



Knowledge, skills and attitude of mobile learning among BSN students

M Shahi^{*1}, A Chaulagain², J Kayastha³

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¹National Center for Health Professions and Education, Tribhuvan University, Maharajgunj, Kathmandu, Nepal

²Jeebanta Advanced Kathmandu Imaging Private Limited, Durbarmarg, Kathmandu, Nepal

³Holly Spirit Northside Private Hospital, Chermside, Brisbane, Australia

ABSTRACT

Background

The main objective of the study is to assess the knowledge, skill and attitude regarding mobile learning among BNS 1st and 2nd year students of Nepal.

Methods

The study was descriptive in nature conducted among 303 BNS 1st and 2nd year students of six different institutions of Nepal from 2014 to 2015 A.D.

Results

The result reveals that most of the respondents had good knowledge about the availability of the facilities like reading scholarly articles and text books, sharing information resources and emails, scholarly materials can be surfed/downloaded, data can be collected and library catalogues can be searched through mobile. Further, nearly two-thirds of them used mobile occasionally for surfing/downloading scholarly materials and reading scholarly articles and text books followed by online dictionaries, SMS, emails, sharing information resources, collecting data, recording and searching library catalogues. Moreover, slightly over two-fifths of the respondents preferred cell phone for learning. Majority (92 percent) of the respondents felt comfortable on using the phone for learning. Just over three-fourths of the respondents revealed that through mobile phone, they updated the information and searched learning materials quickly.

Conclusion

Based on the result of the study, it has been concluded that the students had good knowledge on mobile learning and they had used mobile for various purposes including learning. They has updated the information and searched learning materials quickly through the mobile phones. It has been recommended that mobile should be brought into practice and it can be effective if there is a provision of internet at low cost.

Keywords: Mobile Learning

INTRODUCTION

The use of mobile communication devices in education has led to the evolution of a new paradigm in electronic learning (e-learning) called mobile learning (m-learning). M-learning, is a form of e-learning that specifically employs wireless portable communications devices to deliver content and learning support.¹ Use of mobile is very common among students and other people in Nepal. It is very

useful to the people including students due to variety of functions.

The ways of teaching and learning processes have been changed by the rise and promotion of Information and Communication Technologies (ICTs). ICTs are known to be more cost effectiveness in the teaching and learning process as they facilitate collaborations among students and teachers and

*Corresponding Author

Mandira Shahi

National Center for Health Professions and Education

Tribhuvan University, Maharajgunj, Kathmandu, Nepal

mandiranp@yahoo.com

Phone No: +977-9841513154

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strengthen pedagogical improvement through simulations, virtual experiences, and graphic representations. An ICT application increases an exchange of information between student-teacher or student-student, that takes place through the use of various ICT tools consisting of computers, radio, television, mobile phones and some other devices. These tools give appropriate platform for the teaching-learning process. Recent developments in ICTs have enhanced the level of interactivity and collaborations among students and teachers.²

The mostly possessed and used ICT tools among people are the mobile phones and as they have lots of applications, they give appropriate learning platforms to teachers and learners for their academic activities. Mobile learning (m-learning) means the learning through mobile phones. It has been defined by Guy³ as an electronic learning (e-learning) through mobile computational devices. Mobile phones have a capacity of making the teaching and learning processes better. In comparison to other ICTs, mobile phones are cheap which can be used for teaching and learning.

Sharples et al., as cited by Aubusson et al.⁴ describe the features of mobile learning as follows: it is learning that takes place "on the move", that occurs in a variety of places and times, and that capitalizes on the ubiquitous nature of mobile technologies. These features align well with teachers' work contexts.

There is an evidence that collaborative learning and communication, and independent learning can be increased among students through the use of mobile devices⁵ In Japan, authors are even now composing novels on mobile phones.⁶ Mobile devices are changing the way we live, work, and socialize. Through mobile devices, we can instantly access email, read articles, pay bills, send cheques, buy clothes, play games, interact with others through social networking and SMS. Moreover, with a mobile boarding pass, we can check into a flight at the airport. Mobile devices are allowing users to perform a variety of tasks that once took multiple avenues to accomplish with the ease of a few clicks and touches, anytime, anywhere.⁷ The main objective of this study

is to assess the knowledge, skill and attitude regarding mobile learning among BNS 1st and 2nd year students of Nepal.

