Compare Teachers and Students Attitudes According to Mobile Educational Applications

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Abstract
Many definitions of education have been made from past to present. The definition of education, which is generally defined as the process of creating behaviour change in the desired direction in individuals, has a history as old as human history. From another point of view, education is the sum of the process that takes the individual from birth to death and develops talent, attitude and other behaviours that have value in the community where he lives. It is possible to talk about the use of mobile education application increasing day by day, although it is not at the desired level in the field of education. It is seen as the pervasive use of mobile devices and a part of life; it is not possibleto say that the advantage of continuous transport is fully utilized. In this context, in this study that we carried out to measure the attitudes of teachers in the field towards mobile education applications and to compare these attitudes with the students in the education faculty, it was made to determine how much teachers and students continuously use the smart devices they carry with them in the field of education and training, and whether they use the advantages they provide. To find answers to the research questions, the study was designed with a "quantitative research method" and was carried out with "descriptive research design". According to Sönmez and Alacapınar (2014), "descriptive researchcan be considered as a description of what is happening, what already exists, what is happening, and explained" (p: 47). From this point of view, it was tried to determine what the opinions of teachers and teacher candidates in the profession about mobile education applications and whether the difference between these views is meaningful or not.

As a result, the attitudes of teachers and prospective teachers towards mobile education devices are positive in this research, which aims to determine what opinions of teachers and prospective teachers about mobile education practices and whether the difference between these views is meaningful. The fact that the difference between these views is not significant is similar in the literature. These results suggest that attitudes towards new education applications to be used on mobile devices are also positive. Mobile technologies support individual and collaborative learning thanks to their rapidly developing applications and easy network access, allowing individuals to research, share information and access information at any time. The use of new technologies and software in education creates new learning opportunities for students and teachers. This explains the importance of individuals being open to using new technologies and accepting these technologies.
Keywords: Education, technology, mobile education, aplications, new trends

Introduction

Many definitions of education have been made from past to present. The definition of education, which is generally defined as the process of creating behaviour change in the desired direction in individuals, has a history as old as human history. From another point of view, education is the sum of the process that takes the individual from birth to death and develops talent, attitude and other behaviours that have value in the community where he lives. In parallel with this, innovations are made in education to raise individuals who can keep up with the developments in the changing and developing world, respond to the expectations of the era, research, question and realize themselves, develop the self-confidence and thus increase the student achievement levels and make the education system more functional (Çelen, Çelik & Çelik Seferoğlu, 2011). The common point of these definitions is that it covers all the processes that are effective in gaining the society standards, beliefs and life paths.

The developments in the technological field with the information age not only affect all areas of life but also cause radical changes in the education and learning process. Mainly, the inclusion of new technological devices and the internet in the education process has made education and technology more interrelated and usable than ever before. With the use of the Internet in the field of education, the e-learning method has started to be applied primarily. E-learning supports and facilitates learning by using information and communication technology (Asandului & Ceobanu, 2008). At this point, e-learning takes education beyond the classroom environment; it eliminates geographical boundaries. It is not possible to talk about spatial freedom, even if it has temporarily removed its limitations (Duran, Önel and Kurtuluş, 2006). E-learning, which is considered as a supplement to

education in traditional schools and classrooms, is a form of education that is carried out using visual objects, simulations and games. E-learning does not fully liberate the student. Since the users can access the content from their fixed places, "spatial freedom" cannot be fully mentioned in the e-learning process. With the development of communication technologies, mobile communication tools are included in the training process. For the individual to keep up with the changing and rapidly developing time, he needs to follow today's technology carefully and use it most efficiently. These developments have led to the realization of mobile education.

The effects of smart devices and applications installed on these smart devices, which are among the most essential products of successive developments and innovations, are frequently seen in all areas of our lives. As the time to use these devices and applications increases, their advantages and limited effects are also seen. Among its advantages are the support of learning, ease of use and being attractive. Limited aspects include the lack of software and the possibility of attracting the user's attention in other directions.

When we look at the definition of mobile education, Harris (2001), m-learning intersects mobile computing and e-learning to produce learning experience anytime, anywhere; Traxler (2005), any learning initiative where single or dominant technology is portable mobile devices; Trifonova (2003), on the other hand, provides all kinds of learning and teaching activities through mobile devices or mobile environments, Traxler (2007), mobile learning, compact digital portable devices that can fit in a pocket or bag, have a reliable connection and can be transported individually. Communicating with each other is defined as any activity that allows individuals to be more productive by mediating the creation of information.

