Çankırı Karatekin Üniversitesi
İktisadi ve İdari Bilimler
Fakültesi Dergisi
Y. 2018 Cilt 8, Sayı 1, ss. 31-54

Cankırı Karatekin University
Journal of the Faculty of Economics
and Administrative Sciences
Y. 2018, Volume 8, Issue 1, pp. 31-54

Do TV Content Rating Systems Necessary for Protecting Adolescents? Adolescents' Perceptions and Parents' Attitudes Towards Smart Signs

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Abstract
In addition to TV content rating system applications, The Guide of American Academy of Pediatrics (AAP) recommends to parents monitoring their children while watching TV. The aim of this research is to analyze the attitudes of adolescents towards Smart Signs (Turkish TV content rating system) depending on their perceptions and their parents' attitudes. According to that, a questionnaire developed by the researcher was conducted to 384 students who are attending 6th, 7th and 8th grades (11-16 ages) of the public schools in the capital city of Turkey by using stratified sampling method. The results indicate that adolescents with better-educated mothers regard the signs as unnecessary, whereas adolescents with lower educated mothers perceive them as easily understandable, attention-grabbing, effective on program decision, useful and consistent with the program content. Moreover, there is no influential role of fathers' education level on adolescents' perception on Smart Signs.

Keywords: Adolescent; Cognitive Processing; Development; Policy; Media Effects
JEL Classification Codes: M380, M310

TV İçeriği Dereceleme Sistemleri Adölesanların Korunması İçin Gerekli mi? Adölesanların ve Ebeveynlerinin Akıllı İşaretlere Karşı Tutumu

Öz
Amerikan Pediatri Akademisi (AAP) Rehberi, TV içerik dereceleme sistemlerine ek olarak ebeveynlere, çocukları TV izlerken onları denetlemesini önermektedir. Bu araştırmanın amacı, Ankara'da yaşayan adölesanların Akıllı İşaretlere yönelik tutumlarını, ailelerinin tutumlarına ve kendi algılamalarına göre analiz etmektir. Buna göre, araştırmacılar tarafından geliştirilen anket, tabakalı örnekleme yöntemi baz alınarak, Ankara'daki devlet okullarında okuyan 384 öğrenciye uygulanmıştır. Sonuçlara göre, daha iyi eğitime sahip annesi olan çocuklar işaretleri gereksiz görürken; daha düşük seviyede eğitimi olan annelerin çocukları işaretleri çoğunlukla kolay anlaşılır, dikkat çekici, program seçiminde etkili, faydalı ve program içeriği ile ilişkili algılamaktadır. Ayrıca, babaların eğitim seviyesinin adölesanların Akıllı İşaretleri algılaması üzerinde hiç etkisi yoktur.

Anahtar Kelimeler: Adölesan, Bilişsel işleme, Gelişim, Yasa ve Politika, Medya Etkileri
JEL Sınıflandırma Kodları: M380, M310

Atıfta bulunmak için/Cite this paper:
Bozoklu, Ç. P. (2018). Do TV content rating systems necessary for protecting adolescents? adolescents' perceptions and parents' attitudes towards smart signs. *Çankırı Karatekin Üniversitesi İİBF Dergisi*. 8 (1), 31-54.

1. Introduction

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 create adverse examples (for example using bad language, smoking, alcohol consumption, gambling etc.). These warning systems also inform the audiences about appropriate age ranges of programs (Öktem, Sayıl and Özen 2006, p. 3). Therefore, these systems are accepted as advisory, preemptive systems instead of auditory, prohibitory ones.

This system is accepted 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.

In the year of 2006, Turkish government had introduced a similar application with the name of Smart Signs. The symbols and their explanations are presented in Table 1.

Table 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 create adverse examples

On the other hand, TV content rating systems have not been accepted sufficient for protecting children and adolescents from negative consequences of TV programs. There are many researches defending the crucial responsibility of parents about protecting their children from the harmful side effects of TV programs. The Guide of American Academy of Pediatrics (AAP) (2001) recommended that:

- Do not allow kids under 2 watching TV.
- Do not allow kids older than 2 watching TV more than 2 hours a day.
- Monitor your kid while watching TV.
- Push kindly your kids to take place in social activities instead of watching TV.

