

## Media literacy from the eyes of children: an interdisciplinary approach<sup>†</sup>

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### Suggested Citation:

Selanik-Ay, T. & Duban, N. (2018). Media literacy from the eyes of children: an interdisciplinary approach. *Cypriot Journal of Educational Science*. 13(3), 372-387.

Received from January 17, 2018; revised from August 21, 2018; accepted from September 25, 2018.

Selection and peer review under responsibility of Prof Dr. Huseyin Uzunboylu, Near East University, Cyprus.

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### Abstract

The aim of the current study was to analyse the interdisciplinary media literacy activities in terms of the views of primary school students. The study was conducted in the spring semester of the 2015–2016 academic year. The participants of the study were 90 fourth-grade students. The study's implementation process conducted in the courses of social studies, science and Turkish Language as an interdisciplinary approach. For the gains of each course, various materials were developed. In addition to these materials, various media products were also used. The data of the study were collected through student diaries and interviews conducted with 20 participants. These data were analysed through descriptive analysis. The findings of the study showed that interdisciplinary media literacy activities were influential in improving the media literacy skills of students in the courses of science, social studies and Turkish language and that these activities contributed to students in terms of different domains.

**Keywords:** Media literacy skills, social studies, science, Turkish language, interdisciplinary approach.

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<sup>†</sup>This research supported by Afyon Milli Egitim Mudurlugu (National Education of Afyon) AR-GE (Research and development department).

## 1. Introduction

Media literacy has been defined in distinct ways. For instance, it is defined as critical thinking about media products, accessing different media products and understanding the limits, forms and power of media content (Livingstone & Bovill, 1999). Media literacy is also regarded as understanding and interpreting the effects of media content (Potter, 2004). It is defined as the perception of media messages (Alagozlu, 2012). On the other hand, media literacy is concerned to have the awareness of individuals regarding many distinct media messages, including television ads, music CDs and newspaper articles (Pekman, 2007). Media literacy also refers to the interpretation of media messages, and then, evaluation of these messages in a critical way (Som & Kurt, 2012).

Media literacy refers to the acquisition of necessary knowledge, understanding and skills of customers to use the media in a reliable and effective way. Individuals who have media literacy know the content of media and the structure of the related services, make informed choices and evaluate all the opportunities provided by new communication technologies. They could also prevent themselves and their family members from violent or harmful media content. Therefore, media literacy should be encouraged and its development should be followed. The European Parliament and Council issued a recommendation about 'the protection of human honour and children' and 'the online information services and the computability of the European audio-visual'. This publication also included several steps to improve media literacy, including continuous training of teachers and educators, Internet education for all children from early ages and their parents and national campaigns about being responsible for the use of the Internet (European Parliament and Council, 2010, cited in Akkor Gul, 2013).

Media literacy began to be used in educational activities in the 2000s. The course of media literacy was initiated in Turkey during the school year of 2006–2007 at five elementary education schools (chosen as pilot schools) as a result of the protocol signed by the Radio Television Supreme Council and the Ministry of National Education. In the school year of 2007–2008, it began to be offered as an elective course at all basic education schools (Asrak-Hasdemir, 2012). In a workshop organised by The Ministry of National Education, The Radio Television Supreme Council and The Ministry of Family and Social Policies called the workshop on media literacy, it was decided that media literacy education should be related to other course contents. In the final report, it was emphasised that 'from pre-school education level, media literacy education should be integrated with the content of the other courses' (RTSC, 2012, cited in Cakmak & Altun, 2013).

