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An Experimental Study on the Use of Mobile Learning in the Turkish Republic Revolution History and Kemalism: Adıyaman Provinve Example

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Abstract: The usage area of mobile learning in teaching and learning activities is increasing day by day. In this research, 8th Grade Turkish Republic The effect of mobile learning on the acquisition of the achievements of the units "National Awakening, Steps Towards Independence and A National Epic: Either Either Freedom or Death" in the Revolution History and Kemalism was examined. A quasi-experimental design with pretest-posttest control group was used in the research. The participants of the study consisted of 56 students, 28 of them in the experimental group and 28 of them in the control group, studying at a state secondary school in a province located in the Southeastern Anatolia Region. Achievement test and attitude scale were applied as data collection tools. Data Analysis Confirmatory factor analysis, dependent sample t-test and independent sample t-test were calculated using SPSS 21.00 program. According to the results of the research, a significant difference was found between the experimental and control groups in terms of achievement scores in favor of the experimental group. In addition, no significant difference was found in the attitudes of students towards mobile assisted learning in both groups. Based on the results of the research, the some suggestions have been developed to increase its use in the Revolution History and Kemalism.

Keywords: *Turkish Republic Revolution History and Kemalism, mobile learning, mobile education.*

Introduction

In the 21st century, the developments in computer and internet network technology have led to great innovations, changes and developments in education as well as in many fields. Mobile learning is increasingly important on future learning techniques by settling in every stage of our daily lives. With the development of technology, the growing scientific knowledge base has also made development mandatory (Naismith et al., 2004). As the needs of individuals change, changes occur in the field of education. In this age of knowledge and technology, individuals are also born as a result of being raised with a focus on knowledge and technology. In this direction, innovative thought-centered individuals are trained in education and training methods and techniques. Thus, taking into account the learning needs of information and technology-based individuals, a mobile learning system called faster, easier, always reaching everywhere has emerged. This new learning system; has given education a different and innovative perspective dimension and has introduced brand new methods and techniques, strategies and learning models in education (Sarıtaş & Üner, 2013). It settles into our lives through internet networks, without being connected to everywhere and time with rich interactions. It allows students to leave the classroom in learning, both in real life and in virtual life. It is a concept in which they contribute to the teacher and student environment, analytical thinking, collaborative work, interdisciplinary movement, communication, critical thinking, information sharing and creativity. The importance and necessity of technology in learning and teaching environments has become undeniable. Mobile learning has changed our way of life by changing the way we look at the world as well as by influencing learning in education and

training. When the historical process in the education system is examined, in the past, information was obtained in the educational community by a traditional method with a passive receiver, and today information is obtained by a contemporary method with an active receiver (Crompton et al. 2017). For this reason, mobile learning has started to appear among the methods that have become widespread in recent years. Mobile learning; it is a learning module brought by the digital world that will ensure lifelong learning anywhere at any time. It is a digital and up-to-date form of learning and teaching in contemporary education (Yamamoto et al, 2010, p.467). The aim of mobile learning is to enable communication in education and training by using both technology and internet network together. This learning system is a remarkable opportunity for students moving from one place to another. It also provides the quality of accessing information everywhere with personalized devices (Cavus & Uzunboylu, 2009). With the communication tools of mobile learning (MP3, tablet laptop, mobile phone) has led to a very rapid spread of the information network at both national and international levels. It has been inevitable that the technology will increase, develop, and spread information rapidly, and the field of education will update itself. Teacher-student has been enriched with developing technology, internet, mobile learning, e-learning. Interactive multimedia software and current learning channels have been qualified elements in the implementation of training studies. Therefore, mobile learning led to this update of the training area. In addition, today's students have had to update themselves with the updates in the field of education. Because of technological change, development has made this necessary. Students live according to this age of technology, which changes and develops their lives. Again, students are raised and raised according to the requirements of this digital world age.

