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“Transformation Begins With Me” In The Eyes Of The Littles

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Abstract

The research was carried out in order to improve the self-awareness levels of preschool children by increasing their sensitivity to the environment. Simple Experimental Method, one of the Quantitative Research methods, was used in the study. Before and after the training, a five-question pre-test and post-test were administered to the students. Findings were obtained by analyzing with the Wilcoxon Signed Rank Test program. The sample group in the research was 11 students aged 5 years, studying in Kindergarten in Rize Province, and were chosen as the Simple Random Sampling Group. Before the research, students were asked to collect waste paper with their families. Before the activity, a pre-test was applied to the children. Practices have been made about recycling and reuse of wastes with videos and visuals and their benefits to the environment. Each child produced a new paper from the waste paper they collected and a joint story book was prepared by making a picture on the environment. They gave messages to teachers and students in other classes by making introductions to parents. At the end of the study, the findings obtained by applying the post-test were analyzed. As a result of the research, a significant difference was found between the pre-test scores applied before the education and the post-test scores applied after the education [$z = -2.958, p < .05, r = 0.89$]. Accordingly, the measurements of the posttest (median=4) are higher than the pretest (median=1). In other words, it was observed that the recycling, environment and paper production activity from waste paper applied to Kindergarten 5 year old students increased their sensitivity to the environment and had an effect on the development of their self-awareness levels.

Keywords: Waste paper, recycling, environmental awareness, self awareness

1. Introduction

One of the most important problems of our world today is the deficiencies and attitudes in education on the basis of gaining sustainable environmental awareness. Preschool education is a period in which the personality development of the child is formed and shaped, covering the 0-6 age group. For this reason, self-awareness awareness towards the environment, which will be gained at a young age, will ensure the formation of sustainable behavior in children in the future. Many researches have been made on environmental education, but it is seen that there is not enough work in the pre-school area, which is the basis of education and the formation of behaviors. The environmental awareness that will be brought to the students in early age education institutions is important in terms of preventing the environmental problems that our world will face in the future. The inclusion of values education in the Pre-School Program of the Ministry of National Education can be interpreted as the necessity of raising the awareness of responsibility and self-awareness of children of this age. For this reason, it is important for the future of our world to raise children's self-awareness towards the environment by recycling and using their own waste at an early age. It is thought that this research will improve the existing literature on raising awareness and individual responsibility awareness through waste evaluation and environmental protection activities to be carried out at the preschool education level and will shed light on the studies. With this research, it is aimed to improve the self-awareness levels of children in early childhood education institutions by increasing their sensitivity towards the environment.

The natural resources in our world are decreasing day by day due to the rapid increase in the population, the change in the consumption habits of people, and the unconscious and excessive consumption of natural resources. Responsible consumption and production, which is one of the goals of sustainable development, is waste

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management, one of the important sub-titles of sustainable development. Waste is interpreted not as a substance to be disposed of, but as a resource to be recovered. The aim of sustainable waste management is to cycle the use of resources and profitably reuse the waste generated at the final consumption stage. (Tezel, Yıldız, 2020).

The concept of environmental education was first used at the International Union for Conservation of Nature Conference held in Paris in 1948. Later, in 1970, the Environmental Education Council in England and Nevada in the USA defined environmental education. (Kahyaoglu, 2016). The concept of the 3Rs of UNEP (United Nations Environment Programme) as a remedy for the conservation of natural resources. (Reduce, Reuse, Recycle) (reduce, reuse, recycle) has been set as the main target. Preventing the unnecessary use of resources by people, ensuring the reuse of wastes by recycling, and reducing the amount of waste by separating the wastes at the source are some of the main purposes of recycling. (Unesco, 1992). Therefore, it comes to the fore to investigate the possibilities of reuse of wastes in order to prevent carbon emissions caused by both the excessive use of natural resources and industrialization (Ilgar, 2020). For this reason, it is necessary to realize the importance of gaining social awareness and individual attitude.

T.R. The Ministry of Environment and Urbanization has implemented the zero waste project on 26.09.2017 in order to keep the wastes under control and to leave a more livable universe for future generations within the scope of sustainable development goals.