Perception and mental evaluation of symbols as smart signs may differ depending on age ranges of children. According to Piaget's theory of cognitive development, comprehending and interpreting of symbols like smart signs should start with age of 12. Newly acquired thought processes during the formal operational stage enable young people to hypothesize, to work out different solutions to problems, and to determine the outcomes of choices (Byrnes, 2005). 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). Inhelder and Piaget (1958, p. xiii) and Piaget (1953, 1957) 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). The above cognitive developments further assist teens in reevaluating parental and societal beliefs about politics, religion, morals, and ethics, helping them to generate new ideas about their social role as they progress into adulthood (Gilligan, 1982; Kohlberg, 1975).

Although there are numerous researches on TV watching habits and TV content rating systems (Kafu, 2017; Aubrey, Harrison, Kramer and Yellin 2003; Brown et al., 2006; Buerkel- Rothfuss and Strouse, 1993; Kunkel, Cope and Biely, 1999; Leone and Osborn, 2004; Cheng et al., 2004; Türkkent, 2002; Batmaz and Aksoy, 1995; Aral and Aktaş, 1997), this research has a distinctive significance because of its structure. Perception of symbols as warning messages has a crucial role on assessing the effectiveness of political implication. Before the formal operational stage, adolescents may fail to interpret the symbols but it does not indicate that

these applications are unnecessary. Therefore, the aim of this research is to analyze the attitudes of adolescents towards Smart Signs (Turkish TV content rating system) depending on their perceptions and their parents' attitudes.

3. Data and Methodology

According to Ministry of National Education (MNE) (2015), there were 315 elementary schools and sum of their students was equal to 209619. A questionnaire developed by the researcher is conducted to 384 students in 6th, 7th and 8th grades (between the age of 11 and 16). The provinces were chosen based on the stratified sampling method for the research. as can be seen in Table 2, seven provinces (Altındağ, Çankaya, Yenimahalle, Etimesgut, Keçiören, Mamak, and Sincan) were chosen. 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 provinces' sample sizes. Table 2 presents the sample size data.

Table 2: School and Student Data of Ankara

Provinces	School number	Universe (Sum of students)	Weighted average	Sample (Sum of Students)
Akyurt	5	1945	0.009	3.456
Altındağ	39	19940	0.095	36.480
Ayaş	4	568	0.002	0.768
Bala	7	696	0.003	1.152
Çankaya	45	29387	0.140	53.760
Çubuk	11	4800	0.023	8.832
Elmadağ	10	2816	0.013	4.992
Etimesgut	21	21284	0.102	39.168
Gölbaşı	14	3956	0.020	7.680
Kalecik	12	3575	0.017	6.528
Kazan	7	2737	0.014	5.376
Keçiören	41	41932	0.200	76.800
Mamak	30	18994	0.090	34.560
Pursaklar	12	8763	0.042	16.128
Sincan	27	24262	0.116	44.544
Yenimahalle	30	23964	0.114	43.776
Total	315	209619	1	384

Hierarchy of effects model is 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 and 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, perception as usefulness, consistency with the program content and effectiveness on program decision are preferred as independent variables related to general evaluation of symbols.

Researcher developed a questionnaire with 3 parts including 49 items. In the first part, demographic information such as gender, age, school, grade, education status of parents and status of house freehold; in the second part, TV watching habits; in the third part, memory trace of smart signs and the reactions towards all signs (independent variables related to effectiveness of communication) are included. Before starting the research, the permission statement from Ministry of National Education is received.

In order to measure the reliability of attitudinal reactions towards smart signs, a pre-study was conducted with 100 students of Sevgi Çiçeği elementary school in Gölbaşı, Ankara. The Cronbach's Alpha value was calculated as 0.95.

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

4. Estimations and Results

Results are classified in terms of statistical analysis methods. After the frequency analyses, Kolmogorov Smirnov test was done for analyzing adolescents' reactions towards smart signs and it was observed that none of the variables distributed normally. According to that, Kruskal Wallis tests were examined to analyze the perception of smart signs in terms of mother's education level, father's education level, status of house ownership, and parents' attitudes.

4.1. Frequencies of Adolescents' Demographics

Table 3 shows demographics of the participants, which consist of 57.8 % girls and 42.2 % boys. The distribution of the sample depending on the provinces was found appropriate to the research design. Considering the educational level, participants in 6th grade were 32 %, participants in 7th grade were 33.9 %, and participants in 8th grade were 34.1 % of sample. The percentages of participants' age were similar with the grades' percentages; despite there was only one student, whose age was eleven. Minority of the participants' mothers (2.6 %) and fathers (1.3 %) were illiterate. Mothers with elementary education were 33.3 %, with secondary education were 33.6 %, and with bachelor's, master's or doctoral

degree were 26.3 %. Fathers with elementary education were 19.0 %, with secondary education were 40.6 %, and with bachelor's, master's or doctoral degree were 35.7 %. The highest percentages of participants (66.7 %) were living in their own houses, whereas the nearly rest of them (29.9 %) were living in a rental house.

