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The Environment and Its Place in Children's Picture Story Books

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Abstract

Children receive many messages about real world concepts from picture story books. In Turkey, there is not enough research and literature about the available picture story books which include environmental themes, concepts and motifs. The aim of this research is to examine the environmental themes in picture story books, for 2-12 year-old children, published in Turkey. Quantitative research methods were used in this descriptive study. Eighty picture story books published between 1995 and 2010 were selected and evaluated. A Book Review Form developed by the researchers was used to evaluate the books. According to the analysis results, in general, 80 percent of the books have the environment theme as a main topic in their contents. These books, in particular, contain topics on tidiness (7.5 percent), seasons (3.8 percent), nature and nature concepts (22.5 percent) and the importance of the water (2.5 percent). Environment related concepts were found in picture books for ages six and over; the main figures in the books were animals and humans. As a result of the study, it is recommended that preschool children's picture story books should have environmental concepts as well.

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Keywords: Children's literature; picture story books; preschool children; environment; nature.

1. Introduction

The first years of life are of critical importance in terms of a child gaining positive attitudes and behavior towards the environment and making them permanent throughout his/her life. Children always ask questions about changes they have seen around them since preschool children are curious, investigative and questioning. Interests and attitudes emerging at preschool and school-age periods form the basis of desired behavior in the future. Particularly, value judgments and attitudes developed in childhood and youth are essential in developing a love for nature and empathy in relationships with nature at early ages (Guler, 2010). It is stressed that it will reduce the environmental problems in the future if people are educated in this field, starting from early childhood, and develop awareness and also various suggestions are provided in this respect.

In the program, the environmental issues in early childhood can take the form of the following themes: air, land, stones and minerals, water, energy materials and resources, plants and animals, human beings and communities, structures and industrialism (Guler, 2010).

Three-year old children can learn behavior that does not harm the environment, such as not stepping on flowers. They can gain a protective attitude towards animals and plants at the age of four. They can understand the significance of plants and animals for human beings and thus they can overcome possible hostile behavior. Around

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the age of five, they know the most often encountered plants and animals and can know about events that threaten their life, such as forest fires, air and water pollution, which occur as a result of human actions. At the age of six, they acquire behavior for protecting nature and a friendly attitude towards the plants and animals around them. They can feed the birds in winter and care for animals that need help. They can follow some rules, such as not making noise in woods in order not to disturb the living things there, not throwing litter around and not hurting plants (Guler, 2010; Paprotna, 1998). As seen in early childhood education programs, concepts in the category of environment and protecting the environment are either directly or indirectly covered.

Publishing children's picture story books covering themes about nature and the environment that can be used in an early childhood education program will contribute to acquisitions and gains within this scope. Through their contents, books introduce new experiences about various events that children can encounter in real life, provide new information, explain issues that children are curious about and focus on some issues based on children's interests and needs. In this way, books introduce their readers to the world they live in. Particularly, picture story books, which are among the first type of books that preschool age children comes across, act as messengers from the outside world. Therefore, it is possible to see that almost all issues in the world are covered by books (Erdal, 2008; Gonen, 2005; Gonen, 1993; Gonen, 2009).

The biggest feature of books in this period is their visual content. Pictures play a great role in children's lives and serve to reinforce a child's knowledge about the environment, creating a sense of confidence. Children generally assess books based on their pictures. Books designed for children aged between one and seven are classified under the heading "picture story books" and they involve pictures more than texts (Gonen, 1989). In picture story books, a simple story or a fairy tale is told through consecutive pictures and both texts and pictures are used. Sometimes, there may even be no text. In cases where there is text, the text and the picture are complementary. Works addressing preschool children should be well illustrated. Pictures should be strong enough to tell the story alone to a child who does not know how to read or write yet. Such books develop children's learning, perception and interpretation skills, help the child know his/her environment and form relationships with his/her surroundings while increasing his/her sensitivity for his/her environment.

