

## How Much Do Children Interpret Television and Animated Film Contents?\*

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### Abstract

Animated films have an undeniable place in children's entertainment culture. The worldwide box office revenues indicate that these films reached many children in cinemas and were viewed on televisions by almost all children. The extent to which children can make sense of such content is still a question mark in minds. This study aims to demonstrate how children can interpret the animated film and the content of television they watch in general. The research was carried out by a mixed-method using both qualitative and quantitative methods. The study group consisted of 210 children between the ages of 4-10. An average of 30 children was included in each age group. In this way, it is aimed to examine the change in the level of interpretation of the animated film and television content by children in each age group as age increases. In the research, a film (Toy Story 3) was selected and the realism of the characters, values and events in its content was examined through content analysis. Besides, a structured interview form consisting of values and reality section regarding the content viewed on TV has been developed. The children were allowed to watch the animated film and they were interviewed about the viewed content and relevant data was collected. As a result of the research, it was found that children in 4 and 5 age groups differed significantly from the children in 6, 7, 8, 9, and 10 age groups in good-bad distinction, meaning and reality in the animated film. The same was found to be true for value and reality on television.

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## INTRODUCTION

In recent years, the media has been covering a very large period in children's lives. Media affects children's lives with many tools such as television, cinema, children's magazines and computer games. The media tool that children often face on television. Television offers cartoons and children's programs as the most common content (RTÜK, 2006a). Cartoons are full of a lot of concepts and patterns. Cartoons include violence, comedy, horror, role models, heroes, friendship, truth, fantasy as well as some other values such as good-bad, right-wrong, honesty-dishonesty. It is a fact that it is not appropriate to include such content in children's magazines, computer games, comic books, cartoons, fairy tales, children's theatres, programmes and series aiming at children on television in entertainment culture. Among those tools, television, computer games, and comics contain violence in their content (American Psychiatric Association, 2005), but especially violent computer games can increase aggression (Carnagey et al., 2007; Walsh and Gentile, 2001). Advances in technology have facilitated access to violent entertainment. In making violent entertainment more accessible to children, the introduction of television has been a critical turning point. Children imitate the violent behaviour they see on television (Felson, 1996). In addition, the attitudes and ideas of young audiences, who are still exposed to negative media messages at a young age, are affected badly (Klein and Shiffman, 2006a).

Cultivation theory suggests that people develop beliefs, attitudes and expectations about the real world based on what they see on television, movies, magazines, and other media organs. Moreover, people use these beliefs, attitudes, and expectations to make decisions in real-life conditions (Klein and Shiffman, 2009). The intense effects of media such as television, radio, music, computers, movies, videos and the internet are increasingly being felt in the social environment of children and young people. Today, children use electronic media between 2 and 5 hours daily (National Research Council and Institute of Medicine, 2006). Visual media has a very important role in creating social environments and role models (RTÜK, 2005). Cartoons are of great importance as they contain explicit and implicit messages among child-oriented media tool, and children are heavily engaged in them. On the other hand, as a result of the high box office revenues, animation has redefined the sectoral indicators of economic success and secured its position in the entertainment industry (Gürel and Alem, 2010). The ever-increasing effect of the animation is undoubtedly seen on children as well. The extent to which children are influenced by cartoons and animated films is still a question mark. The direction of this effect (positive or negative) is also unknown. The literature on how children behave when they are watching cartoons and to what extent they can understand them remains very limited. However, the research on the indirect consequences of the interpretation of the content watched by children is increasing.

This research focuses not only on how children interpret the content they are watching but also on how media content can be used in different areas and how useful they can be. Michel et al. (2007) tried to reveal how much and what kind of information children can remember from educational films that they watch. In the study which was conducted with 175 children between the ages of 8-10 who attended primary school, the groups in which the film was re-watched and the groups in which the film was watched together with the school lesson received significantly higher scores than the groups in which the film was watched for once and the groups in which the lesson was taught for once. This means that media content can be useful in the field of education. According to Arnett (2007), the majority of educational programs for children are for preschool children.

Although it is claimed that television can have negative effects, it can also have positive effects. The general acceptance is that children are passive and do not make any mental effort while watching television, but the literature does not support this idea. The researcher emphasized that watching educational programs (such as Sesame Street) is positively related to increased social interaction and cooperative behaviour among children.

Some studies examining the use of animations in the field of education have been conducted on the programs for the education of young children and infants. The impact of educational media uses

of the children between the ages of 2-5 on reading and pre-reading skills was examined in the context of family stress creators Rembrandt and Bickham (2004). The study found that all family stress creators had a negative relationship with the home learning environment. On the other hand, the relationship between media use and reading skills was found to be positive. Family conflict was also found to be negatively correlated with educational media use. According to Droog et al. (2014), productions on entertainment education can affect the attitudes and behaviours of different audiences.

Language development and cartoon watching have also been subject to many researches. In a study on infants, Hudon, Fennell, and Hoflyzer (2013) examined the relationship between television viewing and language development of bilingual infants. While the amount of television viewing could not be correlated with language output, the relationship between low television viewing was found to be correlated with vocabulary. The media can have both positive and negative effects. Baby media has been booming since 2000, and children under the age of 2 are increasingly using this media. Although studies on infant media have begun to become more common, they remain relatively inadequate (Wartella et al., 2010). Studies on television and media culture of infants, although not directly related to education, are also included in the relevant literature. One of these is Strouse and Troseth's (2014) research conducted on 23-25-month-old babies. This study points out that infants have difficulty connecting the content they watch with the real world. However, the study also found that unification is achieved when there is parental assistance in combining monitored content with the real world. The views of many parents suggesting that the child is disconnected from the world while watching television and does not interact with them are also among the topics being explored in many studies.

Courage et al. (2010) examined the immediate effect of television on infant and parental interaction. Infants and parents who were offered 20 minutes of free play time were observed in the study. After all, both 6-and 18-month-old babies were found to have focused more on toys than video and their parents. While parents focused most of their attention on dolls and toys, some focused on video. However, parents talked and played less with their babies when the video was on. In other words, the way the media content is watched is as important as the way it is watched.

On the other hand, whether cartoons contribute to the education of children as well as their preparation for educational life is another subject that has been wondered by the researchers. According to Wartella et al. (2010), 52% of families in general (who have children between 6 months and 6 years of age) think television prepares their children for learning at school. These families find watching baby videos acceptable because they find it safe and potentially educational. 80% of families find it important for babies to watch television, learn colors, shapes, reading skills, numbers, music, science and nature. In another study conducted on babies by Shimpi et al. (2013), it is pointed out that 18-24-month-old infants learn by observing strangers who are completely unfamiliar and do not address them. In this respect, it is emphasized that the imitability of the content viewed in visual media is high.

