywhere. Alternatively, during the lecture hours, they carry out the tasks which are felt as difficult by them in conventional method [16, 26]. Hung (2015), mentioned that the prior groundwork of the students are necessary for more involvement and innovations. Many studies believe that flipping or inverting mode of class indicates that the most of the tasks that performed in the class are now performed outside the class and vice versa. Conversely, some research studies accepts the standard FTC description as FTC cannot be explained only through computational technology and online videos [1, 4, 19, 21, 25, 26, 28] . With this broad view, task like understanding the concept prior to the class is necessary in FTC. [15] stick to final description of FTC as they consider that the mode of learning prior to the class does not have any influence as such. Furthermore, our goal is

to carry out a complete review on FTC effects without avoiding any FTC characteristics like understanding the concept prior to the class through online videos and utilizing them in their conventional class. Hence the motive of the paper is to identify the consciousness between tertiary students on the concept of flipped classroom for studying. The flipped classroom model (FCM) is common in other countries for past 27 years but in India it is a new technique in the educational system [32]. In recent days, it has prospective application in education [32]. Implementing this technique in higher education is still in investigational level (MacDonald, 2008), and according to Indian educational system, FCM has brought benefits for students and teachers as well. In case of teachers, FCM helps them to act as mentors, student facilitator and provide different instructing methods for different students. The delivery of content is improvised by getting immediate response from the learners by using fast responding atmosphere (Shinde and Deshmukh, 2012). Thestudents' knowledge has been enhanced since the technique broadens the education atmosphere and also offers individual learning environment. This technique provides better transparency, flexibility, customized learning environment, improved communication between student and teacher, enhanced professional growth, program growth, easy maintenance of attendance and grade levels and easy monitoring of learner behavior issues (Kaur, 2016).

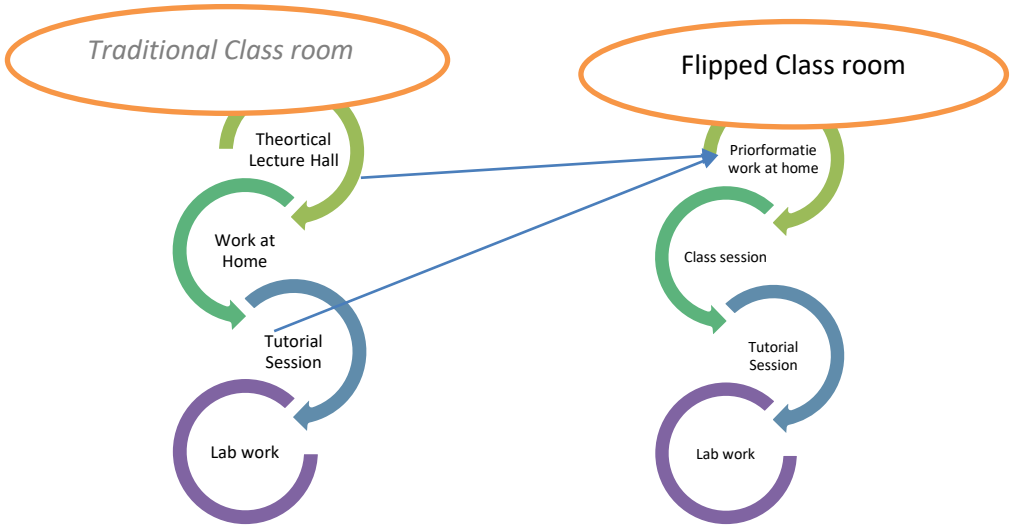

Figure 1 depicts the steps involved in both conventional and flipped course. The students search for the fundamental concepts of the course via a planned work in flipped classroom. The instruction sessions are based on reinforcement by using live questions and study based applications.

In case of flipped classroom technique, the task performed by the students at home and inside the class are reversed. Thus, the students listen to the lectures either through online of offline like videos, workbooks, quiz, etc. during their time and obtain information to make them ready for problem solving and discussion that are done during the class [11, 21,33]. The FCM technique has been successfully applied for higher studies in various institutions for varied courses and publicized as upcoming educational system [19]. However, the technique has been used only at higher level and the literature provides the advantage of this technique as high motivation for students and successful implementation at higher level education. A study performed with the school students, it was identified that the students does not support the FCM technique for many reasons (Qayoom and Saleem, 2017). Nevertheless, the full flipped classroom may be the cause for the learner's dissatisfaction on this technique and hence there should be an experimental study performed using partial flipped classroom.