MATERIAL AND METHODS

The study was descriptive in nature and was done among 303 BNS 1st and 2nd year students of six different institutions of Nepal (Nepalese Army Institute of Health Sciences, Nepalgunj Nursing Campus, Biratnagar Nursing Campus, Lalitpur Nursing Campus, Maharajgunj Nursing Campus, Pokhara Nursing Campus) from 2014 to 2015 AD. In this study, purposive non-probability sampling technique and a questionnaire (survey) method was used. A total of 22 self-administered questionnaires including 14 closed ended, four open ended and one semi structured, one 4-point rating scale, one 5-point rating scale and one 5-point Likert scale were developed. The self-administered questionnaires were divided into six parts which are given below:

- Part I : Personal biography of respondent
- Part II : Knowledge on mobile learning
- Part III : Skills on mobile learning
- Part IV : Attitude towards mobile learning
- Part V : Others
- Part VI : Recommendations/Suggestions

On the basis of the researcher's personal experiences and related literature reviews, the questionnaires were prepared in order to improve validity. Similarly, to maintain validity and reliability, questionnaires were pre-tested in Nepal Institute of Health Sciences, Baudha and feedback from the pretest was incorporated into the final questionnaire design.

The concerned authority (Campus Chief) of the above mentioned colleges were briefed about the research study and were requested to manage the time for data collection. Written consent was taken from each student and the concerned authority (Campus Chief) of the colleges. The information of each students were kept confidential and none of them were forced to participate. The study was supervised and monitored by the researcher herself. The data was entered and analyzed by using the latest SPSS version. The data was managed by coding.

RESULTS

Over a quarter (29%) of the respondents were from Maharajgunj Nursing Campus followed by Lalitpur Nursing Campus (23%), Nepalese Army Institute of Health Science (18%), Pokhara Nursing Campus (16%), Biratnagar Nursing Campus (12%) and Nepalgunj Nursing Campus (2%). Nearly two-third of the respondents (65%) was unmarried while over a

third of them (35%) were married. More than half of the respondents (53%) belong to 20-24 years of age group. Majority of the respondents (70%) had heard about mobile learning whereas 30% of them didn't hear about it. More than half of the respondents (54%) and (52%) knew about mobile learning from their friends and internet respectively (Table 1).

Table 1 Source of Knowledge about Mobile Learning

Sources	Frequency	Percent
Friends	116	53.7
Newspapers/magazines	49	22.7
Radio	19	8.8
Television	57	18.8
Internet	112	51.9
Teacher	16	5.3
Other (All, Catalogues, self)	5	1.6

* Multiple Responses

Table 2 Basic Knowledge about the Services Available in Mobile

Services	Excellent	Good	Average	Fair	Poor
SMS	74.9%	19.8%	4.3%	0.7%	0.3%
Calls	74.6%	21.1%	3.6%	0.7%	0
Surfing (Downloading scholarly materials)	37.2%	39.2%	16.8%	2.6%	3.9%
Reading scholarly articles and text book	26.4%	44.2%	20.1%	5.6%	3.6%
Collecting data	19.4%	33.9%	30.3%	8.9%	7.2%
Using online dictionaries	37.6%	35.9%	18.8%	2.9%	4.6%
Searching library catalogues	16.5%	36.9%	24.4%	11.8%	10.2%
Sharing information resources	30.03%	41.5%	19.1%	4.2%	4.9%
Emails	34.9%	41.2%	14.5%	6.9%	2.3%
Social networks (Facebook, Twitter, Google, Google+ etc.)	57.4%	33.3%	7.9%	6.6%	6.6%
Chat (Messenger, Nimbuzz, mig33, WhatsApp, Viber etc.)	57%	28.3%	10.2%	1.6%	2.6%
Taking photos and videos	63.4%	26.1%	9.2%	1.3%	0
Recording	53.1%	28.7%	12.2%	4.6%	1.3%