In a similar study, Williamson et al. (2013) emphasized that infants imitate social behaviors for social interaction and can practice them in appropriate situations. The study points out that the behaviors viewed on video are imitated by the babies. According to Strouse and Troseth (2008), 24-month-old babies can repeat the behaviors they watch on videos with a 24-hour delay as well as the behaviors they watch in the environment where they are in. Furthermore, the study of Strouse and Troseth (2008) found that 24-month-old infants significantly imitated less when they watched on a television screen at home than when they watched in a laboratory setting. Barr et al. (2009) who explored how babies' imitation behavior was influenced by sound effects in the content they watched found that sound effects that do not match the movements disrupt the imitation behavior of infants, while sound effects that match the movements do not disrupt their imitation performance.

Some researchers think the cognitive development of babies and the content they watch are linked. Anderson and Henson (2010) argue that 6-month-old babies can recognize the objects and people they see on screen. Babies can understand and imitate simple movements in a single image at

the age of 24 months. They are also beginning to integrate information between images. Adult understanding occurs only at the age of 13. Courage and Howe (2010) think that small babies cannot take the content they watch as it is, but are influenced by their formal characteristics. By the time they reach the age of two, they can understand the content that fits with their cognitive levels and interests them. However, they prefer to interact with people and learn from them.

In addition, watching television does not lead to attention deficit-hyperactivity disorder, but it can have negative consequences such as poor executive function when watched for over 7 hours a day and content is not suitable for the child. From a similar perspective, Courage and Setliff (2010) also argued that watching television before 18 months cannot catch their attention as it does not have the kind of content that the baby can understand. The researchers point out that there is no scientific evidence that watching television leads to lack of attention, and that educational videos in the first year of life have very low teaching potential. However, with the start of interpretation and the development of perceptual, cognitive skills and social understanding, the potential for teaching increases. Repeated exposure to visual media helps infants learn the format and content of media (Linebarger and Vaala, 2010). According to Calvert and Kotler (2003), children in the first grades of preschool and elementary school are unable to remember implicit messages that require good inference skill. However, it is also emphasized that children as young as 6 can demonstrate the ability to understand metaphors (Waggoner et al., 1997).

Studies on the behavior of babies' remembering are one of the important issues in terms of the cognitive development of the child. In particular, the question of which materials are better remembered is one of the questions that need to be answered in terms of infant and child development. Brito et al. (2012) investigated whether infants remembered more what they learned from the book or whether they learned from the video. In the study, which was conducted with 158 babies between the ages of 18-24 months, one group of babies was shown a video of a rattle made in 3 stages, while the other group was shown a book about how it was made. As a result, it was found that 18-month-old babies kept in mind for 2 weeks and they forgot in 4 weeks; 24-month-old babies kept in their mind for 4 weeks and forgot in 8th week. No significant difference was found between the groups that learned the video and from the book. Sramova (2014) emphasizes that children in the pre-operational stage (ages 2-7) cannot distinguish between media and social reality. Children fail to understand the persuasive nature of advertisements and believe that everything reflected in the media is true. They also fail to understand that objects can look different from different points of view as a result of egocentric thinking. According to the researcher, children between the ages of 4-7 are becoming an active media user, preferring entertainment, adventure content, visual objects and cartoon figures.

When the comedic content with violence meets with cartoons, it creates a threatening program character for children. According to Kirsh (2006), cartoons containing comedy diverge from reality significantly. This leads the audience not to perceive violence on the screen as a self-threatening issue. Schemes for comedy content miss out violence. This is why the audience ignores violence when watching comedy content. Cartoons are perceived as less violent than films which are based on actual footage, whereas they do not have any comedy content. Perceived reality determines the level of influence of violent media on viewers. Because the perception is individual, the influence of the media content is also individual. Two young people who watch the same program side by side are affected differently. Relevant research claims two-way results regarding the influence of cartoons on both early childhood and primary school stage. Matveeva et al. (2014) argue that children's minds are threatened by four factors. These are news, computer games, film productions and animations. Children need psychologically supportive information to develop social attitudes and reduce mental pressure. This information constitutes a real-world perception of a safe, friendly, often positive and attractive future. Therefore, a responsible animation writer should strive to help the family, teachers and the community in establishing the cultural identity of the child.

The distribution of violence among cartoon types is also important in determining the type of violence that children can be allowed to watch. According to Arnett (2007), relevant research supports

the idea that violence in cartoons affects the offensive thoughts and emotions of children. This effect occurs mostly in children under 7 years of age who are unable to distinguish between reality and imagination. When the 1990s are taken as the basis, cartoons are the most violent genre among the 16 types of programs. Vulgar comedy cartoons (such as slapstick, Tom and Jerry, Looney, Toons) can be harmful to very young children who have difficulty in making the distinction between imagination and reality. 97% of superhero cartoons (Batman, Superman, etc.) are violent, and they expose violence to viewers in approximately every 2 minutes. Mystery and adventure cartoons (such as Scooby Doo) contain half as much violence as superhero cartoons. Social relations and magazine cartoons (such as Rugrats, My Little Pony, Sesame Street) contain considerably less violence than other genres.

The distinction between reality and imagination is seen as a valid factor in the child's awareness of the existence of violence beyond disturbance from violence. In a study examining the effect of reality and imagination on the perception of violence, Gunter and Furnham (1984) conducted a two-stage research and they made children watch cartoons in the first stage. In the second stage of the research, the characters of the cartoons were shown in the films acted by real people. Ultimately, it was revealed that cartoons were perceived as having less violent content. Mastro and Ortiz (2008) point out that strong and prominent characters watched are better remembered. Moreover, these characters can have greater effects on attitudes and perceptions. A wide-ranging US National Television Violence Study identified violence in most television programmes and found that 73% of those exhibiting these behaviors were not punished (American Psychiatric Association, 2005). However, the form of violence varies as the violence viewed or perpetrated (Kirsh and Olczak, 2000).

Some studies argue that cartoons can affect children's behavior and attitudes. In the study conducted by Fouts, Callan and Piasentin (2006), it was argued that children's attitudes towards demonising may be due to the cartoon content that they watch. Feature-length cartoons, unlike television and series, can bring more closeness and identification to the character. This is because, when situations are created, events, emotions and potential lessons can have more impact on children than other media sources. Researchers argue that multiple exposures to films in the style of Disney's feature-length animations have an impact on children's understanding of the world and their attitudes. According to Leiner et al. (2004), messages given through animated film content are more effective than the messages given by written explanations.

