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THE SMART PHONE USAGE HABITS OF HIGH SCHOOL STUDENTS AND THEIR ADDICTION TO SMART PHONES

ABSTRACT

The aim of this study is to determine the habits on the use of smart phone of young generation and identify their addiction to smart phones. For the purposes of the research, 759 students from Körfez Vocational High School were selected as the study sample by using simple random sampling method in 2015-2016 academic year. According to the results of research, 71 % of students use the smart types of mobile phones. In addition, 59% of students use the internet with their phone. 50 % of the students stated that they check their mobiles at least every 15 minutes. Moreover, 41% stated that they check their mobiles at least once every half an hour. According to the results of the experimental method, it has been evaluated that students have less movement and less learning achievement on the days they use smart mobile phone. Keywords: dependency, effects, smart mobile phone.

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ORTAÖĞRETİM ÖĞRENCİLERİNİN AKILLI TİP CEP TELEFONU TEKNOLOJİSİNİ KULLANMA ALIŞKANLIKLARI VE BU TEKNOLOJİNİN ORTAÖĞRETİM ÖĞRENCİLERİ ÜZERİNDEKİ ETKİLERİ

ÖZET

İletişimde yerini alan cep telefonları, başta gençler olmak üzere toplumun tümü tarafından vazgeçilmez hale gelmiştir. Lise öğrencilerinin cep telefonu bağımlılığın ortaya konulması amacıyla Körfez Mesleki ve Teknik Lisesinde okuyan 759 lise öğrencisi örneklem olarak seçilmiştir. Öğrencilerin cep telefonu kullanma alışkanlıklarına ilişkin veriler anket formu kullanılarak tarama yöntemiyle toplanmıştır. Cep telefonlarının öğrencilerin günlük aktivitelerine olan etkisinin saptanması için 30 kişilik gönüllü öğrencilerden oluşan gurubun cep telefonlu ve cep telefonsuz haftalık adım sayıları dijital adım ölçer ile takip edilmiştir. Cep telefonlarının öğrencilerin ders başarısına etkisinin belirlenmesi için yine 30 kişilik deney gurubu oluşturulmuştur. Deneklerin telefonlu ve telefonsuz işlenen dersler sonrasındaki test başarıları ölçülmüştür. Deneysel yöntem için seçilmiş olan aynı bireylerin değişik durumlardaki ölçümleri arasında fark olup olmadığı test edileceği için Paired Samples t-Test kullanılmıştır. Deneysel yöntemle elde edilen sonuçlara göre, akıllı tip telefon kullanan öğrenciler, gün içerisinde daha az hareket etmektedirler. Öğrencilerin cep telefonları olmadığında ders başarılarının yükseldiği tespit edilmiştir.

Anahtar Kelimeler: Akıllı tip cep telefonu, teknoloji, internet bağımlılığı.

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STATEMENT OF THE PROBLEM

In the last century, reports show that the behaviours and attitudes of people especially young ones are changing with the popularity of the mobile phones. The studies on social impacts of mobile phones had been scarce until a couple of years ago.

Mobile phones are becoming a social and cultural phenomenon as a new communication technology in this period where information and communication technologies transform our lives. Mobile phones, which eliminates the restrictions of time and space, encompasses all members of society, especially young people, taking into advanced technological elements day by day (Enes, 2013).

In the late 20th century, where "Does technology shape society?" Or "Does society shape technology?" questions have been discussed, it is seen that the technological innovations shape social relations while the extent using of mobile phones and diversity of them shape technological innovations. Mobile phones, with short message services, internet connection, transmission and receiving of images and sharing of location as well as functional feature in other words communication feature of them, have an important place in the lives of people (Humprehys, 2005, Aktaran Özaşçılar 2012). Today, mobile phones have turned into smart phones with more functional features.

With the general description, smart phone is an advanced mobile phone including the features of PDAs (Personal Digital Assistant) in addition to classical features of mobile phones (URL1, access date: 10/12/14).

The smart phone term is generally confused with mobile phone term. For this reason, it will be more useful to separate cellular phone term into simple mobile phone and smartphone. It was identified that the rate of smartphone use in Turkey has been 67% in 2013 according to the results of "Mobile Consumer Survey in Turkey" performed within "Deloitte Global Mobile Consumer Survey" research (Deloitte, 2013; Aktaran Çakır ve Demir, 2014).

Smartphones, which has become an indispensable part of our daily life, are one of the most important equipments of the new media. Smartphones have reached a large user network by including many features of new media tools and having a portable feature. According to the reports of Information and Communication Technologies Authority, there are more than 70 million cellular phone subscribers in Turkey as of June 2014. The utilization rate of smartphone is 91% in Turkey and this makes Turkey ranking first among developing countries. In addition, according to TUIK data, 58% of internet users connected to internet via smartphones in the first three months of 2014. While this rate was 41.1% in 2013, this 17% difference taking attention at the beginning of 2014 yet shows that the increasing use of smartphones (Özdemir, 2014). As seen from these data, the increasing use of smartphone, and especially the use of these phones as a type of pocket computer to connect to the internet make it necessary to think over smartphones and research the effects of these technological devices on people.

The Mobile Phone Market In Turkey

As of 2010, there have been 136 million cellular phone in use in Turkey. This high number means that it is equivalent to average two per person. If the age range of the use of cellular phone is determined to be between 10-60, almost 3 phones equivalent to per person.

This number indicates that the use of double phones lines is high. In addition, the average talk time is 196 minutes per month according to the data of the operator company.