Review of Related Literature

Ahuja, Nishmita (2020)has performed a work on "Awareness and effectiveness of the flipped classroom approach among students in Mumbai city". Motive of the work is to know the students awareness, effectiveness, perception and whether to adopt this new approach of learning. The study sample contains 60 learners from Mumbai which werechosen using random sampling technique. Tools used for data collection were questionnaire and personal interview of the students was conducted. For analysis purpose, the investigator had used a simple statistical technique of frequency and percentage.The outcome of the workdiscovered that flipped classroom approach is an efficient way of teaching and learning as per the learner's point of view.Jantakoo&Piriyasurawong (2018)haveconducted a study on"Flipped classroom approach instructional model with mobile learning based on constructivist learning theory" to improve the decisivethoughts.Twenty-fiveof the research focused on student's perception about the implementation of flipped course. According to their belief, positive views were recorded in all the research with better groundwork for the class [4, 6, 8, 9, 12, 14, 27, 36, 38, 40, 41], that make them as active learners in the classroom [5, 6, 9, 36, 38, 40, 41]more time for practicing[2, 20, 36], real life environment exposure, relaxed atmosphere both psychological and social, very less stress on learning [20, 39, 41], student specific learning atmosphere [6, 38], pleasant class with time management[8, 20, 30, 35, 39-41], easy available materials [2, 6, 7, 14, 38, 40], self interested learning [5, 7, 9, 20,

35, 39, 40], content repetition[6], knowledge maintenance[5, 20, 38], easy understanding of the concept [5, 12, 27, 35, 39], enhanced communication among peer groups,increasedself-possessionand enthusiasm [14, 30, 31, 35, 39], development in self control with learner independence [2], enhanced teacher-student communication with fewer issues[2, 14, 36], reduced time for finishing the activity[2,40,41],expertise to the technique[36, 38, 39], system related issues[8].

Significance of the Study:

Adoption and implementation of any new programme in any stage of education need situation analysis first; do the stakeholders of education know about the newprogramme, if know do they want it to implement, it they want it to implement is it applicable in terms of geography, cultural and other factor and many such other things. Asflipped classroom approach is a novel approach of teaching-learning, it is significant to know the awareness of students towards it and their opinion towards its adoption. Another important reason regarding, why the present study is significant is that even through review of existing literature, the researcher came to know that not even a single study had been conducted yet in the study area on the selected topic. On this backdrop the researcher took up this study. The results of this research will obviously help the stakeholders of education especially the policy makers to take decision if in future this approach has to be used at higher stage of education in India in general and Arunachal Pradesh in particular.

Objectives:

1. To assessthe awareness of tertiary learners forFCtechnique.
2. To assess theperception of tertiary students concerning the adoption of FCtechnique at higher stage of education.

Methodology:

Research Design:

The combined researchmodelisengaged to realize the objectives of the current work..The study sample contains 150 learners studying in colleges and universities **(**80 were female and 63 were male, 7 students preferred not to say about their gender. 90 students were from Arts, 40 from Science and 20 students from Commerce streams) selected randomly. To study the awareness, the survey questionnaire were used to obtain thelearner's data.A self-made questionnaire was developed and administered to collect the data onperception of tertiary students regarding the adoption of flipped classroom approachand motivation and achievement at higher stage of education. One Focus Group Discussion (Mishra.L, 2016) was conducted for gathering qualitative data and interpreting the results**.**Data was collected through online mode using a questionnaire and FGD was conducted via Zoom meeting during the covid-19 pandemic period.

Result and Discussions

Objective – 1:To study the awareness of tertiary students towards flipped classroom approach.

Awareness of tertiary students on flipped classroom refers to the factual knowledge about important aspects of flipped classroom and its allied problems. Fifty three percent students are aware about flipped classroom is a pedagogical approach of teaching any subject. Forty six percent of students are aware about, flipped classrooms is a that combines both active learning through live classes and system-based learning prior to the class. Sixty three percent students are aware about Khan Academy and inverted the paradigm of teaching. Twenty three percent students are aware about three levels (pre-class groundwork, in-class knowledge tasks, and post-class consolidation) of flipped classroom. A very few percent students are aware about the pre-class learning groundwork, learners get employed in self-directed learning through online education. Similarly, only 21% of respondents aware that flipped course is based on group learning task within the classroom where the instructor and learner argue, question, and present, imitatethe content of the session. Thirty two percent respondents said that it is a active learning approachfocus to enhance the quality of teaching and knowledge acquiring.Flipped class room is a computer-based individual instructionoutside the classroom as responded by 86% tertiary students of Arunachal Pradesh. The goal of FC technique is to provide a combined learning where the learners are engaged in comprehensive reading at home and do the problem-solving activities in classwas responded by 78% students. Sixty four percent students aware about that flipped class room is a blended mode of teaching learning and used to deliver content in video mode.In the FGD it is found that Flipped classroom includesboth active learning with conventional homework activities along with other tasks to make the learners involved in the course. The flipped course transactions involve in-class tasks like laboratory experimentation, manuscript examination, argument production, deliberations, peer assessment, research-based education, and talent improvement. The dynamiceducationmethod in the flipped classroom permitthe learners to spend more times in the course for higher-order ideadevelopment in problem solving, cooperation, development of design.It also helps the students tosolve challenging problems, work as peers, exploring the content and knowledge development through their instructors and friends.

