

Perceptions on M-Learning through WhatsApp application

Glad Mohesh MI^{1,*}, Semmal Syed Meerasa²

¹Assistant Professor, ²Professor & Head, Dept. of Physiology, Shri Sathya Sai Medical College & RI, Tamil Nadu
(A constituent college of Sri Balaji Vidyapeeth University, Puducherry)

***Corresponding Author:**

Email: gladmohesh@gmail.com

Abstract

Mobile learning is an emerging platform for students to learn through smartphones. Though introduced ten years back this mode of learning is gaining importance. With the prevalence of smartphones use in medical college campuses among the students and faculty, it has become an interesting and immediate tool to be imparted into teaching learning programs. Here in this study we used one of the mobile communication Application the WhatsApp to disseminate subject contents during the study leave period of our I MBBS students.

Objectives: To determine the perceptions of this WhatsApp learning methodology as a M-learning tool to teach physiology.

Methods: I MBBS students (n=106) participated in this study. Group admin posted optimal contents as short messages through the WhatsApp every evening. At the end of 40days with the completion of the portion pertaining to practical physiology, a questionnaire was designed in google forms and posted into the group with a request for everyone to submit their responses. Responses were populated in a google spreadsheet and then analysed to be reported in percentage of the total. The open ended question was qualitatively analysed and themes identified.

Results: Most of the participants liked M-learning through WhatsApp. There is an immediate acceptance of M-learning methodology by our medical students.

Conclusion: The positive attitude towards M-learning among medical students is very promising for a paradigm shift of E-learning to M-learning. With rapid advancement of mobile technology and the availability of smartphones in every students hand we conclude that there is big scope for this methodology to be used for medical education.

Keywords: M-learning, Medical education, Physiology

Access this article online

Website:

www.innovativepublication.com

DOI:

10.5958/2393-8005.2016.00013.9

Introduction

Teaching a smart generation of medical students has always been a challenging issue. To deliver subject contents at their pace and mode of learning by understanding their practices of learning subjects becomes the priority for a medical teacher. Imparting knowledge through the mode that this new technology driven generation of medical students has become a problem of generation gap issue. However if adapted by both the teacher and the learner, technology can give its best to empower the students with the knowledge they should be loaded with. E-learning is one such platform used to help students learn with the use of electronic devices like computers and internet. M-learning is one another emerging methodology that follows all the principles of E-learning but with even smaller electronic tools like smartphones, tablets etc. The attributes of M-learning are spontaneous, personal, informal, contextual, portable, ubiquitous, ambient, unobtrusive or pervasive⁽¹⁾. The pace at which these mobile technology is growing even suffocates people

with low cost, high efficient and high technology models of mobile phones being released every day. Mobile phones have become an essential, yet cosy device to be carried by every student. Though the price and brand differs they do carry these devices for multiple purpose that includes communication, entertainment, gaming and so on⁽²⁾.

Mobile phones are banned in selected educational institutions, however the restriction is only in the campus and not in most of the hostels where the mobiles are used to the most by the students. The generations of mobile technology emerging is so fast that even the present day medical students find it difficult to go about it. Scientific journals, publishers and online educational portals are now having a mobile first podcast go first than their web release of materials. Every educational portal in the internet is found to have their own mobile application for the easy use of its stakeholders. Mobile applications carry the information from the deliverer to their stakeholder in an one to one basis. Right from internet banking to mobile banking or internet marketing to mobile marketing, the business is not only easy but also personalized to be carried out in one's own handheld mobile device. Podcasts of medical information through internet has been already practiced by the Universities in the West, however this is so new in a country like India⁽³⁾. With our Internet bandwidths growing and the expected freedom to use free internets in the public places and educational campuses, our

expectations for the paradigm shift of learning from laptops to mobile devices is not so far. Based on these assumptions we did this study to understand if the present generation of medical students really accept the mode of learning from classroom to mobile devices through specific mobile applications.

Objectives

To determine the perceptions of first year medical students on a M-learning platform for physiology.

Materials and Methods

This study was conducted complying the guidelines in the declaration of Helsinki standards and with the permission of the Head of the Department of Physiology of our Medical College. First year medical students who were on their study leave for the final university exams participated in this study (n=106). Male students(38) and (68) female students voluntarily participated in this program. The study period was 46 days with evening delivery of less intense information. Students were found to be ignorant about the practical contents to be read from two other important practical books. Student support through a WhatsApp group was formed in the name "Smart Physio 2015-16". Rules & regulations were charted and strict adherence was advised. One girl and one boy served as group admin other than the teacher. Optimal practical viva voce questions were posted every evening by the group admin through WhatsApp Web. No discussions or debates, but doubts were allowed and cleared by the teacher. Program continued till all the question and answers pertaining to hematology experiments in particular is completed. A questionnaire was designed in Google forms to document the perceptions on this learning methodology. Weblink of the Google form was posted in the group and the students were constantly motivated to fill the same. Results got documented in the Google drive on the spreadsheet created for the purpose. The results were reported in percentages of the total responses. The most common threads were reported from the identified themes in the submitted responses.