As a result of these changes and developments, students, in the early days, it could not provide a fully independent learning environment in an unlimited, easy, fast, economical way. These learnings were carried out with desktop computers and wired network connections. This prevented the student from learning with a personal, portable tool. Thus, thanks to the personal, portable tools (Android phone, notebook, e.t.c.) produced with technological developments and students' learning is provided faster, easier, economically, reliably. With mobile learning tools, there has been an education system where there are no space and time restrictions without being connected to any power source and students immediately provide the learning they need. Mobile learning; It is a technique synthesized with qualitative and quantitative analysis of specific learning activities based on behavioral, constructive and collaborative learning methods and performed with technological learning (Naismith et al., 2004). Therefore, the following sub-problems will be tried to be answered based on the aforementioned problem situation.

What is Mobile Learning?

There are four perspectives in the resources related to mobile learning. These perspectives;

1) *Technology-centric Perspective:* According to this perspective, it is to dominate the literature and to ensure learning through mobile tools.

2) *E-learning Extension Perspective:* From this point of view, mobile learning is also linked to electronic learning.

3) *Distance Education Perspective:* It is the activity of learning not only in the classroom but also with extra-class activities, without depending on the time and environment of the learners.

4) *Perspective on Improving Formal Education:* Mostly, the perspective of applying face-to-face education and teaching the course with traditional method techniques prevails (Winters, 2007).

Distance Education; it is the educational model that provides services with visual, auditory, audio and visual communication technology tools of the learning and teaching activities of students and teachers in different environments. In addition to the realization of special software, the technique of making a course plan-program, the learning-teaching technique, is a learning-teaching method created in different environments according to traditional learning-teaching applications, which are different communication softwares that use electronic and non-electronic layouts (Dündar, 2015). Therefore, mobile learning; today, it is a new application that comes across as a reflection of the distance education model. In this context;

The first studies on Mobile Learning were carried out at the University of Helsinki in Finland. Then, projects related to mobile learning were developed. The aim of the projects is; to create production with numerical tools and to investigate how students are related to what. The project was made with the qualifications of text

message (SMS), picture message, etc. Thus, individuals used the learning system with internet access education. Teachers can send work activities to students through the access network. Learning activities are carried out independently of time and space (Özcan, 2008). Mobile learning is not just a form of learning implemented through mobile tools, but a form of learning created between contexts. It is not a learning application performed in a pre-prepared, organized space of the learner, but a learning application that provides various learning advantages offered by the learner with mobile technologies (Demir & Akpınar, 2016).

Mobile Learning is an up-to-date model and an out-of-class learning model that develops with technology (Agca, 2003). Mobile learning, which is the new learning and teaching application in the digitalized world, is a privileged application with usability and flexibility (Bulun, Gülnar & Güran, 2004). It has manifested itself in all areas and has started to take its place in education service rapidly with modern technology tools (Bul et al., 2004). With the revolutions in education, it is seen that learning is not only realized by in-school practices under

the roof of the school, but also with out-of-school practices everywhere. This new form of learning**,** mobile learning or uninterrupted learning, is a turning point in terms of providing access to individualized mobile tools and creating learning lives in various places (Shad et al., 2016).

It is an economical, portable form of learning that is carried out through mobile phones thanks to wireless access network, enabling the individual to be more active and in the field according to the requirements of the age. It is a practical practice that contributes to education and is used in contemporary learning methods as well as to support traditional methods (Özcan, 2008). It is a form of learning, especially done with a personal, portable mobile phone or a mobile computer. It also has an important place in terms of making it easier for students to access information, configure information and learn through supporting tools (Naismith, Lonsdale, Vavoula & Sharples, 2004). Increasing the memory and power capacities of mobile vehicles is an interdisciplinary form of learning as a result of the contribution of mobile technology to different media interaction with developments such as wireless networking. Many schools, universities; course monitoring, course management and follow-up, syllabus, student grades, etc. are carried out with the mobile learning application (Akkuş & Kapıdere, 2013).

Mobile learning are complementary words that are associated with the concept of e-learning. It is also expressed as complementary to the concept of distance education because it provides access to individuals through the Internet. In lifelong learning, it is clear that the learner is an individual, the individual is self-learning, the learning environment has flexibility, it has similar characteristics to mobile learning, information is reached in the same ways (Kurnaz, 2010).

