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# REACTIONS OF ADOLESCENTS IN THE FORMAL OPERATIONAL STAGE TO THE SMART SIGNS DEPENDING ON THE TV WATCHING HABITS: AN EMPIRICAL RESEARCH ON ANKARA-TURKEY SAMPLE

## FORMEL İŞLEMSEL DÖNEMDEKİ ADÖLESANLARIN TELEVİZYON SEYRETME ALIŞKANLIKLARINA İLİŞKİN AKILLI İŞARETLERE TEPKİLERİ: ANKARA TÜRKİYE ÖRNEKLEMİNDE AMPİRİK ÇALIŞMA

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**ABSTRACT**

Smart signs and their informative abstracts are utilized for warning audiences about the content and the possible negative consequences of TV programs all over the world. In the year of 2006, a similar application has been introduced in Turkey. The aim of this research is to evaluate the communication effectiveness of smart signs in Ankara-Turkey depending on the reactions of adolescents in the formal operational stage depending on the TV watching habits. According to that, a developed questionnaire was conducted to 384 students who are attending 6th, 7th and 8th grades of the public schools in Ankara by employed stratified sampling method. The results show that adolescents who watch TV daily more than six hours perceive the sign more luminous, attractive, interesting and useful whereas adolescents who watch TV daily lesser accept them unnecessary.

**Keywords:** Formal operational stage, smart signs, stratified sampling, communication effectiveness .

**ÖZET**

Akıllı işaretler ve onların bilgilendirici soyutlamaları, tüm dünyadaki TV programlarının içeriği ve olası olumsuz sonuçları ile ilgili uyarılar izleyiciler için kullanılmaktadır. 2006 yılında Türkiye'de de benzer bir uygulama yapılmıştır. Bu araştırmanın amacı, TV izleme alışkanlıklarına bağlı olarak formel işlemsel dönemdeki adölesanların tepkilerine bağlı olarak, akıllı işaretlerin Ankara-Türkiye'deki iletişim etkinliğini değerlendirmektir. Buna göre, Ankara'daki devlet okullarının 6., 7. ve 8. sınıflarına devam eden 384 öğrenciye, tabakalı örnekleme yöntemi kullanılarak anket uygulanmıştır. Sonuçlar, her gün altı saatten fazla TV izleyen ergenlerin daha aydınlık, çekici, ilginç ve kullanışlı bir işaret algıladıklarını, günlük TV izleyen gençlerin ise onları gereksiz kabul ettiğini göstermektedir.

**Keywords:** Formel işlemsel dönem, akıllı işaretler, tabakalı örnekleme, iletişim etkililiği.

## 1. INTRODUCTION

Voluminous amounts of social science research studied over the past few decades has claimed that media acts as an indispensable source of information for adolescents, conveying positive and negative messages about behaviors, morals, and standards (Arnett1992, Botta 2000, J. D. Brown, Steele and Walsh-Childers 2002, Comstock and Scharrer 1999, Dennis and Pease 2000, Durham, 2008; Kirsh, 2009; Lamb and Brown 2006, Villani 2001).

TV content rating system is a visual and/ or audial warning system, developed for protecting children and adolescents from harmful program contents such as sexuality, violence, and behaviors that may cause negative models (for example using bad language, smoking, alcohol consumption, gambling etc.). These warning systems also inform the audiences about appropriate age ranges of programs. Broadcast streaming of productions that may effect negatively some specific age groups are organized according to characteristics of audience groups (Öktem et al. 2006: 3). Therefore, these systems are accepted as advisory, preemptive systems instead of auditory, prohibitory ones.

This system found acceptance across the world: Argentina, Armenia, Australia, Brasilia, Cambodia, Canada, Chile, Colombia, Denmark, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Malaysia, Maldives, Mexico, Holland, New Zealand, Peru, Philippines, Poland, Portugal, Romania, Serbia, Singapore, Slovenia, North Africa, North Korea, Spain, Switzerland, Taiwan, Thailand, Turkey, Ukraine, England, United States, Venezuela and Yugoslavia. However they utilize different symbols and advisory messages (Wikipedia, 2013).

