



EFFECTIVENESS OF MOBILE BASED LEARNING OVER REGULAR CLASSROOM LEARNING IN STUDENTS OF MBBS PHASE-I

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ABSTRACT The Mobile based learning is becoming more popular to support learning process of students in professional colleges by asking students to prepare before lectures and actively engaging students during lectures. One of the main reasons is the compartmentalised manner in which they are taught by each clinical department at different time, without any knowledge of what is taught by the other departments. Classroom time is spent in discussion, clarification, exercises, or other learning activities to enhance application of knowledge. This study puts in a sincere effort to find the answer of which method is better.

KEYWORDS : Mobile based learning, Class room teaching, MCQ.

INTRODUCTION

The Mobile based learning is becoming more popular to support learning process of students in professional colleges by asking students to prepare before lectures and actively engaging students during lectures¹. One of the main reasons is the compartmentalised manner in which they are taught by each clinical department at different time, without any knowledge of what is taught by the other departments². Classroom time is spent in discussion, clarification, exercises, or other learning activities to enhance application of knowledge³. This method is implemented in the Medicine, Dental and other Allied courses^{4,5}. Some cases they recorded that the convention class room was better, in other cases the opposite was quoted as better and there are some studies where they have reported a mixed perception and satisfaction levels. In some studies they even reported that the Mobile based learning teaching was better perceived which did not reflect in the actual performance of the students^{6,7}. This study puts in a sincere effort to find the answer of which method is better.

Aims And Objectives

1. To compare the effectiveness of the Mobile based learning classroom and regular classroom learning in teaching pathology theory for IV phase undergraduate medical students.

MATERIALS AND METHODS

Settings-Department of Physiology, Karwar Institute of Medical Sciences, Karwar

Design – Educational intervention will be done by Mobile based learning for 20 hrs of lecture in one month duration and performance of the students are compared for two methods along with the perception.

Subject - Students of MBBS Phase -IV will be enrolled into the study after obtaining informed consent excluding the students who don't give consent for the study.

Sample size – 150 students of MBBS phase II who are willing to participate.

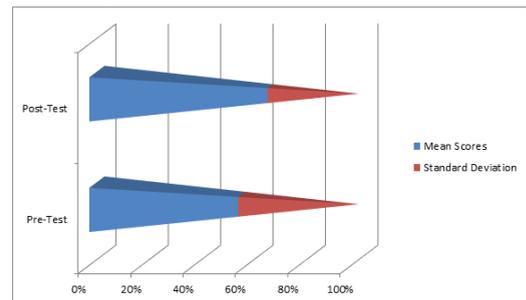
Methodology: They will be equally divided into two groups by lottery method. One batch will go for traditional lecture classes and the other will be taught using Mobile based learning teaching. Lecture classes will be taken in six sessions by the researcher. Three sessions are with Mobile based learning (topics given prior to the lecture by power point presentations) and three sessions are regular lectures. After every lecture class the MCQ test of the students will be taken. The means of the scores will be noted. The mean of all the scores after all the three sessions will be calculated and reported.

Sampling technique – All the students of MBBS phase IV who are willing to participate are considered for both the methods of teaching to avoid the bias of the students for the topics.

Data collection - Pre-test and post –test scores are used to assess the students after answering MCQs.

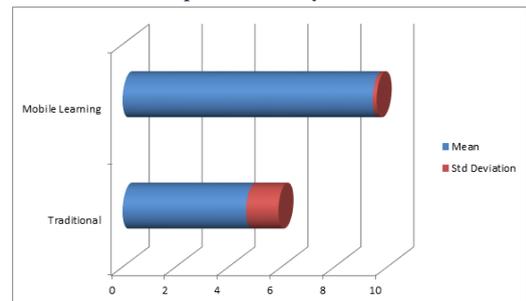
Data analysis - Unpaired and Paired T Test.

Graph 1: Independent T Test To Compare Pre-test Scores Between The Two Groups



PVALUE NOT Significant

Graph 2: Independent T Test To Compare Post-test Scores Between The Two Groups Immediately After The Intervention



PVALUE < 0.001

DISCUSSION:

Comparison of the MCQ Pre-Test Score between the two groups shows that DIFFERENCE is higher in TRADITIONAL group and is statistically non significant. Comparison of the MCQ between the two groups shows that MCQ is higher in MOBILE BASED LEARNING TEACHING group and is statistically significant with a p value of <0.001. Comparison of the MCQ-AFTER between the two groups shows that MCQ-AFTER is higher in MOBILE BASED LEARNING TEACHING group and is statistically significant with a p value of <0.001. On comparison of the mean values of MCQ and MCQ-AFTER the mean values of MCQ is higher and is statistically significant with a p value of <0.001. MOBILE BASED LEARNING TEACHING on comparison of the mean values of MCQ and MCQ-AFTER the mean values of MCQ is higher and is statistically significant with a p value of <0.001.

The implications of the study are that it is an analytical in nature and it will compare the effectiveness of two methods of teaching. It will provide orientation and motivation to learn the subject by the students. Students become aware of learning methods which will imply a prior preparation of the student about the subject. Helps the teacher to compare the different method and apply the better one in future teaching learning method. Ultimately contributes towards the future literatures about the experiences of both teacher and students about the

teaching learning methods. Since the scores in the present study are also observed to be high after repetition of the exams after a span of fifteen days means that this is an effective way in which the students are going to retain the information also for a long time.

CONCLUSION:

The Mobile based learning teachingroom teaching is perhaps the clear winner.

REFERENCES

1. Morton, D.A.; Colbert-Getz, J. Measuring the impact of the flipped anatomy classroom: The importance of categorizing an assessment by bloom's taxonomy. *Anat. Sci. Educ.* 2016, 10, 170–175. [CrossRef] [PubMed]
2. Presti, C.R. The Flipped Learning Approach in Nursing Education: A Literature Review. *J. Nurs. Educ.* 2016, 55, 252–257. [CrossRef] [PubMed]
3. Chen, F.; Lui, A.M.; Martinelli, S.M. A systematic review of the effectiveness of Mobile based learning teachingrooms in medical education. *Med. Educ.* 2017, 51, 585–597. [CrossRef] [PubMed]
4. Betihavas, V.; Bridgman, H.; Kornhaber, R.; Cross, M. The evidence for 'flipping out': A systematic review of the Mobile based learning teachingroom in nursing education. *Nurse Educ. Today* 2016, 38, 15–21. [CrossRef] [PubMed]
5. McLaughlin JE, Roth MT, Glatt DM, Gharkholonarehe N, Davidson CA, Griffin LM, Esserman DA, Mumper RJ. The Mobile based learning teachingroom: a course redesign to foster learning and engagement in a health professions school. *Acad Med.* 2014;89:236–243.
6. King A. From sage on the stage to guide on the side. *Coll Teach* 1993; 41:30–5.
7. Colleen McCabe 1 , Megan G. Smith 2 ID and Stefanie P. Ferreri ; Comparison of Flipped Model to Traditional Classroom Learning in a Professional Pharmacy Course. *MDPI, Educ. Sci.* 2017, 7, 73. doi:10.3390.