The level of influence of media messages on children and young people varies depending on how children and young people perceive the exposed content, as fictitious or real. Huesman et al. (2003) state that the perceived reality of the violence that children watch can be used to predict aggression at older ages. Kirsh (2006) divides children's real and imaginary distinction into periods according to their development. According to this distinction, it is stated that a 2-year-old child may try to clean the egg that was broken on the television, while a 3-year-old child will believe that when the television turns over, the contents will also be spilt. In addition, a 4-year-old can still identify "real" information as fictitious at the age of 6-7, but the child will not do the wrong things s/he has done before, but is still developing to make the distinction between imaginary and real. Children realize at the age of 9 that news and documentaries reflect reality.

Since the distinction between real and imaginary develops after the age of 7, it becomes difficult for children to distinguish what they should model or imitate in the programs they watch. Lacroix (2004) states that children know the characters in animated films even before they see the film. Mastro and Ortiz (2008) emphasize that strong and prominent characters can have greater effects on viewers' attitudes and perceptions. This is an indication that cartoon characters can be modelled by children. Cartoons and animations with fantastic content are especially important in this respect.

There is not enough data in the literature about how children understand the elements in animated films such as the distinction between good and bad, interpretation of content, the distinction between fantasy and reality, the sense of justice, and the distinction between right and wrong. There has not been a common agreement on if short cartoon films or feature-length films are more successful

in conveying their messages (Klein and Shiffman, 2006b). As seen above, most of the researches are more concerned with the relationships between variables rather than cause-and-effect (Zuckerman and Zuckerman, 1985). Methodological limitations in the research on the subject make it difficult to make inferences about cause and effect (RTÜK, 2006b, Felson, 1996). In addition to the other variables, children’s point of view towards what is fun, what they consider funny, what happens to the good characters, and presentation of bad characters, children's point of view to these characters, the state of punishing the bad ones, if children realistically assess this content in their developmental period can have a negative or positive influence on children. Therefore, the extent to which children understand the elements in media content needs to be revealed.

## METHOD

### Research Model

Qualitative and quantitative models were both used as mixed model in this study. It is thought that mixed model approach can provide much deeper data for the children’s interpretation behaviour. Especially, data collection process is qualified by using qualitative model, and these collected data is analysed by using quantitative model. Such an approach enabled the richer understanding of the children’s watching behaviour and allowed to make reliable comparisons with different variables.

### Research Material

The research material, Toy Story 3, was chosen through purposeful sampling method among the films displayed or still on display. A website ([www.boxofficemojo.com](http://www.boxofficemojo.com)) that contains a lot of information and statistics on animated films (<http://www.boxofficemojo.com/alltime/world/>, 11.08.2013) were used. Among the highest-income generating films, Toy Story 3 animated film was chosen as the study material. The films and box office grosses are as follows:

**Table 1.** Worldwide Box Office Revenues of Animated Films

Rank	World Rank	Name of the Animation	Produced by	Worldwide	Overseas		Release d in
					Revenue	%	
1	5	Toy Story 3	BV	\$1.063.2	\$648.2	61%	2010
2	15	Shrek 2	DW	\$919.8	\$478.6	52%	2004
3	19	Ice Age: Down of the Dinosaurs	Fox	\$886.7	\$690.1	77.8%	2009

### Research Group

It was planned to conduct the study with at least 30 children from each age group ranging between 3, 4, 5, 6, 7, 8 and 9. Since the aim of the research was not to make a generalisation for all children in the world or Turkey based on the data obtained from this study, the choice of the universe and sample was not used. The children who participated in the study group were reached at the schools that they attended. In the consent form sent to the families, the children of the families who reported that they had allowed their child to participate in the study were included in the study. Children in 3, 4, and 5 years of age were from preschool classes, and children in 6, 7, 8, and 9 years of age were from primary school classes. As a result of the study, the research group consisted of the age and gender characteristics given in the table below.

**Table 2.** Age and Gender Characteristics of the Research Group

Gender	Age (Month)							Total
	37-48	49-60	61-72	73-84	85-96	97-108	109-120	
Male	15	16	12	9	15	15	16	98
Female	17	17	14	15	20	13	16	112
Total	32	33	26	24	35	28	32	210

## Data Collection Tools

Quantitative analysis was carried out with the data collected with the qualitative method. Since there are no valid and reliable categories and codes prepared by the qualitative method, a demographic assessment form and structured interview form for visual media (category and code table) were developed for this study. The research also used Toy Story 3 film as material.

**Demographic Survey Form:** The demographic survey form was obtained choosing from the variables that may have been related to various studies during the literature review, which could theoretically be related to film viewing behaviors and the level of interpretation of the content that children are exposed to. The basic idea in the preparation of this form is to provide information about the child and the arguments that will help answer the research questions. With the Demographic survey form, various information about the children participating in the study was collected. Since this information is about the children's family and their own lives, it was collected from the children's parents. In light of the feedback collected, the final version of the form was sent to the parents attached with the consent form.

**Toy Story 3 (animated film):** For the study, the selected film was supposed to contain many elements. It was thought that such a choice would make the data richer. For this reason, the study (Turkmen, 2012) in which the violent content of animated films was investigated and the violent content of 23 animated films was analyzed helped the researcher decide that Toy Story 3 was an appropriate film for this research. It was also the film with the highest revenue of all time in the world (<http://www.boxofficemojo.com/alltime/world/>, 11.08.2013), which indicated that it was the most-watched animated film. To make children watch Toy Story 3, Disney Turkey, the producer company, and Tiglon, the distributor company, were contacted and relevant permission was obtained for the display of the film to the participant children.

**Interview Form for Visual Media:** The interview form for visual media was prepared in two sections and six subcategories based on the relevant literature and the content of Toy Story 3. As a result of the reliability studies of the Interview forms, the level of consistency between researchers was calculated as 97% (Level of consistency = amount of consistency x 100 / amount of consistency + amount of inconsistency). This value indicates that the internal reliability of the study is high. Furthermore, it was observed that the consistency level was 91% when the results of the interviews were calculated at different times. This value indicates that the structured interview form makes a stable measurement.

1. Section; the episode consists of the subcategories of a) good-bad distinction (10 items), b) values (10 items), c) meaning (12 items), and d) reality (7 items) concerning the Toy Story 3 film. The first 10 of the items for Toy Story 3 film begin by showing the pictures of 10 film characters and asking if they are good or bad. 5 good and 5 bad characters were identified to ask these questions. These characters were identified by showing the pictures to 10 adults who had watched and remembered Toy Story 3. These are included in 5 good and 5 bad character research questions that 10 adults agreed on.

2. section consists of sub-categories as a) values (7 items) and b) reality (15 items) regarding general television viewing habit. The “meaning” subcategory was not included in the subcategories of general television viewing. The reason for this is the impossibility of semantically questioning a content that children know in common. In other words, when a child is asked about the meaning of the content s/he is watching, the other child will be unaware of the content, so no data will be obtained to make a comparison. The “meaning” subcategory is, therefore, not included in this section.