Similarly, over one fifth of the respondents (23%) knew about mobile learning since 1 or less than one year while only 0.5% of the respondents knew about it since 9 years. Cent percent of the respondents had a phone and 40.9% of the respondents had Samsung phone. Majority 75% of the respondents had excellent knowledge about SMS and calls. Further, More than three-fifths (63%) of the respondents had excellent knowledge that photos and videos can be taken from mobile. More than half of the respondents had excellent knowledge about the

availability of services like social networks, chat services and recording. Just over one-third (38%) of the respondents excellently knew that online dictionaries can be used in mobile. Likewise, slightly over two-fifths of the respondents had good knowledge about the availability of the facilities like reading scholarly articles and text books, sharing information resources and emails. Respectively, 39%, 34% and 37% of the respondents had a good knowledge that scholarly materials can be

surfing/downloaded, data can be collected and library catalogues can be searched through mobile (Table 2).

Majority 98% of the respondents had web access in their mobile phones and same percent of the respondents used it at their home rather than colleges. Almost four-fifths of the respondents used mobile all the time for calls. Further, about three-fifths and over half of the respondents used mobile all the time for social networks and chats and for photos

and videos respectively. Nearly two-thirds of them used mobile occasionally for surfing/downloading scholarly materials and reading scholarly articles and text books. Just over half of them used mobile occasionally for online dictionaries, SMS, emails and sharing information resources. Moreover, occasionally, almost half of them used mobile for collecting data, recording and searching library catalogues (Table 3).

Table 3 Uses of Mobile Phone

Services	Use all time	Use Occasionally	Use Rarely	Never use
SMS	38.6%	51.1%	10.2%	0%
Calls	77.5%	21.4%	0.6%	0.3%
Surfing (Downloading scholarly materials)	27%	60.3%	12.2%	0.3%
Reading scholarly articles and text book	19.1%	61.7%	17.4%	1.6%
Collecting data	14.5%	47.5%	29%	8.9%
Using online dictionaries	31%	52.1%	13.2%	3.6%
Searching library catalogues	13.8%	46.2%	25%	14.8%
Sharing information resources	26%	53.4%	14.8%	5.6%
Emails	26.8%	53.4%	15.8%	4.6%
Social networks (Facebook, Twitter, Google, Google+ etc.)	60.3%	36.3%	1.9%	1.3%
Chat (Messenger, Nimbuzz, mig33, WhatsApp, Viber etc.)	60%	31.6%	6.6%	1.6%
Taking photos and videos	55.4%	40.5%	3.3%	0.6%
Recording	25.7%	47.1%	23.7%	3.3%

For learning, slightly over two-fifths of the respondents preferred cell phone while just over a quarter them library. Majority 92% of the respondents felt comfortable on using the phone for learning. Just over three-fourths (79%) of the respondents revealed that through mobile phone, they updated the information and searched learning materials quickly. Moreover, almost half of the respondents disagreed with the statement that world would be better without mobile. More than half of the respondents agreed that mobile is necessary to enhance the knowledge and sometimes it gives false information. Further, nearly three-fifths of them agreed that mobile develops self confidence in learning. Just over two-fifths of the respondents agreed that it is very expensive and makes people lazy while the same proportion of the respondents

agreed that availability of the course materials in their mobile phone can make their study process beneficial.

With respect to the advantages of the mobile learning, nearly three-fourths (72%) of the respondents said that using internet in mobile they can download and reviewed the required files and documents easily and updated the information. Similarly, regarding to disadvantages of the mobile learning, over half of the respondents (56%) revealed that mobile phone makes people lazy and decrease social interaction and creativity. Some of the respondents also said that mobile addiction creates monotonous learning, makes people dependent and reduces the use of library. More than two-fifths (43%) of the respondents recommended that mobile should be brought into practice while some of the

respondents suggested that mobile learning can be

effective if there is a provision of internet at low cost.

