"Impact of Mobile Technologies on Students Learning Behaviour"

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Abstract:

Awareness of mobile technologies is one of the key to success. Rapid growth of information and communication technologies has led to usage of various innovative technologies. The use of mobile phones and other gadgets is becoming a culture in the modern age of technology. Some students use this technology for the purpose of information only. However, it was noted that others use mobile phone to receive messages through different applications such as WhatsApp, Facebook, Instagram and Viber. It is therefore important to understand the impacts of their behaviour. The need to adopt new methodologies to make sure that how student's deep learning could be achieved in an effective manner has become very challenging task these days. It is therefore critical to adopt a balance approach. The research in this paper conducts a survey to find out the relationship between student's behaviour and the use of mobile technology.

Key Words: Mobile Applications, Students Learning Behaviour, Approach, Objectives

Introduction

The rapid development of internet resources and its availability to conduct leaning in virtual environment lead students to adopt new mechanisms and techniques during the process of learning. In many universities and colleges students bringing and using their gadgets and mobile phones are affecting learning processes. It is obvious that learners may use the technology for information related purposes during learning processes. However, some students may use mobile technology and other gadgets to communicate with friends and families through available social applications and other networking sites. There are billions of people using mobile devices around the world. By the year 2018 it has been estimated that there will be over seven billion mobile devices in use with constant access to the internet. Accessing the internet is a significant feature of mobile devices today, with mobile phones no longer being just a phone but a portable multimedia device. Social media, internet services, multimedia and other applications are in constant demand by users which has therefore led the rapid improvement of mobile phones and tablets. The rapid increase in computing power, memory capacity, screen size and resolution also increases the potential of the devices. Mobile application developers may be able to take advantage of these improvements when creating new mobile applications, allowing more advanced useful applications to be utilized by mobile device users in their personal and working lives. There is now potential for utilizing mobile devices for teaching and learning especially as mobile devices are very popular with young people and the current generation of students and research showing more students are owning them (Brown et al. 2015, 32). Smart phones can be used for many things including instant messaging, social media, playing games, sending emails and general communication. As such they can now be considered essential to both personal and working lives. (Gaskin et al. 2015, 181.).

Learning styles and mobile devices:

Every person has their own learning style, which affects their motivation when learning new information depending on how they are being taught or studying. eLearning (electronic learning) takes students learning style into account by being designed with optional activities that students can choose. These activities help to engage and motivate students which encourages success. Applying this to mLearning (mobile learning) also allows the learning to be more flexible and convenient for the student. (Dawson et al. 2011, 7.). Mobile devices allow people to engage in activities and transactions in locations and situations where it never used to be possible or it was much more difficult, such as during a bus ride or even while walking. The device offers the usage of a computer but with greater portability. As the mobile device offers convenience, it also generates a dependency for the user. Because these devices have internet access, they allow the user to have access to many things including emails, instant messages and social media. (Ker et al. 2011 194.) By being able to view social media updates and messages instantly, smart phone users are more inclined to check their device frequently (Chang et al. 2013, 375). With most students owning a mobile device, it is very tempting to use them in lessons for things other than studying for example social media or instant messaging if someone else is messaging them during a lesson.

Social media and mobile learning:

Students are often users of social media and comfortable using technology to communicate with their peers, with WhatsApp being one of the preferred instant messaging applications used. Research has shown however that more often students will try to solve problems themselves by searching online when they have a difficulty with their course or studies. Students were also less likely to talk to teachers, students in other courses or go to the support centre on their institution when they needed support. (Bullen et al. 2016.) Lahti University of Applied Sciences has message boards available for discussion on the course pages of Reppu, which are not always full utilised. Perhaps encouraging students to use group chats in social media, such as Facebook or instant messaging services such as WhatsApp, to discuss coursework would be beneficial to students as they can easily use them on their mobile devices and are likely already familiar with them. They may also be able to have more informal discussion as the communication channel would be unofficial and not moderated by a teacher or supervisor.

To encourage students to use mobile applications that can aid their learning, the applications must be designed to provide an enjoyable experience for the student. Applications should be user-friendly, understandable, learnable and aesthetically pleasing to the user. The application should not just be a copy of the desktop alternative but be designed to be effective on a smaller screen with touch screen capability without compromising the usability available on the desktop version where possible. (Ali et al. 2014, 14.) These principles could also be applied to mobile versions of websites to ensure users get the best experience on whichever device they use.