## Data Analysis

The data obtained from the forms were submitted for content analysis by the researcher. The Kruskal Wallis test and Mann-Whitney U-test were used to examine the difference between groups in terms of age groups, gender and other independent variables as a result of quantifying the qualitative data through codes.

## FINDINGS

The results of the analysis show that the scores of children about the good-bad distinction differed by age [ $\chi^2 (6) = 67,551, p < .05$ ]. This finding points out that the distinction between good and bad for children is different according to age groups. As a result of the Dunn-Bonferroni test performed as a post-hoc test, the source of the difference according to the corrected significance levels was found to be between 4-7 years ( $p = .004$ ), ages 4-8 ( $p < .001$ ), 4-6 years ( $p < .001$ ), ages 4-9 ( $p < .001$ ), ages 4-10 ( $p < .001$ ), ages 5-6 ( $p = .001$ ), ages 5-9 ( $p < .001$ ) and 5-10 years ( $p < .001$ ). It was also found that the value scores for children's Toy Story 3 film differed by age [ $\chi^2 (6) = 14,950, p < .05$ ]. The source of the difference was calculated to be between 4 and 5 years old ( $p = .025$ ). Children's scores for the "meaning" of Toy Story 3 are also different in terms of age [ $\chi^2 (6) = 93,594, p < .05$ ]. The difference in "meaning" towards Toy Story 3 was found to be between 4-6 ( $p = .006$ ), 4-7 ( $p = .016$ ), 4-8 ( $p < .001$ ), 4-9 ( $p < .001$ ), 4-10 ( $p < .001$ ), 5-8 ( $p < .001$ ), 5-9 ( $p < .001$ ), 5-10 ( $p = .000$ ), 6-9 ( $p = .020$ ), 6-10 ( $p = .022$ ), 7-9 ( $p = .014$ ) and 7-10 ( $p = .015$ ).

Likewise, the "reality" scores of the children for Toy Story 3 film also differed significantly according to the age of the children [ $\chi^2 (6) = 38,458, p < .05$ ]. In terms of "values" age groups of 4-7 ( $p = .002$ ), 4-8 ( $p < .001$ ), 4-9 ( $p = .005$ ), 4-10 ( $p = .007$ ), 5-7 ( $p = .029$ ), 5-8 ( $p = .010$ ) and 6-8 ( $p = .039$ ) were found to have significantly differed. In terms of age, the overall "value" scores of children were also different [ $\chi^2 (6) = 87,678, p < .05$ ]. In terms of "general values", the age groups of 4-6 ( $p = .001$ ), 4-7 ( $p = .002$ ), 4-8 ( $p < .001$ ), 4-9 ( $p < .001$ ), 4-10 ( $p < .001$ ), 5-6 ( $p = .018$ ), 5-7 ( $p = .025$ ), 5-9 ( $p < .001$ ) and 5-10 ( $p < .001$ ) were found to have significantly differed. On the other hand, there is also a significant difference between children's overall reality scores and age [ $\chi^2 (6) = 46,683, p < .05$ ]. In terms of "overall reality scores", the age groups of 4-7 ( $p = .005$ ), 4-8 ( $p = .037$ ), 4-9 ( $p < .001$ ), 4-10 ( $p < .001$ ), 5-7 ( $p = .005$ ), 5-8 ( $p = .041$ ), 5-9 ( $p < .001$ ) and 5-10 ( $p < .001$ ) were found to have significantly differed. In general, it can be said that children's interpretation of cartoons differs according to age.

**Table 3.** Kruskal Wallis Test Result of Interpretation of Cartoon by Age

Interpretation	Group	N	Rank Average	Sd	$\chi^2$	P	Group
Good-bad Distinction	4,00	32	50,33	6	67,551	,000	4-7
	5,00	33	69,83				4-8
	6,00	26	131,10				4-6
	7,00	24	108,27				4-9
	8,00	35	110,99				4-10
	9,00	27	132,67				5-6
							5-9
							5-10
OH3 Value	4,00	32	77,05	6	14,950	,021	4-5
	5,00	33	123,21				
	6,00	26	102,85				
	7,00	24	120,75				
	8,00	35	114,11				
	9,00	27	92,43				

OH3 Interpretation	4,00	32	41,84	6	93,594	,000	4-6	4-7
	5,00	33	65,08				4-8	4-9
	6,00	26	99,48				4-10	
	7,00	24	96,52				5-8	5-9
	8,00	35	129,87				5-10	
	9,00	27	154,11				6-9	6-10
	10,00	32	151,53				7-9	7-10
OH3 Reality	4,00	32	74,14	6	38,458	,000	4-7	
	5,00	33	83,74				4-8	
	6,00	26	85,88				4-9	
	7,00	24	126,75				4-10	
	8,00	35	126,29				5-7	
	9,00	27	122,52				5-8	
	10,00	32	118,94				6-8	
General value	4,00	32	48,67	6	87,678	,000	4-6	4-7
	5,00	33	58,56				4-8	4-9
	6,00	26	108,46				4-10	
	7,00	24	108,13				5-6	5-7
	8,00	35	129,90				5-9	5-10
	9,00	27	141,02					
	10,00	32	146,44					
General Reality	4,00	32	66,64	6	46,683	,000	4-7	
	5,00	33	67,55				4-8	
	6,00	26	98,02				4-9	
	7,00	24	126,21				4-10	
	8,00	35	112,50				5-7	
	9,00	27	139,80				5-8	
	10,00	32	134,19				5-9	5-10

**Table 4.** Mann Whitney U-Test Result of Interpretation of Cartoon by Gender

Interpretation	Grup	N	Rank Average	Rank Total	U	P
Good-bad Distinction	Male	99	110,87	10976,50	4962,500	,201
	Female	111	100,71	11178,50		
OH3 Value	Male	99	105,29	10423,50	5473,500	,960
	Female	111	105,69	11731,50		
OH3 meaning	Male	99	107,62	10654,00	5285,000	,632
	Female	111	103,61	11501,00		
OH3 Reality	Male	99	101,08	10007,00	5057,000	,229
	Female	111	109,44	12148,00		
General value	Male	99	100,14	9914,00	4964,000	,201
	Female	111	110,28	12241,00		
General Reality	Male	99	104,01	10297,00	5347,000	,735
	Female	111	106,83	11858,00		

When Table 4 is examined, it is observed that there is no difference between male and female children in terms of “value”, “meaning”, “reality”, “general value” and “general reality” scores for Toy Story 3 film, and in terms of boys and girls [respectively (U=4962,5, p>.05), (U=5473,5, p>.05), (U=5285,0, p>.05), (U=5057,0, p>.05), (U=4964,0, p>.05), (U=5347, p>.05)].

