

An Assessment of Teachers' and Learners' Usage Pattern of Mobile Devices towards the Adoption of Mobile Learning in Namibian High Schools: A Case of Erongo Region

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Abstract: *There has been an unprecedented growth in the number of mobile devices in recent years. This spread and prevalence of mobile devices has promoted the popularity of mobile applications. This has instigated the need to understand the usage pattern of mobile devices particularly among high school teachers and learners. This paper reports on the results of a survey of one hundred and twenty (120) high school learners and twenty four (24) high school teachers in the Erongo region of Namibia drawn from three different high schools. This research is conducted in order to find out the usage pattern of mobile devices and to ascertain the possibility of its adoption in Namibian High Schools. This study is expected to establish an understanding of the usage patterns based on its benefit for pedagogy.*

Keywords: Mobile devices, pedagogy, usage pattern, mobile learning

1. Introduction

Technological innovations have expanded the flexibility of mobile technology. Pedagogical activities are now enhanced with the use of technologically enabled devices which educators now use to instruct and communicate to learners. These new technologies include computers, Apple iPhones, Android phones, tablets, and many other portable devices. It is now a common practice for teachers and learners to use these portable devices for educational purposes [1]. The use of these portable electronic devices to access and share information has not only permeated higher institutions, it has also trickled down to high schools. Its usage is redefining teaching and learning. [2] noted that mobile learning presents teachers and learners with the exceptional opportunity to access information ubiquitously. Mobile learning devices have also been found to be valuable in the dissemination of information particularly being used as a form of e-library. Students are choosing to purchase and download e-books while teachers upload in different forms of files which is used for collaboration with learners [3].

2. The Usage Pattern of Mobile Devices

According to [4] there has been a dramatic increase in the ownership of laptops, cell phones and iPods over the past five years. Studies have revealed it is now very common for young learners to move about with devices which they connect to internet with the intention of playing games and listening to music [4]. Other activities that can be done using these devices include sending messages on social media, commenting on friends pages, sharing pictures, reading news, purchase things online, download applications, etc [5]. The finding has shown that mobile devices and internet usability is now a common place for teachers and learners.

Mobile devices such as Smartphones, tablets, iPods and other mobile devices are used in different forms. They can

be used while traveling, at home or at school. Its wide usage has made personal computers to play a second fiddle in pedagogy [6]. [7] noted that there are now innumerable research interests on mobile learning as studies on theories underpinning learning design, factors influencing adoption and how mobile learning can be used for collaboration are ongoing. Also most research interests are focused on readiness, acceptance and engagement of learners towards mobile learning [8], [9]; [10]; [11]; [12]. Furthermore, most studies on mobile learning focus on ubiquitous learning over the past few years with some of them basing their research on mobile content and environment [13]; [14]; [15]; [16]. In as much as some studies explore mobile device use among learners [17], few research dealt with teachers' and learners' usage pattern as it concerns mobile devices. The purpose of this study is to assess how mobile devices are currently being used by high school teachers and learners in order to enhance teaching and learning achievement.

3. Methodology

The study adopted descriptive survey design and questionnaires were used to obtain relevant information from respondents to describe the existence conditions and other phenomena. According to [18] information about people's lifestyles, attitudes, beliefs, behaviours and feeling can be collected through the use of questionnaire. This design was found most appropriate for this study because the study sought information from the respondents relative to their attitudes and behaviour. The survey instrument was modified so as to make the questions suitable to the context of mobile learning and the participating population. For instance the words "mobile learning" replaces the word "system". The sample of the study is participants from three (3) high schools in Erongo region. A sample of high school teachers and learners was drawn from the 3 schools. The students were selected primarily from grades (11) and twelve (12). Forty (40) learners were randomly drawn from

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each school giving a total of one hundred and twenty (120) learners from the high school. Also eight (8) teachers were randomly selected from each school making a total of twenty four (24) from the three schools. SPSS was used to analyse the data collected.