Table 3: Demographics of Adolescents

(n=384)		Frequency	Percentage
Gender	Male	162	42.2
	Female	222	57.8
	Total	384	100.0
Provinces	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	0.3
	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 Level of Mother	Illiterate	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 Level of Father	Illiterate	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

4.2. Frequencies of TV Watching Time and Permitted Programs of Adolescents

According to Table 4, majority of the sample (63.3 %) watch TV daily 1 to 3 hours. Only 4.4 % of participants watch TV more than 6 hours.

Table 4: TV Watching Time of Adolescents

(n=384)		Frequency	Percentage
Watching TV Time Daily	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

Moreover, horror (40.9 %) movies, news (39 %) and romance movies (24.2 %) were the most unpermitted program and movie types. Participants were asked to add programs and movie types that do not permitted by their parents if it was not stated in the questionnaire. Eight students stated that their parents did not allow watching programs with sexual content.

4.3. Frequencies of Parents' Attitudes towards Smart Signs

The concept of parents' attitude was evaluated with 3 items:

- My parents and I decide TV programs that I shall watch together.
- How often your parents choose the programs depending on smart signs?
- Have your parents ever informed you about smart signs?

Table 5 presents the parents' attitudes towards smart signs depending on three relevant issues. Nearly the half of the parents (53.6 %) barely had intervened in program decision and most of them (48.2 %) barely had paid attention on smart signs during watching TV. On the other hand, 41.1 % of them often informed the participants about smart signs.

Table 5: Parents' Attitudes towards Smart Signs

(n=384)		Frequency	Percentage
My parents and I altogether decide TV programs that I shall watch.	Often	127	33.1
	Barely	206	53.6
	Never	51	13.3
	Total	384	100.0
How often your parents choose the programs depending on smart signs?	Often	158	41.1
	Barely	185	48.2
	Never	41	10.7
	Total	384	100.0
Have your parents ever informed you about smart signs?	Often	158	41.1
	Barely	125	32.6
	Do not remember	101	26.3
	Total	384	100.0

4.4 Analyze of Adolescents' Perception on Smart Signs in terms of Level of Mother's and Father's Educations

The comparison results in terms of mothers' education level are given in Table 6. Within the context of general audiences sign, adolescents whose mothers mostly with lower level of education (elementary graduation) found the sign more attention-grabbing, interesting and consistent with the program content; whereas adolescents whose mothers with a higher level of education (secondary graduation, bachelor's, master's or doctoral degree) perceived them unnecessary.

Within the context of +7 signs, adolescents whose mothers had elementary degree and whose were only literate found the sign respectively more effective on program decision and consistent with the program content compare to the others.

Within the context of +13 signs, adolescents whose mothers with lower level of education (literate,) found the sign more effective on program decision; whereas adolescents whose mothers with a higher level of education (bachelor's, master's or doctoral degree) perceived them unnecessary.

Within the context of violence and horror sign, adolescents whose mothers with elementary graduation perceived the sign more effective on program decision than adolescents whose mothers are illiterate.

Within the context of behaviors that may create adverse examples sign, adolescents whose mothers with relatively lower level of education (illiterate) than mothers either had bachelor's, master's or doctoral degree identified the sign more attention-grabbing and interesting.

Surprisingly, no statistical difference was found for level of father's education. It may interpret as mothers have more crucial role on monitoring their children during TV program decisions, than fathers.