**Table 5.** Mann Whitney U-Test of Cartoon Interpretation by the Presence of Rules for TV Viewing

Interpretation	Group	N	Rank Average	Rank Total	U	P
Good-bad Distinction	Rule available	140	90,88	12722,50	2852,500	,100
	No Rule	48	105,07	5043,50		
OH3 Value	Rule available	140	90,81	12714,00	2844,000	,094
	No Rule	48	105,25	5052,00		
OH3 Meaning	Rule available	140	92,86	13000,00	3130,000	,477
	No Rule	48	99,29	4766,00		

OH3 Reality	Rule available	140	93,48	13087,00	3217,000	,592
	No Rule	48	97,48	4679,00		
General value	Rule available	140	91,79	12850,50	2980,500	,214
	No Rule	48	102,41	4915,50		
General Reality	Rule available	140	92,32	12925,00	3055,000	,343
	No Rule	48	100,85	4841,00		

It is observed that there is no difference in the children' good or bad distinction scores according to the presence of rules for watching television at home ( $U=2852,5$ ,  $p>.05$ ). It was also found that the scores of children for value for ( $U=2844,0$ ,  $p>.05$ ), meaning ( $U=3130,0$ ,  $p>.05$ ) and reality ( $U=3217,0$ ,  $p>.05$ ) did not differ depending on the presence or lack of rules for watching television at home. It was also observed that the general value scores of children did not differ depending on the presence and lack of rules for watching television at home ( $U=2980,0$ ,  $p>.05$ ). Again, there was no significant difference between the overall reality scores of children and whether or not there were rules for watching Tv at home ( $U=3055,0$ ,  $p>.05$ ).

**Table 6.** Kruskal Wallis Test of Cartoon Interpretation by Who Establishes Rules TV Viewing

Meaning	Group	N	Rank Average	Sd	$\chi^2$	p	Group Dif.
Good-bad Distinction	No Rule	40	109,53	5	6,045	,302	
	Mother	42	93,39				
	Father	9	108,50				
	Child	5	100,00				
	Shared (mother-father-child)	19	103,34				
	Shared (mother-father)	76	86,74				
OH3 Value	No Rule	40	105,59	5	3,481	,626	
	Mother	42	87,62				
	Father	9	85,67				
	Child	5	101,70				
	Shared (mother-father-child)	19	105,00				
	Shared (mother-father)	76	94,18				
OH3 Meaning	No Rule	40	100,51	5	2,798	,731	
	Mother	42	93,89				
	Father	9	110,28				
	Child	5	122,90				
	Shared (mother-father-child)	19	97,63				
	Shared (mother-father)	76	90,92				
OH3 Reality	No Rule	40	95,61	5	,778	,978	
	Mother	42	96,60				
	Father	9	105,22				
	Child	5	86,20				
	Shared (mother-father-child)	19	99,16				
	Shared (mother-father)	76	94,64				
General value	No Rule	40	101,85	5	2,089	,837	
	Mother	42	95,04				
	Father	9	105,61				
	Child	5	98,50				
	Shared (Mother-father-child)	19	103,11				
	Shared (mother-father)	76	90,38				
General Reality	No Rule	40	101,06	5	2,169	,825	
	Mother	42	90,17				
	Father	9	102,50				
	Child	5	121,70				
	Shared (mother-father-child)	19	92,13				
	shared (Mother-father)	76	95,07				

The results of the analysis indicate that the children's good or bad distinction scores do not differ based on the person who sets the rules for Tv viewing at home [ $\chi^2 (5) = 6,045$ ,  $p>.05$ ]. This finding suggests that the distinctive skill of children between good-bad does not differ according to the person who sets the rules at home. Also, the scores of the children for the value [ $\chi^2 (5) = 3,481$ ,  $p>.05$ ],

meaning [ $\chi^2(5)=2,798$ ,  $p>.05$ ] and reality [ $\chi^2(5) = 0,778$ ,  $p>.05$ ] scores regarding Toy Story 3 film were also found not to differ according to the person who set the rules at home. In terms of the person who set the rules at home, the general value of the children [ $\chi^2(5) =2,089$ ,  $p>.05$ ] and the general reality [ $\chi^2(5) = 2,169$ ,  $p>.05$ ] scores was not significantly different.

**Table 7.** Kruskal Wallis Test of the Interpretation of Cartoon Films by Participation in a Course-Like Activity

Meaning	Group	N	Rank Average	Sd	$\chi^2$	p	Group Dif.
Good-bad Distinction	No specified activity	108	81,42	3	23,046	,000	1-2
	More than two activities	49	124,06				
	Sports Activities	21	105,36				
	Art Activities	13	96,23				
OH3 Value	No specified activity	108	92,94	3	2,916	,405	
	More than two activities	49	105,39				
	Sports Activities	21	98,48				
	Art Activities	13	82,04				
OH3 Meaning	No specified activity	108	78,25	3	32,069	,000	1-2
	More than two activities	49	131,49				
	Sports Activities	21	103,74				
	Art Activities	13	97,15				
OH3 Reality	No specified activity	108	90,35	3	4,174	,243	
	More than two activities	49	105,06				
	Sports Activities	21	103,17				
	Art Activities	13	97,23				
General Value	No specified activity	108	80,82	3	22,390	,000	1-2
	More than two activities	49	119,96				1-3
	Sports Activities	21	114,00				
	Art Activities	13	102,69				
General Reality	No specified activity	108	81,12	3	26,141	,000	1-2
	More than two activities	49	127,70				2-4
	Sports Activities	21	107,05				
	Art Activities	13	82,27				

The results of the analysis show that the children's good or bad distinction scores differ based on the child's participation in a course and course-like activities [ $\chi^2(3) = 23,046$ ,  $p<.05$ ]. This finding points out that the children's distinction skill between good and bad differ based on the child's participation in a course and course-like activity. As a result of the Dunn-Bonferroni test, which was administered as a post-hoc test, the difference between children who did not participate in any activity and children who participated in more than two activities was found to be the source of the difference according to the corrected significance levels ( $p<.001$ ). Also, the value [ $\chi^2(3)=2,916$ ,  $p>.05$ ] and reality [ $\chi^2(3) = 4,174$ ,  $p>.05$ ] scores of the children for Toy Story 3 movie did not differ according to the child's participation in a course or similar activity. Children's scores for the meaning of Toy Story 3 are also different in terms of the child's participation in a course and similar activity [ $\chi^2(3) = 32,069$ ,  $p<.05$ ]. Post-hoc test revealed that there was a difference between the children who did not participate in the activity and those who participated in more than two activities ( $p<.001$ ). The general value scores of the children differed based on the child's participation in a course and similar activity [ $\chi^2(3) = 22,390$ ,  $p<.05$ ]. Dunn-Bonferroni test revealed that the source of the difference is between the children who participated in more than two activities and children who did not participate in any activity ( $p<.001$ ) and between the children who did not participate in any activity and those who participated in sporting events ( $p=.044$ ). On the other hand, there was also a significant difference between the children's overall reality scores and the child's participation in a course and similar activity [ $\chi^2(3) = 26,141$ ,  $p<.05$ ]. The difference in overall reality scores is between the children who participated in more than two activities and those who did not participate in any event ( $p<.001$ ) and between the children who participated in artistic activities and those who participated in more than two activities ( $p=.046$ ).