From the date of the beginning of mobile services, approximately 150 million cellular phones have been imported. More than 20 billion dollars have been spent for these phones. Every year, 17 million phones, where material value exceeds the 2 billion dollars, are imported (URL2, access date: 01/12/14).

Today mobile communication has become the most basic elements of electronic communication. According to a study carried out in recent years, by the end of 2017, the number of smartphones and tablets in the market will be almost doubled the number of available devices. However, it is estimated that personal computers will be decreased both numerically and proportionally. In the light of this opinion, it is seen that the majority of users throughout the world will be use tablets and smartphones to connect to the internet in the near future (URL3, access date: 05/11/14).

These devices which only made phone calls and sent short messages in the beginning, with their indistinguishable structures from the computer; they are increasingly used in the execution of many activities by businesses of all sizes nowadays. In fact, in a study conducted in 2011, it has been concluded that 63% of small businesses, 82% of medium-sized businesses and 92% of large enterprises have been using smartphones. According to the research of IDC (International Data Corporation), 305 million smartphones were sold worldwide in 2010 (Fig. 1). In 2011, this figure reached 494 million showing an increase of 62%. According to the same survey it is estimated that the total smartphone sales will be 660 million units in 2012. As of 2015, it is projected smartphone sales to reach a total of one billion units worldwide. With the increased sales of smart phones over the years, these figures are an indication of the increased importance of smartphones in everyday life and business life (Ada and Tatlı, 2014).

Figure 1. Numerical data on smartphone and 3G usage in Turkey (2008-2013)
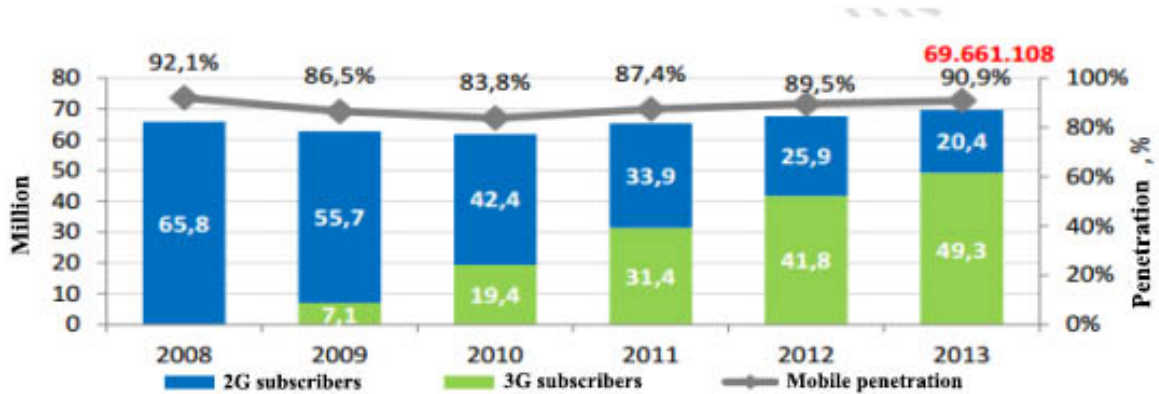
Although there isn't a large increase in the number of mobile phone users, it is seen that there is a large increase in the use of smartphones and 3G. In the light of these data, it is understood that the consumers connects to the internet mostly via smartphones rather than personal computers (URL3, access date: 05/11/14).

Table 1. Numerical data on the internet connection via smartphones in Turkey

	2011-4	2012-3	2012-4	2013-4
3G Subscribers	31.375.507	40.251.883	41.798.432	49.266.163
Internet From Mobile Computer	1.547.421	1.875.653	1.909.530	1.701.014
Internet From Mobile Phone	4.907.380	9.685.926	10.252.370	22.472.129
The Amount of Mobile Internet Usage	10.458	18.618	21.590	43.686

The number of internet users via smartphones increased more than 4 times in 2013 compared to 2011. Besides the increase in number of users, the development of new technologies and also with the increase of mobile connection speeds, it is seen that the rapid increase in the use of mobile internet traffic. In the last quarter of 2012, while mobile internet use was 21,590 TByte, it doubled to 43,686 TByte in the last quarter of 2013. The doubling of mobile internet usage in the last year is the most clearly revealing indicator of how smartphones take place in our lives (URL3, access date: 05/11/14).

The Addiction of Mobile Phones

Technology, as well as in all areas, is advancing rapidly in the communication area. This influences especially the communication habits of young people using these technologies compared to other age groups and news, images and sound transmission are also changing in everyday life with the advance of information and communication technologies. Thus, the change in communication tools influences the people's way of life. Today, cellular phone technology, which comes after computer technology, emerges as the most advanced mobile communication technology (Karaaslan and Budak, 2012).

Mobile phone is a communication tool that the user keeps it every moment. As a result of the use of mobile phones by individuals in accordance with their needs and desires, there are different forms of mobile phone use among users. Mobile phones evolved to an object symbolizing the personal identity of individuals. The use of mobile phones is also identified as a social status symbol or fashion. The preferred brand of mobile phones, call ringtones, visual elements used on the desktop of the phone, the model, colour and accessories of the phone symbolizes the personalization efforts for mobile phones of individuals. (Özaşçılar, 2012).

It is seen that the mobile phones, as well as for the use of communication, are used for both business activities and leisure time activities such as playing game, calendar and reminder services. Individuals with the mobile phone are always accessible everywhere. The stage of being accessible affects the way of individuals manage their social relations (Özaşçılar, 2012).

