

Student's discernment of E-Learning Teaching Method: A Pilot Study

Dr. Devendra Kumar Dixit

Assistant Professor

(Department of B.Ed.) Seth P.C.bagla (P.G.) College,Hathras.

Abstract:

Higher education, including education, has moved towards more active and student-centered teaching strategies. The online learning method gives the student the opportunity to learn the course content at home and use class time in more interactive sessions. A descriptive cross-sectional study was conducted with 163 first-year students to determine students' perceptions of e-learning as a teaching tool. Students were exposed to the online teaching method twice before the survey. A structured questionnaire on students' perceptions of e-learning technology was used. Responses were collected using a 5 point Likert scale ranging from completely disagree to totally agree. The score was given from 0 to 4. The data was analyzed with Microsoft Excel. Most students (53.98% and 25.76%) agreed that the inverted class is more attractive than the traditional classroom. Most students found interesting videos and other study materials online (46.62% agree and 30.67% strongly agree). Responses varied when asked if the traditional teacher-led lesson was better than a lesson video, as 24.53% of respondents disagreed, 28.22% were neutral and 27.6% agreed. The perception of students is that e-learning is a good method of teaching and learning. The student-centered approach and the use of technology help to add value to student learning.

Keywords: E-Learning, education, teaching methods

I. INTRODUCTION

Teaching and learning are dynamic complements to knowledge exchange in an era of increasingly rapid technological progress (1). Higher education has evolved into more active and student-centered teaching strategies (2). ELearning is a pedagogical practice that provides students at home with the content of the conference through electronic means such as e-learning and uses classroom time for practical application activities (3). Creates a learning environment that provides students with a variety of ways to study the content of basic knowledge as part of their homework and preparation for class meetings. Teachers then use class time more efficiently for practical activities (1).

Online learning provides interactive teaching opportunities, ie more time for face-to-face interaction with students in the classroom by minimizing the amount of direct instruction used in a traditional environment (4). Students have the opportunity to actively participate in discussions or problem solving. Few studies have been conducted on the efficiency and the introduction of the class invested in education in India (5,6,7). In curriculum reforms, there is an urgent need to understand students' effectiveness and perceptions of new methods of teaching and learning in education. This study aimed to determine students' perceptions of e-learning as a pedagogical tool. The choice of first year students was to prepare them to adopt new teaching methods and to promote independent learning.

II. METHODOLOGY

A descriptive cross-sectional study was conducted among the freshmen present on the day of the study and willing to participate. 163 out of 200 students were present and participated in the study. Students were informed about e-learning as a method of innovative education in education and the purpose of this survey. Students were exposed to the online teaching method twice before the survey. The study was conducted one month after the completion of e-learning courses to avoid recall bias. Students were assured of confidentiality by giving an unbiased opinion.

Study tool:

A structured questionnaire was used to obtain information on the perception of online learning by the student. The questionnaire was validated by teachers with advanced training in education and had already been tested on 20 students before being administered to the study population. The questionnaire included 14 points on

various aspects of e-learning. Responses were collected using a 5 point Likert scale ranging from completely disagree to totally agree. The score was given from 0 to 4. The data was analyzed with MS Excel.

III. OBSERVATION AND RESULTS

Table no 1: Students' responses to the questions on E-Learning.