What is the Importance of Mobile Learning in the Education Process?

When we look at today's digital age; At home, school, workplace, street, entertainment centers, health, communication, transportation, security, industry, economy, banking, scientific research, in short, we are witnessing the emergence of a mobile society associated with various sources of information and communication tools in all areas of our lives. As a result of the increase of smart mobile devices, personal digital assistants, tablets and mobile computers, it has enabled all segments to use these devices in all areas of their lives and has made it mandatory to use mobile learning in the field of education.

With the developing and changing rooted technology, mobile phones, mobile computers, various tools are connected to the internet with wireless feature and communication is provided. Mobile tools, which we call individual digital assistants, designs that combine audiovisual consistency and interactive messages, are becoming more and more interesting today. Communities can now access information screens via mobile tools to conduct their business even on the go, enter enriched information areas, and easily benefit from the functions provided by mobile in online and offline form without time-spacerestrictions (Naismith et al., 2004). Thanks to these technological tools that are small, portable and ubiquitous, the learning areas of individuals are developing, scientific research and studies are increasing. Mobile learning, which has been expanded in the educational community, provides unlimited learning environments for individuals and enables individuals to acquire mental-social-cognitive-educational skills. It includes critical thinking, collaborative creation, analysis-synthesis, decision making and evaluation (Light, 2016). Thanks to mobile learning, interaction between teacher and student is formed and even participation in education from different cities and places from countries (Cunning, 2010). Mobile learning which expands its range and increases its position in the education system in the future is becoming stronger by the day and constitutes the needs of societies. It is clear that learning keeps learning alive, enriches and adds diversity compared to its traditional methods and techniques and strategies. It is a valuable learning method (Asparagus, 2011) because it has features such as being able to reach the subject without being connected to a fixed space with educational contribution everywhere, benefiting from productive,

unstable services and communicating with other individuals. It is also an undeniable fact that it brings mobility to learning. Because of the new generation, society is always active, it shapes, internalizes and interprets the learnings of the learners in different places, with different technological tools in their daily lives. The fact that this learning method is a learning-centered education system is important for individuals to make decisions based on their needs, cultures, lives, wishes and to contribute to individualized learning (Bozkurt, 2015).

As a result of the changes in technology and developments, it has been imperative that changes occur in education and learning methods. The learnings, behaviors and perspectives of the new generation are shaped by technology. Mobile learning meets the needs of the new society that absorbs technology, such as being able to do, learning, searching for information, obtaining it wherever they want. In this context, it is also of great importance for teachers to carry portability, applicability in the learning of students, to provide independence from time and space, to create learning in different ways, to learn everywhere, to gain lifelong learning, to provide access to data, to create multiple learning areas, to provide communication opportunities and to follow the courses (Özcan, 2008). Thus, the new generation lives a life without using learning materials such as chalk, chalk, pencils, textbooks as in the old system, and therefore the above learning materials are forgotten. As a result, mobile vehicles that are more economical in terms of accessing information in schools, universities, classrooms, workplaces, trips are preferred (Bozkurt, 2015).

Changing the needs of society and individuals, changes in technology have forced innovations in learning, learning environments and teaching. From this point of view, various universities, institutions and organizations, especially UNESCO, have developed projects related to mobile learning. In these project studies, it is aimed that the learners provide independent reading and learning from their location and always improve themselves (Sun et al., 2015).

It is seen that mobile devices are becoming increasingly important in mobile learning all over the world. It is clear that mobile learning will prevail in the future and increase the educational potential (Agca & Bagci, 2013). With the realization of learning on the virtual platform of the teacher, concepts such as "Virtual Education", "Virtual School", "Virtual Panel", "Virtual Classroom" have started to take place in our education life. Buildings, classrooms, schools, laboratories belonging to learning and teaching institutions have been replaced by "Discussion Environments", "Chat Rooms" and "Virtual Forums". The socialization of societies, individuals and their exchange of information is provided through electronic media through mobile technological tools. However, as well as socialization on these platforms, it is also worthwhile for societies and individuals to realize self-learning (Gulbahar, 2019). Mobile technological devices constitute value for cooperation, learning, communication; it is seen that it offers students, instructors, teachers with learning inputs the opportunity to share their feelings and thoughts and knowledge (Açgül, 2019). In today's world mediated by mobile technological tools, we clearly see the reflection of mobile learning on cultural-historical activities in Dewey's Pragmatic Technology philosophy.