Table 6: Adolescents' Perception on Smart Signs in terms of Mother's Education Level

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
General Audiences	Attention-grabbing	Illiterate	10	198.00	9.696	4	.046
		Literate	16	192.38			
		Elementary	128	215.39			
		Secondary	129	174.58			
		University or Higher	101	185.85			
		Total	384				
	Interesting	Illiterate	10	198.00	14.547	4	.006
		Literate	16	192.38			
		Elementary	128	215.39			
		Secondary	129	174.58			
		University or Higher	101	185.85			
		Total	384				
	Unnecessary	Illiterate	10	197.85	12.484	4	.014
		Literate	16	204.50			
		Elementary	128	166.39			
		Secondary	129	200.99			
		University or Higher	101	212.32			
		Total	384				
	Consistent with the program content	Illiterate	10	180.40	9.686	4	.046
		Literate	16	186.53			
		Elementary	128	215.95			
		Secondary	129	183.42			
		University or Higher	101	176.53			
		Total	384				
+7	Effective on program decision	Illiterate	10	130.85	12.501	4	.014
		Literate	16	166.69			
		Elementary	128	217.11			
		Secondary	129	183.76			
		University or Higher	101	182.66			
		Total	384				
	Consistent with the program content	Illiterate	10	167.40	15.006	4	.005
		Literate	16	234.47			
		Elementary	128	217.21			
		Secondary	129	174.09			
		University or Higher	101	180.54			
		Total	384				

Table 6: Adolescents' Perception on Smart Signs in terms of Mother's Education Level (Continues)

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
+13	Effective on program decision	Illiterate	10	222.50	10.338	4	.035
		Literate	16	227.84			
		Elementary	128	207.29			
		Secondary	129	188.08			
		University or Higher	101	170.83			
		Total	384				
	Unnecessary	Illiterate	10	160.40	11.219	4	.024
		Literate	16	210.94			
		Elementary	128	171.13			
		Secondary	129	196.01			
		University or Higher	101	215.35			
		Total	384				
Violence and Horror	Effective on program decision	Illiterate	10	149.75	9.628	4	.047
		Literate	16	171.03			
		Elementary	128	206.87			
		Secondary	129	201.43			
		University or Higher	101	170.51			
		Total	384				
Behaviors that may create adverse examples	Attention-grabbing	Illiterate	10	234.75	11.580	4	.021
		Literate	16	203.69			
		Elementary	128	200.02			
		Secondary	129	203.98			
		University or Higher	101	162.36			
		Total	384				
	Interesting	Illiterate	10	234.25	9.581	4	.048
		Literate	16	228.16			
		Elementary	128	199.22			
		Secondary	129	197.99			
		University or Higher	101	167.19			
		Total	384				

4.5 Analyze of Adolescents' Perception on Smart Signs in terms of Parents' Attitudes

The comparison results of parents' attitudes are given in Table 7, Table 8 and Table 9. The first item of parents' attitudes dimension was 'My parents and I decide TV programs that I shall watch together'. In this perspective, meaningful differences were calculated for all signs (Table 7).

Table 7: Adolescents' Perception on Smart Signs in terms of Parents' Intervention in Program Decision

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
General Audiences	Easily understandable	Often	127	197.32	10.506	2	.005
		Barely	206	200.13			
		Never	51	149.67			
		Total	384				
	Effective on program decision	Often	127	221.51	24.429	2	.000
		Barely	206	189.21			
		Never	51	133.54			
		Total	384				
	Useful	Often	127	211.06	13.555	2	.001
		Barely	206	192.61			
		Never	51	145.85			
		Total	384				
	Unnecessary	Often	127	181.27	8.363	2	.015
		Barely	206	189.89			
		Never	51	231.00			
		Total	384				
+7	Interesting	Often	127	204.20	6.167	2	.046
		Barely	206	193.35			
		Never	51	159.93			
		Total	384				
	Effective on program decision	Often	127	211.89	13.075	2	.001
		Barely	206	191.76			
		Never	51	147.21			
		Total	384				
	Useful	Often	127	213.81	12.562	2	.002
		Barely	206	189.41			
		Never	51	151.89			
		Total	384				
	Unnecessary	Often	127	175.41	10.439	2	.005
		Barely	206	193.15			
		Never	51	232.44			
		Total	384				
	Consistent with the program content	Often	127	215.36	8.856	2	.012
		Barely	206	179.95			
		Never	51	186.28			
		Total	384				
+13	Effective on program decision	Often	127	213.40	10.131	2	.006
		Barely	206	187.94			
		Never	51	158.88			
		Total	384				

Table 7: Adolescents' Perception on Smart Signs in terms of Parents' Intervention in Program Decision (Continues)