**Table 8.** Kruskal Wallis Test Result of Cartoon Interpretation Levels by the Time Spent Viewing TV

Interpretation	Group	N	Rank Average	Sd	$\chi^2$	p	Group Dif.
Good-bad Distinction	0-5	115	89,95	2	1,390	,499	
	5,5-10	58	99,50				
	10,5-üstü	12	90,79				
OH3 value	0-5	115	91,93	2	,167	,920	
	5,5-10	58	95,25				
	10,5-üstü	12	92,38				
OH3 Meaning	0-5	115	88,22	2	7,621	,022	
	5,5-10	58	107,44				
	10,5-üstü	12	69,00				
OH3 Reality	0-5	115	89,19	2	5,007	,082	
	5,5-10	58	103,19				
	10,5-üstü	12	80,29				
General Value	0-5	115	90,46	2	3,732	,155	
	5,5-10	58	101,88				
	10,5-üstü	12	74,42				
General Reality	0-5	115	88,35	2	5,431	,066	
	5,5-10	58	105,70				
	10,5-üstü	12	76,17				

The table above reveals that the scores of children regarding good-bad distinction [ $\chi^2 (2) = 1,390$ ,  $p > .05$ ], the value for the Toy Story 3 film [ $\chi^2 (2) = 0,167$ ,  $p > .05$ ] and reality [ $\chi^2 (2) = 5,007$ ,  $p > .05$ ] do not differ based on the child's television viewing time. Children's scores for the meaning of Toy Story 3 differ according to the child's television viewing time [ $\chi^2 (2) = 7,621$ ,  $p < .05$ ]. However, the post-hoc test results indicate that the difference is not big enough to indicate which groups ( $p > .05$ ) differed. When the child's television viewing time is considered, the scores of the children for the overall value [ $\chi^2 (2) = 3,732$ ,  $p > .05$ ] and the general reality [ $\chi^2 (2) = 5,431$ ,  $p > .05$ ] were found not to differ.

**Table 9.** Kruskal Wallis Test Results of Cartoon Interpretation Level by the Channel Watched

Meaning	Group	N	Rank Average	Sd	$\chi^2$	p	Group Dif.
Good-bad Distinction	TRT Çocuk	45	74,46	8	24,909	,002*	
	Planet Çocuk	9	49,61				
	Cartoon Network	20	118,23				
	Minika	25	76,96				
	Disney Channel	22	107,68				
	Yumurcak TV	5	91,20				
	Çocuk Kanalı (Cartoon Channel)	20	97,93				
	TRT 1	4	59,00				
	Other (1,2 ve 3 frequencies)	24	88,33				
OH3 Value	TRT Çocuk	45	78,02	8	8,752	,364	
	Planet Çocuk	9	93,94				
	Cartoon Network	20	101,63				
	Minika	25	102,22				
	Disney Channel	22	84,09				
	Yumurcak TV	5	68,60				
	Çocuk Kanalı (Cartoon Channel)	20	94,98				
	TRT 1	4	68,25				
	Other (1,2 ve 3 frequencies)	24	79,79				
OH3 Meaning	TRT Çocuk	45	63,74	8	24,708	,002*	
	Planet Çocuk	9	77,39				
	Cartoon Network	20	119,83				
	Minika	25	90,20				
	Disney Channel	22	112,73				
	Yumurcak TV	5	81,80				
	Çocuk Kanalı (Cartoon channel)	20	84,75				
	TRT 1	4	94,50				
	Other (1,2 ve 3 frequencies)	24	85,27				

OH3 Reality	TRT Çocuk	45	81,39	8	5,746	,676
	Planet Çocuk	9	97,11			
	Cartoon Network	20	95,00			
	Minika	25	78,36			
	Disney Channel	22	97,82			
	Yumurcak TV	5	98,80			
	Çocuk Kanalı (Cartoon channel)	20	91,75			
	TRT 1	4	89,63			
	Other (1,2 ve 3 frequency)	24	82,92			
General Value	TRT Çocuk	45	77,44	8	16,967	,030*
	Planet Çocuk	9	74,89			
	Cartoon Network	20	110,90			
	Minika	25	75,24			
	Disney Channel	22	107,50			
	Yumurcak TV	5	89,00			
	Çocuk Kanalı (Cartoon Channel)	20	101,50			
	TRT 1	4	88,00			
	Other (1,2 ve 3 frequencies)	24	73,96			
General Reality	TRT Çocuk	45	74,93	8	8,166	,417
	Planet Çocuk	9	73,00			
	Cartoon Network	20	95,38			
	Minika	25	83,72			
	Disney Channel	22	101,00			
	Yumurcak TV	5	82,90			
	Çocuk Kanalı (Cartoon Channel)	20	101,28			
	TRT 1	4	72,38			
	Other (1,2 ve 3 frequencies)	24	93,50			

When Table 9, which attempts to establish the relationship between the level of interpretation of the content watched by children and the channel viewed was examined, it was found that there were 23 channels in total and the majority of them were with 1-3 frequencies. The analysis was carried out by combining the preferred channels up to 3 frequencies, considering that this may adversely affect the results of the analysis. According to the results of the analysis, the children's good and bad distinction scores differed according to the channel the child most-watched [ $\chi^2(8) = 24909, p < .05$ ]. This finding suggests that the good-bad distinction skill of children differs according to the channel that the child watches the most. The post-hoc test conducted to find out the source of the difference showed significant differences between children watching Planet Çocuk and Cartoon Network in terms of good-bad distinction [ $\chi^2(8) = -3,583, p < .05$ ]. There was also a significant difference between the viewers of TRT Çocuk and Cartoon Network in terms of good-bad distinction [ $\chi^2(8) = -3,414, p < .05$ ]. On the other hand, the scores of the children for the value [ $\chi^2(8) = 8,752, p > .05$ ] regarding the Toy Story 3 movie and reality [ $\chi^2(8) = 5,746, p > .05$ ] were found not to differ based on the most-watched TV channel of the child. The children's scores for the meaning of the Toy Story 3 film differed in terms of the channel that the child watched the most [ $\chi^2(8) = 24,708, p < .05$ ]. A significant difference was found between the general group, and this difference was reflected in the post hoc Dunn-Bonferroni test. As a result of the Dunn-Bonferroni test, TRT Çocuk-Disney Channel [ $\chi^2(8) = -3,758, p < .05$ ] and TRT Çocuk-Cartoon Network channels were found to significantly differ in the scores for the meaning of the film OH3.

