

Integrating Mobile Learning: Readiness of Male and Female Secondary School Teachers in Baltistan Region

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ABSTRACT

Mobile learning has become a useful tool in the teaching-learning process due to its unique features. M-learning is considered to be the latest form of education and is one of the most emerging fields. This study aims to investigate the readiness for mobile learning integration among Baltistan Regions teachers by their gender. In order to investigate teachers' readiness toward mobile learning, the Mobile Learning Readiness Survey (MLRS) developed by Christensen and Knezek (2017) was utilized. The results of this study showed Secondary School teachers' mobile learning readiness was high in general. The result found no difference between male and female teachers on their readiness for Mobile Learning. The study also recommends the policy makers that the teachers be given sufficient training on how to use mobile learning into teaching and learning processes to acquire the requisite knowledge and skills in integrating the technology in classrooms.

Keywords: Teachers' Readiness, Mobile Learning

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INTRODUCTION

Mobile devices are becoming the integral part of our lives. Mobile learning (m-learning) is an important part of e-learning (Al-Adwan, Al-Madadha, & Zahra , 2018; Padmanathan & Jogulu, 2018). Behera (2013) illustrated the main types of mobile devices for m-learning used in education process are Note Book computers, Tablet, PC Personal Digital Assistance (PDA) Cellular Phones, Smart Phones etc.

According to National Education Policy (2017) the integration of technology in school education is an integral part together with a shift from the paradigm of memorization of school education to the modern method of learning through exploration, experimentation and innovation. Waqar (2014) explored that people from all over Pakistan are widely using mobile phones. A USAID funded Pakistan Reading Project distributed tablets to the teachers to enhance teaching learning process. Due to convenient features of mobile devices, it is being widely used in every field of life especially in education. The use of

technology by the teachers depends on the way they perceive it (Zehra & Bilwani, 2016). According to Butt and Qaisar (2017), Pakistani university teachers and students are ready technologically and are willing to spent time and money in learning mobile based learning applications. Klimova (2019) found a difference in the achievement of students using mobile applications and without mobile applications.

The Educational Strategy for Gilgit-Baltistan (2014) emphasizes on the paradigm shift from traditional classrooms to technologically equipped classrooms. Chief Minister Gilgit-Baltistan (GB) inaugurated the E-learning system in a school in Skardu District (Radio Pakistan, 2019). M-learning is the mode of E-learning. However, before adopting the mobile learning strategy in schools, it is necessary to investigate the readiness of teachers. Integration of mobile learning is challenging for teachers if they are unprepared with sufficient knowledge. Research conducted the in Baltistan region revealed that teachers are illiterate in terms of ICT (Iqbal, 2017). There are issues of gender in the profession of teaching, and gender-based technology integration needs to be identified. Bhargava, Kirova-Petrova, and McNair (1999) found differences in the usage of technology between men and women. Hong and Koh (2002) found that male teachers feel more comfortable than female teachers for use of technology but in Korea female teachers have a more positive attitude than male teachers so it is important to investigate teachers' readiness by gender. The GB government is going to integrate mobile learning in schools. Recently in 2019 e-learning system using mobile devices is inaugurated in one of the secondary schools in the Skardu District. Before the integration of Mobile Learning, it is necessary to check the readiness of teachers. So, the current research is an attempt to investigate the readiness of male and female teachers for Mobile Learning integration in the teaching-learning process. The study aimed to investigate secondary school male and female teachers' readiness for integration of mobile learning in the classroom.

METHODOLOGY

To investigate the readiness of secondary school teachers in Baltistan Region by their gender a descriptive research design was used. According to Directorate Education Baltistan Region, there were 1162 teachers of 110 secondary schools in Baltistan region. Which is the target population of this research and accessible population was 513 teachers of 36 secondary schools in the Skardu District. 154 Secondary school teachers from Skardu District were selected using a convenient sampling technique, 154 questionnaires have distributed and received 143 questionnaires.

INSTRUMENT

The questionnaire used, involving four constructs of readiness such possibilities, benefits, preferences, and external influences (Christensen & Knezek, 2017). The MLRS can be a useful tool for measuring teachers' readiness for incorporating mobile devices and mobile learning strategies into the classroom. This instrument was created by adapting a previously created likert-type item to evaluate the impact of the one-to-one iPad implementation for high school teachers and students (Christensen & Williams, 2015). There are 28 items in this tool, can lead to better understanding of the preparation of teachers for implementing mobile learning. A five-point Likert scale that demonstrated degrees of agreement (from strongly disagree to strongly agree) was applied to measure teachers' readiness for the integration of ML in classroom.

The researcher contacted eight experts in the field of technology and education to determine content validity of this adapted version of the MLRS. Experts in the field determined that questions 1 to 9 effectively measure possibilities, 10 to 21 effectively measure benefits, and 22 to 24 measure preferences and 25 to 28 effectively measure external influences.

