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New Media Literacy Skills in Gifted Students

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Abstract

In this research, new media literacy skills of gifted students have been examined and analyzed. The quantitative method, i.e. the survey model was used in the research. The participants were gifted students in Bursa doing their 1st term of the 2016-2017 academic year. The sample of participants chosen by simple random sampling among the population comprises 64 gifted students in Bursa BTSO Kamil Tolon Science and Art Center.

According to the findings, it can be said that students' media literacy skills are at a satisfactory level. Skills in which the students got the highest score are respectively visualization, judgement and common sense. Accordingly, gifted students are better at understanding information in a visual way, tend to use as many pictures, graphs and diagrams as possible and benefit from many resources in order to comprehend a topic better. Also, it can be said that they can understand when prejudgement or bias is taking place in media, and when they cannot resolve a problem, they effectively make use of both the internet and social media so as to reach others. The more time the students spend on the internet, the more students' online performance and their skills to improvise in another identity improve.

Key words: *gifted students; internet; media tools; new media literacy; social media.*

Introduction

Media has made great progress recently. The term new media literacy has started to be mentioned frequently with the advances in new media technology. Social media, multimedia and communication technology have penetrated in all aspects and parts of life. With new media technology, which emerged in the early part of the 21st century, traditional literacy is no longer satisfactory and sufficient. For individuals who contribute to society more, being media literate becomes a must.

There are various points of view related to the term media literacy in literature. Thus, it seems difficult to make a general definition of media literacy. Considering relevant experts on this subject, definitions of this term change; moreover, with the development of digital technology the content of media literacy expands and broadens.

Media literacy is defined as "reaching various forms of messages either written or not, analyzing them, evaluating them and having the ability to transmit them" (Dennis, 2004, p. 203; Hobbs & Frost, 2003, p. 334; Livingstone, 2004, p. 5). Today, in order to join and become involved in the society and modern culture, while individuals are using up information, at the same time they need to build it up again. So, media literacy is seen as a necessary skill for digital citizenship.

Thoman (1999) defines media literacy as a skill to infer meaning from the visual and auditory symbols which we receive from radio, internet, newspaper, journal and advertisement. Besides, "Media literacy can be expressed as a kind of available response that is to help against the effects of violence in the media" (Scharrer, 2009, p. 12).

Jenkins et al. (2006) argue that the term media literacy has become more inevitable and essential to total involvement, media consumption and media production in today's digital world. Jenkins et al. (2006) have identified twelve new media literacy skills (NMLs) that are necessary for total involvement in today's media world and introduced these to literature. They are play, performance, simulation, appropriation, multitasking, distributed cognition, collective intelligence, judgement, trans-media navigation, networking, negotiation and visualization.

Individuals may be influenced by the media messages they receive in several ways. Also, individuals may make choices and decisions connected to their daily living according to the media. Therefore, media literacy is seen as essential in terms of individuals' making conscious and good choices among hundreds of things offered by media. "Other goals of media literacy are to make people conscious of their democratic rights while using the media, to warn them against being deaf to social problems and to qualify them better against manipulation in the media" (Balaban Salı, Ünal & Küçük, 2008, p. 556).

In particular, children who are defenceless receivers of visual, auditory and printed media should be educated and children's awareness about media must be raised starting from primary education. In this way, students will be active individuals who can make out and comprehend media rather than being passive receivers (RTÜK, 2007).

Media literacy program was prepared in collaboration with the Ministry of National Education and Radio and Television Supreme Council in Turkey in 2006. The general purpose of media literacy and the skills that individuals will acquire are emphasized in the program. The requirement for media literacy is also emphasized through mentioning the desired behaviors and values. The Media Literacy course has the following subject titles: introduction to communication, mass media, media, television,

family, children and television, radio, newspaper and journals, internet. Since 2006, the Media Literacy course has been taught as an elective course in the 7th and 8th grades of secondary school.

Gifted Students and Media Literacy

Today, countries aim at improving the skills and competency of individuals in society to the full extent and in the best way. Also, countries need individuals who can improve and advance. These facts presuppose that gifted students should be educated as a separate group. We are generally familiar with terms such as superior intelligence, gifted and talented or specially skilled, which are interchangeable. According to Renzulli (1998), three kinds of characteristics as above-average skills, creativity and motivation become prominent in gifted individuals. Limited definitions describe intelligence only with figures and numbers, while detailed definitions evaluate intelligence more in a qualitative way and they include elements like creativity along with the figures and numbers (Sak, 2010). Gagne (2003, p. 60) defines being gifted as a situation that is innate and cannot be learned but being capable is a feature that can be attained in the process of education.

In this research, the term gifted students is used to denote superior intelligence and specially skilled students. Gifted students are the ones who, compared to their peers, overperform in intelligence, creativity, art, ability of leadership or academic fields (MEB, 2015). Various educational needs of gifted students can be met with the programs which make students more dynamic and active, which offer direct experience at first hand and which are rich in methods and techniques (Hébert & Neumeister, 2000). Gifted students in Turkey continue their education in formal state schools. Apart from the time they spend in these schools, they can also be educated in the Science and Arts Center with differentiated and enriched curriculums. Science and Arts Centers are private educational institutes opened with the aim of raising preschool, primary school, secondary school and high school gifted students' consciousness of their skills, also improving and using their skills at the highest level (MEB, 2015). There are 106 Science and Arts Centers in Turkey.

In order to study at these private institutes, students are expected to be successful in a two-phased intelligence test. According to the exam results, students who are qualified as gifted have the right to enroll in the Science and Arts Center after the approval of the ministry. Students enrolled in these centers are included in the academic programs prepared in different areas, such as Adaptation Program, Support Training Program, Realising Individual Skills Program (BYF), Improving Special Abilities Program (ÖYG), Project Arrangement and Management. Students continue studying in these institutes until they are out of the formal state schools. Within this process, students are taught in accordance with their skills.

This research conducted to determine the media literacy levels of gifted students is important in finding out whether there is a difference among them or not in terms of

media literacy levels. Moreover, with this research, determining their media literacy levels by discussing the media tools students have and how frequently they use their media tools is expected to contribute to the literature. The development of gifted students' media literacy skills and training gifted students who are aware of how to access information, and who are able to criticize and judge the obtained information are becoming an issue for the future society.

In literature there are a lot of studies on media literacy (Ahn, 2013; Akçaoğlu, Kereluik & Boyer, 2012; Aktı, 2011; Aybek & Demir, 2013; Aydemir, 2013; Balaban-Salı, 2012; Gömleksiz, Kan, & Öner, 2012; Görmez, 2014; Gutiérrez & Tyner, 2012; Karaman & Karataş, 2009; Köroğlu, 2015; Lin, Li, Deng, & Lee 2013; Literat, 2014; Miočić & Perinić, 2014; Semiz, 2013; Wu & Wang, 2011). These studies generally concentrate on students' use of the internet, social media and television. Overall, there is no research about media literacy levels of gifted students. In this research, media literacy levels of gifted students are examined on the basis of 12 new media literacy skills (NMLs) determined by Jenkins et al. (2006).

The aim of this research is to determine the media literacy levels of gifted students. For this purpose, answers to the questions below are sought for.

1. What is media literacy level of the gifted students?
2. Do media literacy scores of gifted students change with respect to gender and the Science and Arts Center programs they study?
3. Do media literacy scores of gifted students change with respect to the time during which they use the media tools?