Carrying mobile phone of individuals allows them to feel more confident. On the other hand, mobile phone directs individuals to risky behaviours. Mobile phones affect the perceptions of individuals in terms of the areas where they reside. In studies, it has been seen that the talking on mobile phones distracts the people's attention and slows down their reactions, thus it increases the likelihood of any accident (Özaşçılar, 2012).

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Similar Researches on The Use of Smart Type Mobile Phones

Although there are many studies in the literature for the factors influencing the use of smart phones, the majority of these studies are for general use of mobile phones. The research on addiction of mobile phone is limited.

In the study entitled "The Communication Tools Addiction of Children" of Akyürek (2011) associated with 2581 students, he determined that 71% of students had mobile phone. This rate was 70% within the students of second stage of primary school and 97% within secondary school students. 61% of the students with the mobile phone had access to the internet. The rate of the students having access to the internet via mobile phone was; 57% within the second stage of primary school, 68% within the secondary school. These rates are very high and having uncontrolled internet access for students in primary school is likely to attract the other dangers.

In the study entitled "Investigation of The Effects of The University Students' Everyday Use of Mobile Phone Features and The Effects of Mobile Phones on Daily Communication" of Karaaslan and Budak (2012) associated with the teens whose age were between 18–22, 63.6% of teens situated in the research group expressed that they missed the old communication tools. According to the results of this research again, they have determined that a significant proportion of young people expresses that they are uncomfortable to be having to switch off their mobile phones in closed areas such as cinema, theatre and public transport, the base stations threaten the health, it has been irritating the mobile phone use of even small children and technology make people dependent rather than freeing.

In the study entitled "The Mobile Phones Usage Habits and Motivations in The Age of Technology" of Bal (2013) associated with 1175 university undergraduates, the five factor effective in the use of mobile phone for undergraduates in orders of importance is followed as: Fashion/status, functionality/socialization, entertainment/relaxation, mobility and being informed. According to the results of the research, it has been identified that women talk and send messages with mobile phones more than men. On the other hand, the men are attributing more importance to technical features such as having the opportunities of 3G and games of mobile phones.

According to the results of the research of Balikci at all (2013) on 695 test subjects, it has been identified that there are no harmful effects of the use of mobile phone on dizziness, trembling of hands, stuttering, neuro-psychological disorders, ringing in the ears, redness of the eyes and defect of vision. However, it has been determined that there are some harmful effects of the use of mobile phone on headache, jim-jams, carelessness, decreasing of reflex, eyes dim and burring in eyes, in addition, the more mobile phones are used, the more harmful effects occur.

According to the research of Bianchi, A. and Philips, J. G. (2005), excessive mobile phone users have trouble in managing the time effectively due to their inadequacy in controlling the time when they talk on a mobile phone and so their balances are disrupted. The excessive use of mobile phone is still being discussed in terms of if it fulfils the clinical level, it is

noteworthy that these people show characteristics such as depression, guiltiness and sensitivity. These people again show low self-esteem because of their failure in interpersonal relationships.

In a lot of research on addiction, having low-esteem of addicted people also confirms this situation at the same time. (URL 4, access date: 05/01/2015). In the research of Ha, J.H., Kim, S.Y., Bae, S.C. (2007) on internet addiction, there has been seen some of similar behaviours such as depression, low self-esteem, hypersensitiveness, guiltiness and depression in a group of young addicted to the internet (URL 4, access date: 05/01/2015) .

In the research of Livideanu, C. (2007), it has been emphasized that in addition to psychological and behavioural problems of mobile phone addiction, there is physical illnesses caused by mobile phone. In a case report of the study, the skin lesions in the face was seen in certain areas of 25-year-old mobile phone user, and he was diagnosed as allergic contact dermatitis. It was reported that nickel caused to mentioned disease and this had allergic effect on patient by mobile phone. Two similar cases were also reported (URL 4, access date: 05/01/2015).

THE PURPOSE OF THE RESEARCH

The purpose of this study is to determine the habits on the use of mobile phones of secondary school students and introduce their addiction to these tools, determine the effects of smart type phones on students' daily activities and lesson motivation by experimental methods, thus it is aimed to present an awareness. Following hypothesises have been created for the purposes identified by the study.

The hypotheses developed for the 1st experimental methods

Experiment1 H0: In 95% confidence interval, there is no statistically significant difference between the average weekly number of steps in the school of the subjects involved in the research before and after having been taken the mobile phone of the subjects.

Experiment1 H1: In 95% confidence interval, there is a statistically significant difference between the average weekly number of steps in the school of the subjects involved in the research before and after having been taken the mobile phone of the subjects.

The hypotheses developed for the 2nd experimental methods

Experiment2 H0: In 95% confidence interval, there is no statistically significant difference between the average success of the test exams of the courses taught before and after having been taken the mobile phone of the subjects.

Experiment2 H1: In 95% confidence interval, there is a statistically significant difference between the average success of the test exams of the courses taught before and after having been taken the mobile phone of the subjects.

METHODOLOGY

Research Design

The primary purpose of this study was to explore the young generation's habits on the use of smart phone and their addiction to smart mobile phones. The theoretical sources and the data taken by empirical research have been analyzed in detail. Research conducted in two stages. In

the first stage, the smart phone usage habits of the students has been observed by using survey. For this reason, the opinions of 719 students were taken into consideration.

In the second stage, experimental methods were used with 30 students which have been selected as the voluntary by criteria sampling method. This second stage is consisting of two parts. In the first part, subject group's smart phones were taken from them and their steps were counted by digital devices (pedometer) for one week. After finished first period their mobiles were given back to them and their steps were counted again for one week.