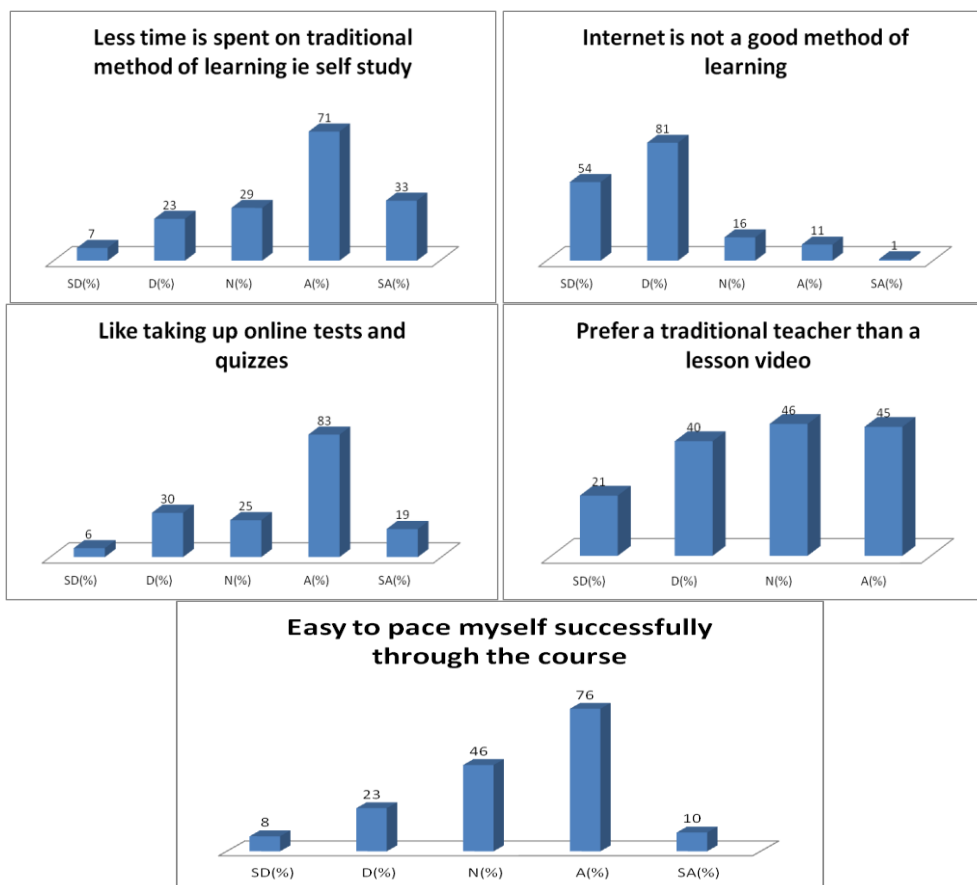
Q	Questions	SD(%)	D(%)	N(%)	A(%)	SA(%)
1	Flipped class is more engaging than traditional	4 (2.45)	12 (7.36)	17 (10.42)	88 (53.98)	42 (25.76)
2	Would not recommend flipped class to others	33 (20.24)	77 (47.23)	26 (15.95)	26 (15.95)	1 (0.61)
3	Flipped class gives greater opportunity to communicate with other students	3 (1.84)	15 (9.2)	21 (12.88)	93 (57.05)	31 (19.01)
4	Like watching lessons on videos	3 (1.84)	16 (9.81)	18 (11.04)	76 (46.62)	50 (30.67)
5	Have the entire class moving at the same pace	16 (9.81)	43 (26.38)	40 (24.53)	51 (31.29)	13 (7.97)

A total of 163 students participated in the study. According to Table 1, 53.98% agreed with the question that online learning is more attractive than the traditional classroom and 25.76% strongly agree. The majority (agree: 57.05% and strongly agree: 19.01%) felt that this offered greater opportunities for communication with each other. Most students found interesting videos and other study materials online (46.62% agree and 30.67% strongly agree). Reactions were mixed about the pace at which different students in the class learn. One-third of students (31.39%) reported that they would deploy the entire class at the same rate, although 26.38% of students disagree with this statement. About 67% of students disagreed with the statement that "they would not recommend this method of teaching to their friends."

Table no 2: Students' responses to the questions on E-Learning.

Q.	Questions	SD(%)	D(%)	N(%)	A(%)	SA(%)
6	Less time is spent on traditional method of learning ie self study	7 (4.29)	23 (14.11)	29 (17.79)	71 (43.55)	33 (20.24)
7	Internet is not a good method of learning	54 (33.12)	81 (49.69)	16 (9.81)	11 (6.74)	1 (0.61)
8	Like taking up online tests and quizzes	6 (3.68)	30 (18.4)	25 (15.33)	83 (50.92)	19 (11.65)
9	Prefer a traditional teacher than a lesson video	21 (12.88)	40 (24.53)	46 (28.22)	45 (27.6)	11 (6.74)
10	Easy to pace myself successfully through the course	8 (4.9)	23 (14.11)	46 (28.22)	76 (46.62)	10 (6.13)

After experimenting with the e-learning method, 43.55% agreed and 20.24% strongly agreed with the statement that less time is spent on the traditional learning method. , namely self-learning. About 33.12% disagreed and 49.69 disagreed with the statement that the Internet is not a good learning method. About 62% (according to 50.92% and totally disagree with 11.65%) said they like to take exams and quizzes online. They are interesting and useful. Responses varied when asked if the traditional teacher-led lesson was better than a lesson video, as 24.53% of respondents disagreed, 28.22% were neutral and 27.6% agreed .