The same final report states that (2012, p. 1) 'in the framework of lifelong learning, media literacy education should be considered in connection with students, teachers and parents'. Furthermore, the following actions were also decided: continuous reorganisation of the content of the media literacy education programmes; informed and comprehensive scientific needs assessments to identify the contents; in addition to basic media literacy skills supporting other related skills, using a thematic approach (siber mobbing, violence, environmental sensitivity, informed consumption, support for universal values including anti-genderism, anti-racism and anti-discrimination); taking into account the media products used by children in identifying the content; the organisation of teaching materials for media literacy education both in written and in mass media outlets. Media literacy education begins from pre-school education and continues to the end of the elementary education in developed countries such as Canada, United Kingdom, Australia and USA in an integrated manner with other courses such as social studies, citizenship and health-care education (Tuzel, 2013). It is significant to evaluate the activities to reinforce media literacy based on the views of primary school students. When the literature was investigated, it can be seen there are much research about media literacy but there are scarcely any research (Considine, 2002; Fuller, Damico & Rodgers, 2004) about media literacy via an interdisciplinary approach. Because of this necessity, the aim of the current research was to analyse the interdisciplinary media literacy activities in terms of views of the primary school students.

## **2. Method**

### **2.1. Research model**

The study was modelled on qualitative research methods employing the data collection techniques such as observation, interviews and document analysis. Such an approach attempts to reveal perceptions and events in natural conditions as a whole (Yildirim & Simsek, 2013). Descriptive studies attempt to describe the topic at hand as it is (Buyukozturk, Kilic Cakmak, Akgun, Karadeniz & Demirel, 2016).

### **2.2. Aim**

The aim of this study was to analyse the interdisciplinary media literacy activities in terms of views of the primary school students.

### **2.3. Participants**

The study was conducted in the spring semester of the 2015–2016 school year. The participants of the study were 90 fourth-grade students attending two classes (4A and 4B) of a state primary school. In the participant group, there were 55 girls and 35 boys.

### **2.4. Data collection**

The activities prepared for this study were implemented in the courses of social studies, science and Turkish language. For the gains of each course, various materials were developed. In addition to these materials, various media products (ads, public service, movie parts, cartoons and animation, photographs, pictures, smart signs, newspapers, children's magazines and books) were also used. The data of the study were collected through student diaries and interviews with 12 participants.

Before the implementation, the classroom was arranged to accommodate the materials developed. From the second week, daily plans for the activities to reinforce media literacy among students were developed by the authors. These plans were implemented for 6 weeks by 36 pre-service teachers on 90 primary students. In the seventh week, interviews with students were conducted. The total number of interviewees was 20. Two students from two divisions were chosen to represent the lower, middle and higher achievement levels. Moreover, the students were asked to keep a diary during the implementation and these diaries were collected each week.

### **2.5. Data analysis**

The data obtained from the student diaries were examined using the document analysis, part of qualitative research methods. The document analysis refers to the analysis of the written materials which involve the topics to be studied (Yildirim & Simsek, 2013, p. 217). In the document analysis, the inductive analysis was employed. The inductive analysis refers to reveal the concepts and the relationships of concepts behind the data through coding (Yildirim & Simsek, 2013, p. 259). Therefore, it allows for discovering the patterns, themes and categories in data (Patton, 1997). In the current study, inductive analysis consisted of the following steps: coding of the data, identifying the themes, organising the codes and themes and the describing and interpreting of the findings (Yildirim & Simsek 2013, p. 260). The statements in the diaries were separately reviewed by the authors and the items of 'mutually agreed' and 'mutually disagreed' were identified. The formula developed by Miles and Huberman (1994) was used and the analysis provided the value of  $p = 0.90$  indicating that the study was reliable. Direct quotations were given during the discussion of the findings.

The data obtained from interviews were examined using descriptive analysis. The data were interpreted based on the themes and discussed depending on cause-effect relations (Yildirim & Simsek, 2013). In descriptive analyses, reduction of the data, presentation of the data and correction/confirmation of the data can be used as steps. And also, while choosing the direct quotations being interesting, explanatory and marginality are used for the three main criteria (Turnuklu, 2000; Unver, Bumen & Basbay, 2010). The statements of the participants were analysed by the authors and a field specialist and categorised as mutually agreed and disagreed ones. The reliability was established using the formula developed by Miles and Huberman (1994). The reliability coefficient was found to be  $\rho = 0.92$  indicating the reliability of the study.

### 3. Results

The findings of the study were discussed under three headings: the views of the primary school students about the materials developed and the media products used in the study, their views about the contributions of media literacy activities and their views about the effects of these activities on their use of media.