In the year of 2006, a similar application with the name of Smart Signs has been introduced in Turkey. The symbols and their abstracts are:

**Figure 1.** Smart Signs

| | |
|---|---|
|  | General Audiences |
|  | Appropriate for the age of 7 and above |
|  | Appropriate for the age of 13 and above |
|  | Appropriate for the age of 18 and above |
|  | Sexuality |
|  | Violence/ Horror |
|  | Behaviors that may cause negative models |

According to Piaget's theory of cognitive development, comprehending and interpreting of symbols like smart signs should start with age of 11. This theory is a comprehensive theory about the nature and development of human intelligence. In the formal operational stage, intelligence is demonstrated through the logical use of symbols related to abstract concepts (Huitt and Hummel, 2003). Parsons (1958: xiii) and Piaget (1963,1957:18) considered the formal operational stage as a combination of inductive or 'hypothetical reasoning based on a logic of all possible combinations' and deductive reasoning based on propositional logic. Formal operations are one type of psychological adaptation (Gray, 1990) they can reason abstractly, i.e., consider all possibilities, form hypotheses, deduce implications from hypotheses, and test them against reality (Kohlberg, 1975). Moreover specific distinctions among individuals may generally observe between the ages of 13 and 16 (Gesell, 1956).

Even though the effects of smart signs in Turkey is widely studied, this research has a distinctive significance because of its structure. Perception of symbols has a crucial role on interpreting the

communication messages. Before the formal operational stage, adolescents may fail to interpret the symbols but it does not indicate that this content rating system is unnecessary.

## 2. METHOD

### 2.1. Universe and Sample

Depending on the literature, research universe was chosen as adolescents who are attending 6th, 7th and 8th grades (between the age of 11 and 16) of the public schools in Ankara in the academic year of 2016-2017. There were 315 elementary schools in Ankara and sum of their students was equal to 209619 (http://www.meb.gov.tr/baglantilar/okullar/index.asp?ILADI=ANKARA&ILKODU=6).

According to that, the developed questionnaire is conducted to 384 students who are attending 6th, 7th and 8th grades in public schools in Ankara. Seven counties were chosen based on Stratified sampling method for the research. Table 1 presents the sample size data.

**Table 1.** School and Student Data of Ankara

| Counties | School number | Universe (Sum of students) | Weighted average | Sample (Sum of Students) |
|---|---|---|---|---|
| Akyurt | 5 | 1945 | .009 | 3.456 |
| Altındağ | 39 | 19940 | .095 | 36.48 |
| Ayaş | 4 | 568 | .002 | .768 |
| Bala | 7 | 696 | .003 | 1.152 |
| Çankaya | 45 | 29387 | .14 | 53.76 |
| Çubuk | 11 | 4800 | .023 | 8.832 |
| Elmadağ | 10 | 2816 | .013 | 4.992 |
| Etimesgut | 21 | 21284 | .102 | 39.168 |
| Gölbaşı | 14 | 3956 | .02 | 7.68 |
| Kalecik | 12 | 3575 | .017 | 6.528 |
| Kazan | 7 | 2737 | .014 | 5.376 |
| Keçiören | 41 | 41932 | .2 | 76.8 |
| Mamak | 30 | 18994 | .09 | 34.56 |
| Pursaklar | 12 | 8763 | .042 | 16.128 |
| Sincan | 27 | 24262 | .116 | 44.544 |
| Yenimahalle | 30 | 23964 | .114 | 43.776 |
| Total | 315 | 209619 | 1 | 384 |

According to Table 1, seven counties (Altındağ, Çankaya, Yenimahalle, Etimesgut, Keçiören, Mamak, and Sincan) were chosen for research. As having relatively fewer students, Akyurt, Ayaş, Bala, Çubuk, Elmadağ, Gölbaşı, Kalecik, Kazan, and Pursaklar dropped out of the research. Their sample sizes were added equally to the other counties' sample sizes.