What is the Mobile Learning Turkish Republic Revolution History and Kemalism in Turkey?

In today's digital age, it has made it mandatory to carry out the studies of mobile learning systems with changes in the education of individuals who are constantly active (Cunning, 2010). When looking at the development of technology used in the application of mobile learning; mobile technologies were first introduced in the 1970s. When the historical process of mobile learning use in Turkey's education system is examined, it is seen that mobile learning and mobile communication devices go through many stages. When the field is examined, the first of these stages consists of communication systems that start with physical structures that only process by signal, which we call the First Mobile Technology stage. Especially in 1927, radio broadcasting for the first time formed the basis of this communication system and ensured the transport of information. It could not be used effectively and for a long time in education due to the inadequacy of features such as low sound quality and narrow coverage. Second Mobile Technology, unlike the first Mobile Technology, provided written information and short message service (SMS) was widely used. The text message service has contributed to mobile communication, education and has not been an application that carries much differentness from The First Mobile Technology. It has been a form of learning that creates teacher student interaction, allows teachers to instruct students, and determines the direction, teaching and the return of the learning process. The third mobile technology has the breadth to use the features of standard mobile, but has become a more established-innovative technology stage in terms of providing lifelong learning anywhere. We clearly see that the rapid increase of data, easier access to data, the opportunity to access data anywhere via internet connection, destroys the limitations of the other two stages of mobile technology, provides easier learning opportunities and time-independent learning (Cunning, 2010).

After the 2000s, the rapid advancement of technology in all areas and subsequently the fact that devices such as mobile phones, mobile computers, tablets were faster, more usable, smarter and android enabled the adoption of these devices wherever they were in the world. In 2007, when Apple announced the iPhone's name to the world, mobile devices were a hotspot. Previously, problems such as slow reading of electronic messages, slow internet access, low resolution of text and pictures as a result of search engines, faster reading of electronic messages thanks to radical changes in mobile devices, faster internet access, faster resolution of text and pictures as a result of search engines, brought with it the formation of touch screens-powerful processors (Özdamar Keskin & Kilic, 2015).

The occurring of these rapid changes and developments in information technology in the world has also created an e-Transformation obligation for Turkey. In this context, it has become important to facilitate information presentation and access to information in business, school, transportation, communication, service, especially education. E-transformation means a change in the use of information technologies. We can say that making any payment of an individual and the transformation in which the individual expects the result by applying online. Especially with the use of e-transformation, it has enabled the emergence of high skills in public administrations, information production, service delivery, security and economy. It has led to new possibilities as well as new threats. Thanks to e-transformation, it has provided information to individuals in the fields of education, business, banking, communication, transportation and services, facilitated access to information and contributed to the simultaneous sharing of individuals with each other (Cetiner, 2009).

"Anadolu Mobile Application" developed by Anadolu University was created to serve formal and open education students and employees. In particular, it has been able to provide open education students who do not have formal education the opportunity to access course resources, take trial exams, make question solutions, and access exam entrance documents and curriculums. In addition, there are many buttons or categories such as e-library, e-cafeteria, e-newspaper in Anadolu Mobile Application. Also in the meetings organized by Anadolu University in different countries of the world based on needle hole photography; Examples include a web page (http://pinholepeople.com) with portfolios of the studies prepared by the students. In addition, the web page where the common information pool is created, which includes the scientific studies carried out by the research and development coordinator in open education (http://argegrup.anadolu.edu.tr.) has also been noteworthy for the mobile learning app. On this web page, it is aimed to create a culture of scientific study within Anadolu University Faculty of Open Education by taking part in the studies and researches carried out by university professors together. In this context, national and international books, papers, articles and book chapters of the teachers were included. In addition, scientific research projects, scientific and technical research institution of Turkey, publication incentive of projects with the support of organizations such as European Union, seminar-conference date, event announcements etc. included all kinds of academic information of teachers (Özdamar Keskin & Kilic, 2015).

