

Detecting The Opinions of the Secondary School Administrators Regarding the Use of Mobile Technologies for Educational Purposes¹

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Abstract

The goal of this research is to detect the opinions of secondary school administrators regarding the use of mobile technologies for educational purposes. 15 secondary school administrators form the participants of this research. The data of the research are collected in the fall semester of the 2017-2018 educational year. The work is designed through the qualitative research model. The personal information form and the semi-structured interview form are prepared by the researcher while collecting the data. The data obtained have been resolved by using the content analysis method. According to the obtained findings from this research; secondary school administrators have expressed that they use mobile learning in their teaching practices “in need of momentary information”, “momentary communication”, and “in the transfer of the audiovisual data used in the courses to the smart board”. The administrators have expressed that while choosing the mobile technologies they take into account the content of the course and the features of the action which is going to take place during the course. It has been stated that with the use of mobile tools for educational purposes, there has been seen positive changes in the teaching activities and that the courses has started continuing more effectively and efficiently, and that they benefit from the audiovisual materials more during the course, and that by moving away from the traditional teaching method the student starts learning more active and enjoys.

Key words: mobile technologies, mobile learning, secondary school teachers, secondary school administrators

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Introduction

In today's world, science and technology progress at an extraordinary pace and they add an indispensable comfort and ease in human life. While the constantly progressing science and technology expand their borders, it creates an awareness of the fact that the world is not as enormous as it is considered to be. Thanks to science and technology, a new tool, an appliance, a machine or software become an indispensable part of our families or jobs.

The connection between science and technology contains natural and compulsory parallelism. The findings of science pave the way to technology by forming its data. The findings of technology expedite scientific researches. Everything began changing fast especially after 1972 when computers were used actively in a more advanced way. Therefore, information processing and storage caused the information to take a step in its golden age. With computers stepping in, information is delivered very fast. It created the necessity of accessing information faster. Meanwhile, the integration of learning activities became easier. (Sharples, Taylor & Vavoula, 2007)

Prior to computer and internet, reaching a piece of information has required a great deal of effort and time. Even receiving to the simplest information could take days, even weeks. It was hard to scan other written sources from libraries and archives. Along with this difficulty the narrowed-boundary researches were being conducted. However, in today's digital age, the necessary time to reach the information has become measurable. The most significant factors that cause this are mobile phones, tablets, and laptops that have fast processors. They have become accessible to the wide crowds with their cheap models. These models can be accessed remotely with their wireless internets. Those gadgets have been accepted and adopted by people. While all of these advancements have been changing the lifestyles of the individuals, the integration of these to education has changed our way of learning. Our new learning method, mobile learning, is the learning that is formed by the joint use of mobile tools and technologies that have enabled the learning without any time or place restrictions. Mobile learning is defined as the educational practices provided via PDAs (individual digital assistant or smallcomputer) and smartphones. (Keegan, 2005). With mobile learning, in today's world, education can be practiced every time and everywhere without any time and place restriction. This situation causes an important paradigm change in education and removes the borders (Sendag, Gedik, Caner, & Toker, 2019). Mobile learning plays an important role in anywhere it is used in the scope of education.

Furthermore, the perspective on this method of learning has climbed to another level thanks to technological tools. The use of mobile tools in the scope of "learning everywhere concept" features the technology (Cárdenas-Robledo and Peña-Ayala, 2018). In this sense, the rise of the use of technological tools in society has increased the importance and applicability of mobile learning via

mobile phones, mini phones, and smart digital systems. According to the TUIK 2016 reports, %96,9 of the houses in Turkey have mobile phones. When the internet usage goals checked, it is seen that the internet is used for social media, again ranks the first, followed by video watching and newspaper & magazine reading. Thus, it has become inevitable that the devices used by the nowadays students are now used in education. In relation to e-learning, which is widely used in education m-learning (mobile learning), has also started to be widely used. In order to extend the use of technology in education, the Ministry of Education launched "the Fatih Project" in 2011. The smart boards were set almost all over Turkey in all high and secondary schools and the tablets were distributed to the students. With these smart boards in the classrooms, the students were able to use the technology both inside and outside the classrooms thanks to the fiber internet network. This enabled them to cement the base of mobile learning. This project is the biggest and comprehensive education movement about the integration of education with technology. (The Fatih Project, 2017)

With the technology's integration with education, the administrators of the educational institutions have been compelled to have some qualifications. It is expected that the administrators of the educational institutions have the necessary qualifications to use the technology and, as the educational leader, to lead the supervisory, instructional, and learning practices regarding the use of technology (Afshari et al., 2009). Tanzer describes the technology leader as "the person who makes the necessary coordination so that the technology would be used effectively and efficiently in the organization and the person who affects, directs, and manages the organization" (Quat: Akbaba-Altun,2008a). Just like the experts express, educational administrators need to follow an organized way while using technology efficiently (Afshari et al. 2009). It comes into question that the administrators of the educational institutions are to determine the technology leadership roles and its standards and be open to development. It is considered that with the rise of the use of technology in every field and moment of our lives there is going to be an effect in the field of education. Thus, if the mobile era is going to form the future, mobile learning may be the way of future learning. (Yılmaz, 2011).

Mobile learning covers e-learning. Removing the time and place restrictions provides major advantages in the concept of learning everywhere and every time. In today's age of information, the teacher and administrators are the leaders that guide how to use the information and interpret it. The teachers and administrators that are the practitioners of education must be encouraged to use the mobile learning tools. They should be given training at regular intervals in line with technological developments.