## 2. RESEARCH MODEL

Hierarchy of effects model widely accepted as a basic framework for evaluating the perception of warnings (Stewart and Martin 1994: 4). The model suggests that audiences' reactions to any communication message occur as a three multiphase process. These phases are cognitive, affective, and conative reactions (Eagly 2007: 582-602, Egan 2007: 44, Haddock 2008: 115-116). Attention, awareness, comprehension are accepted as the cognitive reactions whereas interest, desire, persuasion, acceptance, preference are classified as affective reactions. Intention of action, action, and confirmation are identified as conative/ behavioral reactions.

In the research, attention, comprehension, interest, perceive as useful or unnecessary, consistency with the program content and effectiveness on program decision are preferred as variables related to effectiveness of communication.

## 3. DATA COLLECTION

Authors developed a questionnaire with 3 dimensions and 49 items. In the first dimension, demographic information such as gender, age, school, grade, education status of parents and status of

house freehold; in the second dimension, TV watching habits; in the third dimension, memory trace of smart signs and the reactions towards all signs (variables related to effectiveness of communication) are asked.

In order to measure the reliability of questionnaire, a pre-study is conducted to 100 students with the same age range of Sevgi Çiçeği elementary school in Gölbaşı, Ankara. The Cronbach's Alpha value is calculated as 0.95.

The data collection process ended with 397 paper-and-pencil questionnaires. Nevertheless, the number of null ones is 13. Therefore, the research was fulfilled with the enough number (384) of questionnaires.

## 4. LIMITATIONS

The sample was limited with the adolescents between the age of 11 and 16. By reason of having relatively smaller sample sizes, 9 counties are excluded from the research sample.

## 5. RESULTS

### 5.1. Demographic Characteristics of Adolescents

Table 2 shows demographics of the participants, which consist of 57.8 %female and 42.2 %, male. Participants were selected from 7 counties according to their school and student numbers. The distribution of the sample depending on the counties is appropriate to the research design. Considering the educational level, participantsin 6$^{th}$ grade are 32 %, participants in 7$^{th}$ grade are 33.9 %, and participants in 8$^{th}$ grade are 34.1 % of sample. The percentages of participants' age are similar with the grades' percentage despite there is only one student whose age is eleven. Minority of the participants' mothers (2.6 %) and father (1.3 %) are non-literate. Mothers who had elementary degree graduation 33.3 %, who had secondary degree graduation 33.6 %, and who had bachelor, master or doctoral degree graduation 26.3%. Fathers who had elementary degree graduation 19.0 %, who had secondary degree graduation 40.6 %, and who had bachelor, master or doctoral degree graduation 35.7 %. The highest percentages of participants (66.7 %) live in their own house, whereas the nearly rest of them (29.9 %) live in a rental house.

**Table 2.** Demographics of Participants

| (n=384) | | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 162 | 42.2 |
| | Female | 222 | 57.8 |
| | Total | 384 | 100.0 |
| Counties | Altindag | 45 | 11.7 |
| | Cankaya | 62 | 16.1 |
| | Yenimahalle | 45 | 11.7 |
| | Etimesgut | 48 | 12.5 |
| | Kecioren | 85 | 22.1 |
| | Mamak | 44 | 11.5 |
| | Sincan | 55 | 14.3 |
| | Total | 384 | 100.0 |
| Grade | 6. Grade | 123 | 32.0 |
| | 7. Grade | 130 | 33.9 |
| | 8. Grade | 131 | 34.1 |
| | Total | 384 | 100.0 |
| Age | 11.0 | 1 | .3 |
| | 12.0 | 109 | 28.4 |
| | 13.0 | 126 | 32.8 |
| | 14.0 | 134 | 34.9 |
| | 15.0 | 14 | 3.6 |
| | Total | 384 | 100.0 |