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
+18	Effective on program decision	Often	127	218.63	13.461	2	.001
		Barely	206	184.52			
		Never	51	159.67			
		Total	384				
	Consistent with the program content	Often	127	209.07	8.495	2	.014
		Barely	206	177.79			
		Never	51	210.65			
		Total	384				
Sexuality	Effective on program decision	Often	127	214.50	12.216	2	.002
		Barely	206	188.40			
		Never	51	154.26			
		Total	384				
	Useful	Often	127	214.50	6.037	2	.049
		Barely	206	188.40			
		Never	51	154.26			
		Total	384				
Violence and Horror	Effective on program decision	Often	127	212.71	9.913	2	.007
		Barely	206	188.48			
		Never	51	158.40			
		Total	384				
Behaviors that may create adverse examples	Effective on program decision	Often	127	214.25	10.187	2	.006
		Barely	206	187.08			
		Never	51	160.25			
		Total	384				
	Unnecessary	Often	127	195.71	8.076	2	.018
		Barely	206	181.54			
		Never	51	228.78			
		Total	384				

Within the context of general audiences sign, adolescents whose parents had often and barely intervened in their program decision found the sign more easily understandable, effective and useful, whereas adolescents whose parents had never intervened in their program decision accepted the sign unnecessary.

Within the context of +7 sign, adolescents whose parents had often intervened in their program decision perceived the sign quite interesting, effective on program decision and useful whereas adolescents whose parents had never intervened in their program decision realized the sign unnecessary. Also, adolescents whose parents had often intervened in their program decision identified the sign more consistent with the program content.

Within the context of +13 sign, adolescents whose parents had often intervened in their program decision found the sign more effective on program decision.

Within the context of +18 sign, adolescents whose parents had often intervened in their program decision identified the sign more effective on program decision and also adolescents whose parents had never intervened in their program decision accepted the sign more consistent with the program content.

Within the context of sexuality sign, adolescents whose parents had often intervened in their program decision realized the sign more effective on program decision and useful.

Within the context of violence and horror sign, adolescents whose parents had often intervened in their program decision found the sign more effective on program decision.

Within the context of behaviors that may create adverse examples sign, adolescents whose parents had often and barely intervened in their program decision accepted the sign quite effective on program decision whereas adolescents whose parents had never intervened in their program decision perceived the sign rather unnecessary.

The second item of parents' attitudes dimension was 'How often your parents choose the programs depending on smart signs'. In this perspective, meaningful differences were calculated for all signs (Table 8).

Within the context of general audiences sign, adolescents whose parents had often paid attention to smart signs perceived the sign more easily understandable, attention-grabbing, effective, useful and consistent with the program content whereas adolescents whose parents had never paid attention to smart signs identified the sign as unnecessary.

Within the context of +7 sign, adolescents whose parents had often paid attention to the signs realized it more attention grabbing, interesting and effective on program decision compare to adolescents whose parents had barely or never paid attention to the signs.

Within the context of +13 sign, adolescents whose parents had often paid attention to the signs perceived the sign more easily understandable, attention grabbing, effective, useful and consistent with the program content. Also, adolescents whose parents had barely and never paid attention to the signs accepted the sign quite effective on program decision and useful.

Within the context of +18 sign, adolescents whose parents had often paid attention to the signs on program decision realized the sign quite effective on program decision and consistent with the program content compare to the others.

Within the context of sexuality sign, adolescents whose parents had often paid attention to the signs on program decision found the sign more effective on program decision than the others.

Within the context of violence and horror sign, adolescents whose parents had often paid attention to the signs on program decision accepted them more attention grabbing and effective on program decision. On the other hand, adolescents whose parents had never paid attention to the signs on program decision perceive them more interesting.

Within the context of behaviors that may create adverse examples sign, adolescents whose parents had often paid attention perceived the sign more easily understandable, effective on program decision and consistent with the program content.

Table 8: Adolescents' Perception on Smart Signs in terms of Parents' Attention to The Smart Signs on Program Decision

Smart Sign	Variable	Independent Variable		n	Mean Rank	Chi square	df	p
General Audiences	Easily understandable	Often		158	209.54	7.748	2	.021
		Barely		185	179.17			
		Never		41	186.96			
			Total	384				
	Attention-grabbing	Often		158	210.75	7.801	2	.020
		Barely		185	181.04			
		Never		41	173.87			
			Total	384				
	Effective on program decision	Often		158	225.58	25.257	2	.000
		Barely		185	167.86			
		Never		41	176.21			
			Total	384				
	Useful	Often		158	214.97	12.407	2	.002
		Barely		185	174.36			
		Never		41	187.77			
			Total	384				
	Unnecessary	Often		158	170.24	14.397	2	.001
		Barely		185	202.91			
		Never		41	231.30			
			Total	384				
	Consistent with the program content	Often		158	207.56	6.961	2	.031
		Barely		185	177.85			
		Never		41	200.54			
			Total	384				

