

# Suitability of Mobile Learning to enhance English language learning: A survey among University of Colombo School of Computing Students.

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## ABSTRACT

Mobile learning is one of the major developing areas in recent years in educational field. Power of computers and laptops has changed the way learning happen and made ease of access to all materials and resources. Growing amount of literature in the area of mobile learning depicts the increasing use of mobile technologies for learning. This study is a part of the ongoing research in University of Colombo School of Computing (UCSC) based on enhancing English language learning among UCSC undergraduates. This paper focuses on a study which was conducted among University of Colombo School of Computing undergraduates in order to find out the potential of mobile learning to enhance English language proficiency. The methodology used for this study was an online questionnaire survey. The analysis of the results depicted that most of the students are having positive attitude towards mobile learning and believe that mobile phones could be used to enhance English proficiency. Further suggestions have been included to consider on enhancement of oral communication skills. The paper concluded with few implications to enhance mobile language learning.

## Author Keywords

Mobile Learning, Questionnaire survey, English Language Learning and University of Colombo School of Computing

## INTRODUCTION

Mobile learning is one of the major developing areas in recent years in educational field. Power of computers and laptops has changed the way learning happen and made ease of access to all materials and resources. The use of mobile phones have transformed the way of carrying on activities by allowing easy interconnections and enhanced communications. Many researches have pointed out that mobile phone usages have increased dramatically in Sri Lanka due to the severe competition among the mobile service providers. It is also identified that the numbers of mobile users in Sri Lanka have increased up to 15 million [<http://www.lankabusinessonline.com/fullstory.php?nid=1180937564>].

This study will focus on finding suitability of m-learning among the university students of Sri Lanka by selecting the target audiences as UCSC (University of Colombo School of Computing) students. An online questionnaire was used to identify and analyze the factors related to mobile learning among UCSC students.

## REVIEW OF LITERATURE

There are many studies which have already been done in the area of mobile language learning. According to Attewell (2004) there are wider varieties of mobile phones available in the market which caters range of customer tastes and life styles. Some devices are aimed at business users and are marketed primarily as business communication devices. Some devices including smart phones have virtual pop up QWERTY keyboard and hand writing recognition. They also contain a video camera, music player, radio, voice memo recording, games, and e-mail, internet, and organizer functions.

### Defining Mobile Learning

There is no proper definition of mobile learning as many authors have derived with various definitions. The understanding of mobile learning will itself influence the progress and direction of mobile learning and its perception and acceptance by the wider educational community. According to (Traxlor, 2005), mobile learning is, 'any educational provision where the sole or dominant technologies are handheld or palmtop devices'. This definition may mean that mobile learning could include mobile 'phones, smart phones, personal digital assistants (PDAs) and their peripherals, perhaps tablet PCs and perhaps laptop PCs, but not desktops in carts and other similar solutions' (Traxlor, 2005).

Mobile devices network availability and penetration is happening at a dramatic pace in developing countries (Gounder, 2011). Meanwhile a study which has been conducted in University of Colombo School of Computing on developing mobile applications based on the existing Moodle based e-learning platform has depicted that M-learning extensions

cannot be developed to an existing e-learning environment without changing the pedagogy and design of learning content. Pedagogy and learning content must be changed to make the learning suitable, which should be considered when transferring from E-Learning to M-Learning. Further, during the paradigm shift, we will have several new opportunities as well as we have to sacrifice some good practices in the previous paradigm (Hewagamage, 2011).

### Mobile Language Learning

There are few studies which have been concentrated on identifying the use of mobile technologies in use of English language learning. A study done by Al Aamri and Kamla Sulaiman is an example for this. They have studied the current use and practices of mobile phones in the process of learning English Language by Sultan Qaboos University students. Author has identified the existing uses and practices, through a questionnaire and states that “It has found that students use mobile phone in learning, but in a very limited way.” (Aamri& Suleiman, 2011). Another study has been done by Burston, J. (2011) on realizing the potential of mobile learning for language learning by identifying the obstacles in mobile learning as Intrusiveness, Cost, Practical and technological constrains and Theoretical & pedagogical foundations. In sum, as mobile phone features have increased, while their cost decreased, attention has increasingly focused on them as an ultra-portable language learning tool. Above all, what has attracted interest in the use of mobile phones as learning devices is their potential to support anywhere, anytime, access (Burston, 2011).