In this sense, with this paper, the opinions of the administrators regarding this topic which deals with the mobile learning and the use of technology at the schools and in the classrooms during the teaching activities are assessed.

The Purpose and Importance of the Research

The purpose of this research is to detect the opinions of the secondary school administrators regarding the mobile learning. The sub-purposes in order to reach the developing purpose are as follows:

The secondary school administrator;

- Which and how the mobile tools are used during the teaching activities?
- How do they decide which mobile tools they will use in the teaching activities?
- What are their opinions about the changes in their teaching practices that have occurred since they started using mobile tools?
- How do they define a successful or failed course supported by mobile tools?
- How do they define mobile learning in their own words?
- What are their opinions regarding the contribution of the Fatih Project to mobile learning?
- What are their opinions on the successful integration of mobile learning into teaching activities?
- What are their opinions on the use of mobile learning in teaching activities effects on the success of the student and the processing of the course positively and negatively?
- What are their opinions on the obstacles that appear during the integration of the mobile learning tools to the learning and teaching activities?
- What are their perceptions regarding the competences of word processing; calculation, supply, the creation of database and internet programs?

Method

In this section, there is information regarding the research model, the participants of the research, the data tools, the data collecting, and the data analysis.

The Model of the Research

In this research, which aims to detect the opinions of the secondary school administrators regarding the use of mobile technologies for educational purposes, the descriptive phenomenological method is used. This is one of the qualitative research methods. The aim of this phenomenological approach is to present the experiences of the individuals as they are. (Creswell, 1997) The main aim of

the educational phenomenological researches is to enhance the educational process by understanding the experiences. (Ersoy, 2016)

The Participants

In order to detect the participants of this research, the maximum diversity sampling is used. The goal here is to increase the diversity of the participant administrators that will choose a side during the research. The distribution rates regarding the research participants's demographic factors is presented in Table 1.

Table 1. The Research Participants's Demographic Factors

		f	%
Gender	Women	6	40
	Men	9	60
Professional Seniority	0-5 Years	-	-
	6-10 Years	4	26,7
	11-15 Years	2	13,3
	16+ Years	9	60
	Turkish	2	13,3
	Math	1	6,66
	Science	4	26,4
	Social Sciences	4	26,4
	Sports	2	13,3
	Religion	1	6,66
Visual Arts	1	6,33	
Duty Title	Administrator	15	50

The Data Collection Tool

The individual information form is prepared by the researchers for data collection. Along with this form, an interview form, which detects the secondary school administrators' opinions by taking the expert's opinions, is prepared. In the open-ended questions, the participants are asked which and how mobile tools they use, how they decided to use them, how they would define their own teaching practices since they started using the mobile tools, how they define a successful or failed class supported by mobile tools. Also, they are going to be requested to define the mobile learning with their own words, what the contributions of the Fatih Project are to the mobile learning, and what needs to be done in order to integrate the mobile learning successfully. The first 5 of the open-ended questions are taken from Tsai's (2017) work.

The Analysis of the Data

All the face-to-face interviews that are conducted by the researches are written down. The coding process of the data from the interview forms is done. The expressions voiced by the secondary school administrators, who have responded to survey form, have not been subject to any kind of change or edit. The opinions taken for every single question are processed in relative indexes on Excel and the collected data are prepared for analysis through making the question-based classification. It is seen that some of the administrators give more than one response to the questions. For this reason, the classifications are made by taking all the answers into account. While the data are analyzed every single form is given numeric codes starting from 1. Instead of the names of the participant administrators, the codes such as 1Y (Administrators), 2Y, etc. Sample expressions that reflect the administrators' opinions are presented in "quotations". In reliability calculation of the qualitative data Miles and Huberman's formula (1994) is used. Formula:

$$\text{Percentage of Consensus} = \text{Consensus} / (\text{Consensus} + \text{Dissidence}) \times 100$$

As a result of the encoder calculations, the reliability is 0.80. Due to the fact that the participants report an opinion relevant to more than one single topic during the analysis of the qualitative data, the figures of total opinions of the administrators in the analysis process may be different than that of the administrators that take part in this research.

The content analysis data is used in the analysis of the obtained data. What intended is to achieve in the content analysis is to reach the concepts and relations that can explain the collected data. The themes are shaped by scrutinizing the common and different features among these codes. Later, by organizing the codes and themes the results are prepared. The direct quotations of the administrators' opinions are presented within quotations.

Results

1. Which and How Mobile Tools Are Used During the Course of Teaching Activities of the Secondary School Administrators?

The results, shown in Table 2, are prepared in line with the opinions of the secondary school administrators regarding which and how they use the mobile tools during their teaching activities.

Table 2. The Opinions of the Secondary School Administrators on How They Use the Mobile Tools During the Teaching Activities.

The Used Mobile Tool and Reason	How the Mobile Tools Are Used	f	%
Mobile Phone	Momentary Information Need	10	66,6
Mobile Phone	Momentary Communication	12	80
Mobile Phone/Tablet/Laptop	Mobile Phone/Tablet/Laptop	4	26,7
Mobile Phone/Tablet/Laptop	Following Dyned and Eba Applications	2	13,3
Mobile Phone/Tablet	Supporting the Topic	2	13,3

When Table 2 is analyzed, %80 of the administrators express that they use the mobile phones the most in “momentary communication.” On the other hand, it is observed that %66,6 of the administrators use their mobile phones for “satisfying their need for momentary information.” %26,7 of the administrators give their opinions that they “use the mobile tools in reflecting the activity of the class to the smart board.” %13.3 of the administrators express that they use the mobile tools in the Ministry of Education’s “Eba and Dyned Applications” %13.3 of the administrators remark that they “get the support of the mobile tools while teaching the subject.”