When the history of children's books about environmental problems is examined, the first picture story book about the damaged environment is found to be published in the USA at the beginning of the 1940s. The book called "The Little House" written and illustrated by Virginia Lee Burton was published in 1942. It is not surprising that the first children books designed for various age groups and emphasizing the environmental problems were written in two "new worlds", Australia and the USA. Following these books, the issue of the environment was not addressed in children's picture story books until 1960s. It was pointed out at an intergovernmental meeting held in Tbilisi in 1977 that the most effective way to prevent environmental problems is "Environmental Education" and strategies were developed accordingly on this issue. With the effect of this development, particularly in the second half of the 1970s, there was an increase in the number of children books dealing with environmental problems. Also, in those years, special sections in children's books catalogues and book exhibitions were allocated for these types of books (Arslan, 1997; Guler, 2010; UNEP, 2010).

When children's books addressing the environment are examined in terms of the issues they cover, it is seen that they are divided into two groups; those that introduce the environment and those that demonstrate the damage done to the environment. The introduction books explain geographical structures, the sea, rivers, lakes, vegetation, animals and their place in the ecologic order. Also, there are books about all kinds of animals, life under the sea, bugs and their characteristics and other issues, and books of maps detailing the plants and animals of different countries.

It is a fact that children's books about environmental issues are more widespread in developed countries. Among the foremost of these countries are the USA, Australia, Scandinavian countries, Canada, Germany, France and Italy in terms of the number of such publications and their properties. Also, there are several stories and novels written from this perspective for 10–12 year olds on the issue of the environment. In our country, there are almost no detailed scientific studies examining to what extent children's books involve nature and environmental elements. Research that will be made on this issue is significant due to the fact that it depicts the current situation of books in all aspects and shows the way to address environmental sensitivity, love for nature and skills to protect the

environment that can be gained through children’s picture story books. This study poses the question: to what extent are environmental elements examined in children’s picture story books, and attempts to provide an answer.

2. Method

The descriptive research method was used in this study, which aimed at examining environment elements of children’s picture story books published in the last 15 years and particularly used by early childhood education centers. Accordingly, 80 children’s books, published between 1995 and 2010, which include environment elements, were examined. The children’s books used by early childhood education centers, and declared suitable for preschool children were selected by the researchers for examination and included in the scope of the study.

2.1. Procedures

A “Book Examination List” developed by the researchers was used in the examination of books relevant to the scope of the study. This list contains questions regarding the copyright page, physical appearance and content of the book. In addition, the physical appearance, cover page material, colors, and properties, the size and hard cover of the book and whether the letter size is appropriate for the age group were examined. The content section was examined according to the following criteria: themes, the appropriateness of the book to the age group in terms its meaning, purity of language, sentence structure and spelling, characters, realness of events, the improving aspect of the environment and environmental awareness, whether the book involves scientific data, the introductory aspect of the book, behavior targeted to be developed in relation to the environment, the presence of materials supporting the book and whether the book is considered sufficient. Two experts in the field were asked for their opinions during the preparation of the Book Examination List.

2.2. Data Analysis

Eighty children’s books constituting the sample were examined by researchers one by one using this assessment list and analyzed in terms of environment elements. Within this process, each book was read by the researchers a few times together and developed according to the guidelines in the list, Firstly the texts and then the pictures were examined in terms of environment element content.

3. Findings and Discussion

The following results were obtained from the examination of children’s picture books:

Table 1. Age group indicated on the cover page

Age Groups	f	%
2-3	1	1.3
3-4	9	11.3
4-5	3	3.8
5-6	15	18.8
6+	28	35
7+	5	6.3
10+	1	1.3
11+	1	1.3
12+	5	6.3
NA	12	15
Total	80	100

When Table 1 is examined, it is seen that on 15 percent of the books, there is no statement regarding the intended age group. Thirty-five percent of the books were suitable for six years and upwards. 18.8 percent of them were suitable for the age group 5 to 6. In other words, most of the books address children of six and upwards.

Nevertheless, it is required that these issues should be dealt with in children's books for ages six and under in order to develop environmental awareness.

Table 2. The number of editions of the book

No. of editions	f	%
1-10	77	96.3
11-20	1	1.3
21-30	2	2.5
Total	80	100

When Table 2 is examined, a great majority of the books have been published in ten editions. This may be due to the fact that books are qualified, or that there is no other book on the issue of the environment.