## THE STUDY

### Methodology

The methodology used for this study was an online questionnaire which was issued among all UCSC undergraduates. The survey was consisting of mixed methods of questions to gain statistical responses. Students who participated in this survey were from two different disciplines, which were ‘Computer Science’ and ‘Information and Communication Technology’ accordingly. The questionnaire was distributed among 800 students of UCSC and out of them, 189 responses were received within 3 weeks period. The response rate was 23.75 %. Most of the questions were closed ended where few open ended questions also were included to get respondents’ comments.

### Objectives

The objective of the questionnaire was as follows: Part 1 collected little general information about their course of study. The second part focused on collecting information related to mobile usage. Third part was consisting of questions related to students learning preferences and fourth part was designed in such a way to identify the students’ attitude towards mobile learning. Most of the questions were closed ended with few open ended questions to get respondents comments.

### Findings

#### Part One: General Information

##### QUESTION 01: Course of Study

The first question was with regard to their course of study and out of the whole respondents, approximately 29% were from Information and Communication Technology (ICT) and 71% were from Computer Science (CS).

##### QUESTION 02: Do you have a mobile phone?

Total number of respondents where 189 and out of the whole respondents, only 1 person did not own a mobile phone.

#### PART TWO: WITH REGARD TO MOBILE USAGE

##### QUESTION 03: What type of phone are you using?

This question was asked in order to identify the widely available types of phones among the university community. The students were allowed to select the answer among 1. Basic java enabled phones 2. Smarts phones 3. Mobile with basic features such as voice call and SMS. Around 51% of the students owned a phone which have basic java enabled phones, and 13% of students were having a smart phone. 36% of the students are having a mobile with basic feature, which are enabled with voice calls and only SMS.

##### QUESTION 04: What are the features you mostly use in your mobile phone?

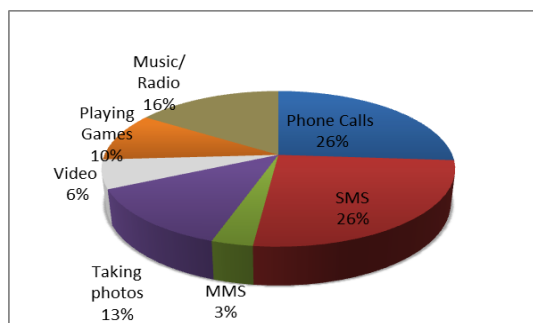


Figure 1. Mostly used Features in the mobile

Figure illustrates that students are mostly using the mobile phones for voice calls and send SMS. It is also noted that there is equal usage of voice calls and SMS. Further MMS is not much used within the student community. Students were asked to state, if there were any other functionalities which they use other than the given types. 13 respondents stated that, internet is one of the features which are mostly used. Other than that, alarms, reminders, calculator and stopwatch were also given as answer.

**QUESTION 05: Do you use your phone for Internet browsing? Please state if there are any specific reasons for not using the internet.**

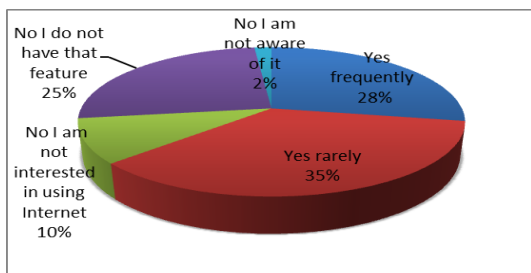


Figure 2. Internet usage via mobile

According to the results, only 28% of students are frequently using the internet via mobile. 35% of students are rarely using the internet while 25% of respondents are not having that feature in their mobile. 10% are not interested and 2% of respondents are not aware of that feature.

While analyzing the reasons for not using internet, it was notable that the constraints were cost associated with the internet and the virus threat. Other reason was that they did not need to access the internet via phone, since they were using it in the computer.