In general, studies in Turkey have been applications for the effect of mobile learning on students' perceptions, attitudes, academic achievements, scale development studies, experimental studies, screening studies, and smartphone use in courses such as Science, Mathematics, English and Physical Education. In addition, the positive and negative aspects of mobile learning in the process were also discussed. In this context, (Saran, Çağıltay & Seferoglu (2008) in the study titled Developing an effective method of learning the language of mobile phones; they acted in order to develop teaching practices in line with the needs of the developing world in various methods and techniques. In particular, societies have developed various studies, activities, messages, pictures, exam questions and teaching tools to improve the lack of English words that individuals have interests and needs and to send this lack of words via SMS via personal mobile phones. This has led to the disappearance of the commitment to time and space that prevents learning.

With the mobile learning application carried out by Basoglu and Akdemir (2010); Zonguldak University has shown that learning English concepts through mobile phones is more effective than traditional concept learning practices. He also stated that mobile phones are a learning tool in concept teaching, make learning fun and that learning does not depend on in-class activities and methods and techniques. Thus, they have made it clear that learning with the mobile learning application is easier, accessible, fast, inexpensive, time-space-economical.

Education Technologies Research Trends in Turkey conducted by Göktaş et al .(2012): Content Analysis between 2000-2009; it has been stated that they fall on the preference of online applications in learning. The changing and developing digital technology and the changing processes of the media in education are discussed. While computer-aided learning was popular in the previous education system, it has recently been explained that

the distance education system is widespread and popular. It has also been stated that international studies on the use of technology in Turkey's education system are inadequate and limited.

When looking at resource research under the name of mobile learning in Turkey; Although "Digital Citizenship" is one of the competencies in the Social Studies Curriculum, it is seen that researches are limited when the literature on mobile learning application is examined in Social Information or Turkish Republic Revolution History and Kemalism, and that the studies usually take the form of either the effect of technology, media, social networks on social studies or mobile learning in the form of the teacher's ability to use devices such as technology, computers and mobile phones (Yaylak, 2017). For this reason, this research will gain an important place in mobile learning in Turkish Republic Revolution History and Kemalism. Since the introduction of mobile learning into our daily life and educational life covers a close period of time, we see new studies and researches being carried out on this subject. In this context; The 2020 Turkish Internet Usage Statistics and Turkey Mobile Usage Statistics published by We Are Social and Hootsuite together consist of the following toblos.

What are the Advantages and Disadvantages of Mobile Learning in Revolution History and Kemalism?

This mobile learning application, which contributes to lifelong learning, supports all individuals to gain access to their learning, different learning experiences and offers various learning opportunities in Turkish Republic Revolution History and Kemalism. Mobile learning system; Since it provides independence in the movement, which is not obligatory to be at the head of computers or other technological tools, we also see that individuals can review their subjects again, make individuals effective efficiently and also provide individuals with the opportunity of extra-class activities, which do not only provide in-class activities. Turkish Republic Revolution History and Kemalism, mobile learning personalizes learning, provides rapid feedback, interaction is intense, optional, allows learning in a short time, allows the individual to access various maps, date stripes, images, important heroes in history, information notes and summaries at any time, contributes to mental activities and finally allows individuals to have fun, activate, social the mapping of Turkish Republic Revolution History and Kemalism requires that mobile learning have an increasingly important place.