Results

Out of 106 students who participated in the trial only 77 reported their views (27.35% non respondents). All the student participants liked the WhatsApp based M-learning program (100%). Ninety six percentage of them agreed that this application had helped them to learn physiology on the go. Relevance of information on physiology shared was positively reported(93.51%).

The students agreed to receive messages at any point of time from the teacher however they preferred to read the contents whenever they get time only (Table 1). Accessing information to gain knowledge at their leisure and at their convenience happened to be the

change in trend among these young health professional students.

Relevant and short texts are found to be read at ease than the larger content with longer texts. There was a reluctance to read from bigger text books rather revising or revisiting the longer messages. Discussions and debates were also expected however our group's objectives limited that.

Table 1: Perceptions on M-learning methodology by the study participants

	n(%)
1. Did you liked the Whats App group learning?	
Yes	77(100)
No	00
2. Do you think this mode of learning helps you to learn physiology on the go?	
Yes	74(96.1)
No	03(03.9)
3. Did the mentor kept you posting with interesting but relevant information in physiology?	
Yes	72(93.51)
No	05(06.49)
4. How will you grade this mode of learning physiology?	
Very poor	00(0)
Poor	00(0)
Fair	09(11.69)
Good	45(58.44)
Very good	23(29.87)
5. When do you expect the messages to be posted?	
Morning	08(10.39)
Evening	25(32.47)
Night	09(11.69)
Anytime	35(45.45)
6. How often do you read the posted messages?	
At the beginning of a day	03(03.9)
At the end of the day	18(23.38)
Hourly	10(12.99)
Whenever I get time	46(59.74)
7. Do you think that every mentor can connect to his students through WhatsApp?	
Yes	71(92.21)
No	06(07.79)
8. Do you suggest for a WhatsApp group for every subject?	
Yes	75(97.4)
No	02(02.6)
9. Do you think that a discussion group for raising doubts and discussing the subject taught in the classroom should be started?	
Yes	74(96.1)
No	03(03.9)

Qualitative analysis of comments on the open-ended question suggested that the majority of students perceived the use of mobile technology in learning physiology as a feasible application. Following are the five common themes emerged.

1. A confidence gained on the better use of mobile technology
2. Short and optimal messages received helped their learning easy
3. Obsession to read large books were relieved by this method.
4. All time availability of the teacher facilitated an immediate discussion on their learning issues.

Students reported that the mobile application helped them to learn physiology on the go. They also felt relieved of the guilt that they are not wasting time in the mobile being online. They assured themselves that they have used their leisure time for learning.

“Whenever we open the WhatsApp helps us to learn a little about the physiology”

“I had the feeling that I am not wasting time being in online”

“To learn some important stuff while using mobile or in my leisure time. It facilitates a quick go through”

“Time is not being wasted, we use mobile to get relaxed, so it’s like reading a small news feed”

Few other students reported that the released information through WhatsApp messages were short in the content but optimal enough for them to study easily.

“Since its gisted in points and with optimum information and sequential steps, it makes the study easier”

“Helps in acquiring knowledge at ease”

“It’s a summary maker for each topic which helps us to remember things easier”.

Others reported that they found it to be replacing their obsession with the large sized text books they have to ponder with.

“Clearing our doubts by this method is easy rather than reading whole book”

“As we are in the smart generation this method of learning our subject makes us easy instead of going and searching in the big text book”

“Many things in physiology which I failed to read from books”

Students also reported that this method of learning from internet or digital tools as their way of learning and hence they liked this methodology and use of the M-learning platform for discussion and clearing their doubts.

“Study by way which we like the most & useful, since all of our doubts can be cleared and everyone knows about the answer”

“Any doubt raised can be cleared immediately and it help our friends too”

“Good, doubts can be cleared next second”

“Can ask doubts with no hesitation”

Discussion

Our study finds the immediate acceptance and switch over of our medical students to the new mode of learning, the M-learning. This gave us an understanding about the changes in the expectations of medical students in our country who are in line with the technological changes which is not that appreciated by the academic institutions as such. This study was an eye opener for us to understand that, Change is inevitable and Changes were readily welcomed by our younger smart generation than we actually thought about. Our results were in concurrent with the findings of others who have reported the positive attitude of students over the implementation of M-learning methodology^{(4),(5),(6)}.