**PART THREE: WITH REGARD TO LEARNING HABITS**

**QUESTION 06: Rank the following options with respect to your learning style.**

Text	1	2	3	4	5	6	7	Responses	Total
Text	29%	16%	12%	11%	12%	8%	11%	153	15%
Listening for instructions	20%	17%	14%	19%	17%	8%	6%	153	15%
Watching video	20%	22%	16%	18%	18%	5%	1%	152	15%
Role play/ Drama	2%	1%	5%	8%	8%	38%	38%	131	13%
Games	4%	7%	8%	7%	12%	27%	34%	135	13%
Interacting with friends	19%	22%	22%	18%	13%	2%	3%	156	15%
Questions and answers	12%	18%	25%	21%	15%	7%	1%	153	15%

Figure 3. Learning style

29% of students have placed text as their first preference, where role play has been placed at the least preferred state.

Listening and learning through video tutorials have been placed as the first option by 20% of students. Within these two options, Watching video has gained more weight as 2nd rank, hence it would be considered as the second preferred option. The fourth preferred option would be considered as Interacting with friends since

19% of respondents have ranked it in the first place. Learning through questions and answers follows as 5th, as 12% of respondents have placed it at the 5th place. Games and Role play would follow the rest as 6th and 7th preferred options accordingly.

**QUESTION 07: Does your English knowledge affect learning of other studies?**

When raising the question with regard to the impact of English language in other studies, 65.27% of students feel that English affects the learning of other subjects while, 34.73% of students don't.

**QUESTION 08: Please state the barriers you face in learning English.**

This was an open ended question which focused on identifying the barriers which exist in learning English. Most of the students have stated that they are having problems with vocabulary and oral skills. Around 30 students have stated that they are having difficulties in speaking English and around 20 of students have stated that they are having problems related to vocabulary and grammar. Around 5 respondents have stated that they never practice English in day to day life. Some students state that their economic status has become a barrier to learn English. Some state that they are having social barriers and fear to practice in English. Some respondents state that learning English depends on the environment and they are not having an environment to practice in English. Students also state that Sinhala is very useful to understand things when comparing to English.

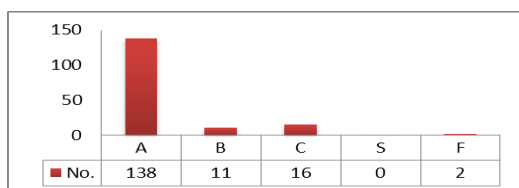
**QUESTION 09: Which of the following aspects you would like to enhance in future?**

	Not important	Important	Highly important	Responses	Total
Read	13%	40%	47%	152	25%
Write	8%	44%	49%	156	25%
Speak	1%	19%	81%	161	26%
Listen	5%	38%	57%	151	24%

In this question, 47% of respondents have identified that reading is highly important when compared to the 40% which is important. Most of the respondents have given highest priority to high importance in speaking.

Figure 4. Learning aspects to be enhanced

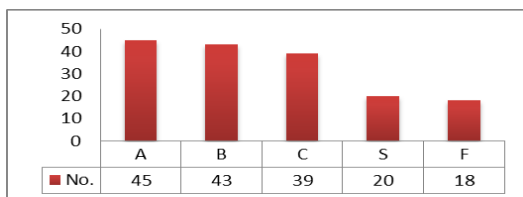
**QUESTION 10: What was your O/L result for English?**



It was noted that around 83% of respondents have got Distinction in English ordinary level exams.

Figure 5. O/L results in English

**QUESTION 11: What was your A/L result for English?**



28% of respondents have got ‘A’ grade when comparing 26 percent who have got ‘B’ grades. 12% have got simple passes and it is notable that around 11% of respondents have got failures in their A/L exams for English.