Table1. Advantages and disadvantages of mobile learning

Advantages	Disadvantages
• It allows individuals to connect and learn wherever, whenever they want.	• Sometimes the attachment is troublesome and the speed problem,
• It provides access to mobile tools, learning venues and software.	• Users' inability to create harmony with mobile tools,
• It provides lifelong learning and flexible learning.	• Limited memory of mobile vehicles or inadequacies,
• It provides implicit learning, wireless access and instant interaction with teacher-students.	• The inability of teachers, learners to be willing to this practice, their attitudes, perceptions or individual characteristics can prevent learning,
• Easy data storage, portability.	• Technical or educational deficiencies of the tutorials,
• Mobile gadgets are more economical than laptops and desktops.	• Biases, attitudes and perceptions of learners,
• Advanced mobile tools have become popular among new generations today, offering student guidance and opportunities for learning.	• Continuous change and development of mobile vehicles as a result of technical characteristics and requirements of the age and the lack of economic adaptation,
• Mobile tools are more common than other technological tools and offer more educational content with SMS-Multimedia delivery.	• Short possible result of the energy power of mobile vehicles is that learning activities can be interrupted,
• It contributes to measurement and evaluation, to provide feedback and to monitor the student's development.	• Mobile vehicles make it difficult to read the text due to the small screens,
• Provides access to a variety of learning and teaching tools.	• Different features and variations on mobile devices

Again, the use of this method in Turkish Republic Revolution History and Kemalism provides guiding social support in mobile learning environments, giving the opportunity to socialize, share thoughts, discuss ideas, exchange ideas and use social media applications. Mobile learning devices are getting smaller and richer by the day (Yaylak, 2017). When looking at the technical characteristics of mobile learning; in addition to creating new forms of communication, providing interactive structures, activating learning-teaching, gaining physical-cognitive-social competencies, ensuring connection with social networks, using location information and exchanging data, makes it an indispensable part of our daily life (Bozkurt, 2015).

In addition, mobile learning has been used in recent times, especially at all levels of education around the world;

- Access to information with students' mobile apps
- See activities
- Track memo information
- Providing creativity
- Contributes to in-school and out-of-school learning activities
- Interaction of communication between teacher-student, student-student
- Increasing cooperation between student-family-teacher
- It benefits the student to create awareness of their responsibilities.

To summarize the advantages and disadvantages of mobile learning use in short, it reveals the Table1 above.

Method

Pattern of Research

The research was carried out in an experimental way using quantitative research patterns. In general, it is unlikely that real experimental research will be carried out and that individuals in schools and classrooms will be distributed impartially to groups, and a semi-experimental pattern has been used in which one of the previously formed groups is decided to be the control group of one of the experiments.

Research Group

It consists of a total of 56 students in the 8/C and 8/D branches of a state secondary school in the southeast.

Data Collection Tools and Data Collection

As a data collection tool, the SPSS 22.00 program constitutes student attitude scale and student achievement test. The collection of data was randomized and two groups were formed, 28 of the students' experiments (8/D) and 28 controls (8/C). However, due to the pandemic process, a total of 32 students participated in the experiment (8/D) group, including 16 students from the control (8/C) group. Prior to the teaching process,.C the student achievement test consisting of 25 multiple choice questions for the academic success of the students and the student attitude scale form consisting of 40 items for the use of mobile learning in the Turkish Republic Revolution History and Kemalism were applied as preliminary tests. As a result of.C the teaching process, the student achievement test consisting of 25 multiple choice questions for the academic success of the students and the student attitude scale form consisting of 40 items for the use of mobile learning in the Turkish Republic Revolution History and Kemalism were reapplied as the final test. The student achievement test, which consists of a total of 25 multiple choice questions for the academic success of students in Turkish Republic Revolution History and Kemalism, was created by the researcher and increasedthe reliability of the data collection tool by taking the opinion of the expert. The student attitude scale form, which was also developed by Korkmaz, was revised and the student attitude scale form for the use of mobile learning in the Turkish Republic Revolution History and Kemalism was applied as a data collection tool.

Results and Discussion

What is the effect of mobile learning in social studies course on students' academic success?

Table2. Comparison of the pre-test results of the achievement test scores of the experiment and control group

Groups	n	X	sd	ss	f	df	t	p
Control	16	8,9375	4,05740	1,01435		30		
Experiment	16	11,4375	4,97954	1,24489	2.667	28.8	1.557	0.130

When Table 2 was examined, it was observed that there was no statistically significant difference between the averages of the experimental and control groups. (t=-1.557, p>0.05).

