Introduction

BLEnDT© introduces an instructional framework focused on the learning outcomes that lend themselves to interactive self-guided online learning following an Instructional approach and the learning outcomes that are best suited for face to face delivery or online delivery following a Constructivist/Collaborative approach.

This poster aims to present the process followed in the design of a Blended Learning tutorial in the area of Respiratory Medicine applying BLEnDT© as well as the initial findings in relation to students’ use and attitudes towards the use of iPads as part of the Blended Learning experience.

The Respiratory Muscles Tutorial delivered by Dr Kevin Murphy in Year 1 was selected as a pilot to be delivered using a Blended Learning model supported by the use of iPads in March 2013.

Methodology

The sample analysed included 283 full-time Year 1 undergraduate medical students of average age 19 years.

• The content for the learning outcomes that are best delivered using instructional online methods were put together as an e-module developed using the Rapid Authoring Tool (Articulate Storyline).

• The Respiratory Tutorial was delivered in 10 different sessions with approximately 25 students in each session. The students accessed the e-module on Blackboard before the practical. At the practical, the students:

  - Completed Pre Quiz
  - Each student received an iPad
  - Session delivered supported by iPads
  - Nearpod
  - Completed Post Quiz
  - Completed Survey

The survey is an adaptation of the validated survey developed by Bonnanno and Kommers (2008). The survey comprises of 21 statements. Six statements relate to the affective component, five statements relate to perceived usefulness, six statements are about perceived control and four statements focus on the behavioural components. A five-point Likert scale was used.

More information

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Results

114 students completed the e-module before the practical (Male= 66 Female= 48), obtaining an average score of 75% in the Pre Quiz and 61% in the Post Quiz. 161 students did not complete the e-module before the practical obtaining an average score of 61% in the Pre Quiz and 51% in the Post Quiz.

According to the statistical analysis, after taking into account the Pre Quiz scores and Blackboard e-Module there is marginal evidence of an increase in the respiratory mark, as the Post Quiz scores increases.

197 students completed the survey ‘My learning experience after the interactive session using ‘iPads’ (Male=121 Female= 76). Of those, 179 students own a Smartphone (90%) and 64 of them own an iPad (33%).

The scores for each statement related to the various attitudinal components were summed. On average, the students expressed a positive attitude (4/5) under the affective component showing confidence about the use of the iPads.

On average the students expressed a border line attitude under the perceived usefulness component (3/5) with particularly low scores under (Question 13: ‘most things that one can get from learning using iPads can be obtained or arrive at through other means’).

On average, once again, the students expressed a positive attitude (4/5) under the perceived control component showing confidence about the use of the iPads. Finally, under the behavioural component, the students expressed a positive attitude (4/5) showing willingness to use iPads for learning in the classroom.

Conclusion

In relation to the blended learning implementation, there is evidence that the approach taken in the design of the blended learning program (using BLEnDT©) has had a positive influence on the learning experience.

In general, students feel confident about tablet technology and the use of iPads. However, the students in this study did not express a particularly positive attitude towards the use of iPads for collaborative learning in the classroom. The general feedback received from the students on the survey highlights their willingness to use iPads for learning if other activities, such annotating lecture slides, accessing medical related Apps, accessing learning materials, calendar and timetable are available on the iPad. These findings lead us to the conclusion that the implementation of iPads in teaching and learning should be part of a holistic approach incorporating all the aspects of the teaching and learning experience that may benefit from the use of mobile technology.

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References