2. How do the secondary school administrators decide which mobile tools they will use in their teaching activities?

The results, shown in Table 3, are prepared in line with how the secondary school administrators decide which mobile tools they will use in their teaching activities.

Table 3. The Opinions of The Secondary School Administrators on How They Decide Which Mobile Tool They Will Use in the Teaching Activities.

The Reason of Choosing the Mobile Tools	Chosen Mobile Tool	f	%
The Content of the Course	Laptop/tablet	12	80
The Course Activity	Laptop/tablet	12	80
The Mobile Tools That the Students Can Obtain with Their Own Facilities	Laptop/tablet	1	6,66
The Ease of Use in Accordance with the Brach	Mobile Phone/Laptop/tablet	1	6,66
In Need of Momentary Information Flow	Mobile Phone/	1	6,66
By Browsing International and Domestic Sources	Mobile Phone//Laptop/tablet	1	6,66
Striking and Splashy Applications	Mobile Phone/Laptop/tablet	1	6,66

When Table 3 is analyzed, %80 of the administrators give their opinions that they choose the mobile tools according to “the content of the course” and “the course activity.” %6,66 of the administrators express that they choose “the mobile tools that the students can obtain with their own facilities.” %6,66 of the administrators remark that they choose “the mobile tools that have the ease of

use in accordance with the branch.” %6,66 of the administrators express that they choose the mobile tools that they can “communicate momentarily.” %6,66 of the administrators say that they choose the mobile tools “by browsing international and domestic sources.” %6,66 of the administrators express that they choose the mobile tools that “are striking and splashy.”

As a result, when we look at the findings in this main theme it can be said that generally overwhelming majority of the administrators choose the mobile tools according to “the content of the course” and “the course activity.”

3. What are the opinions of the secondary school administrators about the changes in their own teaching practices since they started using mobile tools in teaching activities?

The frequencies, shown in Table 4, are prepared in line with the opinions of the secondary school administrators on the changes in their own teaching practices since they started using the mobile tools in teaching activities.

Table 4. The Opinions of The Secondary School Administrators on The Changes in Their Own Teaching Practices Since They Started Using the Mobile Tools in Teaching Activities

The Change in the Teaching Practices	f	%
Yes, there has been a change	15	100
I started using more visual, auditory tools and materials	11	73,3
More effective learning	4	26,7
Went away from the mainstream teaching	10	66,6
The participation and activity of the students increased	2	13,3
Permanency increased	3	20
Time saving is provided	4	26,7
Abstract concepts are being learned better	1	6,66
I can do more activity and experiment in the class	4	26,7
Quality in education increased	3	20
Time spared for the student increased	2	13,3
The class became more entertaining	2	13,3
I ensured momentarily feedback	1	6,66
I started preparing the teacing activities on my own	2	13,3
The student creativity increased	2	13,3
Learning independetly of time and place	1	6,66
I started sharing the programs done and used by me with my friends	1	6,66
I started reaching out wide masses	1	6,66

When Table 4 is analyzed, all of the administrators report that with the entry of the mobile tools into our lives there has been a change in teaching activities. %73.3 of the administrators express that “I started using more visual and auditory tools and materials” %26.7 of them say that “more effective learning ensured and productivity of the course has increased”, %66,6 of them report that they “went away from the mainstream teaching”, %13.3 utter that “the participation and activity of the students has increased”, %20 of them express that “permanency has increased”, %26.7 remark that “time-saving is provided”, %6.6 say that “abstract concepts are learned better”, %26.7 utter that “I can do more activity and experiment in the class”, %20 of them claim that “quality in education has increased”, %13.3 say that “time spared for the student has increased”, %13.3 say that “the class has become more entertaining”, and %13.3 of them say that “the students have ensured momentarily feedback.”

Besides, %13.3 of the administrators say that “I started preparing the teaching activities on my own”, %13.3 of them say that “the student creativity increased” %6.66 say that “learning independently of time and place is provided” %6.66 say that “I started sharing the programs done and used by me with my friends” and lastly %6.66 claim that “I started reaching out wide masses.”

Consequently, when we observe conclusions in the main theme we can see that generally there has been a difference after the administrators started using the mobile tool in teaching activities.

When the administrators started using the mobile tools in teaching activities there have been some differences such as “they started using more visual and auditory tools and materials” “going away from the mainstream teaching” and that “the more effective learning provided and productivity of the course increased.”

4. How do the secondary school administrators define a successful or failed class supported by the mobile tools?

The frequencies, shown in Table 5, are prepared in line with the opinions of the secondary school administrators on how they define a successful or a failed class supported by the mobile tools.

Table 5. The Opinions of the Secondary School Administrators on How They Define A Successful or Failed Class Supported by the Mobile Tools.