| | | | |
|---|---|---|---|
| Education Degree of Mother | Non-literate | 10 | 2.6 |
| | Literate | 16 | 4.2 |
| | Elementary School Degree | 128 | 33.3 |
| | Secondary School Degree | 129 | 33.6 |
| | University Degree | 101 | 26.3 |
| | Total | 384 | 100.0 |
| Education Degree of Father | Non-literate | 5 | 1.3 |
| | Literate | 13 | 3.4 |
| | Elementary School Degree | 73 | 19.0 |
| | Secondary School Degree | 156 | 40.6 |
| | University Degree | 137 | 35.7 |
| | Total | 384 | 100.0 |
| House Ownership | Rent | 115 | 29.9 |
| | Owner | 256 | 66.7 |
| | Quarter | 13 | 3.4 |
| | Total | 384 | 100.0 |

### 5.2. TV Watching Durations, Program Preferences and Indicated Annoying Scenes of Adolescents

Table 3 presents the TV watching durations and the program and movie preferences of participants. Majority of the sample (63.3 %) watch 1 to 3 hours TV daily. Only 4.4 % of participants watch TV more than 6 hours. Nearly the half of the participants prefers watching cinema (55.8 %) and TV series (61.2 %). The program kind, which is at least preferred, is magazine (12.2 %). Participants were also asked to add their program preference if its name was not stated in the questionnaire. There are 23 participants who additionally preferred educational, talk show, sexual, competition and discussion programs. Adventure (58.6 %), comedy (49.7 %) and horror (43.8 %) are the most preferable movie types. On the contrary, drama (9.6 %), criminal (14.3 %) and romance (17.2 %) are the least preferable movie types. Participants were asked to inform their movie preference if it was not stated in the questionnaire. There are 7 participants who prefer action, fantastic, and sexual movies.

**Table 3.** TV Watching Durations and Preferences of Participants

| (n=384) | | Frequency | Percentage |
|---|---|---|---|
| Daily TV Watching Duration | Less than 1 hour | 76 | 19.8 |
| | 1-3 Hours | 243 | 63.3 |
| | 4-6 Hours | 48 | 12.5 |
| | More than 6 hours | 17 | 4.4 |
| | Total | 384 | 100.0 |
| Program Preference/ Cinema | Not preferred | 170 | 44.3 |
| | Preferred | 214 | 55.8 |
| | Total | 384 | 100.0 |
| Program Preference/ Magazine | Not preferred | 337 | 87.8 |
| | Preferred | 47 | 12.2 |
| | Total | 384 | 100.0 |
| Program Preference/ News | Not preferred | 315 | 82.0 |
| | Preferred | 69 | 18.0 |
| | Total | 384 | 100.0 |
| Program Preference/ TV Series | Not preferred | 149 | 38.8 |
| | Preferred | 235 | 61.2 |
| | Total | 384 | 100.0 |
| Program Preference/ Documentary | Not preferred | 293 | 76.3 |
| | Preferred | 91 | 23.7 |
| | Total | 384 | 100.0 |
| Program Preference/ Sport | Not preferred | 294 | 76.6 |
| | Preferred | 90 | 23.4 |
| | Total | 384 | 100.0 |

| | | | |
|---|---|---|---|
| Movie Type Preference/ Cartoon-Animation | Not preferred | 309 | 80.5 |
| | Preferred | 75 | 19.5 |
| | Total | 384 | 100.0 |
| Movie Type Preference/ Romance | Not preferred | 318 | 82.8 |
| | Preferred | 66 | 17.2 |
| | Total | 384 | 100.0 |
| Movie Type Preference/ Adventure | Not preferred | 159 | 41.4 |
| | Preferred | 225 | 58.6 |
| | Total | 384 | 100.0 |
| Movie Type Preference/ Horror | Not preferred | 216 | 56.3 |
| | Preferred | 168 | 43.8 |
| | Total | 384 | 100.0 |
| Movie Type Preference/ Comedy | Not preferred | 193 | 50.3 |
| | Preferred | 191 | 49.7 |
| | Total | 384 | 100.0 |
| Movie Type Preference/ Criminal | Not preferred | 329 | 85.7 |
| | Preferred | 55 | 14.3 |
| | Total | 384 | 100.0 |
| Movie Type Preference/ Science-fiction | Not preferred | 305 | 79.4 |
| | Preferred | 79 | 20.6 |
| | Total | 384 | 100.0 |
| Movie Type Preference/ Drama | Not preferred | 347 | 90.4 |
| | Preferred | 37 | 9.6 |
| | Total | 384 | 100.0 |

