

A Comparative Study between Textbook Notes and Educreation Notes in Learning Pathology

S. S. Shivanni¹, Dr. M. P. Brundha²

¹II year BDS, Saveetha Dental College and Hospitals

²Assistant Professor, Department of Pathology, Saveetha Medical College and Hospitals

Abstract: ***Aim:** This study is done to compare the conventional text book notes and video created by using educreation app for learning pathology among second year BDS students of Saveetha Dental College. **Materials and Methods:** A total of 20 students were given conventional text book notes and another group of 20 students were given video prepared by using educreation app and a test was conducted and assessed. **Result:** The people who used educreation notes had a better score compared to people who used conventional notes. The mean value of educreation notes was comparatively higher. The data was statistically significant. **Conclusion:** Educreation app is a unique interactive whiteboard and screen casting tool that is simple, powerful and fun to use. It helps to create slide-show-style lessons or presentations using typed or handwritten text. Hence learning using educreation helps to gain better knowledge and understanding volatile subjects such as pathology.*

Keywords: Educreation, text book notes, whiteboard, pathology, learning.

1. Introduction

Adaptive learning is an educational method which uses computers as interactive teaching devices. Computers adapt the presentation of educational material according to students' weaknesses, as indicated by their responses to questions. The motivation is to allow electronic education to incorporate the value of the interactivity afforded to a student by an actual human teacher or tutor. The technology encompasses aspects derived from various fields of study. Adaptive learning has been partially driven by a realisation that tailored learning cannot be achieved on a large-scale using traditional, non-adaptive approaches. Adaptive learning systems endeavour to transform the learner from passive receptor of information to collaborator in the educational process. (1) It was not until AutoTutor which was developed by the Institute of Intelligent System around the turn of the century that adaptive learning systems got a voice. Education cultivates hopeful environments and relationships for learning. (2) Learning is both a process and an outcome. In order to acquire new knowledge, (3) students, need to be able to make sense of new information. This can be ensured by learning strategies or few technical methods (4) and teacher intervention and instruction that models the use of learning strategies and helps make new information more accessible to students. Especially concerning with the medical education, the curriculum seems to be getting more and more advanced. Many medical schools integrate clinical education with basic sciences from the beginning of the curriculum. Traditionally initial medical education is divided between preclinical and clinical studies. (5) Results shows particular subjects which were being difficult to study should bring in a better way of easy teaching and learning methodology. (6) This study was conducted to find out how effective educreation app is in improving the ability of students to learn.

2. Materials and Methods

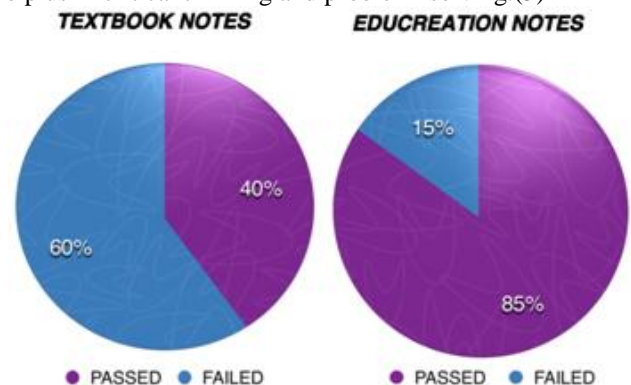
A total of 20 students were given conventional text book notes and another group of 20 students were given video prepared by using educreation app and a test was conducted and assessed. The scores were calculated and tabulated. The data was statistically analysed using unpaired t test.

3. Result

It was found that 8 out of 20 students who studied using conventional notes passed and 12 out of 20 failed. Also, it was found that 17 out of 20 students passed who used educreation notes and 3 out of 20 failed. The average score of students who used educreation notes was higher. The result was statistically significant ($p < 0.001$).