A successful class supported by the mobile tools	f	%	A failed class supported by the mobile tools	f	%
If the pre-planned, and useful mobile tools for giving the targets of the class are used the class is successful.	5	33,3	It is failed if it is unplanned and does not give the targets.	2	13,33
If the student is active the class is successful.	3	20	The class lectured wholly by the mobile tools and where the teacher is passive is failed.	3	20
If the students answer correctly to the questions asked at the end of the class it is successful.	1	6,66	If the teacher lectures only with the mobile tools and does not have the control over the class the class is failed.	1	6,66
If time-saving is provided it is successful.	1	6,66	If the mobile tools are supported and updated according to the target of the class and its dynamics of them and if that suits the student profile of the class that class is successful. Otherwise, failed.	1	6,66
If it addresses all types of mind, it is successful.	1	6,66	If the result of the assessment and the evaluation test of the course, where the mobile tools are used, is negative. Then, the class is failed.	1	6,66
If it is updated and supported according to the dynamics of the classroom. It is successful.	1	6,66	If it drew the attention of the students in the classroom and got the attention it is successful. If not, failed.	1	6,66
It is successful until the point as many as students it reaches.	1	6,66	The students are distracted in a classroom where the disconnection occurs due to the problem of the internet connection.	1	6,66
If the students grasp the class, it is successful.	1	6,66			
If it notified the feedback, it is successful.	1	6,66			
If the student receives the targets, it is successful.	1	6,66			

When Table 5 is analyzed and when we see how the administrators define a successful or failed class supported by the mobile tools; %33.3 of them say that “If the pre-planned, and useful mobile tools for giving the targets of the class are used the class is successful” %20 say that “If the student is active the class is successful”, and %6.66 state that “If the students answer correctly to the questions asked at the end of the class is successful.”

Besides, %6.66 of the administrators say that “If time-saving is provided it is successful” %6.66 say that “If it addresses all types of minds, it is successful” %6.66 say that “If it is updated and

supported according to the dynamics of the classroom. It is successful” %6.66 say that “If the students grasp the class, it is successful,” %6.66 of them say that “If it notifies the feedback, it is successful” and %6.66 utter that “If the student receives the targets, it is successful.”

The administrators define a failed class supported by the mobile tools in Table 6; %20 of the administrators define that “It is failed if it is unplanned and does not give the targets.” Also, %20 of them say that “The class lectured wholly by the mobile tools and where the teacher is passive is failed” %6.66 of them claim that “If the teacher lectures only with the mobile tools and does not have the control over the class, the class is failed.” %6.66 say that “If the mobile tools are supported and updated according to the target of the class and its dynamics and if that suits the student profile of the class, that class is successful. Otherwise, failed.” %6.66 say that “If the result of the assessment and the evaluation test of the course, where the mobile tools are used, is negative. Then, the class is failed.” %6.66 utter that “If it drew the attention of the students in the classroom and got the attention it is successful. If not, failed.” %6.66 express that “The students are distracted in a classroom where the disconnection occurs due to the problem of the internet connection.”

Consequently, when the findings in the main theme are examined it can be seen that the administrators define “a successful class” when a class is “pre-planned, and useful mobile tools are used”, “when the student is active”, “if the students answer correctly to the questions at the end of the class.” On the other hand, it can be seen that the administrators define “a failed class” when in a class “the mobile tools are used excessively and inefficiently”, or when a class “is presented wholly by the mobile tools and where the teacher is passive is failed.” We can infer that the administrators should preplan their mobile learning tools and during the teaching activities, both the teacher himself/herself and the students ought to be active.

5. How do the secondary school administrators define the mobile learning with their own words?

The frequencies, shown in Table 6, are prepared in line with the opinions of the secondary school administrators on how they define the mobile learning with their own words.

Table 6. The Opinions of the Secondary School Administrators on How They Define the Mobile Learning with Their Own Words.

Definition	f	%
It is a world that we are curious about, and education is also an indispensable world.	2	13,3
Carrying the mobile tools along with the current technological devices and using them in education.	1	6,66
It is the technology which may provide 24 hours of learning without any kind of restrictions of time and place.	1	6,66
Modern learning.	1	6,66

It is the new way of learning where we reach the information faster than anything else and which appeals to 21st-century people.	1	6,66
It is a learning style that is supposed to exist currently. It is a need.	1	6,66
Learning with today's mobile tools.	1	6,66
We can call it the tool which is used for varying the course visually and auditory in the class.	1	6,66
It is a way of learning which appeals to more than one sense organs of the students.	1	6,66
It has become an indispensable thing in our lives. Not without mobiles.	1	6,66
It is a new way of teaching that has been improving nowadays because of the internet.	1	6,66
It is the modern and contemporary learning.	1	6,66
It is the multidirectional way of learning.	1	6,66
Limitless and spaceless learning via mobile tools.	1	6,66
It is a world that we are curious about, and education is also an indispensable world.	1	6,66

When Table 6 is analyzed, it is seen that the definitions given by the secondary school administrators are quite different from each other. It can be concluded that %13.3 of the administrators define the mobile tools as “It is a world that we are curious about, and education is also an indispensable world” %6.66 of them describe it as “Carrying the mobile tools along with the current technological devices and using them in education” %6.66 of them describe it as “It is the technology which may provide 24 hours of learning without any kind of restrictions of time and place” %6.66 define it as “Modern learning” %6.66 of them define it as “It is the new way of learning where we reach the information faster than anything and which appeals to 21st-century people” %6.66 of them describe it as “It is a learning style that is supposed to exist currently. It is a need” %6.66 of them say that “Learning with today's mobile tools” %6.66 of them claim that “We can call it the tool which is used for varying the course visually and auditory in the class” %6.66 of them say that “It is a way of learning which appeals to more than one sense organs of the students” %6.66 define it as “It has become an indispensable thing in our lives. Not without mobiles” %6.66 of them define it as “It is a new way of teaching that has been improving nowadays because of the internet” %6.66 of them define it as “It is the modern and contemporary learning” %6.66 of them define it as “It is the multidirectional way of learning” %6.66 of them define it as “Limitless and spaceless learning via mobile tools” %6.66 of them define it as “It is a world that we are curious about, and education is also an indispensable world.”