In the second part of experimental method, to determine the effect of the smart mobile phones on success of the courses, again 30 students were selected randomly. In this experimental part, subject group's smart phones were taken from them and their learning achievement was measured with a test for one week. After the end of week, mobile phones were given back to them and their learning achievement was measured with a test again.

Participants: Population And The Sample

A total of 719 volunteer students studying in Körfez Vocational and Technical High School took part in the present study. As a research population, the students of Körfez Vocational and Technical High School were selected. According to the official figures of the school, there were 1283 registered students in 2014-2015 academic year. In accordance with the purposes of the research, 759 students studying at Körfez Vocational and Technical High School were included as a sample group. 57% of population was selected as sample. The sample group, which was selected by simple random method, is adequate to represent the population.

Data Collection And Analysis

A questionnaire was prepared to determine the behaviours of students on the use of smart type phone in the field of research work. In the questionnaire, the students were asked whether the type of smart phones they use, the operating systems of the students using smart phone, applications in the smart phones, the frequency of internet use via smart phone. Besides this, students were asked the some questions such as the purchase prices of mobile phones, present success of them in the written examinations and period they have a mobile phone.

In the second stage of the research, total steps of the students were counted by wearing digital pedometer to the students in the experiment group for a period of 5 days (Monday to Friday). Then, mobile phones were taken from the students in the experiment group and total steps of the students in the experiment group were counted by using the same digital pedometers for a period of 5 days (Monday to Friday). Obtained data were recorded on paper.

Students in the second experimental group of 30 people were selected from the smart type phone users coming for LYS Turkish Exam at the weekend. The phones of the students in this experimental group were collected before lesson and then measurement tests were conducted. This step was repeated by 3 times and in each step test successes were recorded. Then, the phones of the students in the experimental group were not collected and Wi-Fi connection was presented in the classroom. But, it wasn't said to the students that there was Wi-Fi connection in the classroom. After the lesson, subject tests were performed again and the test successes of the students were recorded. Thus, the difference between test successes were explored.

Analysis of Data

The frequencies (f) and percentages (%) of the variables for the questionnaire used in the field research were calculated to summarize the mobile phone usage habits of the students who participated in the questionnaire. Hence, Microsoft Excel program has been exploited. After the calculation of step counts and evaluation of the reading comprehension tests, obtained data were analysed by SPSS 18.0 (Statistical Package for Social Sciences) package program. Paired Samples t Test was used because the individuals selected for the same experimental method was to be tested whether the difference between two measurements at different times and situations. In these statistical calculations the level of the significance is accepted as P=0.05.

ANALYSES AND FINDINGS

The Findings Concerning The Research Field

In this part, the findings and the comments on statistical analyses of data obtained from questionnaires of students in accordance with the purposes have been introduced.

Table 2. Ownership status to cell phone

Ownership status to cell phone	f	%
Having smart type phone	538	71
Having old type phone	105	14
Not having any cellular phone	116	15
Total	759	100

71% of students in the research use smartphones. The students who don't have any mobile phone are only 15%. The remaining 14% has old-style mobile phone.

Table 3. The operating systems of smart phones belonging to students

operating systems	f	%
Android	427	79
IOS	45	8
Windows	19	4
Symbian	47	9
Total	538	100

79% of smartphone users have Android operating system. It is seen that the most part of the operating systems are Android.

Table 4. The frequency of looking at mobile phone

The frequency of looking at mobile	f	%
When telephone rings	48	9
At most half an hour (rarely)	223	41
A maximum of 15 min. (often)	267	50
Total	538	100

50% of students have expressed that they look at their phones by hand at the latest in 15 minutes. The students looking at the phone by hand is 9% when the phone beeps. The rate of the students expressing that they look at their phones at most half an hour is 41%.

Table 5. The internet usage via mobile phone

Internet Usage	f	%
Using Social Package	71	13
Having Internet Package	245	46
Using internet when a Wi-Fi connection is ready	222	41
Total	538	100

41% of the students using smartphone don't have any internet package. They expressed that they connect to the internet when a Wi-Fi connection is ready. 46% of the smartphone users expressed that they use paid internet service presented by their GSM operators. The remaining 13% utilize a service called social package allowing to enter only social sharing sites.

Table 6. The applications in smart phones belonging to the

The most used applications	f	%
Facebook-Facebook Messenger	507	94
Whatsapp	386	72
Instagram	259	48
Youtube	415	77
Twitter	78	14
Oyun	403	75
News applications	145	27
Weather forecast	85	16
Applications that can help courses	17	3

94% of the students in the research use Facebook application in their own smartphones. At the same time, 77% of these students use Youtube application in their own smartphones. 72% of them also use Whatsapp application. The rate of the use of the news applications for agenda by their smartphones is 27%. The rate of playing games with their smartphones is 75%. The rate of the students who have installed applications helping their lessons is only 3%.

Tablo 7: The prices of the smart type phones used by the students

Price	f	%
0-250 TL	53	10
251 TL- 500 TL	132	24
501 TL-1000 TL	235	44
1000 TL-1500 TL	87	16
1501 TL-2000 TL	19	4
More than 2000 TL	12	2

Total	538	100

It has been seen that 10% of the students in the research group had smartphone by paying a fee under 250 TL. 24% of them use the mobile phones which prices are between 251-500 TL. 44% of the students in the research group use the mobile phones which prices are between 501-1000 TL, and the remaining 22% use the mobile phones which are more expensive than 1000TL.