Table 3. Comparison of the post-test results of the achievement test scores of the experiment and control group

Groups	n	X	sd	ss	f	df	t	p
Control	16	12,0000	4,71876	1,17969		30		
Experiment	16	18,1875	3,83351	,95838	,253	28.7	4.071	0.000

When Table 3 is examined, it is revealed that there is a statistically significant difference in favor of the experimental group between the posttest scores of the experimental and control groups (t= -4.071, p<0.05).

Table 4. Comparison of the pretest and posttest results of the achievement test scores of the experimental group

Groups	n	X	sd	ss	df	t	p
Öntest	16	11,4375	4,97954	1,24489			
Sontest	16	18,1875	3,83351	,95838	15	-5,072	0,000

When Table 4 is examined, it is seen that there is a statistically significant difference in favor of the posttest between the pretest and posttest achievement scores of the experimental group (t= -5.072, p<0.05).

Table 5. Comparison of the pretest and posttest results of the achievement test scores of the control group

Groups	n	X	sd	ss	df	t	p
Öntest	16	8,9375	4,05740	1,01435			
Sontest	16	12,0000	4,71876	1,17969	15	-2,124	,051

When table 5 is examined, it is seen that there is no statistically significant difference between the pretest and posttest achievement scores of the control group (t= -2.124, p>0.05).

What are the attitudes of students towards mobile learning in social studies course?

Table 6. Comparison of the pre-test results of the attitude test scores of the experimental and control groups

Groups	n	X	sd	ss	f	df	t	p
Control	16	128,3125	16,90254	4,22563		30		
Experiment	16	131,1875	11,92878	2,98220	,727	26,9	-,556	0.582

When Table 6 is examined, it is seen that there is no statistically significant difference between the pretest attitude scores of the experimental and control groups. (t= -0.556, p>0.05).

Table 7. Comparison of the post-test results of the attitude test scores of the experimental and control groups

Groups	n	X	sd	ss	f	df	t	p
Control	16	138,4375	17,70111	4,42528		30		
Experiment	16	137,3125	14,52225	3,63056	1,975	28,8	,197	0.846

When Table 7 is examined, it is seen that there is no statistically significant difference between the posttest attitude scores of the experimental and control groups. (t= -0.197, p>0.05).

Table 8. Comparison of the pretest and posttest results of the attitude test scores of the experimental group

Groups	n	X	sd	ss	df	t	p
Öntest	16	131,1875	11,92878	2,98220			
Sontest	16	137,3125	14,52225	3,63056	15	1,239	,234

When Table 8 is examined, it is seen that there is a statistically significant difference in favor of the posttest between the pretest and posttest attitude scores of the experimental group (t= -1.239, p>0.05).

Table 9. Comparison of the pretest and posttest results of the attitude test scores of the control group

Groups	n	X	sd	ss	df	t	p
Öntest	16	128,3125	16,90254	4,22563	15	-1,361	,193
Sontest	16	138,4375	17,70111	4,42528			

When table 9 is examined, it is seen that there is no statistically significant difference between the pretest and posttest attitude scores of the control group (t= -1.361, p>0.05).

Conclusion

This research also revealed that the education given increased the achievement of the experimental group students. The achievements of the experimental group students differed significantly compared to the control group. However, there was no statistically significant difference between the experimental and control groups in terms of attitude scores.

Recommendations

Mobile learning is technological developments that offer quick access to instant global information and communication opportunities. We see that students interact with their teachers and friends through mobile tools, provide out-of-class learning and are a radical innovation in education. For these reasons, it will be inevitable that teachers and academicians will use mobile learning in Turkish Republic Revolution History and Kemalism. It will facilitate learning, make learning learning, and enable students to access information, repeat subjects and visualize information with mobile tools anytime anywhere. For literature, studies on teachers and academicians' use of mobile learning in Turkish Republic Revolution History and Kemalism can be increased.In addition, in this research, Turkish Republic Revolution History and Kemalism 2nd and 3rd. unit subjects were processed and applied by making a mobile learning application, but Turkish Republic Revolution History and Kemalism can be adapted to other units of the course.

Acknowledgements or Notes

Scientific Ethics Declaration

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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