**Figure 6. A/L results for English**

**PART FOUR: ATTITUDES TOWARDS MOBILE LEARNING**

**QUESTION 12: Please select the scale of agreement from below statements.**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Responses	Total
I believe mobile phones could be used to teach/learn English.	18%	51%	27%	4%	1%	154	9%
I am willing to purchase a mobile phone with advanced features if it will help me to improve my learning.	17%	48%	20%	12%	3%	154	9%
I would like to install a learning application in my mobile phone to improve English proficiency.	32%	45%	18%	4%	1%	154	9%
I do not mind paying for Internet connection for my mobile, if I can learn through my mobile.	10%	32%	32%	25%	1%	154	9%
SMS based learning application would be ideal to promote English learning among UCSC undergraduates.	10%	36%	27%	25%	2%	154	9%
Learning through mobile devices will help me to utilize my time productively.	27%	46%	19%	6%	1%	154	9%
A person could learn properly through online lessons if it is designed properly.	47%	40%	12%	1%	0%	154	9%
I think I can improve my English speaking skills through a mobile.	10%	50%	29%	10%	1%	154	9%
I believe mobile learning will not provide any advantages for me.	1%	5%	19%	60%	16%	154	9%
I think learning through mobile phone will not build teamwork and collaboration.	7%	25%	32%	30%	6%	154	9%
I believe learning through mobile will increase the cost of learning.	3%	35%	35%	23%	3%	154	9%

**Figure 7. Attitude towards mobile learning**

Respondents were provided with 5 point likert scale where each choice were ranked as ‘Strongly Agree’, ‘Agree’, ‘Neutral’, ‘Disagree’ and ‘Strongly Disagree’.

51% of respondents agree that mobile phones can be used to teach / learn English when comparing 27% of respondents are neutral with that statement. 48 of respondents are willing to purchase a mobile phone with advance features if it will help improve their learning, while 12% of respondents disagree with that statement. More than 75% of respondents are having tendency towards installing a learning application, in order to improve English language proficiency where 32% strongly disagree the statement and 45% agree. The statement which was issued with regard to the cost of internet connection has gained neutral response. 32% have agreed the statement while 32% have provided neutral response. It is also noted that 25% of the respondents have disagreed the statement. 36% have agreed that SMS based learning application would be ideal to promote English language learning and 27% have provided a neutral answer with comparing to those 25% who have disagreed the statement. 27% have strongly agreed that learning through mobile devices will allow utilizing the learners time effectively. 46% have agreed with the statement with comparing to the 19% who have provided neutral answer. The statement which was issued regarding the online lessons, have more tendency towards supporting the online learning. 47% strongly agrees that a person could learn properly through online lessons if it is designed properly, while 40% are agreeing with the statement. When asking about the speaking skills, 50% of respondents have agreed that English speaking skills can be improved through mobile, when comparing to those who have provided neutral response.

Rest of three statements was negative statements, which depicted that 60% of respondents disagreed the statement that mobile learning will not provide any benefits. 25% of respondent agreed that mobile learning will not build teamwork, while 32% provided neutral response. When asking about the cost, 35% agreed that mobile learning will increase the cost of learning while similar percentage of respondents provided neutral answer. 23% of respondents have disagreed the statement.

**QUESTION 13: Please enter your further comments or suggestions in below text box with regard to the study.**

This was an open ended question which required the comments of the respondent. Many comments were received, where most of them were towards mobile learning. Most of the requirement was to suggest a method to enhance oral communication as well as vocabulary. Cost was identified as a barrier for mobile learning, and SMS based learning also was suggested. It was also noted that while there are advocates for mobile learning, still there were opposers as well.

**ANALYSIS**

**Part One: General Information**

Out of those who responded the survey, 71% had a computer science background and 29% were from Information and Communication Technology. Since more than 99% of respondents own mobile phone, we can come to a conclusion that almost all of the UCSC students are having mobile phones.

### **Part Two: With Regard To Mobile Usage**

There is a high tendency of using java enabled mobile phones among the university society when comparing to smart phones and basic phones with only SMS and voice call facilities. Most of the features which are used in mobile phones are obviously voice calls and SMS. Most of the respondents are using the mobile internet facilities rarely due to various reasons; meanwhile there is a considerable portion of respondents who uses the mobile internet frequently. The reasons for not accessing internet via mobile have been identified as cost and security related issues. It is also identified that around 1/4 of the respondents are not having internet facilities in their mobile.

### **Part Three: With Regard To Learning Habits**

According to this question, currently, students are more towards learning through text. Role Play/ Drama have been the least preferred option by the students. 65% of respondents have agreed that knowledge in English language has affected other studies. As the barriers to learn English, respondents have stated various reasons; while some have stated that there are no barriers. Most of the respondents have stated that the major problem with the language is the oral skills. Meanwhile around 20 respondents have stated that they are having difficulties with vocabularies and harsh terminology. Grammar also has been identified as difficult area. Some students state that their economic status has become a barrier to learn English. Some state that they are having social barriers and fear to practice in English. Some respondents state that learning English depends on the environment and they are not having an environment to practice in English.