FINDINGS OBTAINED WITH THE TEST METHOD

The Effects of Smart Type Phones on Daily Activities of The Students

Test Method was utilized to investigate the negative effects of smartphones on the students. The effects of smartphones on daily activities of the students was investigated by this test method. To do this, 30 voluntary students wore 30 units pedometer equipment and while mobile phones were on them, number of their steps were monitored for 5 days. Then, mobile phones of the subjects were collected when they came to the school and the number of their daily steps were monitored by the same pedometers. In this part, developed hypothesis for research is as follows:

H0: In 95% confidence interval, there is no statistically significant difference between the average weekly number of steps in the school of the subjects involved in the research before and after having been taken the mobile phone of the subjects (M1=M2).

H1: In 95% confidence interval, there is a statistically significant difference between the average weekly number of steps in the school of the subjects involved in the research before and after having been taken the mobile phone of the subjects (M1< >M2)

The subjects were selected as volunteers. It was described to the students that they wouldn't be informed about the aim of the research and the function of pedometers. The research was kept secret until the end of the experiment. Pedometers used in the research and subjects were numbered from 1 to 30. Pedometers were worn by the students coming to the school on Monday morning and pedometers were collected when students leave school in the evening. The number of steps were recorded every evening. The average weekly number of steps are as in Table 8.

<div style="text-align:right">11</div>

Class		**Table 8. Daily step counts read on pedometers when mobile phones are on the subjects**					

Class	Subject No		Monday	Tuesday	Wednesday	Thursday	Friday	Weekly average
12. Classes	1.	Subject	1430	3124	4285	1556	4032	2885,4
	2.	Subject	3932	2895	3318	1395	2850	2878
	3.	Subject	2244	7879	6328	1120	8919	5298
	4.	Subject	3941	9502	6898	3317	8861	6503,8
	5.	Subject	3951	8485	7337	1731	5500	5400,8
	6.	Subject	4189	7620	7245	1910	4461	5085
	7.	Subject	4515	4788	7833	1501	6015	4930,4
	8	Subject	1413	8372	8833	1815	10466	6179,8

9.	Subject	4100	7253	8224	1348	5117	5208,4
10.	Subject	4353	6406	8834	1916	6600	5621,8
11.	Subject	4707	6759	10157	1536	3548	5341,4
12.	Subject	3347	6538	8100	1565	5041	4918,2
13.	Subject	1195	4729	3917	1307	5585	3346,6
14.	Subject	2300	6447	7275	1814	10460	5659,2
15.	Subject	4676	4746	8050	1591	5217	4856

Class	No	Subject	Mon	Tue	Wed	Thu	Fri	Avg
11. Classes	16.	Subject	2435	2127	2282	3551	2030	2485
	17.	Subject	4038	2999	3418	4895	2959	3661,8
	18.	Subject	5244	8859	2325	3123	10910	6092,2
	19.	Subject	6941	7502	6895	3317	8861	6703,2
	20.	Subject	3951	8483	7337	4731	5683	6037
	21.	Subject	4880	7828	9248	5915	6463	6866,8
	22.	Subject	4785	6088	8433	4861	6584	6150,2
	23.	Subject	6417	5372	8903	5805	7456	6790,6
	24.	Subject	4159	6283	7228	6340	5117	5825,4
	25.	Subject	4003	7806	8680	7906	6698	7018,6
	26.	Subject	4497	5759	8150	5534	5540	5896
	27.	Subject	3447	7438	8009	7565	5041	6300
	28.	Subject	3595	7429	6987	4877	5985	5774,6
	29.	Subject	6304	6407	7245	5824	6461	6448,2
	30.	Subject	3679	4106	4055	5601	6007	4689,6

In the second week, the mobile phones of the subjects were collected and the same pedometers were worn by the same subjects. The average number of steps for one week are given in Table 9.

	Table 9. The daily number of steps read on the pedometers after the mobile phones were collected from the subjects						
Class	**Subject No**	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Weekly average**
12. Classes	1. Subject	2666	4154	5482	2207	4415	3784,8
	2. Subject	4213	3691	4632	1803	3657	3599,2
	3. Subject	3517	8587	8855	4652	8978	6917,8
	4. Subject	3364	9818	7489	5239	9001	6982,2
	5. Subject	2323	9404	9954	2652	5715	6009,6
	6. Subject	1566	7620	8455	3602	6442	5537
	7. Subject	4014	5794	8372	2021	6512	5342,6
	8 Subject	2914	9473	10106	2236	8965	6738,8
	9. Subject	4970	8283	9993	1899	8765	6782
	10. Subject	1879	8428	10786	2789	7562	6288,8
	11. Subject	3166	7708	7132	3236	6785	5605,4
	12. Subject	1427	8559	9171	2311	5502	5394
	13. Subject	3134	8801	5153	2104	6751	5188,6

	14. Subject	3205	7748	8450	2152	8967	6104,4
	15. Subject	4845	6782	9718	2008	6975	6065,6
	16. Subject	3436	3014	3541	4657	3512	3632
	17. Subject	4456	4021	4025	5023	3645	4234
	18. Subject	6254	8512	4563	4587	9718	6726,8
	19. Subject	7034	7315	7264	5896	9862	7474,2
	20. Subject	5002	7571	8850	5236	8765	7084,8
	21. Subject	5089	9584	8967	6023	6785	7289,6
11. Classes	22. Subject	7785	7541	8967	5069	7152	7302,8
	23. Subject	6897	6548	8857	6159	7896	7271,4
	24. Subject	4959	7525	7986	7054	6875	6879,8
	25. Subject	6487	8876	9867	6587	8029	7969,2
	26. Subject	6578	6035	9961	6574	6873	7204,2
	27. Subject	4587	9012	9825	8820	5987	7646,2
	28. Subject	6501	8657	7687	5036	6122	6800,6
	29. Subject	7034	7541	8697	6520	7035	7365,4
	30. Subject	6240	6540	6235	7896	6640	6710,2

When the weekly average number of steps are investigated, there is seen a difference between the daily number of steps after the mobile phones are collected from the subjects. Paired Samples t Test technique was used to test whether this difference was statistically meaningful.