Objective – 2:To study the perception of tertiary students regarding the adoption of flipped classroom approach at higher stage of education.

Table-1 Perception of Tertiary students on Flipped classroom

Perceptions on Flipped Class Room	**No**	**Percentage**

Better preparation for the course	137	91
Active learners in the class room	129	86
More practice opportunity	110	73
More real-life context	87	58
Socially and psychologically relaxed	89	59
Less stressful learning	102	68
Student centered learning environment	136	90
Easy time management	128	85
More enjoyable class	135	90
Easy asses to the material	139	92
Self-pace learning	93	62
Repetition of the content	92	62
Promotion of knowledge retention	98	65
Easier comprehension of the context	84	56
Increase cooperation and interaction among peers	104	69
Increase self confidence	107	71
Increase motivation	86	57
Self-discipline	84	56
Better student teacher interaction	107	71
Limited time to completion of task	119	79
Unfamiliarity to the method	136	90

From the above table it is found that tertiary students of Arunachal Pradesh perceived flipped classroom facilitate for better preparation for the course.This finding is very similar to the findings of Akgün&Atıcı, 2017; Alsancak- Sırakaya, 2015 and Yılmaz, 2017. In this classroom students became active learners by watching lectures incondensed video formatand have opportunity on more practice which is very similar to the studies conducted by Yavuz, 2016; Urfa andDurak, 2017; Zeren, 2016; Yılmaz, 2017.This method also facilitates the real-life context. Eight nine students perceived that in the flipped classroom students may relaxed in socially and psychologically. This kind of learning is aless stressful and student-centered learning responded by the students of Arunachal Pradesh. Similarly, the student can manage their own time, easily asses the materials to learn and content repetitions are in flipped course. Students will enjoy the FC and there is a scope for promotion and retention of knowledge,relatedto the workperformed by Turan, 2015. This classroom increases cooperation and interaction among peers. Theflipped classroom provided learnersto increase motivation, self-discipline, increase self-confidence, better student teacher interaction with the additional opportunity to seek help immediately from their peerswhenever they faced any questions.

This pedagogy will give limited time to students to complete their task. In the FGD it is found that learners who are not interested in FCM as they like to pose doubts instantly which is not possible in case of video lectures. One responded that “if the video doesn't explain a concept well enough, you will likely getfrustrated and give up." Many learners believed that they are close to their instructors inflipped classroom.From the above analysis it is found that FC is a significant learning approach where the learner’s attention are involved and it satisfies the requirement and preferences of the learners. From the FGD one student stated, "sometimes it is hard to pace yourself and you fall behind withoutmotivation." one morereplied as, "Students can become lazy and fall behind." The third learner monitored as, "giving students access to internet provides possibility for off-taskbehavior”.Many respondents said that though we have smartphone but internet connection is so poor so that we unable to download the videos and upload the assignments. In the FGD students said that government should take necessary step for better accomplishment of FC techniques atsenior education stage.

Conclusion:

Depending on the findings of current research, it is concluded as though flipped classroom approach is a recent advancement in the educational system,many tertiary students of Arunachal Pradesh are aware of it. The tertiary students of Arunachal Pradesh perceived that flipped classroom provided learners to increase motivation, self-discipline, increase self-confidence, better student teacher interaction with the additional opportunity to seek help immediately from their peers whenever they faced any questions. In spite of many problems such as slow internet access,lack of adequate computer knowledge, lack of prior internet-oriented education and lack of idea to find relevant information in the internet,students of Arunachala Pradesh want flipped classroom approach to be adopted at higher education stage. However, it is suggested that before adoption government first ensure availability of personal computer or smartphone among the students, adequate and efficient internet facility and above all technological competency among teachers and students because these are the base for adopting flipped classroom technique.

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