Overall value scores were found to differ significantly in terms of the channel the child watched the most [ $\chi^2(8) = 16,967, p < .05$ ]. However, the Dunn-Bonferroni test showed no differences in the sub-groups concerning standardized levels of significance. On the other hand, there was no significant difference between the children's overall reality scores and the most-watched channel [ $\chi^2(8) = 8,166, p > .05$ ]. According to these findings, it was thought that the groups in the distribution were very small (consisting of 1,2 and 3 individuals) and the analysis of the channels by grouping was more appropriate. The channels were grouped as cartoon channels and other channels, and the analysis was repeated. The relevant analysis and results are given below.

**Table 10.** The Channels that Children Watch the Most and Age Distribution by Channel

	Most Watched Channels									
	TRT Çocuk*	Planet Çocuk*	Cartoon Network*	Minika*	Disney Channel*	Yumurcak TV*	Çocuk Kanalı	TRT 1	Other (1,2,3 frequency)	
Age										
	37-48 Month	12	5	0	3	0	2	1	0	7
	49-60 Month	9	1	1	8	2	1	2	2	2
	61-72 Month	3	0	0	3	3	1	2	0	2
	73-84 Month	6	0	3	4	4	0	1	0	0
	85-96 Month	9	2	6	4	2	0	8	0	2
	97-108 Month	3	0	8	2	3	0	5	2	1
	109-120 Month	3	1	3	0	7	1	1	0	10

\*Channels for children

As can be seen from Table 10, the channels that children watch varies according to their age. In particular, TRT Çocuk and Planet Çocuk channels are preferred by children of younger ages, while Cartoon Network and Disney Channel are preferred by older age groups. For this reason, the level of interpretation of cartoons that children watch differs according to the channel they watch.

**Table 11.** Kruskal Wallis Test Result of Cartoon Interpretation Levels by Child's being Accompanied by their Parents When Viewing

Meaning	Group (Hour)	N	Rank Average	Sd	$\chi^2$	p	Group Dif.
Good-bad Distinction	,00	27	89,67	6	10,120	,120	
	1,00	23	79,50				
	2,00	43	106,33				
	3,00	43	75,23				
	4,00	16	97,72				
	5,00	15	93,20				
	6 and above	12	91,00				
OH3 Value	,00	27	95,19	6	3,718	,715	
	1,00	23	84,76				
	2,00	43	87,56				
	3,00	43	97,12				
	4,00	16	78,13				
	5,00	15	79,60				
	6 and above	12	100,46				
OH3 Meaning	,00	27	88,17	6	2,462	,873	
	1,00	23	80,46				
	2,00	43	95,01				
	3,00	43	87,72				
	4,00	16	100,69				
	5,00	15	95,27				
	6 and above	12	81,79				
OH3 Reality	,00	27	103,02	6	5,062	,536	
	1,00	23	87,61				
	2,00	43	90,85				
	3,00	43	89,10				
	4,00	16	89,63				
	5,00	15	73,00				
	6 and above	12	87,21				

General Value	,00	27	97,76	6	5,988	,425
	1,00	23	83,91			
	2,00	43	100,77			
	3,00	43	79,13			
	4,00	16	89,16			
	5,00	15	94,77			
	6 and above	12	79,75			
General Reality	,00	27	98,50	6	8,089	,232
	1,00	23	70,41			
	2,00	43	99,77			
	3,00	43	85,05			
	4,00	16	104,34			
	5,00	15	85,20			
	6 and above	12	78,04			

The analysis results show that the children's good-bad distinction scores do not differ according to the child's parental-accompanied television viewing time [ $\chi^2(6) = 10,120, p > .05$ ]. Also, the value of the children for Toy Story 3 movie [ $\chi^2(6) = 3,718, p > .05$ ], meaning [ $\chi^2(6) = 2,462, p > .05$ ] and reality [ $\chi^2(6) = 5,062, p > .05$ ] scores were also found not to differ according to the time spend viewing accompanied by the parent. It was observed that the overall value scores of the children were not different in terms of the time spent watching television with the parent [ $\chi^2(6) = 5,988, p > .05$ ]. In the same way, there was no significant difference between the children's overall reality scores and the child's television viewing time with the parent [ $\chi^2(6) = 8,089, p > .05$ ].

**Table 12.** Mann Whitney U-Test Result of Interpretation of Cartoons by Parents' Perception That Cartoons Are Harmful to Child

Interpretation	Group	N	Rank Average	Rank Total	U	p
Good-bad Distinction	Harmful	60	101,15	6069,00	2361,000	,001
	Not harmful	110	76,96	8466,00		
OH3 Value	Harmful	60	85,46	5127,50	3297,500	,993
	Not harmful	110	85,52	9407,50		
OH3 Meaning	Harmful	60	86,63	5198,00	3232,000	,824
	Not harmful	110	84,88	9337,00		
OH3 Reality	Harmful	60	88,00	5280,00	3150,000	,550
	Not harmful	110	84,14	9255,00		
General Value	Harmful	60	89,67	5380,00	3050,000	,386
	Not harmful	110	83,23	9155,00		
General Reality	Harmful	60	86,76	5205,50	3224,500	,803
	Not harmful	110	84,81	9329,50		

According to Table 12, the children's good-bad distinction scores differ significantly depending on the parents' perception that cartoons are harmful to the child ( $U=2361,0, p < .05$ ). The value score of children ( $U=3297,5, p > .05$ ) for Toy Story 3 film, meaning score ( $U=3232,0, p > .05$ ) and reality scores ( $U=3150,0, p > .05$ ) were found not to have differed according to the parents' perception that cartoons are harmful to the child. In terms of the parents' perception that cartoons are harmful to the child, the overall value scores of the children ( $U=3050,0, p > .05$ ) and general reality ( $U=3224,5, p > .05$ ) scores were also found not to have differed.