Table 4 Attitude Towards Mobile Learning

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
World would be better without mobile.	0.9%	4.6%	4.9%	49.8%	39.6%
Mobile is necessary to enhance the knowledge.	41.9%	54.4%	1.9%	1.3%	0.3%
Mobile develops self confidence in learning.	30%	59%	7.2%	2.6%	0.9%
Cost of mobile is very expensive.	24.7%	48.5%	11.5%	14.8%	0.3%
Sometimes mobile gives false information.	8.2%	54.1%	23.1%	12.2%	2.3%
Mobile makes people lazy	20.1%	49.8%	13.2%	14.5%	2.3%
Would you agree that having course materials available on your mobile phone would be beneficial to your study process?	0.4%	48.1%	1.9%	1.9%	1.3%

DISCUSSION

Mobile learning is the delivery of learning content using mobile technology that is accessed at a student's convenience from any location.⁸ It can be seen as the application of mobile or wireless devices to learn on the move.⁹ In this study, majority of the respondents had heard about mobile learning and more than half of them knew about it from their friends and internet. In the study of Almaiah and Jalil,²⁰ it has been indicated that 58.2 percent of respondents knew about mobile learning and 41.8 percent did not. Moreover, the result of this revealed that cent percent of the respondents had a phone which is slightly consistent with the study of Al-Emran & Shaalan.¹¹ In their study, it has been found that 99 percent of the students had mobile devices. Also, Post¹² found that 99.8 percent of college students have cell phones.

The finding of this study shows that two fourths of the respondents had Samsung phone. It has been found that majority of the respondents had excellent knowledge about SMS and calls followed by photos and videos, availability of services like social networks, chat services, online dictionaries, recording and availability of the facilities like reading scholarly articles and text books, sharing information resources and emails. Moreover, over one third of the respondents knew that scholarly materials can be surfed/downloaded, data can be collected and library catalogues can be searched through mobile.

In this study, it has been revealed that majority of the respondents had web access in their mobile phones. This result is in line with the findings of Utulu & Alonge.¹³ In their study in Nigeria, it was found that majority of undergraduate students had internet service available on their phones.

Furthermore, in this study, it has been found that almost four-fifths of the respondents used mobile all the time for calls. This finding is consistent with the study findings of Mtega et al.² Additionally, the findings of this study shows that nearly two-thirds of the respondents used mobile occasionally for surfing/downloading scholarly materials and reading scholarly articles and text books. This study also reveals that slightly over two-fifths of the respondents preferred cell phone for learning. The study of the Thornton et al¹⁴ stated that the majority (71 percent) of the students preferred receiving 100-word English vocabulary lessons on mobile phones rather than personal computers. In this study it has been revealed that majority (92 percent) of the respondents felt comfortable on using the phone for learning. This result is in line with the findings of Eybers and Giannakopoulos¹⁵ which stated that the majority of the respondents (88 percent) felt very comfortable and competent when using such devices. Moreover, Foti & Mendez,¹⁶ found in their study that 45 out of the 46 students used their mobile devices for academic purposes and 91 percent of them felt very comfortable on using mobile devices.



In this study (79 percent) of the respondents revealed that through mobile phone, they updated the information and searched learning materials quickly. Furthermore, just over two-fifths of the respondents agreed that it is very expensive and makes people lazy while the same proportion of the respondents agreed that availability of the course materials in their mobile phone can make their study process beneficial.

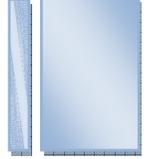
The findings of the present study regarding the advantages of the mobile learning, (72 percent) of the respondents said that using internet in mobile they can download and reviewed the required files and documents easily and updated the information. Similarly, with respect to disadvantages of the mobile learning, (56 percent) of them revealed that mobile phone makes people lazy and decrease social interaction and creativity. Some of the respondents also said that mobile addiction creates monotonous learning, makes people dependent and reduces the use of library.

CONCLUSION

Based on the result of the study, it has been concluded that the students had good knowledge on mobile learning and they had used mobile for various purposes including learning. They has updated the information and searched learning materials quickly through the mobile phones. It has been recommended that mobile should be brought into practice and it can be effective if there is a provision of internet at low cost.

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