According to the question based on the priority for four Language Learning aspects, speaking has been placed as the most important which should be enhanced in future. Considerable amount of respondents also have identified other areas to be improved as well. When analyzing the results of the respondents, more than 80% have got 'A' grade in their ordinary level examination. It is also to be considered that, there is a basic requirement for Information and Communication Technology is to get at least 'C' pass in order to enter the university. Although there more than 99% of respondents have passed English in their ordinary level exams, more than 11% of students have failed English in their advanced levels. Only 28% of students have got 'A' grades in A/L.

### **Part Four: Attitudes towards Mobile Learning**

51% of respondents agree that mobile phones can be used to teach / learn English when comparing 27% of respondents are neutral with that statement. 48% of respondents are willing to purchase a mobile phone with advance features if it will help improve their learning. It is also noted that majority of the students are willing to install a third party application in their phones if it will enhance their proficiency. The statement which was issued with regard to the cost of internet connection has gained neutral response. 36% have agreed that SMS based learning application would be ideal to promote English language learning and 25% have disagreed the statement. Most of the respondents have agreed the statement saying that learning through mobile devices will allow utilize the learners time effectively. The statement which was issued regarding the online lessons, have more tendency towards supporting the online learning. Students also agree that they can learn through online lessons if it is designed properly. When asking about the speaking skills, 50% of respondents have agreed that English speaking skills can be improved through mobile.

Rest of three statements was negative statements, which depicted that 60% of respondents disagreed the statement that mobile learning will not provide any benefits. 25% of respondent agreed that mobile learning will not build teamwork. When asking about the cost, 35% agreed that mobile learning will increase the cost of learning while similar percentage of respondents provided neutral answer.

The open ended question which was issued with regard to gathering the learners' additional comments as received various answers. Some have suggested that mobile learning would be suitable for language learning where some have suggested that this won't be suitable. Most of the answers are towards mobile learning and pointing out the features which should be included. Some respondents feel that cost will be a major constraint and it should be considered when proposing the solution. Some suggest that all four aspects of language learning (Reading, Writing, Speaking and Listening) should be included in the solution. There is a tendency towards game based learning as well. Some have suggested introducing a mobile application, instead of mobile web. Since there are basic phones widely available, some respondents have suggested that SMS based learning will be suitable for those who don't have phone with advanced features, but will be an interruption to day to day activities. Other than these there was a suggestion to consider the voice recording functionality which is embedded within most of the mobile phones. Some negative statements were also found where some suggests that mobile learning will not be suitable for English Language learning. It was also noted that there are opposes with an argument of being against to language learning through mobile learning.

### **LIMITATIONS AND FUTURE WORKS**

The survey results which have been presented here is with regard to mobile usage and practices among students of University of Colombo School of Computing, have presented certain scenarios which can be worth in investigation. According to the results, the study can be continued with means of providing a mechanism to enhance voice learning aspects of the students based on java enabled phones which is widely used in the university community. Meanwhile another solution will be provided to overcome the shortcomings in vocabulary fluency. The most suitable channel for this

would be SMS, which is widely used by the respondents. As limitations for the current work, the survey was distributed among more than 800 students but only received 189 responses, which is lower response rate.

## CONCLUSION

This paper attempts to identify the level of English language knowledge and learner preference for mobile language learning in University of Colombo School of Computing. This is an ongoing research and this survey has been conducted as a part of the research. The survey analysis of the results depicted that most of the students are having positive attitude towards mobile learning and believe that mobile phones could be used to enhance English proficiency. The paper has concluded with few implications for future research based on enhancing oral communication in English and vocabulary enhancement. Further, majority of the respondents ponder that they are weak in oral skills. When questioning about SMS based learning, students have agreed that SMS based learning could be used in language learning. Meanwhile, when analyzing the technical aspects of the current use of mobile phones among the university community, majority of the students are using basic java enabled phones and there are considerable amount of students who use their mobile phones to access the internet.

