"AN ANALYSIS OF STUDENTS' ATTITUDE TOWARDS MOBILE LEARNING (M-LEARNING) AT HIGHER EDUCATION LEVEL".

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ABSTRACT

Skills were developed in response to the demands of the twenty-first century, which led to a paradigm shift away from traditional teaching methods and towards M-learning in higher education. Students are using their mobile devices for instructional purposes more and more. The purpose of this inquiry is to determine the attitudes of students towards mobile learning by administering a survey. A survey was conducted by research to students at the College of Arts, Science, and Commerce, emphasizing on their perceptions of mobile learning. Online surveys were used to collect the data, and 175 valid answers were chosen for study. The findings of this study potentially provide investigators some understanding of present advances in mobile learning research. In order to improve teaching strategies and learning outcomes in higher education institutions, the current research examines a study on m-learning using mobile devices to determine students' opinions in various dimensions of mobile techniques and perceive the viability of mobile technologies for academic and social purposes.

Keywords—Attitude, Mobile Learning, M-learning, Higher Education

INTRODUCTION:

The widespread use of mobile devices—both software and hardware—is fast turning into a prerequisite for development support. Mobile learning is a type of learning that happens on portable devices including notebooks, tablets, and digital readers, according to Jabbar & Felicia (2015). It is the type of learning that takes place when a student uses the learning resources offered by mobile technologies or when the student is not in a set, predefined location. Globally, mobile learning, or M-Learning, is becoming more and more popular as a new approach to knowledge delivery, skill acquisition, and dissemination. A contemporary learning environment that supports student-centered learning, informal learning, collaboration, and personalization is mobile learning. Mobile education is described as "learning across different contents/ settings through social and content interactions, as a result of the convergence of online capabilities onto mobile platforms, as well as the accessibility and affordability of mobile technology." Mobile learning has the capacity to become possibly the most widely used educational medium across formal and casual contexts. Because of its portability and flexibility, mobile technology streamlines sustainable development by reducing the strain of having to carry bulky computer equipment to access content both online and offline. Development is already aided by the main benefit that mobile learning offers: flexibility in terms of access time and location.

Traditional learning is the first stage of the educational process, requiring students to attend classrooms. On the other hand, books and videos were employed to enable students to study overseas through distance learning. Online learning refers to the presentation of learning materials via computers that was later integrated into the educational method. In the twenty-first century, information and communication technology has transformed education in many respects, enhancing lecturers' pedagogical approaches and encouraging efficient time management techniques in the classroom. E-learning first appeared as a new technological approach in contemporary training and education systems in the late 1980s. M-learning is the term for the more contemporary learning management systems (LMS) characterized by e-learning that is accessed with wireless devices (such as iPads, Apple iPods, mobile phones, smart phones, etc.). These devices' apps are integrated with 4G, 5G, and Wi-Fi telecommunication networks, which primarily rely on the use of wireless technologies. This means that students can access educational materials such as lectures, homework, and quizzes, as well as work together and support fieldwork activities without being constrained by time or place. Students can advance their programs by earning credits by collaborating with friends in programs, using platforms for electronic mail, online chatting, blogging, and multiple social networking sites—all made possible by mobile devices. As a novel technique, m-learning encourages flexibility, allowing students to engage in learning methods without being limited by age or ability level. The primary goals of this study are to: (1) ascertain students' attitudes regarding the acceptability of mobile methods and acknowledge the value of mobile services for social and educational purposes to enhance learning in educational institutions; and (2) ascertain students' proficiency with technology.

According to Zhang (2016), mobile learning is defined as "the learning activity on mobile devices or learning anytime and anywhere." Mobile learning is described as "any educational provision where the sole or dominant technologies are handheld or palmtop devices" (Traxler, Defining Mobile Learning, 2005). (Schelur, Winters, & West, 2013) described mobile learning as the process of learning facilitated by portable electronic devices like smartphones and tablet computers. There are many different contexts in which mobile learning is used, including K–12, higher education, corporate learning environments, formal and informal learning, classroom instruction, remote learning, and field research (Park, 2011). According to research by (Hsieh & Tsai, 2017), instructors would prefer to see mobile devices deployed to their fullest extent; yet, in order to achieve this, it is imperative that teachers develop advanced conceptions of mobile learning. Acceptance of M-Learning technology is not without its difficulties, though. The obstacles and difficulties to effective incorporation of mobile learning include inadequate capacity to integrate technology, problems with classroom management, attitudes towards technology, and a lack of pedagogical techniques (Christensen & Knezek, 2017).