Table 8: Adolescents' Perception on Smart Signs in terms of Parents' Attention to The Smart Signs on Program Decision (Continues)

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
+7	Attention-grabbing	Often	158	214.95	11.681	2	.003
		Barely	185	177.23			
		Never	41	174.89			
		Total	384				
	Interesting	Often	158	210.08	7.148	2	.028
		Barely	185	180.01			
		Never	41	181.10			
		Total	384				
	Effective on program decision	Often	158	219.93	17.475	2	.000
		Barely	185	174.64			
		Never	41	167.35			
		Total	384				
+13	Easily understandable	Often	158	208.78	6.905	2	.032
		Barely	185	180.04			
		Never	41	186.01			
		Total	384				
	Attention-grabbing	Often	158	208.36	5.869	2	.053
		Barely	185	181.42			
		Never	41	181.38			
		Total	384				
	Effective on program decision	Often	158	228.79	31.779	2	.000
		Barely	185	170.93			
		Never	41	150.00			
		Total	384				
	Useful	Often	158	216.28	14.440	2	.001
		Barely	185	179.66			
		Never	41	158.83			
		Total	384				
	Consistent with the program content	Often	158	220.61	20.219	2	.000
		Barely	185	168.70			
		Never	41	191.55			
		Total	384				
+18	Effective on program decision	Often	158	223.11	22.979	2	.000
		Barely	185	167.58			
		Never	41	187.00			
		Total	384				
	Consistent with the program content	Often	158	210.48	9.025	2	.011
		Barely	185	176.04			
		Never	41	197.49			
		Total	384				
Sexuality	Effective on program decision	Often	158	210.48	9.060	2	.011
		Barely	185	175.89			
		Never	41	198.15			
		Total	384				

Table 8: Adolescents' Perception on Smart Signs in terms of Parents' Attention to The Smart Signs on Program Decision (Continues)

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
Violence and Horror	Attention-grabbing	Often	158	208.63	9.427	2	.009
		Barely	185	175.28			
		Never	41	208.05			
		Total	384				
	Interesting	Often	158	205.95	6.631	2	.036
		Barely	185	177.91			
		Never	41	206.52			
		Total	384				
	Effective on program decision	Often	158	226.67	27.218	2	.000
		Barely	185	167.68			
		Never	41	172.80			
		Total	384				
Behaviors that may create adverse examples	Easily understandable	Often	158	216.28	13.228	2	.001
		Barely	185	174.19			
		Never	41	183.49			
		Total	384				
	Effective on program decision	Often	158	222.21	20.248	2	.000
		Barely	185	171.52			
		Never	41	172.67			
		Total	384				
	Consistent with the program content	Often	158	211.46	8.744	2	.013
		Barely	185	177.16			
		Never	41	188.62			
		Total	384				

The last item of parents' attitudes dimension was 'Have your parents ever informed you about smart signs'. In the perspective of this item, meaningful differences were calculated for all signs (Table 9).

Within the context of general audiences sign, adolescents whose parents had often informed them found the sign more easily understandable, attention grabbing, effective on program decision and useful; whereas adolescents whose parents had never informed them about smart signs realized the sign unnecessary.

Within the context of +7 sign, adolescents whose parents had often informed them perceived the sign more easily understandable, attention grabbing, effective on program decision and useful.

Within the context of +13 sign, adolescents whose parents had often informed them found the sign more easily understandable, attention grabbing, effective on program decision and useful. On the other hand, adolescents whose parents had barely informed them about smart signs realized the sign more consistent with the program content.

Within the context of +18 sign, adolescents whose parents had often informed them found the sign more easily understandable, effective on program decision and useful.

Within the context of sexuality sign, adolescents whose parents had often informed them realized the sign more effective on program decision than adolescents whose parents had never informed them.

Within the context of violence and horror sign, adolescents whose parents had often informed them identified the sign more effective, whereas adolescents whose parents had barely informed them about smart signs perceived the sign more unnecessary.

Within the context of behaviors that may create adverse examples sign, adolescents whose parents had often informed them realized the sign quite easily understandable, effective on program decision, useful and consistent with the program. On the opposite, adolescents whose parents had never informed them about smart signs accepted the sign rather unnecessary.