#### 3.1. Results from students' views

In order to improve media literacy skills, eight three-dimensional materials were developed. These materials were connected with the stated gains of the courses of social studies, science and Turkish language and employed in the courses. At the end of each course, the participants were asked to keep a diary about the materials used in the course. Table 1 shows the views of the participants about the three-dimensional materials.

**Table 1. Views of the participants about the three-dimensional materials**

3-D material	Discipline	Related gains	Views
Stars/illuminate d panel	Social studies	Recognises social organisations, formal institutions and groups created by people based on a purpose.	Being familiar with the non-governmental organisations.
		Develops connections between social problems or needs and groups, institutions or social organisations using his prior experience and knowledge.	Being familiar with the tasks of the non- governmental organisations. Being familiar with the logos of the non- governmental organisations. Being familiar with the activities of the non- governmental organisations.
			Correct answers caused the star to shine, it made us understand that our answer was correct. The course was joyful. Everybody involved in the course with the help of the material.
Hoops			Being familiar with who should solve a specific problem.
Emotion path	Social studies	Recognises and appreciates individual differences. Recognises the relationship between emotions and views. Expresses emotions and views about different situations. Respects others' emotions and views.	Being able to review newspaper clippings. Being able to express his views about the news. Being able to express his feelings about the news. I recognised that the news that making me sad made the others surprised. I recognised that the same news created different views among my friends.

The world and countries	Social studies	<p>Recognises that there are many countries in the world.            Compares his and his peers' lives in other societies.            Knows and recognises individual differences</p>	<p>It was a very different activity to express my feelings and views about the news.            I entertained in the course.            I wondered about the next news.            I looked forward to participate.            I got information about the other countries.            I learned the geographical distribution of countries.            I learned the fact that I should be sensitive to disabled people.            I learned the fact that being disabled is not a barrier.            I learned my own responsibilities to make the life of disabled people easier.            It was a pleasure to place the miniature of children onto their countries using the globe.</p>
Clean environment/ pollution of environment	Science	<p>Recognises the interaction between people and the environment.</p> <p>Discusses how to avoid environmental pollution.</p> <p>Keeps his environment clean to avoid environmental pollution.</p> <p>Design projects to protect the environment.</p> <p>Discusses the reason for light pollution.</p> <p>Develop solutions to reduce light pollution.</p>	<p>The information given by the puppets about the countries was very useful.            I learned that liquid oil waste pollutes the sea.            I began to collect the liquid oil waste to send for recycling.            I recognised the significance of recycling for my country and the world.            I learned that I should do something not to pollute the environment.            I began to warn the people about environmental pollution.            I recognised the significance of afforestation.            I recognised the significance of filters placed on the chimneys to avoid air pollution.            In the activity, we eliminated the factors leading to the environmental pollution and 'made the sun happy, the clouds white and the rivers blue'; I wish we could do these in daily life.</p>
Dressing	Social studies	<p>Develops inferences about the daily life of various societies using visual materials.</p>	<p>Traditional dresses of the countries attracted me.            I learned the physical appearance of people from different countries.            Traditional dresses of people from countries attracted me.            From now on, I could understand people's countries by looking at their dresses while watching movies.</p>
Flowers and bees	Turkish language	<p>Listens to speeches and discussions in the group.            Speaks to the point</p>	<p>I got information about professions.            It was designed as a puzzle and was very joyful.</p>