CONCEPT OF MOBILE LEARNING: Mobile learning is any form of teaching or learning that is not limited to a certain location, period of time, or venue. The educational or learning process is what is adaptable in terms of time and location. There are many different types of mobile learning, including text, audio, and video communications. This provides the forum and platform for easy or convenient learning. While learning never stops, learning methods do, thanks to daily advancements in technology. The priority of education has shifted with the advent of m-learning from content to approach. Mobile computers have gradually been introduced into educational settings over the past 20 years (Sung, Chang & Liu, 2016; Olugbuyi, Oginni, Ayeni & Fatoba, 2018). They have comparable features as laptops, however they are simpler to use than laptops and computers. These are reasonably priced solutions because mobile devices are far more economical than PCs and laptops. This gives the students the opportunity to participate actively in the process. Students are more engaged in the classroom because to the advancements in education. With its high processing power and portability, one-to-one computing is an excellent learning tool for both traditional classroom settings and outdoor informal learning. Add to this its wireless connectivity and context-sensitive capabilities, and you have a winning combination (Sung, Chang & Liu, 2016).

OBJECTIVES OF THE STUDY

1. To study the attitude of students towards m-learning studying at different academic stream.
2. To study the attitude of students towards m-learning studying in government and private college.
3. To study the attitude of male and female students towards m-learning.
4. To study the attitude of urban and rural students towards m-learning.

5. To study the attitude of students towards m-learning having varied experience in smart phone and computer.

LIMITATIONS OF THE STUDY

1. The current study is limited to 175 students studying at higher education   level.
2. The Saharanpur District is the sole focus of this study.
3. The study only takes into account the variables related to gender, locality,   economic category, experience and subject stream.

SAMPLE AND SAMPLING TECHNIQUE

Using purposive sampling technique, 175 male and female urban as well as rural students from higher education institutions in Saharanpur district were selected. They are from the Arts, Science and commerce stream.

STATISTICAL TECHNIQUES

In order to analyze the data, following statistical techniques are adopted.
Mean, Standard deviation, and descriptive statistics.

TOOL OF THE STUDY

Self-developed and validated tool to measure the attitude of students towards mobile learning (m-learning) at higher education level was used to conduct the research. It has four dimensions: usability, simplicity and ease, knowledge and awareness, impact on social interaction.

COLLECTION AND ANALYSIS OF DATA

Higher education students in the Saharanpur District are chosen to receive the questionnaire to meet the purpose of the study. The respondents are made fully aware of the importance and significance of the current study. To interpret the result substantially, the data that were gathered from them were arranged and statistically analyzed.

OBJECTIVE – 1. To study the attitude of students towards m-learning studying at different academic stream.

Table – 1

SHOWING DESCRIPTIVE STATISTICS OF STUDENTS ATTIDUDE TOWARDS M-LEARNING AT HIGHER EDUCATION

DIMENSIONS		TOTAL	USABILITY	SIMPLICITY AND EASE	KNOWLEDGE AND AWARENESS	IMPACT ON SOCIAL INTERACTION
ARTS STUDENT	MEAN	96.28	20.04	36.97	22.18	17.085
SCIENCE STUDENT	MEAN	99	21	40.71	21	16.28
COMMERCE STUDENT	MEAN	103	20.87	40.38	24.17	17.56
EDUCATION STUDENT	MEAN	101.66	20.08	40.5	23.45	17.62