Consequently, when we examine the findings in the main theme and when we look at the definitions of the mobile tools by the administrators it can be said that they perceive the mobile learning in various ways in their own intellectual worlds and that there is not a common definition among the administrators concerning the mobile learning.

6. What are the opinions of the secondary school administrators on the contributions of the Fatih project to the mobile learning?

The frequencies, shown in Table 7, are prepared in line with the opinions of the secondary school administrators on the contributions of the Fatih project to the mobile learning.

Table 7. The Opinions of The Secondary School Administrators on the Contributions of the Fatih Project to the Mobile Learning

The Administrator Opinions Concerning the Contributions of the Fatih Project to the Mobile Learning		
Opinions	f	%
Yes, it contributed to the mobile learning.	14	93,3
I added the content (EBA contents) richness to the course.	14	93,3
The use of smart board supported the course.	14	93,3
I supported the IT infrastructure at the school.	14	93,3
The numbers of examples given and questions asked in the classroom increased.	7	46,7
It excites the student in the course.	8	53,3
Sending homeworks.	5	33,3
The course is intriguing.	8	53,3
The speed of learning accelerated.	8	53,3
The will of learning increased.	8	53,3
Equality of oppurtunities(within the country) is provided.	6	40
It made the homework checking easier.	2	13,3
It provided time-saving.	2	13,3
Education continued in and outside the school.	3	20
Awareness increased.	2	13,3
It made the topics more concrete.	1	6,66
Listening activity in the course increased.	5	33,3
The language learning activity increased by EBA	2	13,30
S/he searches for images on the big screen.	1	6,66
S/he can study at home enjoyingly.	1	6,66
It gains time and the rest of it is transferred to the student.	1	6,66
Providing the permanent information.	1	6,66

When Table 7 is analyzed, the opinions of the secondary school administrators on the contribution of the Fatih project to the mobile learning are as follows; %93.3 of the administrators stress that “the Fatih project contributed to the mobile learning” and “it added the content richness to the course.” Furthermore %93.3 of them suggest that “it contributed the use of smart board” and “supported the IT infrastructure at the school” while %46.7 of them say that “the numbers of examples

given and questions asked in the classroom increased" %53 of them utter that "it excites the students in the course" %33.3 of them express that "sending homework is easier" again %53.5 of them remark that "the course is intriguing", "the speed of learning accelerated", and "the will of learning increased." %40 of them claim that "equality of opportunities "within the country" increased. %13.3 of them say that "it made the homeworking checking easier" and "it provided time-saving." %20 of them remark that "education continued in and outside the school". Again, %13.3 of them say that "awareness increased" and %6.66 of them utter that "it made the topics more concrete".

In a result, when the findings in the main theme are examined it can be said that most of the administrators express that "the Fatih project contributed to the mobile learning", "it added the content richness to the course through EBA applications", "the smart board applications supported the course", "it supported the IT infrastructure in the course", "the numbers of examples given and questions asked increased", and "it excites students in the course." We can infer that "the Fatih Project" led by the Ministry of Education supported the necessary infrastructure for the mobile learning, the content of the course is enriched by the EBA applications, smart boards are widely used in teaching activities, and they excite the students.

7.What are the opinions of the secondary school administrators on the successful integration of the mobile learning to teaching activities?

The frequencies, shown in Table 8, are prepared in line with the opinions of the secondary school administrators on the successful integration of the mobile learning to teaching activities.

Table 8. The Opinions of the Secondary School Administrators on the Successful Integration of the Mobile Learning to Teaching Activities.

The Administrator Opinions on the Integration of the Mobile Learning to Teaching Activities		
Opinions	f	%
The teacher's skill of using the mobile tools.	9	60
Handling the infrastructure problem in the schools.	6	40
Giving lectures to the students about how to use the mobile tools.	4	26,7
Giving lectures to the teacher about how to use the mobile tools.	4	26,7
The ability of the students in using the mobile tools.	6	40
Preparing good course plan.	6	40
Providing and giving the hardware and the mobile tools to teacher and student.	1	6,66
Giving the necessary education while studying in the university.	1	6,66
Preparing the convenient content.	1	6,66
Reaching out to the faster and the more students thanks to the high-speed internet connection.	1	6,66

When Table 8 is analyzed, the secondary school administrators give opinions in order to provide the successful integration of the mobile tools to teaching activities as follows; %60 of the administrators suggest that “the teacher should have the skill of using the mobile tools.” %40 of them say that “the infrastructure problem in the schools should be handled.” %26.7 of them suggest that “giving lectures to the students about how to use the mobile tools”, and “giving lectures to the teacher about how to use the mobile tools.” %40 of them say that “the students should have the ability in using the mobile tools” and “the teacher should prepare a good course plan.”

As a result, when the findings in the main theme are analyzed it can be said that so that the administrators would integrate the mobile tools to the mobile learning successfully the teacher, the administrator, and the students should have “the ability in using the mobile tools”, they should be “given the necessary lectures about how to use the mobile tools” so that they can use them properly, “the infrastructure problem should be handled in the schools”, “the teacher and the student should be provided and given the mobile tools”, and the teachers should “prepare a good course plan.”

8. What are the opinions of the secondary school administrators about the positive and negative effects of the use of mobile learning in the teaching activities in terms of student success and course performance?

The frequencies, shown in Table 9, are prepared in line with the opinions of the secondary school administrators about the positive and negative effects of the use of mobile learning in the teaching activities in terms of student success and course performance.

Table 9. The Opinions of the Secondary School Administrators About the Positive And Negative Effects of the Use of Mobile Learning in the Teaching Activities in Terms of Student Success and Course Performance.