Method

In this research, the survey model as part of the quantitative research method was used. Screening models are approaches which aim to describe a situation of present or past as it is (Karasar, 2007).

In this research, the media literacy levels of the students and scores related to the factor of media literacy are taken as a dependent variable while variables like media tools that students have and students' frequency of the use of media tools, demographic qualities and socio-economic conditions are taken and found that an independent variable.

Participants

The population of this research is made up of gifted students in Bursa in the 1st term of the 2016-2017 academic year. The sample chosen by random sampling among the population comprises 64 gifted students in Bursa BTSO Kamil Tolon Science and Art Center.

There were 40 (62.5%) female and 24 (37.5%) male students in the study. In terms of age range, 42.2% of the students are 10–11 years old, 28.1% of the students are 12–13, and 29.7% of the students are 14–15 years old. We collected information on the courses

they are enrolled in and programs they study as 42.2% of the students are enrolled in the Support Training Program, 17.2% are enrolled in Realising Individual Skills (BYF) Program, 20.3% are enrolled in Improving Special Abilities (ÖYP) Program and 20.3% of the students are enrolled in Project Training Program. When we look at the educational background of the students' parents, 6.3% have primary or secondary school education, 29.1% have high school education, 68.7% have university education and 3.1% have a postgraduate education. When the educational background of the students' fathers was examined, we found that 7.8% are primary or secondary school graduates, 18.8% are high school graduates, 65.5% are university graduates and 7.8% have a postgraduate certificate. The monthly income of the families of research participants is as follows: 25% of the families have 1001-2000 TL, 29.7% have 2001-3000 TL, 29.7% have 3001-5000 TL and 15.6% have more than 5000 TL income per month.

Data Collection Tool

"New Media Literacy Scale" used in this research was developed by Literat (2011) and was adapted to Turkish by Balaban-Salı (2012). After obtaining the necessary approval from the researchers, the questionnaire was implemented.

The questionnaire has three main sections. The first section consists of nine questions related to gender, age and grade level, type of the school and the Science and Arts Center program studied to define the socio-demographic features of the gifted students. The second section has eight questions defining the features of students' media use.

The third section has 60 items aiming to evaluate the New Media Literacy Skills (NMLs) of gifted students. In order to determine the level, a five point Likert-type scale is used with the following breakdown "Strongly Disagree (1), Disagree (2), Moderately Agree (3), Agree (4), Strongly Agree (5)". These 60 items are all related to the 12 New Media Literacy Skills (NMLs) defined by Jenkins et al. (2006). Here are some of the items in the scale:

Simulation: "I think about the way in which reality is represented in movies with computer-generated simulation, like Avatar, Inception, 300, Sin City, Iron Man, X-Men, etc."

Appropriation: "I have created something new that incorporates stuff from popular culture, like writing a short story based on a character in my favorite book, making a fan video, or music remix."

Judgement: "I can effectively determine whether or not the information I find online is correct and reliable."

Negotiation: "I think that using the internet and/or playing video games makes people more open to other cultures."

Visualization: "I feel I understand things better when I can think of them visually."

Cronbach alpha reliability coefficient of the whole scale is calculated as 0.93 and Subcategory coefficient changes between 0.60 and 0.84.

Procedures and Data Analyses

Data in this research were acquired through the online implementation of the New Media Literacy Skills Scale to the gifted students studying at the Bursa BTSO Science and Arts Center in the 1st term of the 2016/2017 academic year. The statistical analysis of the data obtained was done using the SPSS 23.0 data analysis program. Before the analysis, the scores obtained from the dependent variable were checked to establish whether or not they have a normal distribution.

The skewness and kurtosis index were used to identify the normality of data. The average scores of 12 sub-factors in the scale are considered. Skewness and kurtosis coefficients are commented differently by various authors (George & Mallery, 2010; Morgan et al., 2004; Tabachnick & Fidell, 2013). With regard to criteria related to normality, data is considered to be normal if skewness is between -2 and +2 (Field, 2009; Tabachnick & Fidell, 2007) and kurtosis is between -7 and +7 (Byrne, 2010; Hair et al., 2010). However, the skewness and kurtosis coefficients which are between -3 and +3 can be accepted as a normal distribution (Kalaycı, 2010). Accordingly, our data have been distributed normally. All skewness and kurtosis statistics are presented in Table 1. Since the normality hypothesis is verified, T- test and ANOVA were used.

Results

Descriptive statistics are acquired to define the media literacy levels of the gifted students, and values obtained from these descriptive statistics are given in Table 1.

Table 1

The descriptive statistics relating to the new media literacy scale

Media Literacy Skills	N	Min.	Max.	Mean	SD	Mode	Skewness	Kurtosis
Play	64	2.20	5.00	3.73	0.64	3.60	-.274	-.359
Simulation	64	2.20	5.00	3.89	0.73	3.60	-.366	-.568
Performance	64	2.20	5.00	3.46	0.73	3.40	.223	-.463
Appropriation	64	1.00	5.00	3.25	0.84	3.60	-.147	.502
Distributed cognition	64	1.00	5.00	3.84	0.72	3.60	-.857	2.608
Multi-tasking	64	2.00	5.00	3.70	0.72	3.80	-.112	-.397
Collective intelligence	64	2.40	5.00	4.01	0.67	4.00	-.500	-.655
Judgement	64	2.20	5.00	4.04	0.61	3.80	-.619	.298
Trans-media navigation	64	1.80	5.00	3.72	0.74	3.80	-.313	-.439
Networking	64	1.80	5.00	3.29	0.83	3.00	.149	-.596
Negotiation	64	1.20	5.00	3.70	0.83	3.80	-.860	.760
Visualization	64	2.40	5.00	4.18	0.64	4.20	-.954	1.062
General Average	64	2.58	4.98	3.73	0.47	-	-	-

When we look at the averages relating to the New Media Literacy the general average is estimated as 3.73. The values of Simulation (M=3.89), Distributed cognition (M=3.84), Collective intelligence (M=4.01), Judgement (M=4.04) and Visualization (M=4.18) are above the general average. Therefore, such skills as simulation, distributed cognition, collective intelligence, judgement and visualization skills of the students

can be said to be better than the other skills. The lowest average is observed for the appropriation skill (M=3.25).

The frequency and percentage distribution relating to the frequency of use of media tools by gifted students is given in Table 2.

Table 2

Frequency and percentage distribution relating to the frequency of use of media tools by gifted students

		Time Span (Weekly)				
		Less than 1 hour	1-3 hours	3-5 hours	More than 5 hours	Total
Internet	n	8	22	20	14	64
	(%)	12.5	34.4	31.3	21.9	100%
TV	n	11	22	21	10	64
	(%)	17.2	34.4	32.8	15.6	100%
Digital games	n	20	23	9	12	64
	(%)	31.3	35.9	14.1	18.8	100%
Printed media	n	10	23	15	16	64
	(%)	15.6	35.9	23.4	25	100%
Social media	n	25	19	11	9	64
	(%)	39.1	29.7	17.2	14.1	100%

According to the answers given about the question "How much time do you spend on the internet?", 12.5% spend less than an hour, 34.4% spend 1-3 hours, 31.3% spend 3-5 hours and 21.9% spend more than 5 hours on the internet.