Majority of the sample stated that nudity is the most annoying program content during watching TV (Table 4). Moreover, participants were asked to add programs that annoy them if it was not stated in the questionnaire. Four students figured that bad language and political issues also annoy them.

**Table 4.** Annoying Scene Content

| (n=384) | | Frequency | Percentage |
|---|---|---|---|
| Annoying Scene/ Nudity | Not annoyed | 65 | 16.9 |
| | Annoyed | 312 | 83.1 |
| | Total | 384 | 100.0 |
| Annoying Scene/ Violence | Not annoyed | 311 | 81.0 |
| | Annoyed | 73 | 19.0 |
| | Total | 384 | 100.0 |
| Annoying Scene/ War | Not annoyed | 329 | 85.7 |
| | Annoyed | 55 | 14.3 |
| | Total | 384 | 100.0 |
| Annoying Scene/ Scenes with negative emotions | Not annoyed | 332 | 86.5 |
| | Annoyed | 52 | 13.5 |
| | Total | 384 | 100.0 |
| Annoying Scene/ Horrified | Not annoyed | 304 | 79.2 |
| | Annoyed | 80 | 20.8 |
| | Total | 384 | 100.0 |

### 5.3 Memory Traces of Smart Signs

Recall level of smart signs were also tested and results show that there are meaningful relations between grades in terms of General Audiences and Sexuality signs ($C^2$ = 7.417, df = 2, p= .025; $C^2$ = 42.595, df = 2, p= .000) (Table 5). Memory trace of 6th grade students whose age range between 11 and 12, are the most blurred memory trace.

**Table 5.** Memory Trace of Smart Signs

| (n=384) | | | Frequency | Percentage |
|---|---|---|---|---|
| 6th Grade | General Audience | False | 11 | 8.9 |
| | | True | 112 | 91.1 |
| | | Total | 123 | 100.0 |
| 7th Grade | General Audience | False | 3 | 2.3 |
| | | True | 127 | 97.7 |
| | | Total | 130 | 100.0 |
| 8th Grade | General Audience | False | 4 | 3.0 |
| | | True | 127 | 97.0 |
| | | Total | 131 | 100.0 |
| 6th Grade | +7 | False | 3 | 2.4 |
| | | True | 120 | 97.8 |
| | | Total | 123 | 100.0 |
| 7th Grade | +7 | False | 2 | 1.5 |
| | | True | 128 | 98.5 |
| | | Total | 130 | 100.0 |
| 8th Grade | +7 | False | 2 | 1.5 |
| | | True | 129 | 98.5 |
| | | Total | 131 | 100.0 |
| 6th Grade | +13 | False | 5 | 4.0 |
| | | True | 118 | 96.0 |
| | | Total | 123 | 100.0 |
| 7th Grade | +13 | False | 2 | 1.5 |
| | | True | 128 | 98.5 |
| | | Total | 130 | 100.0 |
| 8th Grade | +13 | False | 2 | 1.5 |
| | | True | 129 | 98.5 |
| | | Total | 131 | 100.0 |
| 6th Grade | +18 | False | 5 | 4.0 |
| | | True | 118 | 96.0 |
| | | Total | 123 | 100.0 |
| 7th Grade | +18 | False | 2 | 1.5 |
| | | True | 128 | 98.5 |
| | | Total | 130 | 100.0 |
| 8th Grade | +18 | False | 3 | 2.2 |
| | | True | 128 | 97.8 |
| | | Total | 131 | 100.0 |
| 6th Grade | Sexuality | False | 70 | 56.9 |
| | | True | 53 | 43.1 |
| | | Total | 123 | 100.0 |
| 7th Grade | Sexuality | False | 46 | 35.3 |
| | | True | 84 | 64.7 |
| | | Total | 130 | 100.0 |
| 8th Grade | Sexuality | False | 23 | 17.55 |
| | | True | 108 | 82.45 |
| | | Total | 131 | 100.0 |
| 6th Grade | Violence/ Horror | False | 8 | 6.5 |
| | | True | 115 | 93.5 |
| | | Total | 123 | 100.0 |
| 7th Grade | Violence/ Horror | False | 5 | 3.8 |
| | | True | 125 | 96.2 |
| | | Total | 130 | 100.0 |
| 8th Grade | Violence/ Horror | False | 4 | 3.0 |
| | | True | 127 | 97.0 |
| | | Total | 131 | 100.0 |