Positive Opinions	f	%	Negative Opinions	f	%
The course draws attention, the interest in the course raises, can address to different sense organs, time gaining. Positive.	10	66,6	Students are engaged with the technological tools. Negative	1	6,66
That it can address well to visual and audio senses. Positive.	2	13,3			
It makes the transfer of many things in the teaching programs. Positive.	1	6,66			
It makes the teacher’s job easier in the course, prevents the time-loss, increases visuality.	1	6,66			

When Table 9 is analyzed, there are the opinions of the secondary school administrators about the positive and negative effects of the use of mobile learning in the teaching activities in terms of student success and course performance. %66.6 of the administrators state that “the course draws attention, the interest in the course raises, the course can address to different sense organs, and it gains time.” %13.3 of them say that they found it successful in the student success that “it can address well visual and auditory senses. The teacher and the administrators express that “face-to-face communication descended” and “the students are taking advantage of this occasion and spend most of their times on the mobile tools” and “the students are engaged with the mobile tools.” All of these findings are found to be negative effects on the students.

As a result, when the findings in this main theme are analyzed we can say that “the course draws attention, the interest in the course raises, can address to different sense organs, and time-saving” and “it can address well to visual and audio senses” are the findings that support the idea of the use of mobile tools in the teaching activities and, on the other hand, negativity can be descended with an education about the mobile tools.

9. What are the opinions of the secondary school administrators on the obstacles that appear during the integration of the mobile tools into the learning and teaching activities?

The opinions on the obstacles that appear during the integration of the mobile tools into the learning and teaching activities are given Table 10.

Table 10. The Obstacles that Appear During the Integration of the Mobile Tools Into the Learning and Teaching Activities.

Technological Information	f	%	Pedagogical Information	f	%	Content Information	f	%
It is not always an obstacle.	0	0	It is always an obstacle.	0	0	It is not always an obstacle.	0	0
It is an obstacle most of the time.	1	6,7	It is an obstacle most of the time.	0	0	It is an obstacle most of the time.	0	0
It rarely is an obstacle.	9	60	It rarely is an obstacle.	11	73,3	It rarely is an obstacle.	6	40
It is not an obstacle.	5	33,3	It is not an obstacle.	4	26,7	It is not an obstacle.	9	60
Time Restriction	f	%	Administrator Support	f	%	Personal Information	f	%
It is not always an obstacle.	0		It is not always an obstacle.	1	6,7	It is not always an obstacle.	0	0

It is an obstacle most of the time.	3	20	It is an obstacle most of the time.	0		It is an obstacle most of the time.	3	20
It rarely is an obstacle.	7	46,7	It rarely is an obstacle.	6	40	It rarely is an obstacle.	3	20
It is not an obstacle.	5	33,3	It is not an obstacle.	8	53,3	It is not an obstacle.	9	60
Professional Devepolment/Ed ucation	f	%	IT development	f	%	Budget Contsraint	f	%
It is not always an obstacle.	0	0	It is not always an obstacle.	0	0	It is not always an obstacle.	2	13,3
It is an obstacle most of the time.	3	20	It is an obstacle most of the time.	6	40	It is an obstacle most of the time.	5	33,3
It rarely is an obstacle.	2	13,3	It rarely is an obstacle.	4	26,7	It rarely is an obstacle.	5	33,3
It is not an obstacle.	10	3,3	It is not an obstacle.	5	33,3	It is not an obstacle.	3	20

10. What are the perceptions of the secondary school administrators regarding the competences of word processing; calculation, supply, the creation of database and internet programs?

The opinions of the administrators regarding the package programs that they use in their mobile learning tools and to what extent they do know those tools given in Table 11.

Table 11. The Competences of Word Processing; Calculation, Supply, The Creation of Database and Internet Programs

	Word Processing (Word)		Tabulation-Statistics (Excel)		Presentation Preparing Program (Power Point)		%	
	f	%	f	%	f	%		
I do not know	0	0	I do not know	0	0	I do not know	0	0
Beginner	0	0	Beginner	0	0	Beginner	0	0
Intermediate	3	20	Intermediate	4	26,7	Intermediate	3	20
Good	8	50,7	Good	9	70	Good	10	66,6
Advanced	5	33,3	Advanced	2	13,3	Advanced	2	13,3

Word Processing (Word)	f	%	Tabulation-Statistics (Excel)	f	%	Presentation Preparing Program (Power Point)	f	%
I do not know	0	0	I do not know	0	0	I do not know	0	0
Beginner	0	0	Beginner	0	0	Beginner	0	0
Intermediate	3	20	Intermediate	4	26,7	Intermediate	3	20
Good	8	50,7	Good	9	70	Good	10	66,6

Database (Access)	f	%	Internet Using	f	%	E-mail Using	f	%
I do not know	3	20	I do not know	0	0	I do not know	0	0
Beginner	4	26,7	Beginner	0	0	Beginner	0	0
Intermediate	8	53,3	Intermediate	2	13,3	Intermediate	2	13,3
Good	0	0	Good	9	70	Good	6	40
Advanced	0	0	Advanced	4	26,7	Advanced	7	46,7

The use of Outlook Express	f	%	Web Design Editorial (FrontPage, Dream viewer)	f	%
I do not know	0		I do not know	7	46,7
Beginner	3	20	Beginner	6	40
Intermediate	3	20	Intermediate	1	6,66
Good	5	33,3	Good	1	6,66
Advanced	4	26,7	Advanced	0	0

When Table 11 is examined, the administrators know the word-processing, calculation presentation programs, internet, e-mail usage moderately and well; the use of databases, the internet design is less known.