Hoops	Science	<p>Speaks following values and do's and don'ts            Speaks fluently            Expresses emotions, thoughts, and dreams (verbally)            Makes experiments about the change of force based on the objects' movements and shapes and discusses the results of the experiments.            Accounts for the functions of bones, joints, muscle and skeleton and the relationships between them.            Recognises the organs which are responsible for inhalation and shows them on the schema.            Recognises those organs which are responsible for blood circulation and shows them on the model.            Develops relationships between exercises, inhalation and pulse.            Recognises the significance of exercise for a healthy body.</p>	<p>It was very good that we took the flowers representing different professional and talked about them.</p> <p>I learned the acceleration, slow down and stop.            I learned the effects of exercises on the body.            I learned blood circulation.            I learned which organs exist in the circulatory system.            I got information about the skeleton system.            I got information about the functions of the skeleton system.            I learned the organs responsible for inhalation.            I recognised that I could learn while entertaining.            It was very entertaining.            It reinforced the topics that I know.            It was interesting to learn through competing.            The course was very active and exciting.            I want to make something similar to the pots that we used in the course and use them while studying.            Food culture of some countries attracted me.            Sports specific to some countries attracted me.            I learned the capitals of some countries.            I learned the flags of some countries.            I learned significant buildings and places in some countries.            Games played in other countries attracted me.            Festivals in other countries attracted me.            I liked those countries where daily transportation was realised through bicycles.            The country where all employees slept during the noon was very interesting.</p>
Guide for countries	Social studies	<p>Compares his life and that of his peers from different cultures.</p>	

As can be seen in Table 1, eight three-dimensional materials were developed for the courses of social studies, science and Turkish language to improve the media literacy skills of the participants. These materials were used in educational games. The views of the students showed that the majority of the students had a joyful time during the course which became interesting through educational games. The participants also stated that the use of three-dimensional materials reinforced and contributed to their learning. These were closely related to the stated goals of the courses.

Chosen in consistent with the stated goals of the courses of social studies, science and Turkish language, the visual media products included visit programmes, documentaries, animations, cartoons and videos containing news, public service ads, advertisements, comics and photographs. Table 2 presents the views of the participants about the visual media products.

**Table 2. Views of the participants about the visual media products**

Visual media products	Views
Visit programmes	<p>Buildings in Far Asia were very interesting.                      Documentary on Cambodia was very interesting and I wondered about it.                      The Atomium building was very interesting.                      I didn't know that the Eiffel Tower is so long.                      The length of the Great Wall of China made me surprised.                      Different foods from countries attracted me.                      I want to visit the cities I watched in the programme of cities famous for their canals.                      I want to visit the science, technology and art park in Singapore.</p>
Public service ads	<p>Public service ad about LÖSEV (The Foundation for Children with Leukemia) influenced me.                      I learned that smoking is harmful.                      After I'd watched the public service ad, I decided not to pour oil waste.                      Public service ad titled 'Being a family' affected me.                      I liked very much the public service ad titled 'the acceptance of the national anthem'.                      I learned my rights following watching the public ad titled 'KDK Child Public Service Ad'.                      I learned the benefits of drinking milk through the public service ad 'school milk'.                      Everybody should watch the public service ad titled 'Environmental responsibility'.                      We may carefully consume if public service ads like 'Attention to deceptive advertisements' are always broadcasted.                      I will not allow my family to pour oil into washbasin after watching the public service ads 'waste oil'.                      I warned my family after watching the public service ad titled 'Technology addiction'.                      The public service ad titled 'Don't be a barrier' made me informed about which events make the life of disabled people much more difficult.                      Public service ad titled 'Internet safety' was very informative.                      I learned much from the public service ad titled 'Turkish Red Crescent'.</p>
Advertisements	<p>THY (Turkish Airlines) advertisement attracted me                      THY's advertisement titled 'When you dream' influenced me.                      I will warn those who do not follow traffic rules as in the advertisement titled 'Traffic detectives'.                      Since creative advertisement design attracted me, I want to write scenarios for advertisements.                      I would like to play in the İşbank advertisement in which Atatürk was covered.                      Türk Telekom's 175<sup>th</sup> Anniversary advertisement was very beautiful.                      Kent's festival advertisement made me emotional.</p>
Documentaries	<p>Houses in Africa were interesting.                      The length of the Great Wall of China surprised me.                      I have not known that there was a documentary channel and I watch it nowadays.</p>