| | | | | |
|---|---|---|---|---|
| 6th Grade | Behaviors that may cause negative models | False | 41 | 33.3 |
| | | True | 82 | 66.7 |
| | | Total | 123 | 100.0 |
| 7th Grade | Behaviors that may cause negative models | False | 30 | 23.0 |
| | | True | 100 | 77.0 |
| | | Total | 130 | 100.0 |
| 8th Grade | Behaviors that may cause negative models | False | 29 | 22.1 |
| | | True | 102 | 87.9 |
| | | Total | 131 | 100.0 |

### 5.4 Reactions of Adolescents towards Smart Signs depending on Daily TV Watching Durations

Before analyzing of adolescents' reactions towards smart signs, Kolmogorov Simirnof test was done and it was observed that none of the variable distributed normally. According to that Kruskal Wallis tests were applied to variables related to effectiveness of communication in terms of daily TV watching duration.

The results of daily TV watching duration comparison are given in Table 14. Within the context of +7, adolescents' useful differs among durations of daily TV watching. Adolescents who watch TV daily one hour to six hours found the sign more unnecessary compare to others.

Within the context of +13 sign, perception of cognizable, usefulness and auxiliary statistically differ. Adolescents who watch TV daily less than one hour found the sign more luminous whereas adolescents who watch TV daily more than six hours perceive the sign more useful. Moreover, adolescents who watch TV daily one to three hours accept the sign more unnecessary.

Within the context of violence and horror sign, perceptions of cognizable, attractiveness and inducing interest statistically differ. Adolescents who watch TV daily more than six hours perceive the sign more luminous, attractive and interesting.

Within the context of behaviors that may cause negative models sign, perceptions of cognizable and attractiveness differ. Adolescents who watch TV daily more than six hours perceive the sign more luminous and attractive.