A pilot group 30 secondary school teachers were administered the survey. Cronbach's alpha, the measure of reliability, was calculated for the scales for items measured on the five-point Likert scale. The Cronbach's alpha value is found as 0.823. The instruments reported coefficient alphas for reliability for the entire instrument as follows: Possibilities (.734), Benefits (.772), Preferences (.827), and external influences (.750).

RESULTS

Comparison of Means, Standard Deviation, and t-test on Teacher Readiness by Gender

Table 1

By gender comparison of means, standard deviation, and t-test on teacher readiness

Variables	Gender	N	Mean	SD	df	t	p-value
//	Male	77	3.5320	.44932	141	1.128	.261
	Female	66	3.4432	.49225			
Possibilities	Male	77	3.9380	.49870	141	1.559	.121
	Female	66	3.8148	.43639			
Benefits	Male	77	4.7543	.53494	141	.986	.326
	Female	66	4.6641	.55662			
Preferences	Male	77	2.9307	.90376	141	.870	.386
	Female	66	2.7879	1.05997			
External Influences	Male	77	2.8312	.96607	141	.126	.900
	Female	66	2.8106	.98455			

To find out the potential mean difference between female and male faculty teachers' readiness for integration of mobile learning, an independent-samples t-test was used. For Hypothesis 1 (teachers' readiness for mobile learning integration), a total of n=143 participants (n=77 males and n=66 females) provided valid responses. Table 4.2.2 indicates

that the calculated p-value (.261) is more than the table value of 0.05 so, there are no significant differences between female and male teachers' readiness for integration of ML.

An independent-samples t-test was applied to find out the difference(s) between female and male faculty members on the construct possibilities. For Hypothesis 2 (Possibilities of Mobile learning), a total of n=143 participants (n=77 males and n=66 females) provided valid responses. Table 1 indicates that the calculated p-value (.121) is more than table 0.05 so, there are no significant differences between female and male teachers' readiness for integration of mobile learning at 0.05.

An independent-samples t-test was used to find out the potential difference(s) between male and female faculty members on the construct Benefits. For Hypothesis 3, (Benefits for integration of Mobile learning), a total of n=143 participants (n=77 males and n=66 females) provided valid responses. Table 1 indicates that there are no significant differences between female and male teachers' readiness for the Benefits of integration of mobile learning at 0.05 level because the calculated p-value (.326) is greater than 0.05.

An independent-samples t-test was used to find out the potential difference(s) between male and female faculty members on the construct Preferences. For Hypothesis 4, (Preferences of Mobile learning), a total of n=143 participants (n=77 males and n=66 females) provided valid responses. Table 1 indicates that significant difference between male and female teachers' readiness for preferences integration of mobile learning was found at 0.05 level because the calculated p-value (.386) is more than the table value of 0.05.

An independent-samples t-test was used to find out the potential difference(s) between male and female faculty members on the construct External Influences. For Hypothesis 5, (External Influences for integration of ML), a total of n=143 participants (n=77 males and n=66 females) provided valid responses. Table 1 indicates that there is no significant difference between male and female teachers' readiness for external influences for integration of mobile learning at 0.05 level because the calculated p-value (.900) is more than 0.05.

DISCUSSION

Pakistan is a developing country and is highly interested to provide its people with modern education. Therefore, the education sector emphasized the use of technology in educational institutions and the need for skilled teachers to incorporate technology into the curriculum. A large provision has been made in the budget for the development of education and the provision of technology to schools.

Providing resources will not assure the effective execution of technology in education (Gulbahar, 2007). The use of technology in the teaching process and teaching strategies in a formal educational setup depends on the teacher's ability to present it regardless of the classroom environment, without following the flow of students' arguments and without guaranteeing the quality of attention required.

The technological usage in the teaching process and teaching strategies in a formal educational setup depends on the teacher's ability to present it without ignoring the classroom environment, following the flow of students' arguments, and guaranteeing the quality of attention required. Integration of mobile learning is challenging for teachers if

they are unprepared with sufficient knowledge. The role of teachers cannot be neglected in the integration of technology, and teachers are considered an important part that determines the success of ML integration. Their beliefs, attitudes, discernments, and readiness for technology play an important role in their adoption of technology. According to (Churchill, 2020), Technological enhancement in education is largely dependent upon teacher readiness to conceive, plan and integrate learning technologies and activities. This quantitative study aimed to examine the readiness of secondary school male and female teachers for ML integration in the Baltistan region.

The results were revealed that there were no significance differences between male and female teachers' readiness for ML integration. These findings were in consistence with a study in Pakistani university conducted by Butt and Qaiser (2017) revealed that there are no gender differences in comfort ability to use m-learning for both the students and the teachers and the findings were not in consistence with an earlier study by Anderson (2015).

RECOMMENDATIONS

- This study revealed that there is no difference in teachers' readiness on the basis of their gender so the the same strategy for integration of mobile learning can be applied.
- This study was about the readiness of male and female teachers but new research is required to study other variables.
- This study revealed that the readiness of secondary school teachers was positive, the future research could be conducted to determine the readiness of primary school teachers such research could be beneficial to integrate ML.

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