In this context, the attitudes of students and academicians, which are the essential components of mobile education applications, are essential. In the study of Menzi, Önal and Çalışkan (2012), the opinions of academicians on the use of mobile technologies in education were examined within the framework of the components of the technology acceptance model that examines the behaviours of individuals to accept and use technology. According to the findings obtained from the study, some of the academicians (33%) stated that they use mobile technologies and all of them think that they intend to use them in the future. It is also stated that these technologies will be very beneficial both in terms of their academic development and learning and teaching activities. When looking at student attitudes from another point of view, striking findings regarding the attitudes of prospective teachers were obtained in the study prepared by the descriptive research method with the quantitative research method regarding the attitudes of the teacher candidates of Sağır and Göksu (2016) towards mobile education applications. It has been observed that pre-service teachers' positive attitude towards mobile devices and their use in all areas of their lives, regardless of gender, class, age and department, positively reflected on their attitudes towards mobile education applications.

It is possible to talk about the use of mobile education application increasing day by day, although it is not at the desired level in the field of education. It is seen as the pervasive use of mobile devices and a part of life; it is not possible to say that the advantage of continuous transport is fully utilized. In this context, in this study that we carried out to measure the attitudes of teachers in the field towards mobile education applications and to compare these attitudes with the students in the education faculty, it was made to determine how much teachers and students continuously use the smart devices they carry with them in the field of education and training, and whether they use the advantages they provide.
In the light of this information, answers to the following questions were sought:

1. What are the attitudes of teachers and students and whether they have enough information to use mobile devices?
2. Is there a significant difference between the satisfaction of students and teachers regarding the use of mobile education applications?
    a. Is there a significant difference between the attitudes of students and teachers about the effectiveness of mobile devices?
    b. Is there a significant difference between the attitudes of students and teachers about the usefulness of mobile devices?
    c. Is there a significant difference between the motivation of students and teachers regarding the use of mobile education applications?

Method

To find answers to the research questions, the study was designed with a “quantitative research method” and was carried out with “descriptive research design”. According to Sönmez and Alacapınar (2014), "descriptive research can be considered as a description of what is happening, what already exists, what is happening, and explained" (p: 47). From this point of view, it was tried to determine what the opinions of teachers and teacher

candidates in the profession about mobile education applications and whether the difference between these views is meaningful or not.

Sample Detection

To collect data for the study, the "Attitude Scale for Mobile Learning" (five-point Likert) developed by Demir and Akpınar (2016) was applied online using the "purpose-appropriate sampling technique". Purposeful sampling technique is an unlikely random sampling technique. Depending on the purpose of the study, it allows us to conduct in-depth research by selecting information-rich situations. It is preferred when it is desired to work in one or more particular cases that meet certain criteria or have certain features. In the context of selected situations, the researcher tries to understand nature and social events or facts and to discover and explain the relationships between them (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2017).

This study was attended by students studying in the Faculty of Education and teachers in different branches of the profession voluntarily using the scale designed online. The scale was answered by 305 students and 226 teachers.

Data Collection and Analysis

"The original of the Attitude Towards Mobile Learning Scale has a total of 52 items, 41 positive and 11 negatives. The items created are five-point Likert type, and they are completely graded (5), agree (4), partially agree (3), disagree (2), absolutely disagree (1). The loadings of the items in the final form consisting of four sub-factors and 45 items of the scale are between .82 and .40. This scale was applied by researchers to another group equivalent to the research group. After factor analysis, item analysis, item analysis based on the upper and lower group averages, internal consistency coefficient and correlation coefficients between factors, it was decided to exclude two items from the scale, and the scale was finalized. The recalculated Cronbach Alpha internal consistency coefficient was determined as .95 for this scale.

The data set obtained from the scale was interpreted by making t-Test analyzes for independent samples in SPSS 20.0 program. Since there was no intervention in the environment by the researchers, there was no need to obtain an ethics committee permit because the case, process and results were not manipulated by the researchers and the researchers voluntarily participated.