Table 10. Average, standard deviation and standard error values for the number of weekly steps of the subjects

Dependent Groups	Average	The number of subjects	Ss	Sh
The number of steps with telephone	5361,73	30	1232,43	225,01
The number of steps without telephone	6264,40	30	1215,81	221,98

If Table 10 is examined, the average weekly number of steps seem to be more after the mobile phones are collected from the subjects. Paired Samples t Test technique was used to test whether this difference was statistically meaningful. Test results are seen in Table 11.

Tablo 11. The results of Paired Samples t Test in accordance with the difference between the step counts of the subjects

Dependent Groups	X	Ss	Sh	t	df	P

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The number of steps with telephone - The number of steps without telephone	-902,67	457,07	83,45	-10,817	29	**0,000**

If Table 11 is examined, the difference between the weekly number of steps are statistically significant in accordance with the results of Paired Samples t Test ($p<0.05$). According to this result, the step counts of the subjects whose mobile phones were collected are more than ones whose mobile phones were with them. H1, which was one of the developed hypothesises before the research, is accepted.

The Effects of Smart Type Phones on The Exam Motivation of The Students

The effects of smartphones on the motivation of lessons and exams of the students were investigated in the second test method. For this purpose, a voluntary group of 30 people was formed. The hypothesis developed in this part of the research is as follows:

H0: In 95% confidence interval, there is no statistically significant difference between the average success of the test exams of the courses taught before and after having been taken the mobile phone of the subjects.

H1: In 95% confidence interval, there is a statistically significant difference between the average success of the test exams of the courses taught before and after having been taken the mobile phone of the subjects.

Firstly, the mobile phones of the subjects were collected and the subjects were given lesson for two hours. After the lesson they were asked to answer the test of 20 questions in 20 minutes. This procedure was repeated for 3 courses in one week interval. Test averages of tests are given in Table 12.

Table 12. The number of average correct answers in tests performed after the mobile phones of the students were collected					
Class	Subject No	Average of correct answers in 1.Test	Average of correct answers in 2.Test	Average of correct answers in 3.Test	Average of correct answers
12. Classes	1. Subject	17	17	18	17,33
	2. Subject	15	14	15	14,66
	3. Subject	13	14	15	14
	4. Subject	11	10	12	11
	5. Subject	15	14	17	15,33
	6. Subject	17	15	15	15,66
	7. Subject	15	16	14	15
	8 Subject	15	16	14	15
	9. Subject	17	16	17	16,66
	10. Subject	12	12	15	13
	11. Subject	15	16	15	15,33
	12. Subject	15	16	14	15
	13. Subject	15	16	18	16,33
	14. Subject	12	15	13	13,33

	15. Subject	15	12	14	13,66
11. Classes	16. Subject	12	14	16	14
	17. Subject	15	14	14	14,33
	18. Subject	16	15	17	16
	19. Subject	18	15	17	16,66
	20. Subject	10	12	14	12
	21. Subject	15	13	13	13,66
	22. Subject	14	13	12	13
	23. Subject	12	13	14	13
	24. Subject	13	14	13	13,33
	25. Subject	15	14	15	14,66
	26. Subject	14	12	14	13,33
	27. Subject	13	16	14	14,33
	28. Subject	14	14	17	15
	29. Subject	15	15	18	16
	30. Subject	11	11	12	11,33

In the second stage of the experiment, the mobile phones of the subjects weren't collected. Wi-Fi internet connection was presented throughout the lesson, but students weren't informed of this situation. Throughout the experiment, the mobile phones of the subjects weren't interfered by the teachers throughout the experiment. The subjects were given lesson for two hours in the same way and they were asked to answer the test of 20 questions in the same degree of difficulty in 20 minutes. This procedure was repeated for 3 courses in one week interval as same. The mobile phones were only taken from the subjects during the exam. Test averages of tests are given in Table 13.

Class	Subject No	Average of correct answers in 1.Test	Average of correct answers in 2.Test	Average of correct answers in 3.Test	Average of correct answers
12. Classes	1. Subject	16	15	18	16,33
	2. Subject	13	14	14	13,66
	3. Subject	12	15	11	12,66
	4. Subject	9	11	10	10
	5. Subject	14	15	18	15,66
	6. Subject	15	12	15	14
	7. Subject	12	16	14	14
	8 Subject	13	15	14	14
	9. Subject	17	15	17	16,33
	10. Subject	8	12	13	11
	11. Subject	15	12	15	14
	12. Subject	13	13	16	14
	13. Subject	12	16	17	15

Table 13. The number of average correct answers in tests performed after the students were given lesson while they carried their mobile phones and an unencrypted internet connection was presented

	14. Subject	11	13	10	11,33
	15. Subject	12	13	11	12
11. Classes	16. Subject	10	12	13	11,66
	17. Subject	11	13	13	12,33
	18. Subject	16	15	17	16
	19. Subject	17	18	18	17,66
	20. Subject	7	9	10	8,66
	21. Subject	15	12	13	13,33
	22. Subject	10	7	9	8,66
	23. Subject	11	10	12	11
	24. Subject	12	11	11	11,33
	25. Subject	9	14	12	11,66
	26. Subject	11	12	13	12
	27. Subject	15	14	13	14
	28. Subject	13	13	15	13,66
	29. Subject	14	12	14	13,33
	30. Subject	10	8	7	8,33

If the average of correct answers are examined, there is seen a difference between the average success of the test exams of the courses taught before and after having been taken the mobile phone of the subjects. Paired Samples t Test technique was used to test whether this difference was statistically meaningful.