Literature Review

One of the biggest challengers teachers face nowadays in classroom is related to retaining the interest of student in classes while students have the option to remain connected to the virtual world using their smart phones. It is one of the biggest debates as to whether these devices affect the academic performance of students or not. It's time for the college faculty to accept that students will bring their mobile device with them to class. The important factor that needs to be considered is the impact of these devices on learning process. A number of researchers have conducted research on the impact of technology and its usage on academic achievement. According to a study Jeffrey et al. (2015) it was found that the students who are constantly using mobile phones are outperformed by students who abstain from that. The study also concluded that frequent messaging which were not related to class content interferes with student learning while in class. Numerous studies have also been conducted to find the relationship between academic performance, educational objectives and the use of social networking sites. According to the paper (Kirschner and Karpinski, 2010) it was found that learners

who spent additional time on Facebook usually have lower GPA compared to others. Another study Junco (2012) conducted in the same area found out that the time spent on Facebook was strongly and significantly related to overall GPA while only weakly related to time spent preparing for class. It was also found that using Facebook for collecting and sharing information was positively predictive of the outcome variables, while using Facebook for socializing was negatively predictive (Junco, 2012). Another study Junco and Cotton (2012) used hierarchical regression to analyse the impact of multitasking to College GPA. It was found that multitasking may affect the capacity for cognitive processing and prevent deeper learning. According to another study Rosen et al. (2011) it was found that students who received more text message interruptions during a class suffered in terms of their marks. Research was also done to study the impact of technology-based multitasking behaviours inside and outside classrooms. The study demonstrated that students who multitask frequently in class have lower GPA. The relation remained significant even when the perceived multitasking efficiency and time spent studying outside of class was controlled. It was also found that those students who multitasked while doing their academic work used up additional time studying outside of class, which meant unproductive study behaviours.

RESEARCH APPROACH

Statement of the Problem

General

Students using mobile phones and other gadgets certainly affect the way of their learning. It is becoming a fashion or culture to use mobile and other electronic gadgets. Students frequently use mobile applications during the process of learning. This behaviour leads to harm the process of learning.

Specific

1. There is a crucial need to adopt new methods to balance the use of mobile technology.

2. it's important to maximize the use of information technology and to use all existing tools and gadgets to achieve learning objective.

Research Objectives

This research is based on the following objectives;

- To critically investigate the use of information technology and its applications

- To understand the effects of information systems and technology on student's behaviour

- To investigate the new methodologies that can balance

Research Methodology

The methodology of this research adopted both qualitative and quantitative approach and was conducted by taking a student's survey to understand the relationship among their behaviour and the use of mobile technology. The research used both primary and secondary data resources to accomplish the results. For the purpose of primary data, a research questionnaire was developed and distributed among the students of postgraduate level. A total of 60 students from postgraduate participated in the survey.

Results of the study:

Jarque-Bera test was conducted to gauge the satisfactory scale. Jarque- Bera test is a goodness-of-fit test of whether a sample data have the Skewness and Kurtosis matching a normal distribution.

