Letter to Editor:

Attending the Classroom Again: Mobile Phones On or Off?

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Dear Editor

From the end of 2019, when inexplicable signs of the spread of COVID-19 were reported, until mid-2021, university classes were held online. Electronic learning (e-learning) has greatly contributed to the growth and development of e-learning education knowledge of professors and students. According to some experts, the e-learning movement can be divided into before and after the COVID-19 pandemic. One of the important consequences was the widespread use of smartphones in education [1].

Mobile learning (m-learning) is a developed branch of electronic learning, which, compared to other types of electronic learning, provides access to learning content with greater ease for learners. The successful experience of this method led to the expansion of companion learning [2].

Considering the use of smartphones by students and their widespread use, this question arises when universities become normal again, should classes be held in their traditional way and students should be asked to switch off their phones in class? Or should the use of this device be combined with the modern methods of education and students can turn on their mobile phones during class?

Teaching in the classroom with the help of mobile phones (mobile learning)

Several definitions have been given regarding m-learning. Dent and Harden, citing Saunders and Firth, have defined m-learning as acquiring learning through mobile technologies (mobile phones, tablets, laptops, personal digital assistants, and so on) [3].

Education through mobile phones has become popular in organizations, institutions, and schools since 2000. The mobile-based education system was officially introduced in the United Kingdom, Sweden, and Italy in 2007 with a credit amounting to 4.5 million euros. It covered students in the age range of 16 to 24 years old [4].

The easy portability of the mobile phone and its essentials encourages the use of it even in times of learning opportunity (learning anywhere and anytime) [5]. Mobile learning, similar to other educational methods, along with its many advantages, has many challenges, such as the small screen of some mobile phones, the need for

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constant battery charging, and the cost of using wireless communications [4].

M-learning activity has several theoretical supports for learning. Among the theories that can be cited to explain mobile learning are the theories of behaviorism, instrumentalism, problem-oriented learning, socio-cultural theory, situation-based learning, cooperative learning, informal learning, and lifelong learning [6].

Mobile learning in medical education

Considering the capabilities and potential possibilities of mobile phone technologies and their requirements, these devices can facilitate the learning process for medical students. The use of educational software for diseases and physical examinations and drugs, along with video and audio clips in the field of medical sciences and photos and videos from learning materials can be used at the bedside or in the classroom, along with medical simulations, various educational and therapeutic games, preparing medical slides, preparing electronic medical books, saving and retrieving course materials, joining virtual networks in the field of medical sciences, and all similar things can play an important role in the learning process of medical students [7].

Considering the importance of m-learning in medical education, it is necessary to pay attention and invest in educational processes with this method in the field of medical sciences. M-learning is not merely the use of mobile devices. M-learning, in case of efficacious use for educational situations and entering and remaining in the competition scene, special attention should be paid to educational theories, educational goals, and the characteristics and wishes of the learner in the design and use of this method.

The entertainment aspect of having a mobile phone and the possibility of using learning techniques through video as a result of the consensus of several methods (visual, verbal, auditory) and on the other hand the previous background and passion of the participants for electronic learning as well as the ease of use and transfer along with the convenient access to information at any time and place has provided the conditions to continue to emphasize the use of electronic learning [8].

In the meantime, conflict in the value of information, conflict in the behavior patterns of professors, conflict in the behavior patterns of classmates, and the digital divide between generations in the family are among the aspects that have made electronic learning based on mobile

phones doubtful among students. Most of the students in such a situation are in a state of confusion and indecision at the beginning and they are at the crossroads of accepting or rejecting this method of learning, which can be considered the main concern of the users.

By carrying out measures such as examining the psychosocial and supportive atmosphere of the classroom, the supportive infrastructure of technology, the psychosocial and supportive atmosphere of the family, and the capabilities related to mobile technology as well as individual abilities and experiences, necessary action can be taken for the effective and efficient use of technology and promote the mobile in the direction of learning.

Why can using m-learning be beneficial?

The zero point of the m-learning process is the acceptance of m-learning because the process of this method does not begin until the student accepts mobile technology as an educational tool. The attractiveness of mobile technology and the multimedia environment and social networks are so great that students are spontaneously encouraged to engage in educational activities. In addition to the ease of use, other factors, such as attractiveness, play an important role in the adoption of m-learning. The use of mobile technologies can make the learning path of students smoother and develop academic self-confidence and self-management in them.

One of the motivating factors for m-learning is students' inner feelings. Factors such as the enjoyable aspects of mobile phones and get the feeling of satisfaction, pleasure, and attractiveness from the educational uses of mobile phones are among the internal boosters of m-learning.

Experts believe that when education is combined with entertainment, the effectiveness will increase and learners learn many of their subjective findings from entertainment programs.

One of the prerequisites for the effectiveness and efficiency of m-learning is the optimal and appropriate use of mobile phones; in other words, having media literacy regarding mobile technology. Media literacy is the knowledge and skill based on which an individual can recognize and distinguish different types of media and their products from the point of view of being useful or harmful, the ability to use or not use, and the correct amount of use. Media literacy gives people the ability to act intelligently, proactively, analytically, and critically when dealing with the media. Accordingly, when using

media texts, they have a better understanding, fewer errors, and more benefits.

It can be concluded that multifaceted strategies are needed to improve m-learning in medical students. The professors and practitioners of the education system must take a positive step in improving this behavior by revising and changing the educational programs. Higher education institutions and universities should be able to provide the necessary conditions for the implementation of m-learning and plan for the development of this technology by considering the interest and needs of students, empowering professors to create a positive attitude toward this technology, and creating a suitable environment for its use. University professors, as leaders of the teaching and learning process, should have strong media literacy and turn the students' desire to have mobile phones in the classroom into an opportunity for teaching and learning.

Ethical Considerations

Compliance with ethical guidelines

This study does not require any approval from the responsible Ethics Committee as it used secondary data.

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Conflict of interest

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نامه به سردبیر

حضور دوباره در کلاس درس: تلفن همراه روشن یا خاموش؟

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