Table 3. Number of pages

No. of pages	f	%
1-20	36	45
21-30	19	23.8
31-40	15	18.8
41-50	5	6.3
50-100	2	2.5
100-200	3	3.8
Total	80	100

When the books are examined in terms of number of pages, it is found that 45 percent of them have 20, 23.8 percent have 30 and 88 percent have approximately 40 pages (Table 3). It is accepted that too many pages in a book is an aspect that deters preschool children (Gonen, 1993). In this respect, it can be said that the books examined are appropriate for this age group.

The cover pages of 1.3 percent of the books examined are made of paper, 85 percent are made of cardboard and 13.8 percent from cardboard material. The material mostly used throughout the publishing sector is cardboard, and the same was observed in the books in this field. When the colors of the cover pages of the books are examined, it is seen that 98.7 percent are in color, while 1.3 percent are in black and white. 12.5 percent of the books examined are in small sizes, 73.8 percent are medium sized and 13.8 percent are large. It has also been observed that 27.5 percent of the books have sewing type binding, 33.8 percent stitch binding and 38 percent are wire bound. It is suggested that stitch binding and cloth or plastic book covers be used in children's picture story books in order to limit damage and maintain their original condition for a long time (Gonen, 1993; Gonen & Balat, 2002; Gonen, Durmusoglu & Severcan, 2009).

Table 4. Type of book

Type of book	f	%
Picture story	32	40
Science and reference	42	52.5
Activity (reading, writing and arithmetic)	5	6.3
Biography	1	1.3
Total	80	100

It is seen that most of the children's picture story books examined were science and reference books with investigation-research content (encyclopedias and dictionaries). The second most common were the picture story books (Table 4).

98.8 percent of the books were found to have a text-picture consistency and it is seen that illustrations were used in 83.8 percent of the pictures and in 16.2 percent of them photos were used. While illustrations were used in all the different kinds of books, photos were preferred mostly in reference books. In 87.5 percent of the books realistic illustrations were used while in 12.5 percent of the books there were imaginary illustrations. Since the themes mentioned in science and reference books relate real life stories, the illustrations should be real as well.

There is an overall theme in 72.5 percent of the books examined; however, it can be seen that there is no recurrent theme in 27.5 percent of the books. It can be said that 95 percent of the books are suitable for the age group they addressed. The Language used in all books was found to be plain and comprehensible. Grammatical

sentences are used in 97.5 percent of the books while in 2.5 percent of them, inverted structure was used. In almost all books, there were no spelling mistakes.

Table 5. Distribution of Publishing Companies

Name of Publishing Company	f	%
Tübitak	19	23.75
Ya-pa	11	13.75
Kök	9	11.25
Aksoy	5	6.25
Ayrıntı Yayınları	5	6.25
Uçanbalık	4	5
Morpa	3	3.75
Mandolin Yayınları	3	3.75
Oluşum	2	2.5
Akçağ yayınları	2	2.5
Timaş	2	2.5
Doğan Egmont Yayınları	2	2.5
İş Bankası Yayınları	2	2.5
Abc Yayınları	1	1.25
Smg Yayıncılık	1	1.25
Poyraz Ofset yayınları	1	1.25
İlkkaynak Kültür ve Sanat Ürünleri	1	1.25
Sihirli Kulak Yayınları	1	1.25
İnkılap Yayınları	1	1.25
Duru Yayınları	1	1.25
Altın kitaplar	1	1.25
Ekici Yayınları	1	1.25
Türkiye Çevre Vakfı	1	1.25
Polat	1	1.25
Total	80	100

23.75 percent of the books examined in this study were published by The Scientific and Technological Research Council of Turkey (Tubitak). Following this, there are the books published by Ya-Pa (13.75 percent) and Kök (11.25 percent). In recent years, there are about 80 books published by Tubitak for children from 0-8 within the scope of the Early Childhood Library. Themes regarding nature and the environment are extensively covered in these books. Demircan (2006) examined the books in the Tubitak children's library series in his study and stated that they had the internal structure and external structure measures required for children's books. The results obtained support the results of the current research.