Table 10: Adolescents' Perception on Smart Signs in terms of Briefing about Smart Signs by Parents

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
General Audiences	Easily understandable	Often	158	210.43	8.539	2	.014
		Barely	125	182.54			
		Never	101	176.77			
		Total	384				
	Attention-grabbing	Often	158	213.50	10.429	2	.005
		Barely	125	174.29			
		Never	101	182.19			
		Total	384				
	Effective on program decision	Often	158	216.76	13.577	2	.001
		Barely	125	177.58			
		Never	101	173.01			
		Total	384				
	Useful	Often	158	224.27	23.866	2	.000
		Barely	125	172.60			
		Never	101	167.44			
		Total	384				
	Unnecessary	Often	158	165.18	18.178	2	.000
		Barely	125	209.04			
		Never	101	214.77			
		Total	384				

Table 10: Adolescents' Perception on Smart Signs in terms of Briefing about Smart Signs by Parents (Continues)

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
+7	Easily understandable	Often	158	209.09	8.964	2	.011
		Barely	125	188.60			
		Never	101	171.36			
		Total	384				
	Attention-grabbing	Often	158	210.49	7.623	2	.022
		Barely	125	177.61			
		Never	101	182.78			
		Total	384				
	Effective on program decision	Often	158	212.98	10.226	2	.006
		Barely	125	183.08			
		Never	101	172.13			
		Total	384				
	Useful	Often	158	212.64	9.828	2	.007
		Barely	125	182.00			
		Never	101	173.99			
		Total	384				
+13	Easily understandable	Often	158	212.78	10.555	2	.005
		Barely	125	177.51			
		Never	101	179.33			
		Total	384				
	Attention-grabbing	Often	158	214.66	11.631	2	.003
		Barely	125	179.64			
		Never	101	173.75			
		Total	384				
	Interesting	Often	158	214.15	10.843	2	.004
		Barely	125	178.52			
		Never	101	175.94			
		Total	384				
	Effective on program decision	Often	158	220.40	20.537	2	.000
		Barely	125	183.19			
		Never	101	160.39			
		Total	384				
	Useful	Often	158	215.69	12.610	2	.002
		Barely	125	174.53			
		Never	101	178.46			
		Total	384				
	Consistent with the program content	Often	158	179.47	7.577	2	.023
		Barely	125	207.41			
		Never	101	194.43			
		Total	384				

Table 10: Adolescents' Perception on Smart Signs in terms of Briefing about Smart Signs by Parents (Continues)

Smart Sign	Variable	Independent Variable	n	Mean Rank	Chi square	df	p
+18	Easily understandable	Often	158	210.42	8.629	2	.013
		Barely	125	175.26			
		Never	101	185.80			
		Total	384				
	Effective on program decision	Often	158	217.96	18.794	2	.000
		Barely	125	186.97			
		Never	101	159.52			
		Total	384				
	Useful	Often	158	209.57	6.813	2	.033
		Barely	125	181.95			
		Never	101	178.86			
		Total	384				
Sexuality	Effective on program decision	Often	158	216.36	13.614	2	.001
		Barely	125	178.87			
		Never	101	172.04			
		Total	384				
Violence and Horror	Effective on program decision	Often	158	221.87	20.465	2	.000
		Barely	125	176.12			
		Never	101	166.83			
		Total	384				
	Unnecessary	Often	158	180.70	6.080	2	.048
		Barely	125	211.37			
		Never	101	187.61			
		Total	384				
Behaviors that may create adverse examples	Easily understandable	Often	158	208.86	6.246	2	.044
		Barely	125	179.00			
		Never	101	183.62			
		Total	384				
	Effective on program decision	Often	158	224.24	23.434	2	.000
		Barely	125	173.95			
		Never	101	165.80			
		Total	384				
	Useful	Often	158	216.44	13.562	2	.001
		Barely	125	171.56			
		Never	101	180.97			
		Total	384				
	Unnecessary	Often	158	173.08	9.435	2	.009
		Barely	125	200.86			
		Never	101	212.53			
		Total	384				
	Consistent with the program content	Often	158	209.49	6.761	2	.034
		Barely	125	179.26			
		Never	101	182.30			
		Total	384				

5. Conclusions

The findings illustrated that majority of the sample (63.3 %) was watching daily 1 to 3 hours TV. Only 4.4 % of participants were watching TV more than 6 hours. Horror (40.9 %) movies, news (39 %) and romance movies (24.2 %) were the most unpermitted programs. Moreover, nearly half of the parents (53.6 %) had barely intervened in program decision and most of them (48.2 %) had barely paid attention on smart signs during watching TV. On the other hand, 41.1 % of them had often informed the participants about smart signs.