Animation/cartoons and movie parts	<p>I searched for how animations are produced.</p> <p>I found and watched the movies that we watched.</p> <p>Through the cartoon that we watched in which there was a down syndrome child named Punky, I learned about their life</p> <p>Movie about informed consumption which taught me many things.</p> <p>The food eaten by Turkish soldiers during the Dardanelles Battle influenced me.</p> <p>Kagithane Municipality's 'recycling animation' was very instructive.</p> <p>The short film titled 'Transportation in Istanbul from Past to Today' was very nice.</p>
Comics	<p>I thought about the comics dealing with environmental pollution and these comics made me sad.</p> <p>Comics were very joyful.</p> <p>I learn to interpret comics.</p> <p>I tried to draw comics and I liked it.</p> <p>I wish there would be more photographs in textbooks.</p>
Photographs	<p>Some photographs were taken differently, they made me interested in taking photographs.</p> <p>I learned to find visuals using Google.</p> <p>I learned to interpret the details of the photographs.</p>
News	<p>The video about the new amusement park was very interesting.</p> <p>News about the countries which will have the problem of water shortage in 2040 was very important.</p> <p>I learned to watch the news carefully and to make comments about the news.</p> <p>I make comments on the news I watch with my family.</p> <p>I became more interested in news.</p> <p>I liked the activity of presenting news.</p>

The visual media products included visit programmes, documentaries, animations, cartoons and videos containing news, public service ads, advertisements, comics and photographs. It is seen that these products made children learn about new things and have new hobbies and directed them to make research. They also effectively contributed to the participants. Therefore, it is safe to argue that when visual media products were employed in the courses, children acquired both academic and effective gains. Moreover, these products contributed to media literacy skills through interpretation and analysis of media products.

In the current study, three types of written media products were used which were children's magazines, newspapers and children's books. The views of the participants about the written media products are given in Table 3.

**Table 3. Views of the participants about the written media products**

Written media products	Views
Children's magazines	<p>The art of the painter who produced geometrical products was very good (Vasilyevic).</p> <p>It was surprising that Ataturk wrote a book on geometry.</p> <p>The sections on the museums were very good.</p> <p>The news about children-oriented activities in the section 'what is going on' attracted me.</p> <p>I got information about many sportsmen in the related section.</p> <p>I liked the news on the projects and campaigns developed by children.</p> <p>I liked the section on the children's programme and film of the week.</p> <p>I liked the section on newly published books.</p> <p>I liked the section science at home.</p> <p>I liked the section titled let's know Latin words.</p>



	<p>Miniature geology dictionary was very beautiful.          I liked the dictionary of classical music.          I liked the section titled ‘surprising’ where interesting information was offered.          The section of riddles and puzzles was very entertaining.          I got much information from the section on interesting facts from the history.          I want to send my pictures to the section titled ‘little artists’.          I was surprised that the news in the newspapers was related to the topics we studied at school.</p>
Newspapers	<p>The news about the difficulties of disabled people in daily life made me sad.          The news titled ‘The Dead of Winter Scared Syrian Refugees’ influenced me very much.          The news on the green school in Bali Island that produced its own energy attracted my attention.          I would like to participate in the project of by primary school students I read in the news.          The news on the walking stick that sees produced by children attracted my attention.</p>
Children’s books	<p>The book ‘Story of Little Red Hen’ attracted my attention and it taught me the significance of helping each other.          The book ‘Dragon Whose Mouth Smells Bad’ taught me the significance of cleaning.          I learned much from the book titled science dictionary with graphics.          The book ‘Do not Let Swans Go Hungry’ taught me the significance of helping each other and loving animals.          The visuals of the book titled ‘Residents of the Happy Street’ were very different.          I learned from the book titled ‘Ataturk’s Love for Trees’ which was about environmentalism of Ataturk.          The book ‘Friends of Tistis and Pispis’ told me that being different is also nice.          The book ‘White Shah and Blach Shah’ told me that the chess was so beautiful that we bought it.          The book ‘Entertainment of Shapes’ taught me that we may draw pictures about mathematics. Pictures in some books were very nice, the others were not nice.          The book we read was exciting and I wondered about its end.</p>

As can be seen in Table 3, children got information from the written media products about history, geography, art, sports and science. They also entertained while working with them, and they thought that these were attractive. Furthermore, many participants reported that they gained various awarenesses after they read the books. The written media products made the participants have information about the actual events, and technological and scientific developments. Therefore, it can be argued that the use of written media products in courses positively contributed to the improvement of the media literacy skills.