The answers to the question "How much time do you spend watching television?" show that 17.2% spend less than an hour, 34.4% spend 1-3 hours, 32.8% spend 3-5 hours, and 15.6% spend more than 5 hours watching television.

According to the answers given to the question "How much time do you spend playing digital games (on the internet or on game consoles like Wii or PS)?", 31.3% spend less than an hour, 35.9% spend 1-3 hours, 14.1% spend 3-5 hours and 18,8% spend more than 5 hours on the internet.

The answers to the question "How much time do you spend on reading books, journals or the newspaper?" show that 15.6% spend less than an hour, 35.9% spend 1-3 hours, 23.4% spend 3-5 hours and 25% spend more than 5 hours reading books, journals or the newspaper.

According to the answers given to the question "How much time do you spend on Social Media (Facebook, Twitter, Youtube, Yahoo etc.)?", 39.1% spend less than an hour, 29.7% spend 1-3 hours, 17.2% spend 3-5 hours and 14.1% spend more than 5 hours using Social Media on the internet.

The answer to the question whether media literacy of gifted students changes according to the variable of gender was attained by applying the independent samples T-test. Also, one-way analysis of variance (ANOVA) was applied in order to define whether media literacy skill levels of gifted students change according to the programs they study at Science and Arts Center. The values obtained are given in Table 3.

Table 3

T-test and one-way analysis of variance (ANOVA) results of the New Media Literacy scores in terms of demographic data

NMLs	Gender(T-test)				Science and Arts Center Program (ANOVA)	
	Gender	Mean	t	p	F	p
Play	Girls Boys	3.73 3.74	-.010	.992	.105	.957
Simulation	Girls Boys	3.72 3.99	-1.472	.146	2.905	**.042*** **Project>Support**
Performance	Girls Boys	3.43 3.47	-.193	.847	1.853	.147
Appropriation	Girls Boys	3.27 3.25	.100	.921	.488	.692
Distributed cognition	Girls Boys	4.02 3.74	1.501	.139	.626	.601
Multitasking	Girls Boys	3.69 3.70	-.065	.948	1.272	.292
Collective intelligence	Girls Boys	4.04 3.99	.323	.748	2.118	.107
Judgement	Girls Boys	4.08 4.02	.377	.707	1.741	.168
Trans-media navigation	Girls Boys	3.73 3.71	.146	.884	.745	.530
Networking	Girls Boys	3.26 3.31	-.216	.830	.932	.431
Negotiation	Girls Boys	3.82 3.63	.870	.388	3.494	**.021*** **Project>Support**
Visualization	Girls Boys	4.18 4.17	.080	.936	.891	.451

*p< 0.05

Table 3 shows that Media Literacy Levels of gifted students do not change in terms of the variable Gender. The highest average is in Visualization and the lowest average is in Networking for girls, and for boys the highest average is in Visualization and the lowest average is in Appropriation.

According to the Science and Arts Center programs they study, a significant difference is observed on their simulation scores (F= 2.905; p<.05). The difference is significant according to the analysis of variance results. To define among which programs this difference exists, one of the multiple comparison tests (Tukey HSD) was used. According to the results, the difference is found to be between the Project Program students ($\bar{x}$=4.31) and Support Training Program students ($\bar{x}$=3.64).

Moreover, a significant difference is observed for their Negotiation scores with respect to the Science and Arts Center programs they study (F =3.494; p<.05). Also, to define among which programs this difference exists, the Tukey test was used and showed that the difference occurs between Project program students ($\bar{x}$=4.12) and Support Training program students ($\bar{x}$=3.36).

One-way analysis of variance (ANOVA) was applied in order to define whether the media literacy levels change according to the time students spend using media tools. The values obtained are shown in Table 4.

Table 4

One-way analysis of variance (ANOVA) results of the New Media Literacy scores in terms of the time spent on media tools

NMLs	TV		Digital Games		Internet		Printed Media		Social Media	
	F	p	F	p	F	p	F	p	F	p
Play	.841	.477	.426	.735	.195	.939	.120	.948	1.683	.180
Simulation	.556	.646	1.318	.277	.456	.714	.792	.503	.330	.803
Performance	1.622	.194	3.295	**.026* 5+>1-**	3.365	**.024* 5+>1-**	.070	.976	.094	.963
Appropriation	.517	.672	1.194	.320	3.199	**.030* 5+>1-**	.457	.713	.773	.514
Distributed cognition	.230	.875	.890	.451	1.237	.304	1.025	.388	.245	.864
Multitasking	1.480	.229	.575	.673	.335	.764	2.935	.070	.509	.678
Collective intelligence	.576	.633	1.148	.307	.271	.846	1.447	.238	.073	.974
Judgement	.505	.680	.667	.575	2.582	.062	.336	.799	.064	.979
Trans-media navigation	.627	.601	3.367	**.024* 5+>1-**	1.651	.187	.472	.703	.368	.776
Networking	.366	.778	2.969	**.039* 5+>1-**	.886	.454	2.140	.105	.430	.732
Negotiation	.166	.919	.336	.799	.857	.469	2.726	.052	.527	.667
Visualization	1.700	.177	.193	.901	1.327	.274	1.266	.294	.254	.858

*p< 0.05

As seen in Table 4, according to the time students spent playing digital games, a significant difference is observed on their performance scores (F=3.295; p<.05). The multiple comparison Tukey HSD test was used to define among which groups this difference exists, previously seen in the analysis of variance results. According to the results, the difference is found to be between students who play games more than 5 hours ($\bar{x}$=3.82) and students who play less than an hour ($\bar{x}$=3.12).

In terms of their time playing digital games, a significant difference on their trans-media navigation scores is found (F=3.367; p<.05). According to the Tukey test results, this difference stems from the difference between students who play digital games for more than 5 hours ($\bar{x}$=4.23) and students who play less than an hour ($\bar{x}$=3.46).

In addition, a significant difference is observed for their networking scores according to the time they spend playing digital games (F=2.969; p<.05). According to the Tukey test results, the difference is between students who are on the internet for more than 5 hours ($\bar{x}$=3.68) and students who spend less than an hour on the internet ($\bar{x}$=3.04).

According to the time they spend on the internet, there is a significant difference in their performance scores (F=3.365; p<.05). According to the Tukey test results, the

difference is between students who are on the internet for more than 5 hours ($\bar{x}$=3.87) and students who are on the internet less than an hour ($\bar{x}$=2.93).

Finally, according to the time they spend on the internet, there is a significant difference on their appropriation skill scores (F=3.199; p<.05). According to the Tukey test results, the difference is between the students who are on the internet for more than 5 hours ($\bar{x}$=2.85) and students who are on the internet less than an hour ($\bar{x}$=3.80).

Discussion and Conclusions

This research is aimed at determining the media literacy skill levels of gifted students. Furthermore, information about gifted students' demographic features, their habits and tendency in media use was obtained.