Table 14. Average, standard deviation and standard error values for the exam success of the subjects

Dependent Groups	Average	The number of subjects	Ss	Sh
The exam success when mobile phones weren't collected	12,92	30	2,342	0,428
The exam success when mobile phones were collected	14,40	30	1,555	0,283

If Table 14 is examined, the averages of exam success of the subject groups after the mobile phones were collected seem to be more. Paired Samples t Test technique was used to test whether this difference was statistically meaningful. Test results are seen in Table 15.

Table 15. The results of Paired Samples t Test in accordance with the difference between the successes of the subjects in assessment exams performed after the courses

Dependent Groups	X	Ss	Sh	t	df	P
When mobile phones weren't collected-When mobile phones were collected	-1,478	1,127	0,206	-7,183	29	**0,00**

If Table 15 is examined, the difference between the averages of test success are statistically significant in accordance with the results of Paired Samples t Test (p<0.05). According to this result, the successes of the students whose mobile phones were collected throughout the lesson are more than ones whose mobile phones were with them. H1, which was one of the developed hypothesises for experiment 2 before the research, is accepted.

CONCLUSION AND DISCUSSION

According to the results of the research, 85% of the research group have mobile phone. 71% of them use smartphone. This is similar to the same researches performed within the country. 59% of smartphone users expressed that they use internet service presented by their GSM operators. The research group is under 18 years old. It is thought provoking that young people have an uncontrolled internet access at any time. According to a research report of Turkish Prime Ministry General Directorate of Family and Social Research (SAGEM), if the usage of internet isn't controlled, it may be harmful for the whole family. In this research held for the age group under 18 years old, it was determined that young people connect to the internet in every two hours. It was also determined that internet prevent the proper use of Turkish and excessive internet connection of individuals cause to brain fatigue. Again in the same report, it was expressed that unconscious internet usage causes:

1. Time consumption,

2. Deterioration of mental health in adults and children,

3. Children tend to violence if too many internet games are played,

4. Reduction of the share in the family,

5. Various disorders in eye, neck and wrist (URL5, access date: 02/01/15).

According to the results of the research, 50 % of the smartphone users stated that they check their mobiles at least every 15 minutes. 41% stated that they check their mobiles at least once every half an hour. The students looking at the phone by hand is 9% when the phone beeps. This result shows that students often feel the need to look at the mobile phone. According to these results, the majority of the students can be said to be a mobile phone addict. In the research entitled "The addiction of communication media in children" of Akyürek (2011), the addiction of computer, internet, mobile phone and such could be also expressed as 'virtual addiction'. The level of excessive addiction to these tools shows that children ignore even their own physical needs, they completely disconnect from reality, so it indicates that in absolute terms, professional support and treatment are needed for them.

In 2011, according to a research in the journal entitled "Personal and Ubiquitous Computing", actually people don't addict on the mobile phone, they addict on following the social media connections, daily news and e-mails through developing technology. While an average user check smartphone 35 times a day, addicted ones check much more than others (URL 6: access date: 12.01.2017).

94% of the students in the research use Facebook application in their own smartphones. At the same time, 77% of these students use Youtube application in their own smartphones. 72% of them also use Whatsapp application. The rate of the use of the news applications for

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agenda by their smartphones is 27%. The rate of playing games with their smartphones is 75%. The rate of the students who have installed applications helping their lessons is only 3%. These rates show that mobile phones are used for spending time in social networks rather than utilizing the useful applications. In the research entitled "The use of Facebook in Turkey" of Şener (2009), a study was conducted on 254 subjects. In this research, the following findings were obtained:

- Facebook users feel the need to connect to the Facebook at any time.

- They connect to the Facebook to spend their leisure time.

- They connect to the social media for maintaining the existing friendships rather than expanding their circle of friends.

- They think that they control their own information and thus, they sets limits themselves, a publicity is experienced and they use the Facebook to monitor their friends rather than make sharing.

In England, a research conducted in Edinburg University Science and Technological Research Centre shows that social media may weaken the ability to think analytically. Dr. Ivad Rahvan remarked that because of web sites such as Facebook and Twitter where too much info could be shared people do not try to produce their own thoughts. Most users don't filter the idea of others and internalize these ideas as if they were his/her own thoughts (URL 7, access date: 03/01/15). These research reveals the extent of the hazard.

It has been seen that 10% of the students in the research group had smartphone by paying a fee under 250 TL. 24% of them use the mobile phones which prices are between 251-500 TL. 44% of the students in the research group use the mobile phones which prices are between 501-1000 TL, and the remaining 22% use the mobile phones which are more expensive than 1000TL. These figures are thought provoking for a country where the minimum wage is 949,07 TL for 2015.