Following the implementation, the interviews were conducted with the participants. They were asked which country they would like to visit and their justification about their choices. Their responses are given in Table 4.

**Table 4. Countries to be visited by the participants and their justifications**

Countries to be visited	Reasons
Australia	I would like to see kangaroos.
China	<p>I would like to see the Great Wall of China.            I would like to see how to eat using sticks.            I wonder about how many people are living in Chinese cities.</p>

Japan	I would like to see whether or not they are all slant-eyed.
Cambodia	I wonder about temples built without cutting huge trees.
France/Paris	I want to visit the Eiffel Tower.
United Kingdom/London	I would like to see the London Eye.
Italy/Venice	I would like to visit Venice because there are rivers more than roads and gondolas more than cars.
Bosnia and Herzegovina/Mostar Bridge	I would like to visit the Mostar Bridge because it was built by Mimar Sinan.
USA/New York City	I would like to see the Statue of Liberty.
Russia/Moscow	I would like to see different buildings.
Mexico	I would like to see whether or not they all wear these hats. I would like to try hot peppers.

As can be seen from Table 4, above the participants' choice over the countries which they would like to visit was affected by the physical and geographical characteristics of the countries and their food culture and dominant daily life.

Another item of the interviews was about the non-governmental organisations of which the participants would like to be a member. They were also asked to explain their choices. Their views and justifications are given in Table 5:

**Table 5. Views of the participants about the NGOs they would like to be a member**

Desired NGOs	Reasons
Darussafaka (Non-governmental educational organisation which educate students whose mothers and/or fathers are deceased)	I would like to help those children whose mother or father died.
LOSEV (The Foundation for Children with Leukemia)	I would like to help leukemia patient children.
TEMA (The Turkish Foundation for Combating Erosion Reforestation and the Protection of Natural Habitats)	I would like to make a difference in my country which does not have many forests.
CEVKO (Environmental Protection and Packaging Waste Recovery and Recycling Trust)	I would like to protect historical places and to beautify my environment.
AKUT (Search and Rescue Association)	I would like to learn the necessary skills needed during the natural disasters.

Table 5 shows that the choice of the participants over the NGOs was guided by empathy and the need to assume responsibility and awareness about social responsibility.

In the interviews, the participants were also asked to explain the contributions of the activities to their media literacy skills. Table 6 presents the views of the participants on this question:

**Table 6. Views of the participants about the contributions of the activities to their media literacy skills**

Academic contributions	I learned the topics much easier. I develop connections between the topics I learned and daily life. I recognised the messages of the media products.
Contributions to effective citizenship	Through newspapers, I got information about what is going on in my country. I learned how I can solve problems in my immediate and far environment as a responsible citizen.
Effective contributions	Public service ads affected me. I began to be interested in Public service ads. I began to be interested in smart signs. While choosing media products, I began to look at smart signs.

I became much more sensitive to environmental topics.  
 I became much more sensitive about the news on disabled people.  
 I became much more sensitive about the difficulties experienced by disabled people in daily life.

Table 6 indicated that the participants thought that the activities on media literacy made positive contributions to them and that such contributions were related to both academic knowledge and awareness about their responsibility.

In the interviews, the participants were also asked to explain how they would use the information they got from the study on using media products. Table 7 shows their answers.

**Table 7. Views of the participants about how they would use the information they got from the study on using media products**

Media products	Views
Television	I care about smart signs. I warn my family about smart signs.
Internet	I cannot use my learning because my family does not ask for my opinion. I cannot use this information while using the Internet. I learned to make a comparison among the information I got from the Internet. I learned that I must make research using key terms.
Written media products	I began to look for books that fit my age range. I began to look for the type of the book that I would buy. I began to focus on the books that fit my interests. I began to talk about what I learned from books and magazines with my friends.