According to the findings obtained in this research using the New Media Literacy Scale, the general average is estimated to be 3.73. Therefore, it can be concluded that the media literacy skills of gifted students are at a satisfactory level. Simulation, distributed cognition, collective intelligence, judgement and visualization averages are above the general average. The lowest average is for the appropriation skill. The skills for which students got the highest scores are visualization, judgement and collective intelligence. As a result, it can be said that gifted students understand information better in a visual way, they like to use pictures, graphs and diagrams as much as possible, they deal with information on the internet carefully and they make use of many different sources in order to grasp and comprehend a topic. Also, it is clear that they can understand prejudice and bias in the media, they can use the internet and social media when they cannot handle a problem themselves or in order to contact someone. These findings are consistent with the previous findings by Balaban-Sali (2012). In the work of Balaban-Sali (2012), the skills for which participants got the highest scores were respectively judgement, visualization and collective intelligence. In a similar way, in the work of Miočić and Perinić (2014), visualization and collective intelligence were the skills with the highest scores. Moreover, in the work of Akçaoğlu et al. (2012), visualization and judgement were the skills with the highest scores. The participants in the mentioned studies were all of different ages and academic backgrounds. However, the results are relatively similar, and this can be explained with most participants' being of the same age group and their being exposed to similar types of media tools. On the other hand, students do not like producing new work much by using various media tools and contents. Also, by looking at their averages in networking, it can be stated that they do not like sharing the links they liked in social media or their own creative work.

It is apparent that media literacy of gifted students does not change according to gender. In like manner, research by Aktı (2011) was done to establish whether there is a significant difference in media literacy levels of the participants in terms of gender. The author concluded that there is no significant difference. While the highest average is in visualization and the lowest average is in networking for girls, the highest average

is in visualization and the lowest average is in appropriation for boys. According to this, when students prepare a project for school or another purpose, it can be stated that they use as many pictures, graphs and diagrams as possible and they grasp and comprehend new information better through pictures, graphs, schema and other visual tools. Girls do not think that reading the recommendations on the internet is important for their decision-making process and they do not like sharing links in websites like Facebook, Twitter, Blog and so on.

When we consider and assess students according to the Science and Arts Center Programs they study, there is a significant difference in their simulation and negotiation scores. It is concluded that the difference in scores stems from the difference between programs attended, i.e. Project program and Support Training program. The simulation skill requires showing empathy and enjoying simulation games and activities. Of all the gifted students in the Science and Art Center, the ones in the Project program are older than the ones in Support and Training program. Therefore, they are better in using media tools and abstract intelligence. This may ensure that their simulation skills developed well. The negotiation skill requires making contact with others from different cultures and recognizing the differences. The students in the Project program are better at internet and online games and this may facilitate the development of their negotiation skills.

A significant difference cannot be found between students' media literacy levels and their time spent on watching television in this research. According to the students' scores, their television addiction level is low and their literacy level is better, so this shows that they are conscious and their awareness is high. In a similar way, in works of Literat (2014) and Aktı (2011) a significant difference also cannot be found in students' media literacy levels related to their time spent on watching television. In addition, the work of Som and Kurt (2012) also did not establish a significant difference between students' media literacy levels and their watching television. Besides, no significant difference was found between the students' media literacy levels and the time spent on reading printed media tools. The results are the same in the work of Literat (2014). In conclusion, it can be stated that traditional media tools like television and printed media tools lose their effect and do not improve media literacy skills.

In examining whether students' media literacy skill levels change according to the frequency of the internet use, a significant difference was observed for performance and appropriation. The more time they spend on the internet, the better their skills of disguising in one another's identity and improvisation with their online performance on the internet are. The findings obtained from the research by Karaman and Karataş (2009) show that media literacy level of the preservice teachers is high and the more time they spend on the internet, the higher their media literacy level is.

According to another research result, as students spend time playing digital games, their skills of performance, trans-media navigation and networking develop. In particular, online games are used not only as a means of fun and amusement but also

as a means of socializing among students. Besides, it can be stated that gifted students are not digital game addicts. Gifted students are known to have trouble socializing. According to Hasselbring and Glaser (2000), socializing opportunities through the internet support the development of social communication skill for the ones who are introvert and have difficulty in communicating with others.

According to the research, frequency of the gifted students' use of the social media tools does not affect their media literacy levels. It was found that 39.1% of the students spend less than an hour on social media per week. A survey in Turkey shows that among internet user students in the 6-15 age group, 53.5% use the internet in order to join and spend time on social media networks (TUIK, 2013). When compared with this information, the frequency of the social media use among gifted students is below the Turkish average. Also, as seen in the work of Köroğlu (2015), frequency level of gifted students' social media use is below the Turkish average in a similar way.

What is important regarding developing technology and media tools is the attitude of individuals. Today, developed societies and countries place efforts to make individuals better in media literacy. As a result, society will not accept unlimited messages from the media in an unconditional way and they will critically observe these messages. Gifted students have a good level of media literacy skills and this shows that they are aware and conscious of this topic. Moreover, precautions and necessary steps should be taken to expand this consciousness and awareness to all students in the school system.

In order to raise media literacy skill levels of gifted students, those who will shape the country's future, the contents of media literacy in programs and schedules need to be increased in Science and Art Centers. As long as individuals develop their media literacy skills, society that knows how to access knowledge and that can criticize, question and judge the information they get will be constituted.

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Vještina medijske pismenosti kod darovitih učenika

Sažetak

U ovome istraživanju proučene su i analizirane vještine medijske pismenosti darovitih učenika.

U istraživanju se koristila kvantitativna metoda, odnosno model ankete. Ispitanici su daroviti učenici u Bursi, a istraživanje je provedeno u prvome polugodištu akademske godine 2016./2017. Uzorak ispitanika odabran je slučajnim uzorkovanjem među populacijom, a čine ga 64 darovita učenika u Bursi BRSO BTSO Kamil Tolon Science and Art Center (Centar za znanost i umjetnost).

Prema rezultatima istraživanja možemo reći da su vještine medijske pismenosti učenika na zadovoljavajućoj razini. Vještine u kojima su učenici ostvarili najbolje rezultate su vizualizacija, prosudba i razboritost. U skladu s tim daroviti učenici bolje razumiju informaciju ako je prikazana vizualno, teže tome da se učestalije koriste slikama, grafovima, dijagramima, te da se koriste mnogim resursima kako bi temu bolje razumjeli. Nadalje, može se reći da ti učenici razumiju pojavu predrasuda ili pristranosti u medijima, a kada ne mogu riješiti problem, učinkovito se služe internetom i društvenim medijima da bi uspostavili kontakt s drugima. Što više vremena učenici provode koristeći se internetom, tim se više poboljšava njihov učinak i vještina improviziranja putem drugog identiteta.

Ključne riječi: *daroviti učenici; društveni mediji; internet; medijska pismenost; medijski alati.*

Uvod

Mediji su posljednjih godina snažno napredovali. Pojam medijska pismenost počeo se češće pojavljivati s napretkom nove tehnologije. Društveni mediji, multimediji i komunikacijska tehnologija prožimaju sve aspekte i dijelove života. S novom medijskom tehnologijom koja je nastala s početkom 21. stoljeća tradicionalna je pismenost postala nedostatna i nezadovoljavajuća. Za osobe koje više doprinose društvu, biti medijski pismen postaje nužnost.

Postoje različiti pogledi vezani uz pojam medijska pismenost u literaturi. Stoga je prilično teško iznjedriti opću definiciju medijske pismenosti. Ako uzmemo u obzir

relevantne stručnjake koji se bave tom temom, možemo reći da se definicija navedenog pojma mijenja, štoviše, s razvojem digitalne tehnologije, sadržaj medijske pismenosti samo se proširuje.