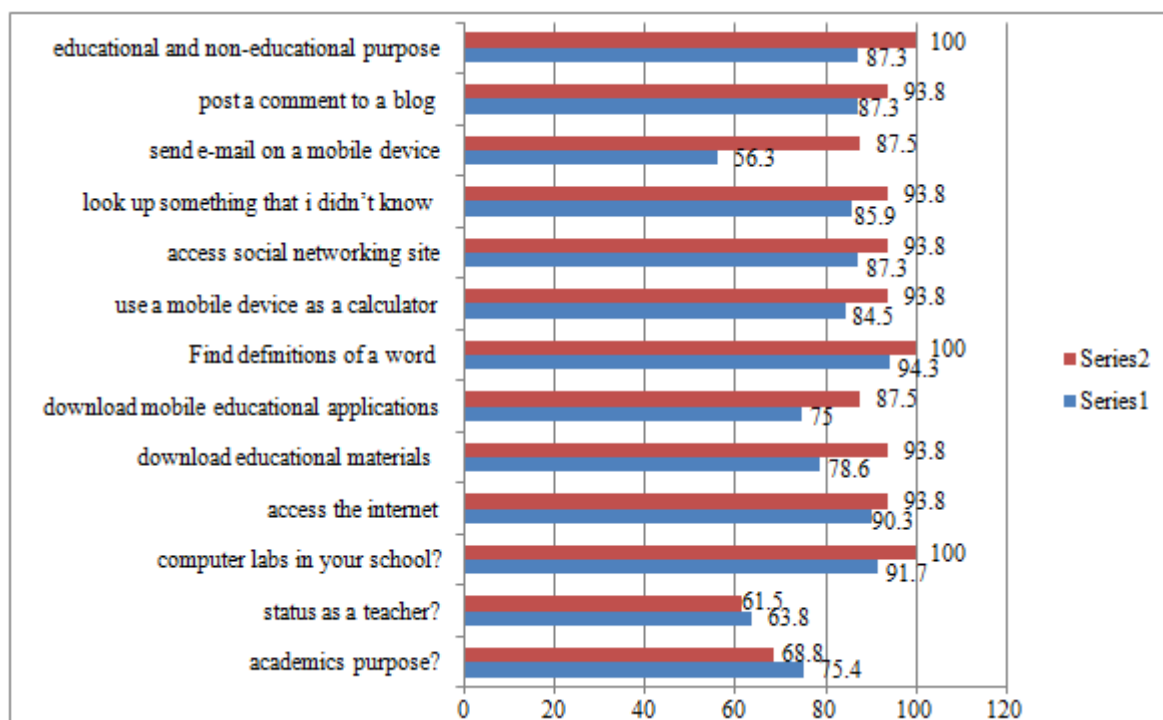
4. Results and Analysis

According to the responses of the teachers, 86.7% of them own Smartphones while 60.3% of the learners also own smart phones. 68.8% of the teachers agree that they use mobile devices for academic purposes while 75.4% of the learners are also on the positive side. All the teachers were affirmative that they have computer labs in their school while 91.7% of the learners supported. When asked if they could access internet from a mobile device, 93.8% of the teachers said yes while 90.3% of the learner also agreed. This means that there is a very high percentage of internet usage in the region. Furthermore 93.8% of the teachers in Erongo region can download educational materials from mobile devices while 78.6% of the learners can. There is a sharp decrease on the side of the learners. This shows that the teachers use their mobile devices more often to download educational materials than the learners. It could also mean that the teachers are more used to the process of downloading that the students. But that notwithstanding. The number of learners that can download these materials are still on the high side which means the majority of them can still use mobile devices to download educational materials. This is also the same with the learners and teachers in the area of downloading educational materials from mobile devices. 87.5% of the teachers can while 75% of the learners cannot. Using internet enabled mobile devices for research purposes is one of its advantages. When teachers and learners can use mobile devices the look for definition of words and also look up something they do not understand, they are already in the research process. All the teachers agreed that they know how to find definition of

words and 93.8% of them also agreed that they know how to use mobile devices to look up something they do not understand. On the side of the learners, 94.3% agreed that they know how to find definition of words on a mobile devices while 85.9% of them also affirmed that they know how to look up something they do not understand. This positive responses show that both the teachers and the learners are already using mobile devices for research purposes not matter how little they use it. The teachers and learners also agreed that they can use mobile devices for calculation. 93.8% and 84.5% of the teachers and learners respectively said that they know how to use mobile device as a calculator.

Social networking and learners sites have proven to be a good avenue for collaborative learning. This is because the teachers and learners can make use of it for interaction. Teachers can use it to get feedback from the learners which learners can use it for group studies and other educational activities that involve group learning. This is evident from the responses of the teachers and learners. While 93.8% of the teachers agreed, 87.3% of the learners also concurred.

Using mobile devices to send emails is also a benefit that has to be tapped. Though in this case the percentage of teachers, those that use mobile devices for email purposes are far higher than that of the learners. This could be because the learners are more at home with social networks the email. There could also be the reason that learner look at email as a feature for official interactions than for social activities. 87.5% of the teachers use mobile devices to send emails while 56.3% of the learners use it also. When compared to the percentage of learners that post comments on blogs (87.3%) one will agree to the above statement that the learners prefer social networks to sending emails. All the teachers also agreed that they use mobile devices for educational and non-educational purposes while 87.3% of the learners do the same.



5. Discussion

From the results of this survey, Namibian teachers and learners are mobile-ready. The findings reveal that the majority of teachers and learners in Namibian high schools use mobile devices for various purposes. This is consistent with researches that suggests electronic media in any form encourages multitasking [20];[21];[22]; [23];[24] and task-switching [25]. Also, majority of teachers and learners own handheld mobile devices. The majority of both teachers and learners can access the internet, download education materials and applications from the internet using mobile devices, use mobile devices as calculators, access social networking sites, search for definitions of words on mobile, send emails, conduct searches for material, send emails, read assignments and post comments on blogs.

6. Conclusion/Recommendations

The consistent usage of mobile devices by high school teachers and students depend their availability and the teachers and students knowledge on how to use these devices. When a gap exists between the student's knowledge of usage of mobile technology and teacher's knowledge, especially if the student is more knowledgeable than the teacher, teacher training in the usage of mobile technologies is required. So is training the learners as well in mobile ICT usage.

The adoption of mobile technology into teaching and learning is expected to have great influence on the experience and performance of learners [19]. Its usage in high schools has a varied range of business benefits to the learner, teacher and education in general. Further research should be conducted on comparing the usage patterns and e-readiness status of Namibia region by region, to see if regional ICT policies, schools ICT policies and the national ICT policy need to be revisited.

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