Mostly, adolescents who have better-educated mothers regard the sign more unnecessary, whereas adolescents who have lower-educated mothers perceived them easily understandable, attention-grabbing, effective on program decision, useful and consistent with the program content. Mothers with a better education level, maybe have a tendency to rely on that their children can take care of their selves in order to they are responsible and high self-monitor person. Also, they may believe that they have already taught to their children taking the high road. On the other hand, mothers with a lower education level, may spend their daily time at home for taking care of their children and fulfilling the housework. They may have a tendency that they have to monitor their children's TV watching habits. Surprisingly, no statistical difference was found for level of father's education. The reason of this result may demonstrate the importance and the power of mothers' role and authority on their children in Turkish culture.

Therefore, it is assumed that smart signs application has a more crucial role on protecting adolescents who have better-educated mothers. Because they are usually alone in front of TV and they are more vulnerable to the cause of harmful TV contents. These kinds of governmental applications target to cover majority of the society, however results show that smart signs failed attract attention of adolescents with better-educated mothers. It should not be ignored that attention is the first stage of most communication models. So, symbols should be redesigned and/or colored as to attract also their attention.

Within the context of parents' attitudes comparisons, adolescents whose parents had often and barely intervened in their program decision, and had often paid attention to smart signs, and often informed them about smart signs perceived the signs more easily understandable, attention grabbing, effective on program decision and useful than the others. On the other side, adolescents whose parents had never or barely intervened in their program decision, pay attention to smart signs, and informed them about smart signs perceived the signs more unnecessary. Briefly; parents who were more responsible on monitoring their children's TV watching time had a positive attitude towards smart sign application, whereas parents who had no willing to monitor their children's TV watching time had a negative attitude.

This result arises an insight that children may copy the reactions of their parents without internalizing general evaluations about phenomenons. Parents' attitudes and ideas may be shape or manipulate children's attitudes even without a direct interference. If parents have a negative attitude towards usefulness of smart signs, firstly these perceptions should be transformed. Communication effectiveness of Smart Signs may be failed again even they have redesigned depending on the requirements of adolescents with better-educated mothers by the reason of ongoing negative attitude of parents. Therefore, specialists should focus on both parents' and their children's preferences while redesigning symbols.

Previous supportive and complementary researches state that parents' attitudes towards TV and their children have a crucial role on adolescents' TV watching habits. Kafu (2017) provided an overview including parents' understanding of TV content ratings and the factors that influence parents' understanding of these ratings, Numerous studies have reported media effects on teens' beliefs about sexuality (Aubrey et al., 2003; Brown et al., 2006; Buerkel- Rothfuss and Strouse, 1993). Kunkel, Cope and Biely (1999) stated that about 70% of recent television programs contain some verbal or behavioral sexual content meanwhile, 67% of television programs that are popular with teenagers contain frequent talk about sex. A study carried out by Leone and Osborn (2004) indicated an increase in sexual content on TV from 2000-2003. Cheng and the others (2004) found some interesting findings about parents' attitudes towards violence on TV. Also, Türkkent (2002) maintain complementary findings on TV watching habits of Turkish parents and their children. According to Batmaz and Aksoy (1995), 82 % of the parents presented that children make the channel and program decisions by their selves, parents do not intervene that kind of decisions. Aral and Aktaş (1997, 103) yielded that parents' social, cultural and economic characteristics still effect the children's TV watching habits. Advancements of socio-economic and cultural levels of parents heighten their expectations from pedagogical developments of children. Nevertheless, anyone of these researches analyzes the communication effectiveness of symbols according to parents' attitudes of adolescents.

This research maintains contributions to improve current governmental application, which aims to protect all children from harmful TV contents, depending on communication models in the literature. On the other hand, this research cannot be generalized in due to its limited sample. Researcher recommends that future researches that focus on more detailed socio-economic and TV watching habits of parents and their children in Turkey should be carried. Also, alternative symbol designs can be created and be assessed with a sample, which consists of both well-educated mothers and their children. Therefore, effectiveness of smart sign application may be assessed more comprehensively and may be advanced in accordance with specific needs of vulnerable adolescents.

Acknowledgements

Researcher wants to thank Dr. Aybige Demirci for her valuable contributions during data gathering process.

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