Medijska pismenost definira se kao „istraživanje različitih oblika poruka, neovisno o tome jesu li pisane ili nisu, njihova analiza i procjena, kao i sposobnost njihova prijenosa" (Dennis, 2004, str. 203; Hobbs i Frost, 2003, str. 334; Livingstone, 2004, str. 5). Danas se, da bi se mogli uključiti u društvo i modernu kulturu, pojedinci ne samo koriste informacijom nego je moraju ponovno stvoriti. Prema tome, medijska je pismenost nužna vještina za digitalno građanstvo.

Thoman (1999) definira medijsku pismenost kao vještinu zaključivanja iz vizualnih i zvučnih simbola koje emitiraju radio, internet, novine, časopisi i oglasi. Nadalje, „Medijska pismenost može se izraziti kao vrsta raspoloživih odgovora koji će se oduprijeti nasilju u medijima" (Scharrer, 2009, str. 12).

Jenkins i dr. (2006) tvrde da je pojam medijska pismenost postao neizbježan i neophodan za potpunu uključenost, konzumaciju medija i medijsku produkciju u današnjem digitalnom svijetu. Jenkins i dr. (2006) identificirali su dvanaest novih vještina medijske pismenosti koje su potrebne za potpunu uključenost u današnji medijski svijet i uveli ih u literaturu. Te su vještine igra, izvedba, simulacija, apropriacija, višezadaćnost (engl. *multitasking*), distribuirana spoznaja, kolektivna inteligencija, procjena, transmedijska navigacija, mrežno povezivanje (engl. *networking*), pregovaranje i vizualizacija.

Dobivene medijske poruke mogu utjecati na pojedince na nekoliko načina. Također, pojedinci s obzirom na medije mogu birati i donositi odluke vezane uz svakodnevni život. Stoga medijsku pismenost vidimo kao nužnu s obzirom na svjesne i dobre izbore pojedinca među stotinama koje mediji nude. „Drugi ciljevi medijske pismenosti su unaprijediti ljude i osvijestiti ih o demokratskim pravima kada se koriste medijima, upozoriti na oglušenost za društvene probleme i osposobiti ih da se odupru manipulaciji medija" (Balaban Salı, Ünal, i Küçük, 2008, p. 556).

Posebno djeca, koja su bespomoćni primatelji vizualnog, audio i tiskanog medija, moraju biti obrazovana, a njihova osviještenost o medijima mora se podizati od samoga početka obaveznoga obrazovanja. Na taj će način učenici postati aktivni pojedinci sposobni uočiti i razumjeti medije za razliku od pasivnih primatelja (RTÜK, 2007). Program medijske pismenosti nastao je u suradnji s Ministarstvom obrazovanja (engl. *Ministry of National Education*) i Vrhovnim vijećem radija i televizije (engl. *Radio and Television Supreme Council*) u Turskoj 2006. Svrha medijske pismenosti i vještine koje pojedinac treba usvojiti naglašene su u programu. Potreba za medijskom pismenošću također je naglašena s obzirom na poželjna ponašanja i vrijednosti. Predmet medijska pismenost sadrži sljedeće teme: uvod u komunikaciju, masovni mediji, mediji, televizija, obitelj, djeca i televizija, radio, novine i časopisi, internet. Od 2006. predmet Medijska pismenost poučava se kao izborni predmet u sedmim i osmim razredima osnovne škole.

Daroviti učenici i medijska pismenost

Danas zemlje ciljaju na potpuno poboljšanje vještina i kompetencija pojedinaca u društvu. Nadalje, zemlje trebaju pojedince koji teže boljitku i napretku. Te činjenice podrazumijevaju obrazovanje darovitih učenika kao posebne skupine. Općenito smo upoznati s pojmovima visoke inteligencije, darovitosti i talenta ili posebnih vještina, i često ih zamjenjujemo. Prema Renzulli (1998), tri karakteristike vještina postaju dominantne kod darovitih pojedinaca, a to su iznadprosječnost, kreativnost i motivacija. Ograničene definicije opisuju inteligenciju samo brojkama, a detaljne definicije procjenjuju inteligenciju na kvalitativan način i uz brojke sadrže elemente poput kreativnosti (Sak, 2010). Gagne (2003, str. 60) definira darovitost kao situaciju koja je urođena i koja se ne može naučiti, ali biti sposoban svojstvo je koje se može usvojiti tijekom obrazovanja.

U ovome istraživanju pojam daroviti učenik označava superiornu inteligenciju i posebno vješte učenike. Daroviti su učenici oni koji, u odnosu na svoje vršnjake, pokazuju iznadprosječnu inteligenciju, kreativnost, umjetnost, rukovođenje ili osposobljenost u akademskim poljima (MEB, 2015). Različite potrebe u obrazovanju darovitih učenika mogu se osigurati putem programa koji učenike čini dinamičnijima i aktivnijima, koji nude izravno iskustvo i koji su bogati u metodama i tehnikama izvođenja (Hébert i Neumeister, 2000). Daroviti učenici u Turskoj nastavljaju obrazovanje u državnim školama. Uz vrijeme koje provedu u tim školama također se mogu obrazovati u Centrima za znanost i umjetnost (engl. *Science and Arts Center*), koji nude diferencirane i pojačane kurikule. Centri za znanost i umjetnost privatne su obrazovne institucije koje su nastale s ciljem podizanja svjesnosti darovitih učenika u predškolskom, osnovnoškolskom i srednjoškolskom obrazovanju o vlastitim vještinama, te s ciljem poboljšanja i korištenja njihovih vještina na najvišoj razini (MEB, 2015). U Turskoj postoji 106 Centara za znanost i umjetnost.

Za upis u privatne institute, učenici moraju biti uspješni u dvofaznom testu inteligencije. S obzirom na rezultate ispita, učenici koji su ocijenjeni kao daroviti imaju pravo upisa u Centar za znanost i umjetnost nakon odobrenja ministarstva. Učenici koji se upišu u centre uključeni su u akademske programe koji su pripremljeni za različita područja: Program adaptacije, Program podrške i učenja, Program realizacije vještina pojedinaca (BYF), Program napretka posebnih mogućnosti (ÖYG), Projektna priprema i Upravljanje. Učenici nastavljaju obrazovanje u tim institucijama dok ne završe s formalnim obrazovanjem u državnim školama. Unutar tog procesa učenici uče u skladu s vlastitim vještinama.

Ovo istraživanje provedeno je da bi se odredile razine medijske pismenosti kod darovite djece te da bi se odredilo postoji li među njima razlika s obzirom na razine medijske pismenosti. Nadalje, pokušat ćemo doprinijeti literaturi istraživanjem određivanja razine njihove medijske pismenosti putem razgovora o medijskim alatima kojima se koriste i učestalosti njihova korištenja. Razvoj vještine medijske pismenosti

kod darovitih učenika koji su osviješteni o tome kako doći do informacije te koji mogu kritički procijeniti dobivenu informaciju, postaje pitanje budućnosti društva.

U literaturi nalazimo mnoštvo istraživanja o medijskoj pismenosti (Ahn, 2013; Akçaoğlu, Kereluik, i Boyer, 2012; Aktı, 2011; Aybek i Demir, 2013; Aydemir, 2013; Balaban-Salı, 2012; Cakmak i Tuzel, 2016; Gömleksiz, Kan, i Öner, 2012; Görmez, 2014; Gutiérrez i Tyner, 2012; Karaman i Karataş, 2009; Köroğlu, 2015; Lin, Li, Deng, i Lee 2013; Literat, 2014; Lokman, 2013; Miočić i Perinić, 2014; Tüzel, 2012; Wu i Wang, 2011). Ta istraživanja uglavnom se usredotočuju na to kako se učenici koriste internetom, društvenim medijima i televizijom. Uglavnom, ne postoji istraživanje o razini medijske pismenosti darovitih učenika. U ovome se istraživanju razine medijske pismenosti darovitih učenika proučavaju na osnovi 12 novih vještina medijske pismenosti (NMLs) koje su postavili Jenkins i sur. (2006).