Findings

The findings of the research obtained for sub-purposes are given in the form of titles. With the help of the scale used within the scope of the research, data were collected by applying "attitude scale towards mobile learning" to teachers and prospective teachers. The results obtained were analyzed with the t-Test. The first question of the research is "What are the attitudes of the students and teachers about whether they have enough information to use mobile devices?" It was expressed as. The table regarding the analyzes made to look for answers to this question is as follows:

Table 1: Average of attitudes of students and teachers towards mobile education applications

Group	N	Mean	Standard Deviation	df
Teacher	225	2,9	,33	724
Student	500	3,0	,43	

The attitudes of prospective teachers and teachers towards mobile education applications were examined with the t-Test. The average of the attitude points of the 500 teacher candidates who completed the scale (X: 3.0) and the average of the attitude points of the teachers (x: 2.9) were determined. From this point of view, it can be said that both students 'and teachers' attitudes towards mobile education applications are moderate. When the sub-factors affecting the attitudes of teacher candidates and teachers are analyzed, satisfaction with mobile education applications, their effectiveness and usefulness, and finally, their contribution to their motivation in educational environments were analyzed. The findings of this analysis are given below, and the results are interpreted.

Satisfaction with Mobile Education Applications

The first sub-problem of the second question of the research is "Do the attitudes of students and teachers towards using mobile devices change according to their satisfaction levels?" determined as. The table regarding the analyzes made to look for answers to this question is given below.

Table 2: Average satisfaction level of teachers towards mobile education applications

Group	N	Mean	Standard Deviation	t	df	p
Teacher	225	3,605	,472	,761	657	,447
Student	500	3,564	,732	,868	626,785	,386

Satisfaction attitudes of teachers and prospective teachers towards mobile education applications were examined with the t-Test. For the teacher ($t_{0.05:\ 657}$) =, 761, For the teacher candidate ($t_{0.05:\ 626,785}$) = 868. According to these results, there is no significant difference between teacher candidates 'satisfaction with mobile education applications ($\tilde{x}$: 3,605) and teachers' average satisfaction ($\tilde{x}$: 3,564). From this point of view, it can be said that both students and teachers are moderately satisfied with mobile education applications, but there is no significant difference between groups.

Effectiveness of Mobile Education Applications

The second sub-problem of the second question of the research is "Is there a significant difference between the attitudes of students and teachers about the effectiveness of mobile devices?" determined as. The table regarding the analyzes made to look for answers to this question is given below.

Table 3: Average effect of teachers on mobile education applications

Group	N	Mean	Standard Deviation	t	df	p
Teacher	224	3,901	,484	-1,841	663	,066
Student	500	3,997	,701	-2,068	603,618	,039

The averages of teachers 'and prospective teachers' attitudes towards whether mobile education applications are effective were analyzed with the t-test. For the teacher ($t_{0.05:\ 663}$) = -1,841 For the teacher candidate ($t_{0.05:\ 603,618}$) - 2,068. Accordingly, there is no significant difference between the averages of the pre-service teachers 'attitudes towards the effectiveness of mobile education applications ($\tilde{x}$: 3.901) and the average of the teachers' attitudes ($\tilde{x}$: 3.997). According to this result, it can be said that both students and teachers find mobile education applications highly effective, but there is no significant difference between the groups.

The Usefulness of Mobile Education Applications

The third sub-problem of the second question of the research is "Is there a significant difference between the attitudes of students and teachers regarding the usefulness of mobile devices?" determined as. The table regarding the analyzes made to look for answers to this question is given below.

Table 4: Average of usefulness of teachers for mobile education applications

Group	N	Mean	Standard Deviation	t	df	p
Teacher	225	3,411	,428	-,864	662	,388
Student	500	3,451	,636	-,976	614,839	,330

The averages of the attitudes of teachers and prospective teachers towards the usefulness of mobile education applications were analyzed with the t-Test. For teacher ($t_{0.05:\ 662}$) = -, 864 For teacher candidate ($t_{0.05:\ 614,839}$) = -, 976. According to the results of the analysis, there is no significant difference between the averages of teacher candidates 'attitudes towards the usefulness of mobile education applications ($\tilde{x}$: 3,411) and teachers' averages ($\tilde{x}$: 3,451). Based on this result, it can be said that both students and teachers find mobile education applications to be moderately useful, but there is no significant difference between the groups.