Table 7 showed that following the implementation the participants began to be much more conscious about using television, the Internet and written media products and tried to inform their friends and family members about these media organs.

### 3.2. Results from student diaries

As stated earlier, at the end of each course, the participants were asked to keep a diary about their views (emotions, learning outcomes, etc.) regarding the activities.

**Table 8. Data from diaries about the contributions of the activities**

Effective contributions	Activities made me loving the course. I saw the public service ads for the first time and liked them. I became familiar with children’s science magazines and liked them. I liked to get information about different countries. I liked to take part in competitions and to win. I liked the skeleton and human anatomy.
Academic contributions	Using videos in the courses attracted my attention. Using puzzles in the courses contributed to my learning. Activities helped me in learning the topics. Learning through games prevented me from being bored. It made me learn through entertainment. I learned the place of force in daily life.
Suggestions and negative views	Activities about the systems in our body taught me the systems in my body. Much more entertaining videos can be used. I would like to see more cities and countries. If the number of materials was the same as the number of students, it would be better.

As can be seen in Table 8, the participants mentioned the effective and academic contributions of the activities in their diaries. One of the participants expressed the positive contributions of the activities in relation to the science course:

'I liked this course very much. We saw slowdown and shape change. We enjoyed and learned. I liked all these activities and the course very much'.

Another participant emphasised the public service ads:

'Public service ads we watched were very beautiful. It was the first for me. I got more information. So, thank you. I liked the children's science magazines. I got more information. There are magazines at our school. But I have not seen them before. I liked the skeleton and human anatomy most'.

The following participants talked about the use of videos in the courses:

'I liked particularly the videos about the amusement parks. Videos were very interesting. Videos showed that amusement parks were both dangerous and insecure. I also saw what existed there. So, thank you'.

Another participant focused on the use of puzzles in the courses:

'We solved puzzles about the course. I learned better. In the course of science, we learned the effects of force. We also entertained. We played games. We were given papers on which a puzzle was written. One of the group members read it. The answer was given on one of the pots'.

One of the participants emphasised the contribution of the activities in his learning as follows:

'These activities helped me in learning the topics. I understood the topics much easier. Our teacher talked about acceleration, slowdown, change of shape and direction. I will tell all to my family'.

Another participant expressed his views about videos as follows:

'I liked everything, but videos might be much more beautiful'.

One of the participants expressed his views about the number of countries which introduced in the activities:

'There should have been more cities in the presentation about countries. There might be more countries to be introduced. It would be better for us'.

Another participant expressed his views as follows:

'It was nice to dress the muppets. But it would be better if there would be enough muppets for all of us'.

As stated earlier, the activities used in the study were developed in relation to the stated goals of the courses, including social studies, science and Turkish Language. It was found that student diaries covering those concepts were closely related to the stated gains of the courses of social studies and science. Regarding the gains of Turkish Language course, it was observed that written expression ability of the participants improved. The concepts related to the courses of social studies and science were directly covered in the diaries. However, the gains related to the course of Turkish language were hidden observed in the findings. The related gains improved were as follows: 'students write down their views and thoughts about characters, events, places, etc., which were interesting and attractive for them' and 'students write the events in a chronological way'. Moreover, it was observed that verbal expressions and the interpretation of visuals of the participants improved. Concerning another gain, namely 'students properly read the materials based on genre, method and techniques', the participants improved themselves because they read newspapers and magazines and developed their word reservoir by using visuals. In regard to the same gain, they kept diaries. Regarding the 'visual reading', they improved themselves in the following gains: 'interpreting pictures and photographs', 'perceiving the messages of cartoons', 'questioning the messages of advertisements'

and ‘questioning the news and information provided by the mass communication devices’ (i.e., newspapers, magazines, television).

Table 9 indicates the concepts related to the courses of social studies and science found in student diaries.