Zero Waste Project (Ministry of Environment and Urbanization) Zero waste is a waste management policy that aims to prevent unnecessary use and efficient consumption of resources, to prevent or minimize waste generation, and to collect and recover waste by separating it at the source in cases where it occurs (Environment and Urban Planning). Ministry of Urbanization, General Directorate of Environment, Zero Waste Handbook, 2017).

The "Zero Waste" resolution submitted by Turkey within the scope of combating climate change and sustainable development plans was accepted at the UN General Assembly. With this decision, the General Assembly declared March 30 as International Zero Waste Day.

As in the rest of the world, action plans on waste management, protecting the environment and developing individual attitudes in Turkey show once again the importance of studies on this subject.

Since the main source of environmental problems is people's attitudes and behaviors, the main source of solving environmental problems is through effective environmental education given to people. Especially early childhood is a critical period in which personality is formed and positive habits are acquired. In this context, environmental awareness should be created in early childhood in order to create a livable and healthy environment. (Karaca, 2018). Studies have shown that the effect of environmental education given at an early age can be sustained throughout life.

Values education in our country was emphasized in the decisions of the 18th National Education Council held in 2010 and by the Ministry of Education Board of Education and Discipline, and it was stated that it should be included in every education level starting from the pre-school period. It has been stated that it should be integrated and based on learning by doing (Dönmez, Sözen, Demirkaya Demirtaş, 2020).

Values education was not considered as a separate field in the Pre-School Education Program, but it was emphasized holistically in the achievements and indicators (T.R. Ministry of National Education General Directorate of Basic Education Pre-School Education Program, 2013). early childhood education Implementation of environmental education to be implemented in institutions by integrating them with values education will lead to permanent behavioral changes in students.

Environmental education raises awareness on this issue by providing correct personal values in attitudes and behaviors and helping students to reveal and evaluate their thoughts about their contribution to environmental and environmental problems (Celik, M, G et al., 2010). The results of the research show that environmental awareness awareness that will be gained to children in the preschool period is important in the formation of behavior.

(Kartal and Ada, 2020) in their study, it was determined that preschool children included in the research had limited perceptions about recycling.

(Uzun, Köse, 2017) In his study, it was seen that kindergarten teachers thought it was necessary to start education about values in pre-school education and most of them included the values of love, respect, honesty, responsibility, patriotism, cooperation and tolerance. It has been determined that there are reasons why values affect personality development, that values are difficult to acquire in the future, that what is learned in the pre-school period is permanent and this period directly affects the child's future life.

(Author and Erkuş, 2013) In their study, it was concluded that they thought that the values of respect, love and sharing should be taught to children predominantly in pre-school education. According to the kindergarten teachers, it was determined that the values education in the preschool education program was realized at the initiative of the teacher and was found to be insufficient

(Aküzüm and Ergenekon, 2021) In their study, it was determined that kindergarten teachers showed positive attitudes towards values education and stated that values education should be given in this period, and they used the values of responsibility, cooperation, respect, tolerance and love more..

(Bayırlı, Doruk and Tüfekçi, 2020) in their study, it is determined that values education activities have a positive effect on students.

It is important and necessary in terms of individual attitude to raise environmental awareness by raising awareness about the responsibility of the child towards the society and himself in the preschool period. This study was prepared and implemented with the thought that individuals who are sensitive to environmental problems should be raised at a young age in order to leave a livable world to future generations.

2. Method

In this study, which aims to increase the level of self-awareness of children in early childhood education institutions by increasing their sensitivity to the environment, 11 students in the 5-year-old group studying in Kindergarten were selected as Simple Random Sample Group. Simple Experimental Method from Quantitative Research Methods was used as data collection tool. The data obtained were analyzed with the Wilcoxon signed-rank test, scoring 1 for those who answered the pre-test and post-test questions correctly, and 0 for those who could not. Wilcoxon signed-rank test is used to test the direction of difference scores of two related measurement sets (Boyras, Serin,2015).

A four-month work plan has been established. After testing new paper making and usability from waste paper before the research, students were asked to collect waste paper with their families. Before the activity, the children were given a five-question pre-test. The prepared questions were prepared in accordance with the age level of the children, explaining the purpose of the project best and aiming at the achievements in the preschool education program book.