The Motivation for Mobile Education Applications

The fourth sub-problem of the second question of the research is "Is there a significant difference between the motivation of students and teachers regarding the use of mobile education applications?" determined as. The table regarding the analyzes made to look for answers to this question is given below.

Table 5: Teachers' average motivation for mobile education applications

Group	N	Mean	Standard Deviation	t	df	p
Teacher	225	3,730	,659	,685	718	,493
Student	500	3,686	,869	,758	559,419	,449

The average motivation of teachers and prospective teachers regarding the use of mobile education applications was analyzed with the t-Test. For the teacher ($t_{0.05: 685}$) =, 718 For the teacher candidate ($t_{0.05:, 758}$) =, 559.419. Accordingly, there is no significant difference between the pre-service teachers 'motivation averages ($\tilde{x}$: 3,730) and their teachers' averages ($\tilde{x}$: 3,686). Based on the results of the analysis, it can be said that both students and teachers have high motivation to use mobile education applications, but there is no significant difference between the groups.

Conclusıon

This research is intended to measure prospective teachers 'and teachers' attitudes toward mobile education applications. In this study, which was prepared in the descriptive research pattern with the quantitative research method regarding the attitudes of teacher candidates and teachers towards mobile education applications, striking findings were obtained regarding the attitudes of teacher candidates. It has been observed that prospective teachers and teachers are the most popular technology of today, their positive attitude towards mobile devices and their use in all areas of their lives have a positive effect on their attitudes towards mobile education applications(Eryılmaz, 2013).

The positive attitude of pre-service teachers and teachers towards mobile education devices; also suggests that it is positive against new training applications to be used in these devices. “Mobile technologies support individual and collaborative learning thanks to their rapidly developing applications and easy network access, allowing individuals to research, share and access information at any time. The use of new technologies and software in education creates new learning opportunities for students and teachers. This increases the importance of individuals being open to using new technologies and accepting these technologies. ” (Menzi, Önal, Çalışkan, 2012, p 14). In this study, it was revealed that teacher candidates and teachers' attitudes towards mobile learning are positive, but this attitude does not differ in terms of other variables in a way to support the studies in the literature.

Nevertheless, it will increase and increase the success of the mobile devices, which can be very effective in making positive changes in the behaviour of the individual, which is the main purpose of education, and which can eliminate the limits and limitations in terms of time and place, and therefore the educational applications to be installed on these devices, which is the ultimate goal of teachers, in preparing students for real life. In addition, eliminating the limitations in student-centred mobile education and accessing the necessary data through mobile education applications will positively affect the equal opportunities in education. Another situation that will gain much more importance in the future than it is today - technology and technology products will never replace teachers, but it is possible to say that teachers using technology products will have a great advantage over teachers who do not use them and will be much more successful than teachers who do not use technology. Based on this prediction and academic studies, it is very important to include courses and practices such as technology and mobile learning in the curricula of education faculties.

In this study, it is seen that the attitudes of pre-service teachers and teachers towards mobile education applications are generally positive and in addition, when the sub-dimensions of "usefulness" and "satisfaction" are examined. The reason for this is thought to be the discrepancies arising from the fact that the curricula are not yet configured for mobile devices. In the study of Menzi, Önal and Çalışkan (2012), academicians stated that there are some limitations for the active use of mobile devices in learning activities. One of these limitations is that the devices are economically expensive, and consequently, institutions do not support mobile learning. The high cost of the devices and the low performance of the devices bought at affordable prices are among the common opinions expressed. There are also difficulties in accessing technical support and infrastructure (hardware-software incompatibility, lack of information). In the studies of Gündüz, Aydemir and Işık (2011) on 3G mobile learning environments, faculty members present a free learning environment independent of time and space, it is an interesting, motivating, facilitating and accelerating access to information, as well as limitations in infrastructure and trained human power. They stated that.

As a result, the attitudes of teachers and prospective teachers towards mobile education devices are positive in this research, which aims to determine what opinions of teachers and prospective teachers about mobile education practices and whether the difference between these views is meaningful. The fact that the difference between these views is not significant is similar in the literature. These results suggest that attitudes towards new education applications to be used on mobile devices are also positive. Mobile technologies support individual and collaborative learning thanks to their rapidly developing applications and easy network access, allowing individuals to research, share information and access information at any time. The use of new technologies and software in education creates new learning opportunities for students and teachers. This explains the importance of individuals being open to using new technologies and accepting these technologies.

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