Cilj ovoga istraživanja bio je odrediti razine medijske pismenosti darovitih učenika. S tom svrhom pokušali smo odgovoriti na sljedeća pitanja:

1. Koja je razina medijske pismenosti darovitih učenika?
2. Je li rezultat razine medijske pismenosti darovitih učenika različit s obzirom na spol i obrazovne programe Centra za znanost i umjetnost?
3. Razlikuju li se rezultati razine medijske pismenosti darovitih učenika s obzirom na vrijeme koje provode koristeći se medijskim alatima?

Metode

U ovome istraživanju koristit ćemo se modelom ankete u okviru kvantitativne metode istraživanja. Modeli probira su pristupi kojima je cilj opisati trenutnu situaciju ili prijašnju situaciju onakvom kakva jest (Karasar, 2007).

Razine medijske pismenosti učenika i njihovi rezultati povezani s faktorom medijske pismenosti bit će zavisna varijabla, a medijski alati kojima se studenti koriste i učestalost njihova korištenja, demografski podaci i društveno-ekonomski uvjeti nezavisne varijable.

Ispitanici

Uzorak ispitanika u ovome istraživanju sastoji se od darovitih učenika u Bursi. Istraživanje je provedeno u prvome polugodištu ak. godine 2016./2017. Ispitanici su odabrani metodom slučajnog uzorkovanja u populaciji pa se uzorak sastoji od 64 darovita učenika iz Bursa BTSO Kamil Tolon Centra za znanost i umjetnost.

U ispitivanju je sudjelovalo 40 (62,5%) učenica i 24 (37,5%) učenika. S obzirom na dob, 42,2% učenika je u dobi od 10 do 11 godina, 28,1% u dobi od 12 do 13 godina, 29,7% u dobi od 14 do 15 godina. Rezultati su ukazali na predmete koje uče i programe u koje se upisuju. Tako 42,2% učenika prati Program podrške i učenja, 17,2% učenika uključeno je u Program realizacije vještina pojedinaca, 20,3% učenika uključeno je u Program razvoja posebnih mogućnosti (ÖYP), a 20,3% učenika prati program Projektna priprema. S obzirom na obrazovanje roditelja darovitih učenika vidimo da

6,3% roditelja ima osnovno ili srednjoškolsko obrazovanje, 29,1% ima srednjoškolsko obrazovanje, 68,7% ima visoko obrazovanje a 3,1% ima poslijediplomsku razinu obrazovanja. S obzirom na obrazovanje očeva darovitih učenika, 7,8% očeva završilo je osnovnu ili srednju školu, 18,8% završilo je srednju školu, 65,5% ima visoko obrazovanje, a njih 7,8% ima diplomu poslijediplomskoga studija. Mjesečna primanja obitelji ispitanika u ovome istraživanju su sljedeća: 25% obitelji ima primanja od 1001 do 2000 TL, 29,7% od 2001 do 3000 TL, 29,7% od 3001 do 5000 TL i 15,6% više od 5000 TL.

Instrument za prikupljanje podataka

U ovome istraživanju koristili smo se „Skalom medijske pismenosti" koju je osmislio Literat (2011), a na turski prilagodio Balaban-Salı (2012). Nakon dobivanja potrebnih odobrenja od istraživača, upitnik je primijenjen na ispitanike.

Upitnik se sastoji od tri glavna dijela. Prvi dio sastoji se od devet pitanja koja se odnose na spol, dob, razred, vrstu škole, program koji pohađaju u Centru za znanost i umjetnost, kako bi se definirale društveno-demografske karakteristike darovitih učenika. Drugi dio ima osam pitanja kojima će se definirati karakteristike učeničkog korištenja medija.

Treći dio sastoji se od 60 čestica kojima je cilj procijeniti vještine medijske pismenosti darovitih učenika. Da bi se mogla odrediti razina vještine, koristila se Likertova skala od pet stupnjeva: „u potpunosti se ne slažem (1), ne slažem se (2), uglavnom se slažem (3), slažem se (4), u potpunosti se slažem (5)". 60 čestica povezano je s 12 vještina medijske pismenosti koje su definirali Jenkins i sur. (2006). Ovdje navodimo neke od čestica iz skale:

Simulacija: „Razmišljam o načinu na koji je stvarnost prikazana u filmovima s računalno-generiranom simulacijom poput *Avatar, Inception, 300, Sin City, Iron Man, X-Men* i dr."

Apropriacija: „Stvorio sam nešto novo što objedinjuje stvari iz popularne kulture, poput pisanja kratke priče vezane uz lik iz moje omiljene knjige, izrade *fan* videa ili glazbenog *remiksa*."

Procjena: „Mogu učinkovito odlučiti je li informacija koju sam našao *online* točna i pouzdana."

Pregovaranje: „Mislim da korištenje internetom i/ili igranje videoigara ljude čini otvorenijima za druge kulture."

Vizualizacija: „Osjećam da stvari bolje razumijem kada ih mogu vizualizirati."

Cronbach alpha koeficijent pouzdanosti za cijelu skalu procijenjen je na 0,93, a promjene koeficijenta u potkategorijama su između 0,60 i 0,84.

Postupci i analize podataka

Podaci u ovome istraživanju dobiveni su putem upitnika Skala medijske pismenosti u *online* okruženju koji je bio namijenjen darovitim učenicima iz Bursa BTSO Centra za znanost i umjetnost tijekom prvoga polugodišta ak. godine 2016./2017. Statistička

analiza podataka napravljena je uz pomoć statističkog programa SPSS 23.0. Prije analize dobiveni rezultati za nezavisnu varijablu provjereni su kako bi se odredilo postojanje normalne distribucije.

Indeksi zakrivljenosti i spljoštenosti koristili su se za identificiranje normalnosti podataka. U obzir smo uzeli prosječne rezultate za dvanaest podfaktora u skali. Koeficijente zakrivljenosti i spljoštenosti autori različito objašnjavaju (Tabachnick i Fidell, 2013; George i Mallery, 2010; Morgan i sur., 2004). S obzirom na kriterije vezane uz normalnost, podaci koji se smatraju normalnima jesu oni kod koji je zakrivljenost između -2 i +2 (Tabachnick i Fidell, 2007; Field, 2009) a spljoštenost između -7 i +7 (Byrne, 2010; Hair i sur., 2010). Međutim, koeficijenti zakrivljenosti i spljoštenosti koji su između -3 i +3 mogu biti prihvaćeni kao normalna distribucija (Kalaycı, 2010). Prema tome, naši podaci imaju normalu distribuciju. Statistika zakrivljenosti i spljoštenosti prikazana je u tablici 1. S obzirom na to da je hipoteza normalnosti potvrđena, provedeni su T-test i ANOVA.

Rezultati

Deskriptivna statistika napravljena je da bi se definirale razine medijske pismenosti darovitih učenika, a vrijednosti dobivene deskriptivnom statistikom prikazane su u tablici 1.