Table 5. Characters

Characters	f	%
Human	22	27.5
Animal	26	32.5
Plant	10	12.5
Object	2	2.5
Machine-Robot	1	1.3
NA	19	23.8
Total	80	100

Animal characters were used in 32.5 percent of the books. Human (27.5 percent) and plants (12.5 percent) are the other characters used in the books. The ones which don't include certain characters (23.8 percent) are reference and science books. In a study by Sen (2002), the types of characters used in 100 story books were examined and the most widely used story characters were found to be animals. This result is in parallel with the findings of the current study.

In 86.3 percent of the books, the events are real while they are imaginary in 13.8 percent of the books. Books with imaginary events are generally picture story books. In other types of books, realistic events were observed. In 80 percent of the books examined, the environment was found to be the main theme and events and behavior

regarding the environment were prioritized. Concepts and issues regarding the environment were dealt with as secondary or tertiary subtopics.

It was found that 93.8 percent of the books cover elements aimed at developing an environmental awareness. It was also detected that 88.8 percent of these aimed at introducing the environment and environmental elements and focused on issues, such as living things and our earth. Information given in 92.5 percent of the books was found to be consistent with scientific facts while in 7.5 percent it was not. It is apparent that some books were only written with financial concerns.

Behavior targeted for development regarding environmental themes is as follows:

- Being neat and clean (7.5 percent),
- Learning seasons (3.8 percent),
- Love of nature and knowing nature (22.5 percent)
- The importance of water (2.5 percent),
- Knowing about living things (20 percent),
- Protecting living things (8.8 percent),
- Being sensitive to environmental pollution (2.5 percent),
- Learning about natural events (6.3 percent),
- Allocating garbage and recycling (7.5 percent),
- Growing plants and planting trees (3.8 percent),
- Learning about the earth and its formation (7.5 percent),
- Learning about energy-saving methods (2.5 percent),
- Using glass products instead of plastic (1.3 percent),
- Getting rid of waste in proper ways (1.3 percent),
- Using fabric bags instead of plastic (1.3 percent)

For the most part, learning about nature and living things were themes covered by the scope of the study. The number of books which exemplify certain attitudes, such as knowing the earth, allocating garbage and recycling, the properties of seasons, being neat and clean is more than books relating other themes. These findings are in parallel with the purposes that should be dealt with in environmental education programs based on age. It is stated that environmental education can begin in the last years of early childhood (0-6 years) and the purpose in gaining awareness and the right attitude should be considered more extensively than gaining knowledge and skills and participation in the solution of environmental problems (Cited. Haktanır, 2007; MEB, 2006). It may increase children's levels of awareness if information contained in the books is presented in a manner that facilitates knowledge about the environment and the differentiation of aspects in our surroundings. Moreover, they may develop desired behavior through identification with the characters in the books.

As a result of all these examinations, 81.3 percent of 80 books were found to be in compliance with determined measures while 18.7 percent were found to be insufficient.

4. Conclusion and Recommendation

In this study, aimed at determining the quantity of environmental issues and concepts in children's picture story books, a great majority of the books examined were assessed as quality books in terms of physical properties, content and story. It was observed that books about the environment were mostly published for children of six or over. In order to increase the sensitivity of children towards the environment, books should be published addressing children younger than the age of six.

Most of these books were reference books designed to introduce elements of the environment. Introducing nature and living things were the most common themes covered told through the use of human characters.

It appeared that books including environmental elements are mostly published by Tubitak. It should be an obligation to increase the number of high quality children books through the effort and concern of other publishing firms.

Children's books addressing the early childhood period can shape the emotions, value judgments and modes of understanding, which are a part of the human personality. Thus, the child gains knowledge about him or herself and his/her environment, and can cultivate a sensitive kind of thinking style. Children's literature is closely related to the

future of a nation. Therefore, positive emotions, ways of behaving and societal values that ought to be developed in children through works of literature should be done so more thoroughly (Erdal, 2008).

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