**Table 13.** Kruskal Wallis Test Results of Cartoon Interpretation Levels by the Age at Which the Child Started Watching Cartoons

Meaning	Group (Month)	N	Rank Average	Sd	$\chi^2$	p	Group Dif.
Good-bad Distinction	0-12	22	96,07	5	3,645	,602	
	13-24	69	79,88				
	25-36	46	81,83				
	37-48	21	85,24				
	49-60	4	104,00				
	61-72	6	100,17				

OH3 Value	0-12	22	95,73	5	10,680	,058	
	13-24	69	85,36				
	25-36	46	76,28				
	37-48	21	100,45				
	49-60	4	31,50				
	61-72	6	76,00				
OH3 Meaning	0-12	22	81,30	5	15,184	,010	-
	13-24	69	79,04				
	25-36	46	75,60				
	37-48	21	110,07				
	49-60	4	87,25				
	61-72	6	135,92				
OH3 Reality	0-12	22	85,57	5	11,570	,041	-
	13-24	69	79,60				
	25-36	46	83,40				
	37-48	21	101,64				
	49-60	4	44,50				
	61-72	6	112,00				
General Value	0-12	22	79,55	5	16,135	,006	(13-24)-(37-48) (25-36)-(37-48)
	13-24	69	76,91				
	25-36	46	79,89				
	37-48	21	118,38				
	49-60	4	80,00				
	61-72	6	109,67				
General Reality	0-12	22	85,93	5	3,428	,634	
	13-24	69	84,04				
	25-36	46	76,95				
	37-48	21	92,64				
	49-60	4	91,75				
	61-72	6	109,17				

The analysis results show that children's good-bad distinction scores did not differ according to the age at which the child started watching cartoons [ $\chi^2 (5) = 3,645, p > .05$ ]. It was also found that the general value scores of the children for Toy Story 3 were found not to differ according to the age at which the child started watching cartoons [ $\chi^2 (5) = 10,680, p > .05$ ]. Children's scores for the meaning of Toy Story 3 were found to differ according to the age when the child started watching cartoons [ $\chi^2 (5) = 15,184, p < .05$ ]. Similarly, children's reality scores for Toy Story 3 movies were also found to significantly differ according to the age at which the child started watching cartoons [ $\chi^2 (5) = 11,570, p < .05$ ]. However, the Dunn-Bonferroni test which was conducted to find out which groups were the source of the difference resulted from the meaning and reality scores for Toy Story 3 failed to reveal the groups which were the sources of the differences ( $p > .05$ ). When the age at which the child started watching cartoons were considered, the overall value scores of the children were found to differ [ $\chi^2 (5) = 16,135, p < .05$ ]. Post-hoc test results showed this difference was between those who started watching television at the age of 13-24 months and those who started watching television at the age of 37-48 months ( $p = .004$ ) and between the children who started watching television between 25-36 months and those who started watching television between 37-48 months ( $p = .020$ ). On the other hand, there was no significant difference between the children's overall reality scores and the age at which the child started watching cartoons [ $\chi^2 (5) = 3,428, p > .05$ ].

## DISCUSSION AND CONCLUSION

The results of this study showed that children between the ages of 3-10 differed in understanding Toy Story 3 animated films and its general media content. In other words, as age increases, children's level of understanding of media content also increases. When looked at by age, those at the age of 4 and 5 had a similar level of interpretation, and those at the ages of 6-10 had a similar level of interpretation. In addition, these two groups have statistically different levels of interpretation. Specifically, those at the ages of 4-and 5 had more difficulty in distinguishing the good and bad characters in the Toy Story 3 animated film than those of 6-10 years old. There is also a

significant difference between the same age groups in terms of distinguishing values (good and bad behavior) in the content of Toy Story 3 animated films.

The same is true for the interpretation of the events in Toy Story 3 animated film content. Children aged 4 and 5 had more difficulty understanding the film story compared to the other group. In terms of the realism of the scenes of the Toy Story 3 animated film, children aged 6-10 were able to distinguish imaginary and real content much better than the children aged 4 and 5. In this respect, the findings are in line with the age groups highlighted by Kirsh (2006). According to Kirsh (2006), in the early years, children believe that everything they watch on television is real. A child at the age of two watching an egg broken on television can try to clean it. At the age of three, they believe that when the television is turned down, what is in the bowl on the screen will pour out. Those at the age of four do not make such mistakes. However, the distinction between reality and imagination is still evolving. This is consistent with the findings of Njiri et al (2018) regarding the impact of television on social behavior.

It was found out that the content of what is viewed on TV cannot be properly analyzed by the children aged 4 and 5 in terms of values. In other words, children aged 4 and 5 are not able to properly evaluate good and bad behavior compared to other children. In the same way, the realism of the content watched on television, in general, is not fully known by children in the 4 and 5 age group. It was revealed that children between the ages of 6-10 were more successful in the distinction of reality and imagination. According to this finding, it can be said that the transition in terms of imagination-reality distinction skills of children happens at 6 years old. Villani et al (2005) state the age at which this distinction is 8.

The findings indicate that there was no gender difference in the interpretation of both Toy Story 3 animated film and general television content of children for those aged 4-10 who participated in the study. There has also been no effect of setting rules about watching television as suggested by many experts for the interpretation of media content. Likewise, there is no relationship between the person who sets the rules and interpretation of media content.

There has been a significant relationship between interpretation of the media content and having an activity outside the home (which was considered important for the child's socialization). Children who did not attend any event were found to have had more difficulty distinguishing between good and bad characters, understanding the subject of Toy Story 3 animated films, and distinguishing between good and bad behavior and imagination and reality in general television content, than those who participated in more than two events.

Another finding was that children in the group who watched television for 5.5 to 10 hours per week understood Toy Story 3 better than children who watched TV for 0-5 hours and over 10 hours a week. This is also in line with the findings of Jantarakolica et al (2002) who suggested that the perceptual realism of moderate to heavy television viewers is significantly higher. No relationship between television viewing time and other variables was found out. There is also a significant relationship between the channel the child is watching and the good-bad character distinction, understanding Toy Story 3 and general values. When the channels' broadcast contents and the age of those watching these channels were considered, it is thought that this is due to the differentiation of the channels being watched according to their age. Another finding points out that watching TV with parents, which is also recommended by experts, is not related to the interpretation of the content by children.

Parents' belief that cartoons offer harmful content was found to be effective in distinguishing good and bad characters. In other words, the children of the parents who think cartoons are harmful to their children are better able to distinguish between good and bad characters. On the other hand, another partially related variable in understanding media content is the age at which a child starts to watch cartoons. The age at which cartoon viewing started was found to be related to the distinction of

real imagination, the separation of events as good and bad, the distinction of events as bad and good which was watched on television in general. No significant relationship was established between the age of starting to watch cartoons and the ability to distinguish between good and bad characters.

As a result, age was found to be the most important factor in children's understanding of the content they watched. This indicates that cognitive development is the main issue that determines the child's relationship with the media s/he is watching. It is suggested that future studies, with an appropriate methodology, examines child-media relationship based on cognitive development.

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