By the test method utilized to investigate the negative effects of smartphones on the students, it was concluded that there was a statistically significant difference between the weekly number of steps which were recorded before and after having been taken the mobile phone of the subjects. According to the results, the students using smartphone move less. According to Turkey Nutrition and Health Survey conducted by The Ministry of Health, inactivity rate of Turkey is 71.9. According to Chronic Diseases Risk Factors Survey conducted by the Ministry, 87% of women and 77% of men don't make enough physical activity (URL 7, access date: 05/01/15).

Dr. Murat Özışık who is Internal Medicine specialist in Acibadem Beylikdüzü Medical Center expresses the health problems induced of immobility. "Unless we move, we begin to gain weight. Many problems reveal in our metabolism when our weight increases. Our liver is fatten, insulin resistance and diabetes emerges. We are becoming more susceptible to hypertension, heart disease, also breast and colon cancer. The problem arises in joints carrying these extra weight. In social and business life our energy decreases. When we go to the shopping, our morale is upset by clothes don't fit upon us" (URL 8, access date: 05/01/15).

It can be expressed that smart type mobile phones restrict the mobility of youth and it may cause to hazardous health problems. For a non-obese future, the serious steps will need to be taken in this regard.

According to the results of the second test method, the successes of the students whose mobile phones were collected throughout the lesson are more than ones whose mobile phones were with them. It can be said that mobile phones have negative effects on the course motivation of students. The awareness of young people about the use of mobile phones, which have a negative impact on the success, should be increased. In this regard, the relevant authorities should take necessary steps in increasing awareness of young people with the right methods.

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ÖZET

Bu araştırmada, lise çağındaki genç kuşağın cep telefonu kullanma alışkanlıkları ve bu araçlara bağımlılığın ortaya konulması amaçlanmıştır. Saha araştırması için Körfez Mesleki ve Teknik Lisesinde okuyan 759 lise öğrencisi örneklem olarak seçilmiştir. Öğrencilerin cep telefonu kullanma alışkanlıklarına ilişkin veriler anket formu kullanılarak tarama yöntemiyle toplanmıştır. Cep telefonlarının öğrencilerin günlük aktivitelerine olan etkisinin saptanması için 30 kişilik gönüllü öğrencilerden oluşan gurubun cep telefonlu ve cep telefonsuz haftalık adım sayıları dijital adım ölçer ile takip edilmiştir. Cep telefonlarının öğrencilerin ders başarısına etkisinin belirlenmesi için yine 30 kişilik deney gurubu oluşturulmuştur. Deneklerin cep telefonlu ve cep telefonsuz işlenen dersler sonrasında ki test başarıları ölçülmüştür. Verilerin analizlerinde SPSS 18.0 programı kullanılmıştır. Deneysel yöntem için seçilmiş olan aynı bireylerin değişik durumlardaki ölçümleri arasında fark olup olmadığı test edileceği için Paired Samples t-Test kullanılmıştır. Anlamlılık düzeyi *P=0.05* olarak kabul edilmiştir. Saha araştırma sonuçlarına göre, öğrencilerin % 71'i akıllı tip cep telefonu kullanmaktadır. Bunların %59'unun internet kullanmaktadır. Öğrencilerin %50'si telefonlarına en geç 15 dk da bir eline alıp baktıklarını, %41'i ise cep telefonlarına en çok yarım saate bir baktıklarını ifade etmişlerdir. Deneysel yöntemle elde edilen sonuçlara göre, akıllı tip telefon kullanan öğrenciler, gün içerisinde daha az hareket etmektedirler. Derslerde öğrencilerin cep telefonları olmadığında ders başarısı yükseldiği tespit edilmiştir. 759 lise öğrencisi üzerinde yapılan araştırma sonuçlarına göre, öğrencilerin % 71'i akıllı tip cep telefonu kullanmaktadır. Bunların %59'u aynı zamanda mobil internet kullanmaktadır. Öğrencilerin %50'si telefonlarına en geç 15 dk da bir eline alıp baktıklarını, %41'i ise cep telefonlarına en çok yarım saate bir baktıklarını ifade etmişlerdir. Bu sonuçlara göre lise öğrencilerinin çoğunluğu cep telefonu bağımlısıdır. Öğrenciler projelerinde,

genç kuşakta ki internet bağımlılığının Türkçe'nin doğru kullanımına da engel olduğu, gereğinden fazla şekilde internete giren bireylerin beyin yorgunluğu yaşadıklarını da ifade etmektedirler. Proje kapsamında öğrenciler, akıllı tip cep telefonlarının öğrenciler üzerindeki olumsuz etkilerini ölçmeye yönelik deneysel yönteme başvurmuşlardır. Bu amaçla belirledikleri 30 kişilik öğrenci gurubunun günlük adım sayılarını dijital adım ölçerler ile takip edilmiştir. Deneysel yönteme ilişkin sonuçlara göre, akıllı tip telefon kullanan öğrenciler, gün içerisinde daha az hareket etmektedirler. Cep telefonları olmadığında ise öğrenciler gün içerisinde daha fazla hareket etmektedirler. Ayrıca projenin ilgi çeken diğer sonucu ise, ders anlatımı sırasında öğrencilerin cep telefonları toplandığında o dersteki anlama düzeyi de yükselmektedir. Öğrenciler, genç kuşağın cep telefonu bağımlılığı konusunda tehlike altında olduklarını ifade ederek anne ve babaların çocuklarının kullandıkları akıllı tip cep telefonu konusunda daha dikkatli olmaya davet etmektedir.

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