Figure - 1

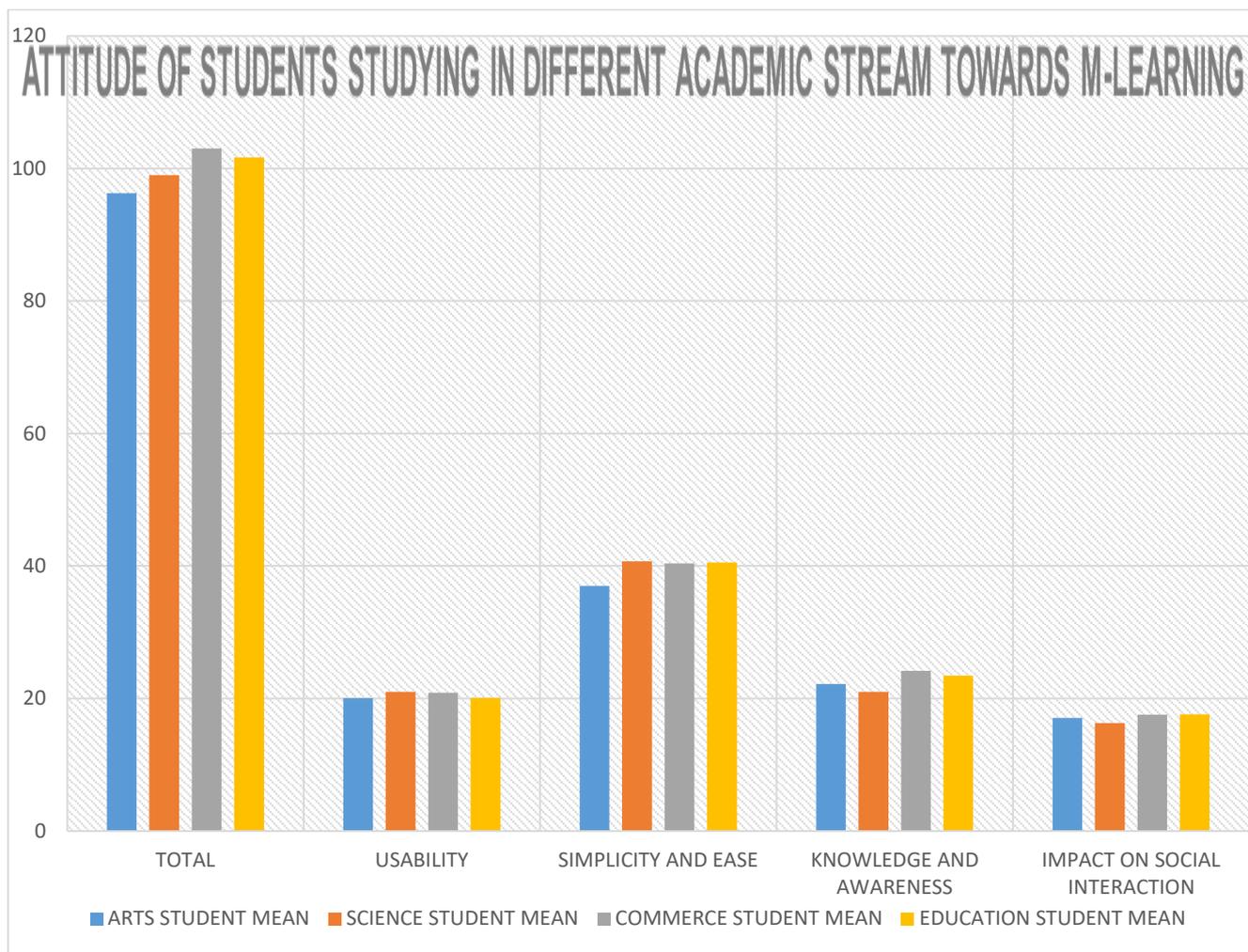ATTITUDE OF STUDENTS STUDYING IN DIFFERENT ACADEMIC STREAM TOWARDS M-LEARNING

Table 1 describes that the attitudinal mean value for students studying in arts, science, commerce and education academic stream towards m-learning respectively. Thus, it is presented that commerce students have favorably high mean score on attitude towards m-learning and arts students have low mean score on attitude scale towards m-learning.

OBJECTIVE – 2. To study the attitude of students towards m-learning studying in government and private college.