Majority of the students use smartphones for communication, entertainment and for learning purposes⁽⁶⁾. It will be very useful to them if we implement M-learning as early as possible to channelize the proper use of these gadgets for learning purposes more efficiently. As lifelong learning is required in these medical students M-learning offers a great platform to help them for a better learning experiences with their smartphones. Evidences in support of mobile devices as an educational tool is increasing although there are other avenues to be explored i.e., the benefits, challenges and appropriate uses.

Our study set up was a private medical college and thereby the socioeconomic status as a barrier in students possessing a smartphone is nullified. However this becomes one of the issues to be looked into in other medical colleges where affordability of a smartphone will be an issue, although availability of low cost big screen mobile devices in the market has increased a lot.

We believe the existence of E-learning through mobile, the M-learning is in the existence since the introduction of internet in the mobiles, with time we expect M-learning to be adapted by the students and the educational institutions in the very near future. Administrative support and training of facilitators will help to promote these methodologies at ease in any campus. Faculty training and availability of technology is the issue that can be sorted first before the educational institution adapts the “mobile first” attitude in their programs in the campus.

We also believe that medical education and health care in future might depend on technological inventions and also with the smart generation of young doctors who could adapt to these technology would definitely will deliver their best service for the society. Though M-learning cannot replace the conventional learning but it can definitely be a supplement for a learner to learn anything, anytime and anywhere⁽⁷⁾.

Disadvantages identified by authors includes a fear for superficial learning, trusting the information sources available, distraction from the normal learning activities of the learners in the classrooms, information privacy and the additional expenses that would occur for the paid applications, data charges etc.⁽²⁾

One to one monitoring was a failure in our study that whenever we posted a content we were not able to find out if that particular student has seen it or not. Also we found the number of participants in the group is limited to be around to 256 only. Also there were no backup storage of informations that created a problem for the late joiner such that he/she will not be able to retrieve the messages that was distributed in the group from the day one. Also to identify a person by his name was not possible, unless we have the phone number saved into the mobile and thereby the facilitator need to save all the numbers of the students. This can be solved if the group members have their photos in the profile picture and the name listed in their WhatsApp profile page.

The job to lead a group with posting optimal information's is cumbersome and the need for the availability of the facilitator even after the working hours is really difficult and its demanding. However, if the group is well disciplined for a particular timing to sit together for a discussion, this problem can be sorted out.

Conclusion

Our students found M-learning to be a novel and comfortable mode of learning. They also wished to have this mode as part of their curriculum. Their positive attitude towards M-learning gives us an assurance that it will be a part of the medical curriculum in the near future.

Limitations of the study

The present study is exploratory in nature. Multiple confirmatory studies in different students at different campuses across the country should be carried out with a larger sample size to get a more clearer picture. We did not search for the cause in the negative reports of the study as the percentage of them are very less.

Acknowledgements

Authors sincerely thank our Management and Dean of the Shri Sathya Sai Medical College &RI, for giving us freedom to execute this project at our campus. We also thank our beloved students who participated and benefitted by this short term programme. We were indeed thankful to those students who readily gave us a feedback on the methodology employed.

References

1. Prenkumar K. Models for interdisciplinary learning. 1st ed. Kitchenham A, editor. Information Science Reference; 2011.137-151 .

2. Mohapatra DP, Mohapatra MM, Chittoria RK, Friji MT. The scope of mobile devices in health care and medical education. *Int J Adv Med Heal Res*. 2015;2(1):1–8.
3. Walsh K. Mobile Learning in Medical Education: Review. *Ethiop J Health Sci [Internet]*. 2015;25(4):363–6. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=4762975&tool=pmcentrez&rendertype=abstract>
4. Pimmer C, Brysiewicz, Linxen, Walters, Chipps G. Informal mobile learning in nurse education and practice in remote areas – a case study from rural South Africa. *Nurse Educ Today*.2014;1–14.
5. Mir S. Undergraduate medical student's perceptions and experiences of m learning in pharmacology. *Int J Basic Clin Pharmacol [Internet]*. 2015;4(6):1254–9. Available from: <http://www.ijbcp.com/?mno=208744>.
6. Thakre S, Thakre S. Perception of medical students for utility of mobile technology use in medical education. *Int J Med Public Heal [Internet]*. 2015;5(4):305. Available from: <http://www.ijmedph.org/text.asp?2015/5/4/305/165959>.
7. Von Jan, U., Ammann, A., & Matthies, H. K. Generating and presenting dynamic knowledge in medicine and dentistry. In C. Bonk, et al. (Eds.), *Proceedings of World conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008*;209-214.