Tablica 1

Kada pogledamo prosjeke vezane uz medijsku pismenost, opći prosjek procijenjen je na 3,73. Vrijednosti za Simulaciju (M = 3,89), Distribuiranu spoznaju (M = 3,84), Kolektivnu inteligenciju (M = 4,01), Procjenu (M = 4,04) i Vizualizaciju (M = 4,18) iznad su općeg prosjeka. Prema tome, vještine poput simulacije, distribuirane spoznaje, kolektivne inteligencije, procjene i vizualizacije kod darovitih učenika bolje su od ostalih vještina. Najniži prosjek zamijećen je za vještinu aproprijacije (M = 3,25).

Učestalost i postotak distribucije vezane uz darovite učenike i njihovu učestalost korištenja medijskim alata prikazani su u tablici 2.

Tablica 2

Prema odgovorima na pitanje „Koliko vremena provodiš na internetu?" saznajemo da 12,5% učenika provodi manje od jednoga sata, 34,4% provodi od 1 do 3 sata, 31,3% provodi od 3 do 5 sati a 21,9% provodi više od 5 sati na internetu.

Odgovori na pitanje „Koliko vremena provodiš gledajući televiziju?" pokazuju da 17,2% učenika provodi manje od jednoga sata gledajući televiziju, 34,4% provodi od 1 do 3 sata, 32,8% provodi od 3 do 5 sati, 15,6% provodi više od 5 sati gledajući televiziju.

Prema odgovorima na pitanje „Koliko vremena provodiš igrajući digitalne igre (na internetu ili igraćim konzolama poput Wii ili PS?)", 31,3% učenika provodi manje od jednoga sata, 35,9% provodi od 1 do 3 sata, 14,1% provodi od 3 do 5 sati, a 18,8% provodi više od 5 sati na internetu.

Odgovori na pitanje „Koliko vremena provodiš čitajući knjige, časopise ili novine?" pokazuju da 15,6% učenika provede manje od jednoga sata, 35,9% provede od 1 do 3 sata, 23,4% provede od 3 do 5 sati i 25% provede više od pet sati čitajući knjige, časopise ili novine.

Prema odgovorima na pitanje „Koliko vremena provedeš na društvenim mrežama (Facebook, Twitter, Youtube, Yahoo itd.)?" 39,1% provede manje od jednoga sata, 29,7% provede od 1 do 3 sata, 17,2% provede od 3 do 5 sati, a 14,1% provede više od 5 sati koristeći se društvenim mrežama na internetu.

Odgovor na pitanje mijenja li se medijska pismenost darovitih učenika s obzirom na varijablu spol dobivena je primjenom T-testa za nezavisne uzorke. Također, jednosmjerna analiza varijance (ANOVA) primijenjena je kako bi se definiralo mijenjaju li se medijske vještine darovitih učenika s obzirom na programe u koje su uključeni u Centru za znanost i umjetnost. Dobivene vrijednosti prikazane su u tablici 3.

Tablica 3

Tablica 3 pokazuje da se razina medijske pismenosti darovitih učenika ne mijenja s obzirom na varijablu Spol. Najviši prosjek je za varijablu Vizualizacija, a najniži prosjek je za varijablu Umrežavanje (engl. *Networking*) kod učenica. Najviši prosjek je za varijablu Vizualizacija, a najniži prosjek za varijablu Aproprijacija kod učenika.

S obzirom na programe u koje su uključeni u Centru za znanost i umjetnost, značajna razlika uočena je u njihovim rezultatima simulacije ($F = 2{,}905$; $p<{,}05$). Prema rezultatima analize varijance razlika je značajna. Da bismo uvidjeli kod kojih programa nastaje razlika, primijenjen je test višestruke usporedbe Tukey HSD test. Prema rezultatima, razlika nastaje između učenika u Programu projektne pripreme ($\bar{x}=4{,}31$) i učenika u Programu podrške u učenju ($\bar{x}=3{,}64$).

Nadalje, značajna razlika uočena je i kod rezultata za varijablu Pregovaranje s obzirom na program koji pohađaju u Centru za znanost i umjetnost ($F =3{,}494$; $p<{,}05$). Također, da bi se definiralo između kojih programa nastaje ta razlika, primijenili smo Tukey test koji je pokazao da razlike nastaju između učenika u Programu projektne pripreme ($\bar{x}=4{,}12$) i učenika u Programu podrške u učenju ($\bar{x}=3{,}36$).

Jednosmjerna analiza varijance (ANOVA) primijenjena je da bi se odredilo mijenjaju li se razine medijske pismenosti s obzirom na vrijeme koje učenici provode koristeći se medijskim alatima. Dobivene vrijednosti prikazane su u tablici 4.

Tablica 4

Kao što je prikazano u tablici 4, s obzirom na vrijeme koje učenici provode igrajući digitalne igre, značajna razlika uočena je u njihovim rezultatima ($F = 3.295$; $p<.05$). Tukey HSD testom višestruke usporedbe definirane su skupine kod kojih nastaju te razlike, a prethodno smo ih vidjeli i u rezultatima analize varijance. Prema rezultatima, razlika je uočena među učenicima koji igraju igre više od 5 sati ($\bar{x}=3{,}82$) i učenicima koji igraju manje od jednoga sata ($\bar{x}=3{,}12$).

S obzirom na vrijeme koje provode igrajući digitalne igre, uočena je značajna razlika u rezultatima transmedijske navigacije (F = 3,367; p<,05). Ta razlika nastaje između učenika koji igraju digitalne igre više od 5 sati ($\bar{x}$=4,23) i učenika koji igraju igre manje od jednoga sata ($\bar{x}$=3,46).

Nadalje, značajna razlika uočena je za njihove rezultate umrežavanja (engl. *Networking*) s obzirom na vrijeme koje provode igrajući digitalne igre (F = 2,969; p<,05). Rezultati Tukey testa ukazuju na to da se razlike pojavljuju između učenika koji provode više od 5 sati na internetu ($\bar{x}$= 3,68) i učenika koji provode manje od jednoga sata na internetu ($\bar{x}$= 3,04).

S obzirom na vrijeme koje provode na internetu, uočena je značajna razlika u njihovim rezultatima (F = 3,365; p<,05). Prema rezultatima Tukey testa, razlika je uočena između učenika koji na internetu provode više od 5 sati ($\bar{x}$=3,87) i učenika koji na internetu provode manje od jednoga sata ($\bar{x}$=2,93).

Na kraju, s obzirom na vrijeme koje provode na internetu, značajna je razlika u rezultatima za vještinu aproprijacije (F = 3,199; p<,05). Rezultati Tukey testa pokazuju na postojanje razlike među učenicima koji na internetu provode više od 5 sati ($\bar{x}$=2,85) i učenika koji na internetu provode manje od jednoga sata ($\bar{x}$=3,80).

Rasprava i zaključci

Cilj ovoga istraživanja jest utvrđivanje razine medijske pismenosti darovitih učenika. Nadalje, dobivene su demografske karakteristike darovitih učenika, kao i podatci o njihovim navikama i sklonostima u korištenju medija.