**Table 14.** Adolescents' Reaction towards Smart Signs in terms of daily TV watching durations

| Smart Sign | Variable of Communication effectiveness | Independent Variable | N | Mean Rank | Chi square | df | p |
|---|---|---|---|---|---|---|---|
| **+7** | Unnecessary | - 1 hour | 76 | 206.42 | 10.354 | 3 | .016 |
| | | 1-3 hours | 243 | 184.63 | | | |
| | | 4- 6 hours | 48 | 185.21 | | | |
| | | + 6 hours | 17 | 263.32 | | | |
| | | Total | 384 | | | | |
| **+13** | Luminous | - 1 hour | 76 | 162.50 | 10.657 | 3 | .014 |
| | | 1-3 hours | 243 | 201.66 | | | |
| | | 4- 6 hours | 48 | 204.50 | | | |
| | | + 6 hours | 17 | 161.85 | | | |
| | | Total | 384 | | | | |
| | Useful | - 1 hour | 76 | 187.69 | 8.061 | 3 | .045 |
| | | 1-3 hours | 243 | 201.89 | | | |
| | | 4- 6 hours | 48 | 171.48 | | | |
| | | + 6 hours | 17 | 139.12 | | | |
| | | Total | 384 | | | | |
| | Unnecessary | - 1 hour | 76 | 214.75 | 10.967 | 3 | .012 |
| | | 1-3 hours | 243 | 182.62 | | | |
| | | 4- 6 hours | 48 | 185.90 | | | |
| | | + 6 hours | 17 | 252.97 | | | |
| | | Total | 384 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Violence and Horror** | Luminous | - 1 hour | 76 | 164.97 | 9.136 | 3 | .028 |
| | | 1-3 hours | 243 | 199.87 | | | |
| | | 4- 6 hours | 48 | 209.93 | | | |
| | | + 6 hours | 17 | 161.03 | | | |
| | | Total | 384 | | | | |
| | Attractive | - 1 hour | 76 | 182.05 | 7.812 | 3 | .050 |
| | | 1-3 hours | 243 | 201.15 | | | |
| | | 4- 6 hours | 48 | 186.22 | | | |
| | | + 6 hours | 17 | 133.38 | | | |
| | | Total | 384 | | | | |
| | Interesting | - 1 hour | 76 | 168.11 | 10.424 | 3 | .015 |
| | | 1-3 hours | 243 | 201.51 | | | |
| | | 4- 6 hours | 48 | 204.30 | | | |
| | | + 6 hours | 17 | 139.44 | | | |
| | | Total | 384 | | | | |
| **Behaviors that may cause negative models** | Luminous | - 1 hour | 76 | 159.86 | 14.584 | 3 | .002 |
| | | 1-3 hours | 243 | 204.89 | | | |
| | | 4- 6 hours | 48 | 200.51 | | | |
| | | + 6 hours | 17 | 138.74 | | | |
| | | Total | 384 | | | | |
| | Attractive | - 1 hour | 76 | 160.75 | 11.896 | 3 | .008 |
| | | 1-3 hours | 243 | 202.69 | | | |
| | | 4- 6 hours | 48 | 205.86 | | | |
| | | + 6 hours | 17 | 151.09 | | | |
| | | Total | 384 | | | | |

## 6. CONCLUSION

As a summary, majority of the adolescents (63.3 %) watch 1 to 3 hours TV daily. Only 4.4 % of the sample watch TV more than 6 hours. Nearly the half of the participants prefers watching cinema (55.8 %) and TV series (61.2 %). Memory trace of 6th grade students whose age range between 11 and 12, are the most blurred memory trace. Moreover, adolescents who watch TV daily relatively limited hours perceive smart signs more cognizable, usefulness, attractiveness and auxiliary. As daily TV watching duration increases, perception of usefulness falls.

In the literature, there are many supportive and complementary researches on the effects of daily TV watching duration of children or adolescents. According to Türkkent (2002), early-school age children initially prefer watching cartoons and animations in Turkey. Zimmermann and the colleagues (2004) indicated that there is a significant meaningful relation between daily TV watching and attention disorders in the early childhood. Allen (2001) added that children who has his/her own TV in the bedroom spend hours nearly five times more for watching TV than reading books or listening music or doing outside hobbies. According to Lowry and the others (2002), 42.8 % of high school students watch TV more than 2 hours whereas 13.9 % of them watch 5 hours at least daily, in USA. Vessey and the others (1998) suggested that ongoing violent-contented programs on TV cause insensitive behaviors towards committing violence and also lead children to perceive the world as a bad, wild and cruel place. Collins (2004) contributed that regular watching of sexual contented programs on TV triggers adolescents' sexual impulses in accordance with the program contents. In appropriate TV watching habits are found significantly related to sexuality, predisposition of using drugs, insensitivity towards violence, increasing in fear and aggressive based behaviors (Vessey et al. 1998).

Depending on the mentioned results, researchers recommend to Turkish parents monitoring their children's daily TV watching habits and to not hesitate limiting spending more time in front of the TV. Also, public authorities should encourage researches on the family attitudes towards children TV watching habits in a based on smart signs in Turkey.

## REFERENCES

Allen E (2001). TV under the tree? Time 156(26): 164.