Table – 2

DIMENSIONS		TOTAL	USABILITY ASPECTS	SIMPLICITY AND EASE	KNOWLEDGE AND AWARENESS	IMPACT ON SOCIAL INTERACTION
GOVT.COLLEGE	MEAN	96.58	19.54081633	38.37755102	22.23469388	16.42857143
PRIVATE COLLEGE	MEAN	103.84	21.24358974	40.42307692	24.02564103	18.15384615

Figure-2

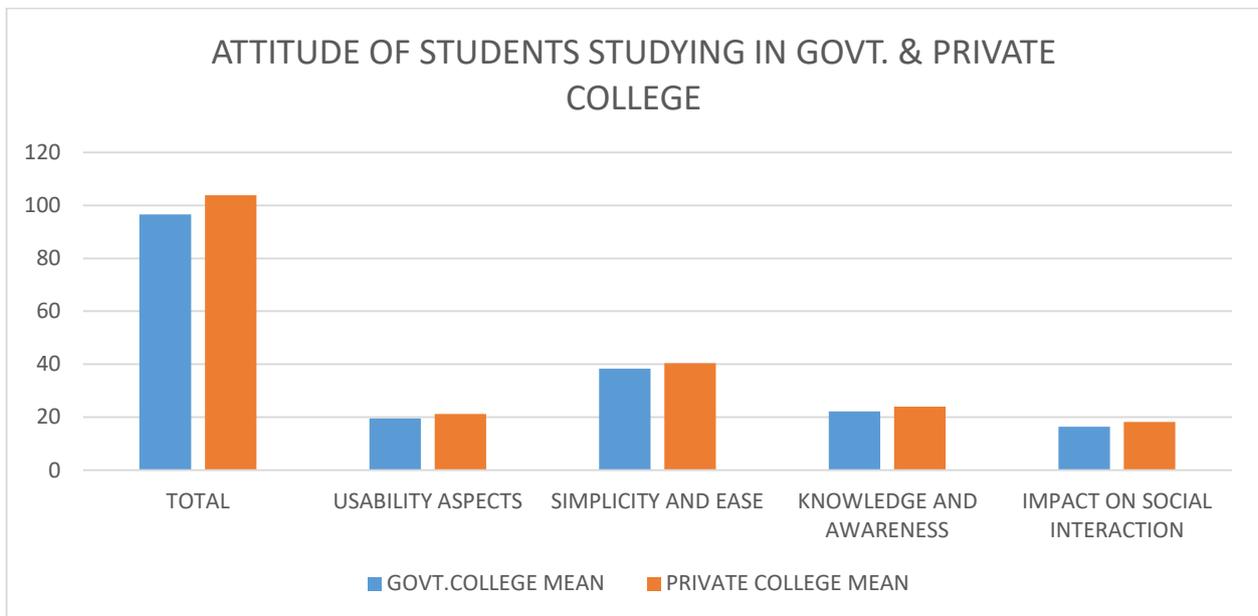ATTITUDE OF STUDENTS STUDYING IN GOVT. & PRIVATE COLLEGE

Table 2 shows that the total mean value of attitude score of students studying in private college towards m-learning is higher than that of government college students, as well as on respective dimensions also at higher education level.

OBJECTIVE – 3. To study the attitude of male and female students towards m-learning.

Table- 3

DIMENSIONS		TOTAL	USABILITY ASPECTS	SIMPLICITY AND EASE	KNOWLEDGE AND AWARENESS	IMPACT ON SOCIAL INTERACTION
MALE STUDENT	MEAN	98.21	19.94	38.81	22.71	16.73
FEMALE STUDENT	MEAN	100.23	20.39	39.41	23.11	17.31

Figure-3

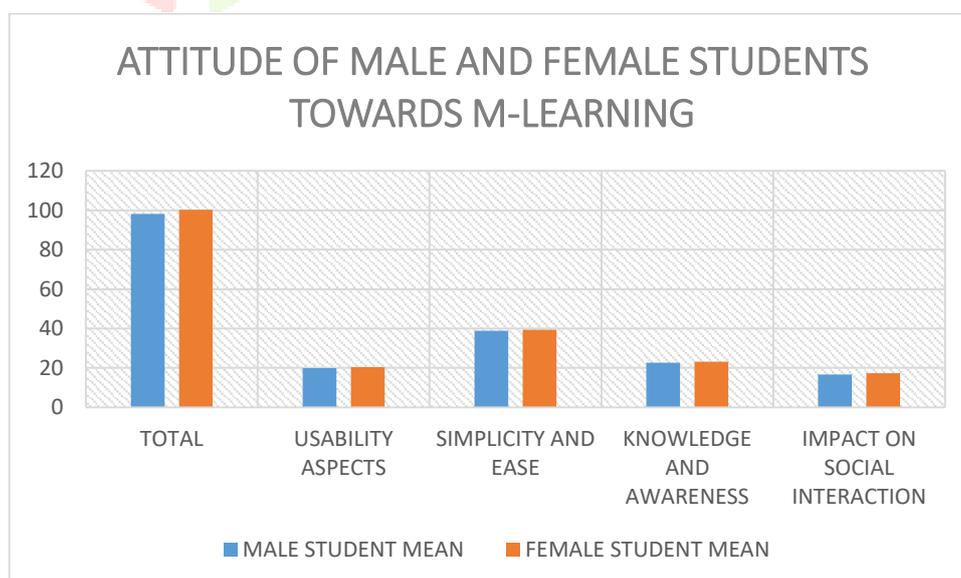ATTITUDE OF MALE AND FEMALE STUDENTS TOWARDS M-LEARNING