$$JB = n - k + 1/6(S2 + 1/4(C - 3)2$$

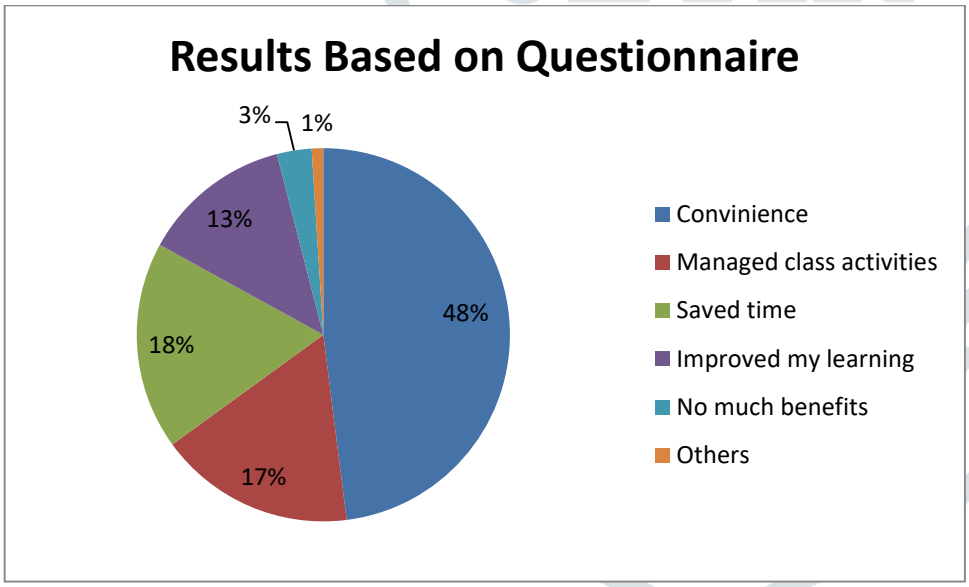
where n is the number of observations, S is the sample skweness, C is the sample kurtosis, and k is the number of regressors.

A value that was ranged between + or -.6 when p was less than or equal to 001 for each of the Kurtosis and Skewness was considered acceptable so that the data was normally distributed. The normality test result was as shown in the table below.

(Normality Test results)

Construct	kurtosis	Skewness
Facilitating Conditions (FC)	-0.366	-0.269
Performance Expectancy (PE)	-0.550	-0.400
Social Influence (SI)	-0.197	-0.814
Behavioral Intention (BI)	-0.542	-0.612
Effort Expectancy (EE)	-0.690	-0.447

The results from ANOVA showed that the effect of M-learning on the Learning behavior and performance are closely related and the experience of the student in the use of M-learning and the self-discipline is highly recommendable. Figure below shows the statistical diagram results from the questionnaire.



Conclusions:

It is a fact that we have stepped into the digital era where we can learn from anywhere in the world at any given time. As at now, the utmost necessity is to have the capability and the know-how of how to embrace and utilize these ubiquitous technology devices in our learning environments to the gain of our advantage, specifically to foster our learning behavior as well as our learning performances. It is undeniable that there are a variety of devices that are embraced and mobile learning with its abilities is to provide solutions to learning problems. This paper has examined the effect of Mobile learning on the development of the Students' learning behaviors and performance. From the results obtained from the study, it has been determined that utilization of mobile devices enhances student motivation. This directly implies that there is a direct and a substantial correlation between utilization of mobile devices and learner's motivation towards learning. These findings are congruent with the current existing literature done by past researchers. These results are similar to the findings of this research study regarding the fact that students gain a higher motivation for learning when they use mobile technology. They ascertain that lessons are more enjoyable when they learn through the mobile

technology. Increased student motivation positively influences the student's learning behaviors. Notably, with mobile learning students can learn at any given time and any location. They do not have to be in specific learning environments. Therefore, this technology enables them to have learned and reading culture since they do not have to go to the library or a specified class to learn. This is not the only convenience to them but also promotes their learning culture. Furthermore, mobile learning technology enables the students to do research online thus enhancing their research skills. This aspect of research skills foster their learning behavior in the sense that, they do not have to go the library to source for information from different journals and learning materials as they can just be able to do online researchers in e-journals and e-books which are much more convenient and faster to attain information as compared to manual research. Moreover, mobile devices are relatively cheaper and can easily be afforded by many students thus making it highly appropriate for tutors to use. They can also make an online submission and even hold an online discussion with other students through learning platforms provided by mobile phones. Through mobile applications such as WhatsApp and Facebook pages students can form groups and have an online discussion where they can post their questions, and other students who have a solution to the problem can provide the solutions. When the queries and all other needs of the students are met, it means that they have gained knowledge thus increasing their learning performance. The results also indicate that mobile learning has a positive influence on student participation in learning. This is congruent with current research findings. Through online discussions and the fact that mobile learning provides a good research platform students can gain more knowledge than they could have acquired through the conventional learning process. The findings from this research study also indicated that mobile learning positively influenced student learning behaviors. Mobile learning technology has been determined as a motivation tool to student learning. Unlike the conventional learning, mobile learning makes the student more urged of learning thus changing their learning behaviors.

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