Arnett, JJ (1992). The soundtrack of recklessness: Musical preferences and reckless behavior among adolescents. Journal of Adolescent Research, 7, 313–331.

Botta, R. A (2000). The mirror of television: A comparison of Black and White adolescents' body image. Journal of Communication, 50, 144–162.

Brown, J. D., Steele, J. R., & Walsh-Childers, K (Eds.). (2002). Sexual teens, sexual media: Investigating media's influence on adolescent sexuality. New York, NY: Routledge.

Collins R (2004). Watching sex on television predicts adolescent initiation of sexual behavior. Pediatrcs 144(39):280–289.

Comstock, G, & Scharrer, E (1999). Television: What's on, who's watching and what it means. New York, NY: Academic Press.

Dennis, E. E, & Pease, E. C (Eds.). (2000). Children and the media. New Brunswick, NJ: Transaction Publishers.

Durham, G. M (2008). The Lolita effect: The media sexualization of young girls and what we can do about it. New York, NY: Overlook Press.

Eagly, A., Chaiken, S (2007) The Advantages of an Inclusive Definition of Attitude, Social Cognition, 25, (5).

Egan, J (2007) Marketing Communications,Thomson Learning, London.

Gesell, A. and Ilg, F. L. and Ames, L. B (1956). Youth The Years From Ten To Sixteen, Harper and Brothers Pub., NewYork.

Gray, W. M (1990). Formal operational thought. Reasoning, necessity, and logic: Developmental perspectives, 227-253.

Haddock, G., Maio, G. R (2008) Attitudes: Content, Structure and Functions, Introduction to Social Psychology: A European Perspective, Ed: Hewstone, M., Stroebe, W., and Jonas, K., 4th Edition, Blackwell Publishing, Oxford, UK,115-117.

Huitt, W., & Hummel, J (2003). Piaget's theory of cognitive development. Educational Psychology Interactive. Valdosta, GA: Valdosta State University.

Kirsh, S. J (2009). Media and youth: A developmental perspective. Hoboken, NJ: Wiley-Blackwell.

Kohlberg, L (1975). The cognitive-developmental approach to moral education. Phi Delta Kappan, 670-677.

Lamb, S., & Brown, L. M (2006). Packaging girlhood: Rescuing our daughters from marketers' schemes. New York, NY: St. Martin's Press.

Lowry R, Wechsler H, Galuska A et al. (2002). Television viewing and its associations with overweight, sedentary lifestyle, and insufficient consumption of fruits and vegetables among us high school students: differences by race, ethnicity, and gender. Journal of School Health

72(10):413–421.

Öktem, F., Sayıl, M. ve Özen, Ç (2006). "Akıllı İşaretler Kodlama Kitapçığı", Ankara.

Stewart, D. W., & Martin, I. M (1994). Intended and unintended consequences of warning messages: A review and synthesis of empirical research. Journal of Public Policy & Marketing, 13(1), 1-19.

Türkkent, E (2012). Okul öncesi dönem çocuklarının televizyondan etkilenmeleri konusunda anne ve

öğretmen görüşleri. T.C. Mehmet Akif Ersoy Üniversitesi Eğitim Bilimleri Enstitüsü İlköğretim Anabilim dalı, Okul öncesi eğitimi programı, yayınlanmamış yüksek lisans tezi, Burdur.

Vessey J, Yim-Chiplis P, MacKenzie N (1998). Effects of television viewing on children's development. Pediatric Nursing 24(5): 483–486.

Villani, S (2001). Impact of media on children and adolescents: A 10-year review of the research. The American Academy of Child and Adolescent Psychiatry, 40(4), 392–401.

Wikipedia (2013). Television Rating Content Systems. Çevrimiçi: http://en.wikipedia.org/wiki/Television_content_rating_systems, Erişim: 05.08.2013.

Zimmerman F, Christakis D, DiGiuseppe D et al. (2004). Early television exposure and subsuquent attentional problems in childiren. Pediatrics 113(4):708–713.