Prema rezultatima istraživanja putem Skale medijske pismenosti, opći prosjek procijenjen je na 3,73. Stoga se može zaključiti da su vještine medijske pismenosti darovitih učenika na dobroj razini. Stoga se može reći da daroviti učenici bolje razumiju informaciju u vizualnom obliku, da se vole koristiti slikama, grafovima i dijagramima što je više moguće, da su pažljivi s informacijama dobivenima putem interneta i da se učinkovito koristite većim brojem izvora kako bi razumjeli neku temu. Također je razvidno da razumiju pristranost i predrasude u medijima, da se mogu koristiti internetom i društvenim mrežama kada ne mogu samostalno riješiti problem te kada moraju stupiti u kontakt s nekim. Dobiveni rezultati u skladu su s prethodnim rezultatima istraživanja Balaban-Sali (2012). U radu Balaban-Sali (2012) vještine za koje su ispitanici dobili najviše rezultate su procjena, vizualizacija i kolektivna inteligencija. Slično tome, u radu Miočić i Perinić (2014) vizualizacija i kolektivna inteligencija su vještine s najvišim rezultatom. Štoviše, u radu koji su napisali Akçaoğlu i sur. (2012), vizualizacija i procjena su vještine s najvišim rezultatom. Ispitanici u spomenutim istraživanjima bili su različite dobi i obrazovanja. Međutim, rezultati su vrlo slični, što se može objasniti sličnom dobnom skupinom i izloženošću sličnim vrstama medijskih alata. S druge strane, učenici ne vole stvarati nove radove koristeći se medijskim alatima i sadržajima. Također, promatrajući njihove prosjeke za umreženost, možemo ustvrditi da učenici ne vole dijeliti poveznice koje su označili da im se sviđaju (koje su „lajkali") na društvenim mrežama ili vlastite radove.

Razvidno je da se medijska pismenost darovitih učenika ne mijenja s obzirom na spol. Slično, Aktı (2011) u svom istraživanju pokušava odrediti postoji li značajna razlika u razinama medijske pismenosti ispitanika s obzirom na spol. Autor zaključuje da ne postoji značajna razlika. Dok je najviši prosjek uočen za varijablu vizualizacija, a najniži za umrežavanje kod učenica, najviši prosjek je vizualizacija, a najniži prosjek za aproprijaciju kod učenika. Prema tome, kada učenice pripreme projekt za školu ili s drugom svrhom, možemo tvrditi da se koriste slikama, grafovima i dijagramima ne bi li što bolje razumjeli novu informaciju upravo posredstvom slike, grafova, shematskih prikaza i drugih vizualnih alata. Učenice ne smatraju da je čitanje preporuka na internetu važno za donošenje odluka i ne vole dijeliti poveznice na stranicama poput Facebooka, Twittera, Bloga i drugih.

Kada procjenjujemo učenike prema programima u koje su uključeni u Centru za znanost i umjetnost, postoji značajna razlika u njihovim rezultatima za varijablu simulacija i pregovaranje. Razlika u rezultatima uočena je između programa u koje su uključeni, točnije, Programa projektne pripreme i Programa podrške. Vještina simulacije zahtijeva pokazivanje empatije i uživanje u igrama i aktivnostima simulacije. Od svih darovitih učenika u Centru za znanost i umjetnost najstariji su učenici u Programu projektne pripreme, zatim slijede učenici u Programu podrške. Stoga su oni bolji u korištenju medijskim alatima i apstraktnom inteligencijom. To potvrđuje da su njihove vještine simulacije dobro razvijene. Vještina pregovaranja zahtijeva stvaranje kontakta s drugima i iz različitih kultura te prepoznavanja razlika. Učenici u Programu projektne pripreme bolji su u korištenju internetom i u *online* igrama, i to im može biti od pomoći u razvijanju vještine pregovaranja.

Značajna razlika nije uočena između medijske pismenosti učenika i vremena koje provode gledajući televiziju. Prema rezultatima učenika, njihova razina ovisnosti o televiziji je niska, a razina pismenosti je bolja, što pokazuje da su osviješteni i da je ta osviještenost visoka. Slične rezultate imaju Literat (2014) i Aktı (2011) koji nisu uočili značajnu razliku u razini medijske pismenosti učenika i vremena koje provode gledajući televiziju. Nadalje, Som i Kurt (2012) također nisu utvrdili značajnu razliku između razine medijske pismenosti učenika i njihova gledanja televizije. Značajna razlika nije uočena između razina medijske pismenosti i vremena provedenoga čitajući tiskane medijske alate. Isti rezultat ima i Literat (2014). Zaključujemo da tradicionalni medijski alati poput televizije i tiskani medijski alati nisu toliko učinkoviti i da ne doprinose razvoju medijske pismenosti.

U proučavanju razina medijske pismenosti s obzirom na učestalost korištenja internetom, značajna razlika uočena je u izvedbi i aproprijaciji. Što više vremena provode na internetu, to su im bolje vještine prerušavanja u drugi identitet i improvizacije u vlastitoj *online* izvedbi. Rezultati istraživanja koje su proveli Karaman i Karataş (2009) pokazuju da su razine medijske pismenosti budućih učitelja visoke i da razina njihove medijske pismenosti raste s obzirom na količinu vremena koju provedu na internetu.

Rezultati još jednoga istraživanja pokazuju da prilikom igranja digitalnih igara učenici razvijaju vještine izvedbe, transmedijske navigacije i umreženosti. Posebno se *online* igre koriste ne kao predmet zabave nego kao alat za socijalizaciju među učenicima. Nadalje, može se ustvrditi da daroviti učenici nisu ovisnici o digitalnim igrama. Daroviti učenici poznati su po problemu socijalizacije. Prema Hasselbring i Glaser (2000), prilike za socijalizaciju putem interneta podržavaju razvoj vještine društvene komunikacije za one koji su introvertirani i imaju poteškoća u komunikaciji.

U skladu s ovim istraživanjem, učestalost korištenja društvenih medija kod darovitih učenika ne utječe na razine njihove medijske pismenosti. 39,1% učenika provodi manje od jednoga sata tjedno na društvenim mrežama. Anketa u Turskoj pokazala je da među korisnicima interneta, od učenika u dobnoj skupini od 6 do 15 godina, 53,5% se koristi internetom kako bi se uključili i proveli vrijeme na društvenim mrežama (TUIK, 2013). U usporedbi s tom informacijom, učestalost korištenja društvenih mreža među darovitim učenicima je ispod prosjeka Turske. Također, kao što ističe Köroğlu (2015), učestalost korištenja društvenim medijima darovitih učenika ispod je turskog prosjeka na sličan način.

Ono što je važno u vezi s razvojem tehnologije i medijskih alata jest stav pojedinca. Danas razvijena društva i zemlje ulažu napore kako bi pojedince učinili medijski pismenima. Rezultat toga je da društvo ne priznaje neograničene poruke iz medija i da ih društvo kritički promatra. Daroviti učenici imaju dobru razinu medijske pismenosti i to pokazuje da su u vezi s tom temom osviješteni. Štoviše, potreban je oprez i potrebno je učiniti odgovarajuće korake kako bi se osviještenost proširila na sve učenike.

Da bismo podigli razinu medijske pismenosti kod darovitih učenika, onih koji će odrediti budućnost zemlje, sadržaj medijske pismenosti u programima i rasporedima Centara za znanost i umjetnost mora se povećati. Sve dok pojedinci razvijaju svoju medijsku pismenost, razvijat će se i društvo koje će znati kako pristupiti znanju te će moći kritizirati, propitivati i procjenjivati informaciju do koje dođu.