**Table 9. Concepts included in the diaries of the participants**

Science	Social studies
Force	Countries
Rotation	Citizens
Swing	World
Slowdown	Sun
Acceleration	Continents
Change of shape	Capital cities
Change of direction	Individual differences
Circulatory system	Cities
Inhalation system	
Skeleton system	
Size of the heart	
Human anatomy	

As can be seen in Table 9, the concepts covered in the dairies were consistent with the stated goals of the educational programmes with numbers suggesting that these gains were acquired by the participants. The topics and concepts covered in the units ‘physical events’ and ‘living beings and life’ of the fourth-grade science course are given as follows:

**‘4.1.1. Support and movement**

Topic/concepts: Bones, joints, muscles, skeleton, health of skeleton and muscles’,

**‘4.1.2. Inhalation**

Topic/concepts: Inhalation, route of air during inhalation and correct breathing’,

**‘4.1.3. Blood circulation**

Topic/concepts: blood, heart and veins’,

**‘4.2.1. Effects of force on objects**

Topic/concepts: acceleration and slowdown effect of force, direction change effect of force and shape change effect of force’,

It is interesting that these concepts and topics were consistent with the concepts covered in the diaries produced by the participants. It can be argued that the activities designed to reinforce the media literacy skills helped the participants to internalise the concepts at hand.

Similarly, the concepts identified in the diaries produced by the participants were consistent with the gains of the unit ‘My Friends at Distance’ of the learning domain ‘Global Connections’ and those of the unit ‘I Become Familiar with Myself’ of the learning domain ‘Individual and Society’ in the educational programme for the course of social studies. It can be argued that the activities to reinforce media literacy had a positive influence on the social studies courses.

**4. Discussion, conclusion and recommendations**

The findings of the study indicated that students learned about the topics in an entertaining way and developed connections between their learning and daily life. Butun (2015) analysed the effects of the use of the multiple media products on students and concluded that it made students easily

connect the concepts they learned with daily life. Similarly, Mayer (1999) concluded that media could be used to help children in accounting for topics in science and mathematics. It was found that such materials improved the skills of students to transfer information and led to long-lasting learning. These findings were consistent with the current findings.

The visual media products included visit programmes, documentaries, animations, cartoons and videos containing news, public service ads, advertisements, comics and photographs. These products were in parallel with the stated goals of the courses, including social studies, science and Turkish language. It was seen that these products made children learn about new things and have new hobbies and directed them to make research. They also effectively contributed to the participants. Similarly, Stoddard and Marcus (2010) found that watching movies in history classes reinforced learning and had positive effects on it. These findings were consistent with the current findings.

It was also found that through the visual media products, students became aware of the significance of social responsibility and effective citizenship and sensitive to environmental topics. Brown (2011) employed movies to make the participants aware of social topics and to improve critical thinking. It was found that movies improved the empathy skills of the participants and made it easier to comprehend social topics and change. These findings supported the current findings.

The participants were also found to watch the visual media products carefully and to be able to make comments about the news and movies. A similar result was found in the study by Chaffee, Morduchowicz and Galper (1997). They found that those students offered newspapers as learning materials discussed social issues much more often with their family members and friends. Similarly, Valdez and Halley (1999) concluded that when films were used in the classroom as teaching materials, students involved in the discussions about the actual problems and tried to reflect on the basis of these problems. Students also clearly expressed their views about the topics at hand. Such findings were consistent with the current findings.

Students found interesting that the news in the newspapers overlapped with the topics they studied at school. They were sensitive about the news concerning disadvantaged groups. Similarly, Hoskins (2010) analysed the effects of the news on students' analysis skills about scientific events and social facts. It was found that the news improved their skill of making analyses. Chaffee et al. (1997) concluded that the use of newspapers for educational purposes improved students' interest in social topics, their ability to express the views and to adopt democratic values and to respect and tolerate differences.

The current study shows that media literacy activities using an interdisciplinary approach had an influence on the implemented teaching of the courses science, social studies and Turkish language and improving the media literacy skills, and they contributed to students in terms of different dimensions. Further studies may deal with the topic using semi-experimental or mixed methods. Textbooks and educational programmes may include those examples which allow the connections between the stated goals and skills and media literacy skills. Pre-service teachers may be taught about media literacy skills and in-service teachers may improve their knowledge of media literacy through in-service training activities.

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