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## REFERENCES

- Tele Trends: Available at: <http://www.lankabusinessonline.com/fullstory.php?nid=1180937564>
- Towers, Smith and Bruns,(2006): Literature Review Into Mobile Learning In The University Context: Retrieved from: <http://eprints.qut.edu.au/4805/01/4805.pdf>
- Attewell, J., Mobile Technologies and Learning: Available at: <http://www.mlearning.org/docs/The%20m-learning%20project%20-20technology%20update%20and%20project%20summary.pdf>
- Traxlor,J: Defining Mobile Learning: IADIS International Conference Mobile Learning 2005: Retrieved From: [http://iadis.net/dl/final\\_uploads/200506C018.pdf](http://iadis.net/dl/final_uploads/200506C018.pdf)
- Gounder (2011): What is the potential impact of using mobile devices in higher Education: Proceedings of SIG GlobDev Fourth AnnualWorkshop, Shanghai, China: Retrieved From: <http://www.globdev.org/files/Shanghai%20Proceedings/14%20REVISED%20Goundar%20Using%20Mobile%20Devices%20in%20Education%20-%20Final.pdf>
- Aamri, Suleiman, K.(2011), The Use of Mobile Phonesin Learning English Language by Sultan QaboosUniversityStudents: Practices, Attitudes and challenges: Canadian Journal on Scientific & Industrial Research, 2(3) Available at: <http://stu.westga.edu/~bthibau1/MEDT%208484-%20Baylen/final%20report/13.pdf>
- English in Action: Retrieved on 3<sup>rd</sup> of December 2011 from, <http://www.eiabd.com/eia/>
- Karunaratne, I.M. (2003) :Teaching English in urban Sri Lanka-Some pedagogical issues. Retrieved From: [www.freewebs.com/slageconr/9thicslflpprs/fullp019.pdf](http://www.freewebs.com/slageconr/9thicslflpprs/fullp019.pdf)
- Bursten, Realizing the potential of Mobile Phone Technology for Language learning (2011): The IALLT journal. 41(2), Available at: [http://www.moblang.mobi/moblang.eu/Burston\\_RealizingPotentialMobilePhoneTechnologyForLanguageLearning\\_2011.pdf](http://www.moblang.mobi/moblang.eu/Burston_RealizingPotentialMobilePhoneTechnologyForLanguageLearning_2011.pdf)
- Corbail and Valdes-Corbeil, Are You Ready for Mobile Learning? (Educase article): Available at: <http://learning-centric.net/mobile.cc/relatedinfo.pdf>
- GSMA 2010, mLearning: A Platform for Educational Opportunities at the Base of the Pyramid available at [http://www.gsmworld.com/documents/mLearning\\_Report\\_Final\\_Dec2010.pdf](http://www.gsmworld.com/documents/mLearning_Report_Final_Dec2010.pdf)
- Hewagamage, K.P, 2011: "m-Learning not an extension of e-Learning" based on a case study of moodle VLE: MLearn 2011, 10<sup>th</sup> world Conference on Mobile and Contextual Learning.
- Chen, C. M. and S. H. Hsu (2008). "Personalized intelligent mobile learning system for supporting effective English learning." Educational Technology & Society 11(3): 153-180. Available at: [http://www.ifets.info/journals/11\\_3/12.pdf](http://www.ifets.info/journals/11_3/12.pdf)
- Pettit and Hulme(2011), Going with Grain: Mobile Devices in practice: Australasian Journal of Educational Technology 2007, 23(1). Available at: <http://www.ascilite.org.au/ajet/ajet23/pettit.html>
- Thornton, P. and Houser, C. (2005) 'Using mobile phones in English education in Japan.' Journal of Computer Assisted Learning 21: pp. 217-228. Available at: [https://resources.oncourse.iu.edu/access/content/user/mikuleck/Filemanager\\_Public\\_Files/L567/Mobile%20Devices/Thornton%202005%20Using%20Mobile%20Phones%20in%20Eng%20Ed%20in%20Japan.pdf](https://resources.oncourse.iu.edu/access/content/user/mikuleck/Filemanager_Public_Files/L567/Mobile%20Devices/Thornton%202005%20Using%20Mobile%20Phones%20in%20Eng%20Ed%20in%20Japan.pdf)