1. What is recycling and what does it do?
2. Do you know the recycling symbol?
3. Which materials are recycled?
4. What can we do with waste papers?
5. What happens if we don't recycle the waste materials and throw them away?

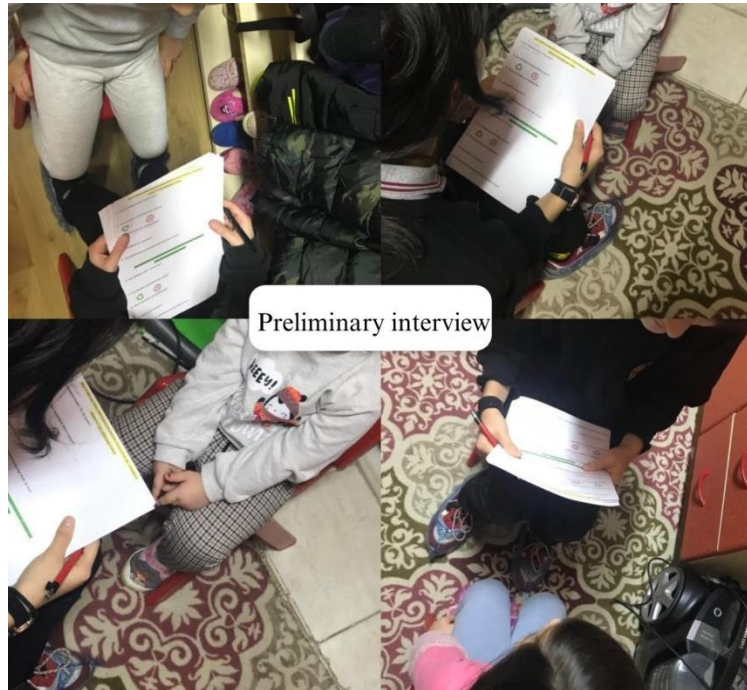


Figure 1. The image of the preliminary interview with the students

Brainstorming was conducted to produce solutions for problem prevention, for environmental protection, recycling and awareness of individual responsibility. Information about recycling, reuse of wastes and benefits were given with videos and visuals.



Figure 2. The image of the environment-themed activity

New paper was produced from the waste paper they collected, and each stage was applied individually.



Figure 3. Image of new paper production from waste paper

A common storybook was prepared by each child by making a picture of the environment on their own paper.



Figure 4. The image of the production of an environment-themed picture on the papers produced
They created the name of their book with a common slogan.



Figure 5. The image of the created storybook

They gave messages to teachers and students in other classes by making introductions to parents. At the end of the study, the findings obtained by applying the post-test were analyzed.