The bar chart shows that about half (49.07%) of students agreed that they were more motivated to learn in e-learning. And about half (51.53%) disagreed with the statement that e-learning does not help improve their learning. In terms of practice time, students differed in their opinion, as nearly one-third (26.99%) agreed with the statement that e-learning gives less time in the classroom for practical, while one-third (27.63%) disagreed. A similar response was observed when asked if they would prefer e-learning for all subjects.

IV. DISCUSSION

Education demands different pedagogical models as the curriculum includes a variety of subjects. Use of technology in the form of videos, case presentations and discussions etc do help in learning. Innovative teaching methods such as E-Learning are being encouraged as it involves interactive learning. The E-Learning teaching method differs from the traditional teaching. The current generation of students are millennials and their learning approach is quite different from traditional learning. They are more comfortable with technology and are interested in being involved in the learning process.

Majority of the students (80%) in the present study agreed or strongly agreed that E-Learning method gives better opportunity to interact and communicate with teachers and other students in the class as well as it is more engaging. Study by Nouri reported that students expressed a positive attitude to E-Learning (75%), agreed that it is easier and more effective to learn with the E-Learning approach and that they feel more motivated as learners(2). In another study Zhao et al reported that nearly half (46%) of the respondents preferred or strongly preferred the flipped model where as 38% of the respondents preferred or strongly preferred the traditional model (8). Similarly other studies S K Gubbiyyapa et al (6), Veeramani et al (7), Morgan et al (9) found that Student satisfaction was very high and majority of the study subjects considered E-Learning as effective teaching learning tool.

Use of Audio visual aids have always been effective in learning process especially in education. In this study 46.62% and 30.62% of the students respectively have agreed and strongly agreed that videos are interesting and they like watching lessons on videos. Approximately 60% of the students were also liking the online assignments. Visualising and watching the lessons on videos improves the understanding ability even though the traditional teachers are more relied upon for clarification as compared to listening to a virtual teacher. Majority (49.69% and 33,12%) disagreed to the statement that 'online or video assignments are not important'. Similar findings have been reported by other studies where students felt online videos are very

valuable to their learning. (2, 7,8)

Students have different pace of learning. Some are slow learners where as some fast learners. Also different students have preferences in learning style such as Visual, Aural, read/write-Kinesthetic. In this study one third agreed that teaching method chosen by the faculty should address the needs of all types of students and the entire class should move in the same pace. Similar finding has been reported by Ramnanan et al (10) However 26.38% disagreed and 24.53% were neutral in their opinion in this study. Based on the experience of flipped class 46.62% of the students felt they could successfully pace themselves through the course. Learning the course content at home has some challenges. All the students do not have the same learning ability or may not be motivated or prepared for self learning. Further students may perceive the take-home content (class preparation) as less important than the in-class instruction. (1) Also it depends on the technology available at home.

E-Learning method allows the students to learn in their own pace. Fast learners may find it easier to cope up with the pace by going through the course material at home before commencement of the class and utilise the class time for interactive sessions and or discussions. For slow learners faculty can focus on key concepts and the topics which are difficult for students to understand. Group dynamics play a huge role. The interplay of interpersonal and social skills can create or dissuade the anxiety depending upon the unique cohort of learners.(1). Therefore feedback from students regarding their understanding the course materials and in-class activity is very essential.

Education has become challenging in view of advancements in sciences and expansion of knowledge. This is the time for use of E-technology as the present students are proficient in using technology. After experiencing E-Learning teaching, majority (agree 43.55% and strongly agree 20.24%) felt that less time is spent on traditional method of learning ie self study. Students as well as instructors have to be prepared for experimenting novel approaches in learning. E-Learning encourages self directed learning on part of learners, although some may initially feel too much of workload. At the same time instructors need to be trained as more preparation is needed to keep a hold on the students. Those who lack confidence in the new method may face challenges.

V. CONCLUSION

The perception of the MBBS students is that E-Learning is a good teaching learning method. The student-centric approach creates an environment for interactive and flexible learning. Use of technology along with in-class group activity adds value to student learning and also addresses individual learning style and preference. Therefore this method can be adopted and incorporated in the colleges.

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