Discussion and Conclusion

What is intended in this research is to detect the opinions of the secondary school administrators on the use of the mobile tools for educational purposes in Izmit district of the city of Kocaeli. The use of mobile tools in education is generally perceived positively by administrators. The

obtained findings coincide with Çelikten's assessment which is that (2001) "Majority of the secondary school teachers and administrators ought to have an affirmative attitude towards the use of technology in the management process." Along with technology, the rise in the attention and participation of the students in the courses are essential advancements. These findings resemble that of Geçer and Topal (2013). It is observed that the administrators have rather complimentary views towards m-learning and that they agree with the opinions regarding the effectiveness and advantages of mobile learning. Yokuş supports it as follows; the reason for having at a high level of positive opinions towards the mobile learning for them is that they have already been downloading and using the mobile applications that have entered in every aspect of life.

In this research, one of the findings suggests that when the secondary school administrators asked which and how they use the mobile tools they, mostly, answered "meeting the momentary information needs" and "reflecting the content to the smart board via the mobile tools." We may say that in the teaching activities it is very important to meet the momentary information needs and connect momentarily. The prepared contents and activities are very significant, as well.

Among the findings, the administrators exude that thanks to the mobile tools now we give more places to visual and audio elements in the course and we use more widely the application and programs according to the content of the course. Thus, it increases the interest of the student in the course, it makes the students more active, the teaching is provided faster, the quality of the course raises, and the permanency of the information scales up. In the research conducted by Chen, Seilhamer, Bennett, and Bauer (2015), they asked the students' views about the perks of using the mobile tools and devices for academic purposes. In the result of the survey conducted, %72 of the students suggest that the mobile tools/devices make the accession to the class works easier, %65 say that it increases the communication with the other students, %60 say that it scales up the communication with the teachers, %48 suggest that it increases the information concerning the field of research, %43 claim that it raises the quality of the work and %42 express that it provides motivation in order to complete the class works. All these findings support the survey conducted.

The administrators that took part in this research expressed that the use of mobile learning and tools increased the learning quality. Seferoğlu's work (2009) also highlights similar findings.

Among the findings, we can see that when the administrators asked what kinds of problems mobile learning causes, most of them point out the technical and infrastructural problems. We encounter as the biggest problems such as preserving the mobile devices at the school, uploading the current applications and programs, and the incompetence of the administrators in the field of the integration of the mobile tools to the teaching fields. We can see similar findings in Şahin and Demir's (2015) and Turan's (2001) works.

In order the administrators to integrate the mobile learning in their teaching practices, as most of them stated, and so that the mobile applications could reach the educational targets the most important thing to do is that all of the stakeholders of the school such as students, parents, teachers, and administrators should pass the in-service training regularly and learn how to use mobile learning relevant to its purpose. We can see similar findings in Şahin and Demir's (2015) and Seferoğlu's (2009) works. Moreover, in Eren and Kurt's (2011) work it is stated that in presenting technology to the individuals, the school administrators should be oriented and encouraged for the in-service training concerning the procurement, presenting, and the use of the educational technologies. The findings carry parallelism with this statement.

There is also an emphasis that in the integration of mobile learning to the teaching activities pre-class planning should be done in advance. This finding parallels with Tan's (2007) work.

Most of the participants show affirmative views regarding the applicability of the Fatih project. Most of them defend the fact that the EBA applications, which form the content part of the Fatih project, should be up to date and the in-service training given to the administrators would make the mobile learning more effective and efficient. This obtained finding coincides with (Sincar et al., 2015)' finding which concludes that the effectiveness of the heavily-invested projects such as the Fatih project is related to the information and skills of the school administrators and teachers in using the technology and be aware of the importance of its use.

They remarked that it is necessary that chiefly, the students, the teachers, and the administrators should be given an in-service training and the technical infrastructure should be extended regarding the problems led by the mobile learning on the students, the teachers, and the administrators. We can come across similar findings in Şahin and Demir's (2015) and Seferoğlu's (2009)'s works. The mobile learning's ranking and development everywhere in the scope of learning will enable us to receive the information everywhere and every time by using mobile devices. In addition to this, it will contribute to meaningful learning with the pleasure and happiness that we feel outside the authoritarian learning contexts. (Tahir, Haron, & Kaur, 2018) It is very essential that the school administrators support the learning tools as the education leaders.

The administrators suggest that mobile learning in education is going to affect the future positively and it is going to be used in education more effectively. On the basis of all these, it is considered that it would be useful to examine the mobile learning in the future works and in the context of the opinions of the students, the parents, and the teachers.