4. Discussion

Understanding by learning is the basic method that a student should be following rather than mugging up which does not help us in critical thinking and problem-solving. (5)



Majority of students suggest understanding is a better method and the most important technique to gain knowledge, also visualisation provides a better way of thinking and interpretation. It was observed that students

scored better when they used the educreation app rather than conventional textbook method. In a study done by Thejeswar et al , it was found that at the end of the survey both the iPad as well as textbooks are really helpful in attaining information. But iPad still on the upper hand as it was rated by many people. When asked about which one they prefer, 78 members selected iPad which shows that the interest and benefit of it. While 62 out of 100 selected iPad for surfing more information easily, 68 members selected textbooks when questioned about which is difficult to handle. (7) In developing countries like India, mobile technology is found to be popular and holds tremendous potential which can be strategically used to support and improve student teaching- learning.(8) The learning method might seem to be easier on subjects related to facts and figures whereas those subjects which are difficult learning are mostly concept based and specific knowledge is required to grasp the concepts (5). Using objects such as graphs, charts, pictures, and seeing information will help the students to memorize and recall various information.(9) This study has shown that the pass percentage of the students who have answered correctly through the method of text based learning is 40% while the pass percentage of students who answered correctly through the educreation app is 85%. There was significant difference between these values showing that the learning using educreation notes seems to have efficacy when compared to text based learning. This could be attributed to change in the trends and technology; where in today's students are more digitally fluent managing numerous electronic devices including iPods, iPads, cell phones, internet and televisions(10).

Group	Textbook Notes	Educreation
Mean	2.5	4.25
SD	0.69	1.37
SEM	0.15	0.31

5. Conclusion

Educreation app is an unique interactive whiteboard and screen casting tool that is simple, powerful and fun to use. It helps to create slide-show-style lessons or presentations using typed or handwritten text. Within the limits of this study it can be seen that Apps like the Educreation and other audio-visual methods are more effective than traditional lectures and text based learning as there is significant difference in the performance of students in both the methods. This also indicates the major role apps can play in Education in the near future. Hence learning using educreation helps to gain better knowledge and understanding volatile subjects such as pathology.

References

[1] Paramythis and Reisinger. "Adaptive Learning Environments and e-Learning Standards" (<http://www.ejel.org/volume-2/vol2-issue1/issue1-art11-paramythis.pdf>). Electronic Journal of eLearning 2004.

[2] Daniel L. Schacter, Daniel T. Gilbert, Daniel M. Wegner (2011) [2009]. Psychology, 2nd edition. Worth Publishers. p. 264. ISBN 978-1- 4292-3719-2.

[3] Rules for the study of natural philosophy”, Newton 1999, pp. 794–6, from the General Scholium, which follows Book 3, The System of the World.

[4] “Adaptive Learning Systems - National Institute of Standards and Technology”. Archived from the original on 16 September 2008. Retrieved August 17, 2008.

[5] K. Monisha, Dr.Karpagam Krishnamoorthy-Study of Effective Methods of Learning and its Relation in Retaining Long Term Memory-A Questionnaire Based Study. Volume:6|Issue:6|June2016|ISSN-2249-555X|IF:3.919|ICValue:74.50

[6] Herrman, C. S. (2009). “Fundamentals of Methodology”, a series of papers On the Social Sciences Research Network (SSRN), online.

[7] Thejeswar. E. P, Dr. M. S. Thenmozhi, Educational Research -iPad System vs Textbook System, Research J. Pharm. and Tech. 8(8): August 2015.

[8] RakESH NaRayaN PatII1, et all, Attitudes and Perceptions of Medical Undergraduates Towards Mobile Learning (M-learning), Journal of Clinical and Diagnostic Research. 2016 Oct, Vol-10(10): JC06-JC10.

[9] Ms.Geetha K. Joshi, 2Mr. VenkataSubrahmanyam C. V, 3Dr. SandhyaAnvekar, The Need And Importance Of On-Demand E-Learning For Customized Management Skills Enhancement”, Journal of Research in Humanities and Social Science Volume 2 ~ Issue2 (2014) pp:33-41, ISSN(Online) : 2321-9467.

[10] D. McKinney et al. / Computers & Education 52 (2009) 617–623 , iTunes University and the classroom: Can podcasts replace Professors? , 0360-1315/\$ - see front matter Ó 2008 Elsevier Ltd. All rights reserved. doi:10.1016/j.compedu.2008.11.004 .