Table 3 also shows that the total mean value and mean values on all dimensions on attitude scale towards m-learning for female students at higher education level is higher than that of male students.

OBJECTIVE – 4. To study the attitude of urban and rural students towards m-learning.

Table - 4

DIMENSIONS		TOTAL	USABILITY ASPECTS	SIMPLICITY AND EASE	KNOWLEDGE AND AWARENESS	IMPACT ON SOCIAL INTERACTION
URBAN STUDENTS	MEAN	93.05	19.44	36.38	21.58	15.63
RURAL STUDENTS	MEAN	101.53	20.51	40.02	23.4	17.59

Figure-4

ATTITUDE OF URBAN AND RURAL STUDENTS TOWARDS M-LEARNING
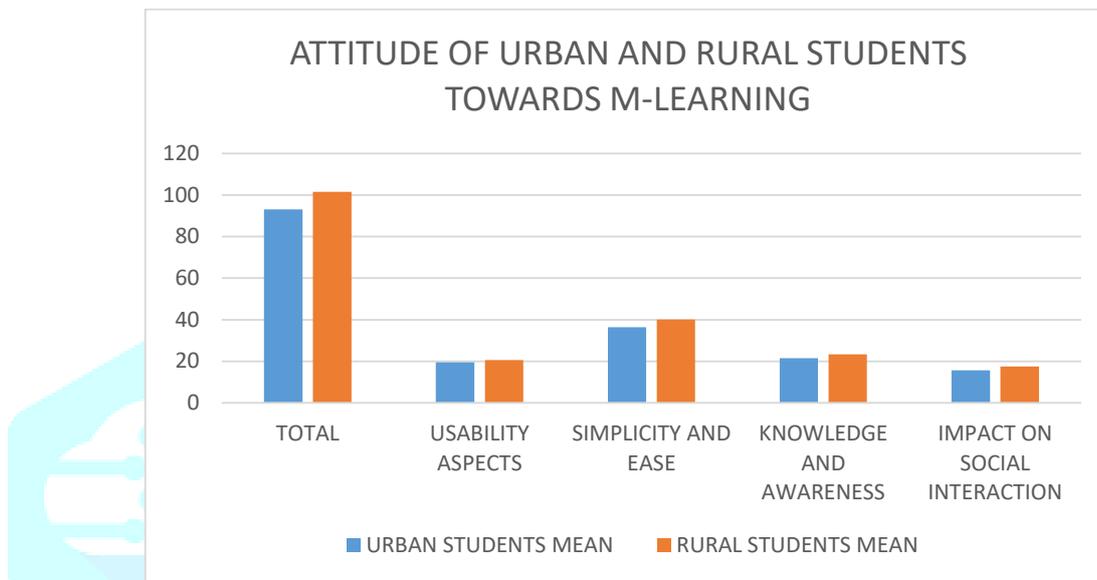
It is stated from the above table that there is a high mean score of rural students on attitude scale in totality and other dimensions also at higher education level in comparison to urban students towards m-learning.

OBJECTIVE – 5. To study the attitude of students towards m-learning having varied experience in smart phone and computer.