References

- Afshari, M., Bakar, K. A., Luan, W. S., Samah, B. A. & Fooi, F. S. (2009). Technology and School Leadership. *Technology, Pedagogy and Education*, 18(2), 235-248.
<http://www.tandfonline.com/doi/pdf/10.1080/14759390902992527>
- Akbaba-Altun, S. (2008a). İlköğretim okul yöneticilerinin teknolojiye karşı tutumları ve duygusal zekaları arasındaki ilişkinin incelenmesi: Düzce ili örneği. 8. *Uluslararası Eğitim Teknolojileri Konferansı*, 6-9 Mayıs 2008 (ss. 1302-1305). Eskişehir: Anadolu Üniversitesi.
- Cárdenas-Robledo, L. A. & Peña-Ayala, A. (2018). Ubiquitous learning: A systematic review. *Telematics and Informatics*, 35, 1097-1132.
- Chen, B., Seilhamer, R., Bennett, L., & Bauer, S. (2015). Students' mobile learning practices in higher education: A multi-year study. *Educause Review*. Retrieved from <http://er.educause.edu/articles/2015/6/students-mobile-learning-practices-in-higher-education-a-multiyear-study>.
- Creswell, J.W. (1997). *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. United State of America: Sage
- Çelikten, M. (2001). "Okul Yöneticilerinin Problem Çözme Becerileri." *Eğitim Yönetimi Dergisi*, sayı, 27. (297-3009).
- Eren, E., & Kurt, A. A. (2011). Technology leadership behaviors of elementary school principals. *Uşak University Journal of Social Sciences*, 4(2), 219-238. <http://dx.doi.org/10.12780/UUSBD100>.
- Ersoy, F. (2016). Phenomenoly Saban, A.; Ersoy, E. (Ed.) *The Qualitative Research Designs in Education* (p.51-105). Ankara: Pegem Fatih Project. (2017) <http://fatihprojesi.meb.gov.tr/proje-hakkinda/>
Access date: 21.12.2017
- Geçer, A. & Topal, A. D. (2013). Her Öğrenciye Bir Bilgisayar Projesine Yönelik Yönetici, Öğretmen ve Veli Görüşlerinin Değerlendirilmesi. *Educational Administration: Theory and Practice*, Vol. 19, Issue 3, pp: 391-417. <http://kuey.net/index.php/kuey/article/view/971>.
- Keegan, D. (2005). "The incorporation of mobile learning into mainstream education and training". In *Proceedings of the 4th World Conference on M-Learning* (M-Learning: 2005), SA, 25-28 October.
https://s3.amazonaws.com/academia.edu.documents/6263959/keegan1.pdf?AWSAccessKeyId=AKIAIWO WYYGZ2Y53UL3A&Expires=1532961779&Signature=2oAebfti4dw8yppwrhjqCbTafRc%3D&responsecontentdisposition=inline%3B%20filename%3DThe_incorporation_of_mobile_learning_int.pdf
- Miles, M., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.
- Samancıoğlu, M., Bağlıbel, M., Kalman, M., & Sincar, M. (2015). The Relationship between Technology Leadership Roles and Profiles of School Principals and Technology Integration in Primary School Classrooms. *Journal of Educational Sciences Research*. C.5, S.2, p:77-96.
<https://s3.amazonaws.com/academia.edu.documents/43059121/jesr5.2.05.pdf?AWSAccessKeyId=AKIAI WOWYYGZ2Y53UL3A&Expires=1532961589&Signature=A8y14GoC9TzvzeOCqpJIdE7l5b>

I%3D&responsecontentdisposition=inline%3B%20filename%3DThe_Relationship_between_T
echnology_Lead.pdf

- Seferoğlu, S. S. (2009). The Use of Technology and the Views of the Administrators in the Primary Schools. *XI. Academic Information Conference (AB09) Papers*. 403-410. Harran University, Şanlıurfa. [Online: http://ab.org.tr/ab09/kitap/seferoglu_AB09.pdf, Accession Date: 24 October 2009.]
- Sharples, M., Taylor, J., & Vavoula, G. (2007) A Theory of Learning for the Mobile Age. In R. Andrews and C. Haythornthwaite (eds.) *The Sage Handbook of E-learning Research*. London: Sage, pp. 221-47.
https://telearn.archivesouvertes.fr/file/index/docid/190276/filename/Sharples_et_al_Theory_of_Mobile_Learning_preprint.pdf
- Şahin, C., & Demir, F. (2015). Investigating The Managing Skills Of Education Technologies Of School in their institutions in age of Change. *Journal of International Social Research*, 8(39). <http://dx.doi.org/10.17719/jisr.20153913792>.
- Şendağ, S., Gedik, N., Caner, M. & Toker, S. (2019). Use of Podcasts in Mobile Assisted Language Learning: Instructor-Led Intensive Listening and Mobile Extensive Listening. *Mersin University Journal of the Faculty of Education*, 15 (1). 1-27
- Tahir Z. M., Haron, H. & Kaur, J. (2018). Ubiquitous learning environment and technologies: A review. *International Journal of Engineering and Technology*, 7, 31-35.
- Tanzer, S. (2004). *Technology Leadership Competences of the Vocational and Technical School Administrators*. Unpublished Master Thesis. Abant İzzet Baysal University, Social Sciences Institution, Bolu. <https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp>
- TUİK, 2016. Web: <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=21779>. Accession Date: 14.02.2018.
- Tsai, C.C. & Hsieh W.M.(2017). Taiwanese high school teachers' conceptions of mobile learning. *Computers & Education*. 115, 82-95.
<https://www.sciencedirect.com/science/article/pii/S0360131517301768>
- Yaman, F., Dönmez, O., Avcı, E. & Yurdakul, I. (2016). Integrating Mobile Applications into Hearing Impaired Children's Literacy Instruction. *Education and Science*. 41(188). 153-174.
- Yıldırım, A., & Şimşek, H. (2006). *Qualitative Research Methods in Social Sciences*. (6. Print) Ankara: Seçkin Publishing.
- Yılmaz, Y. (2011) *Researching the Awareness Levels of the Graduate Students and Instructors for Mobile Learning*. Unpublished Master Thesis. Dokuz Eylül University, Izmir.
- Yokuş, G. (2016). *Examining the Views of the Students of the Faculty of Education for Mobile Learning and the Study of Developing Mobile Application for Educational Sciences: Mobile Academy*. Unpublished Master Thesis. Mersin University Educational Sciences Institution, Mersin. <https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp>.