Table – 5

DIMENSIONS		TOTAL	USABILITY ASPECTS	SIMPLICITY AND EASE	KNOWLEDGE AND AWARENESS	IMPACT ON SOCIAL INTERACTION
0-5 YRS EXPERIENCE	MEAN	97.13	19.66	38.38	22.37	16.70
5+ YRS EXPERIENCE	MEAN	106	21.75	41.37	24.54	18.32

Figure-5

ATTITUDE OF STUDENTS HAVING VARIED EXPERIENCE FOR M-LEARNING
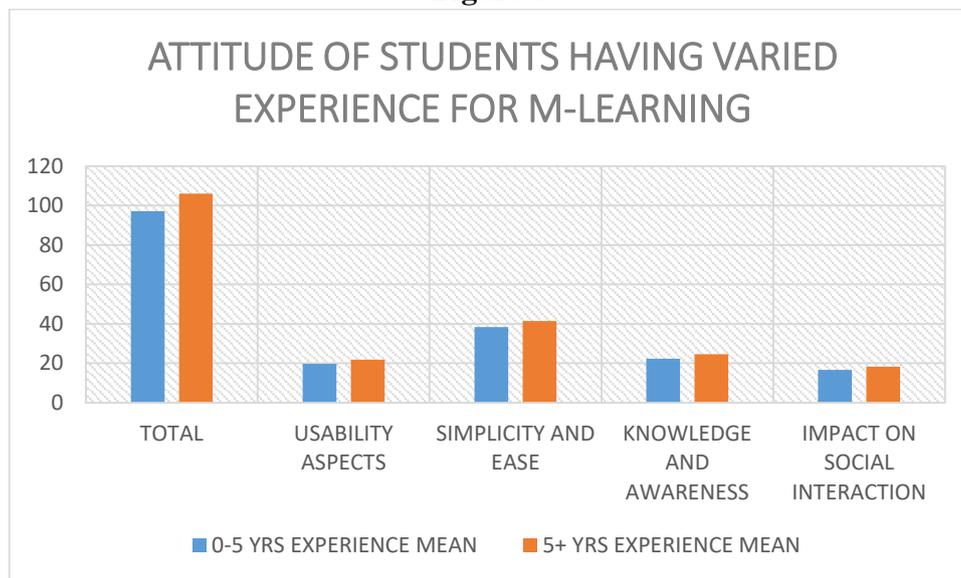
It is also presented in table 5 that there is a high mean score for students having more than five years of smart phone experience on totality and on its various dimensions in comparison to students with less experience at higher education level.

RESULT AND FINDINGS OF THE STUDY

1. Arts, Science, Commerce and Education stream students have neutral attitude in totality towards m-learning at higher education level.
2. Government and Private college students have neutral attitude towards m-learning at higher education level.
3. The category of male and female student's attitude towards m-learning at higher education level is found to be neutral.
4. There is a neutral attitude among urban and rural students towards m-learning at higher education level.
5. Students having five years and more experience in using smart phone have favorable attitude towards m-learning, while students having less than five years' experience show neutral attitude towards m-learning.

EDUCATIONAL IMPLICATIONS OF THE STUDY

These days, the most helpful tool is mobile learning. It is thought that mobile learning may be a crucial component in getting young adults interested in learning, while the majority of traditional teaching methods have not been able to do so. if there are some problems that need to be fixed before implementing a complete mobile learning approach, mobile learning provides its own importance and special qualities that present learners with endless possibilities. Mobile learning should involve connected learners in addition to the use of mobile devices. With mobile learning, students can take classes in the comfort of their own environments. Mobile learning can offer accessibility, equity, and high-quality education if it is integrated with ICT in an appropriate manner.

SUGGESTIONS FOR FURTHER RESEARCH

Further research suggestions are provided below:

1. The similar study can be carried out by choosing students from other educational institutions as well as multiple academic streams.
2. The same study can be done by increasing the sample size of students.
3. The same study can be conducted on students from various affiliating universities and colleges in adjoining districts.

CONCLUSION

The outcomes showed that m-learning might be used to support students' collaboration in their activities and successful learning. According to reports regarding students' attitudes towards m-learning, they find it more difficult to use computers and mobile devices for website browsing, downloading software, using hyperlinks, configuring their devices, and creating bookmarks. Since it is well known that a neutral attitude among stakeholders hinders the execution of policies, the current results point to the continued dynamic and effective application of ICT, particularly M-learning, in the years to come.

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