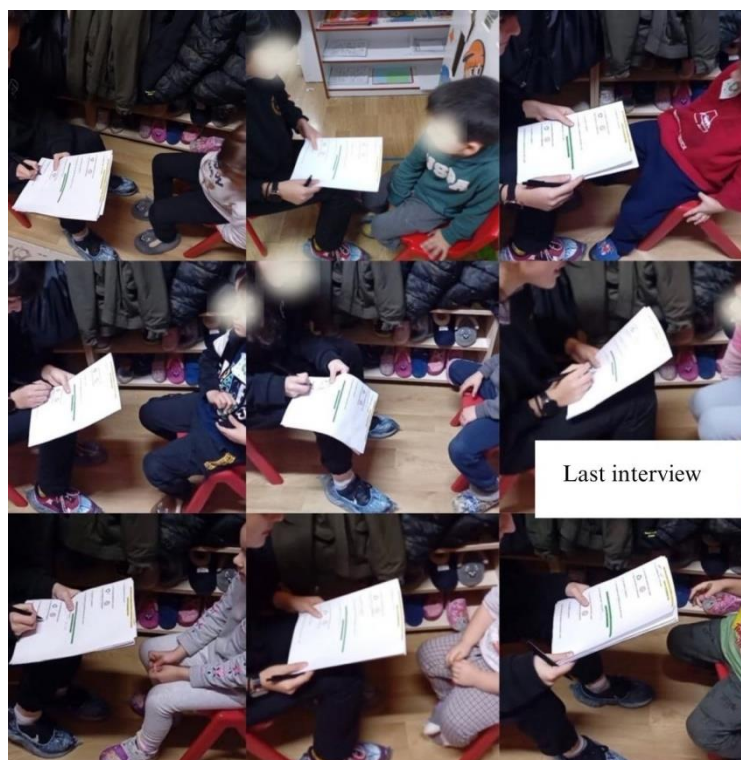


Figure 6. The image of the last interview after the event

3. Working Work-Time Sheet

Table 1. “Transformation Begins with Me” Work Plan for Children

Name of the event	Student Achievements / Goals and Behaviors	Duration
Literature review	Ability to conduct scientific research on environmental problems.	1 month
Obtaining parental permissions and survey permissions	To know the importance of obtaining the necessary permissions in terms of scientific work ethics	15 days
Paper production trial from waste paper before the study	Observing the validity and reliability of the study by experimenting	15 days
Requesting waste paper work from parents and data	Taking responsibility for waste management and recycling	
Preliminary interview	Realizes the importance of survey analysis studies in scientific studies.	15 days
Displaying images and videos about environmental education and recycling to children	Recognizes environmental problems and understands the importance of taking individual responsibility.	
Production of new paper from collected waste paper	He knows that the paper he uses will be recycled.	
Painting and creating a book about the environment with the papers produced	Understands the importance of recycling	15 days
Presentation of the created book	Creates a story book on the environment with group work on the papers they produce.	
Making the last meeting		
Data Analysis and Reporting	Realizes the importance of survey analysis and report preparation studies in scientific studies, can analyze the results of their studies.	1 month

4. Findings

By increasing the environmental awareness of children in early childhood education institutions The findings obtained in this study, which aimed to improve self-awareness levels, are shown in Table 2.

Table 2. Wilcoxon Signed Rank Test Results of Pretest Posttest Scores

		Descriptive statistics				Wilcoxon signed-row test	
		average.	Standard. deflection	Skewness	Kurtosis	z	p
Test	Pretest	1.00	0.301	.733	-.133	-2.958	.000
	posttest	3.45	0.454	-.322	-.158		

Effect size

R=-0,89

In this study, it was tried to determine the effect of activities on waste recycling and environmental issues on the development of students' self-awareness by increasing their sensitivity to the environment. As a result of the analyzes, the subjects were asked about the production of new paper from waste paper and environmental issues. A significant difference was found between the pre-test scores applied before the training and the post-test scores applied after the training [$z = -2.958$, $p < .05$, $r = 0.89$]. Accordingly, the measurements of the posttest (median=4) are higher than the pretest (median=1). In other words, it has been seen that the recycling environment and the efficiency of paper production from waste paper applied to kindergarten 5 year old students increase their sensitivity to the environment and have an effect on the development of their self-awareness levels.

5. Conclusion and Discussion

As a result of the research, it was seen that the recycling environment and paper production activities from waste paper applied in early childhood increased their sensitivity to the environment and had an effect on the development of their self-awareness levels. This result supports the conclusion made by Tosun and Demir (2018) that the creative drama positively affects the learning awareness of students such as cooperation, self-confidence, creativity, respect for the environment and nature, recycling. It supports the conclusion made by Saribiyik (2022), that preschool children show great interest in environmental activities and that environmental activities affect children's attitudes and behaviors positively. The study conducted by Albayrak and Tukaşlı (2017) supports the conclusion that environmental activities in kindergarten support children's environmental awareness, enrich children's environmental awareness and broaden their perspectives. It has been determined by Onur, Çağlar and Salman (2016) that preschool children have awareness about the environment, recycling and environmental protection. The results of the research support the purpose of the research in terms of revealing the importance of raising children's self-awareness about recycling and environmental awareness in the early period.

Early childhood is an important period for the formation and sustainability of permanent behaviors along with personality development. For this reason, in order to make our world, which is one of the biggest problems of our time, more livable, individuals with environmental awareness should be raised. For this purpose, the environmental education given to the students and the new paper production process from waste papers enabled them to see and use it, to realize environmental problems and to produce solutions. At the same time, a joint book was created by making pictures about the environment using the papers they produced and they gave messages by promoting their books. Thus, by living by doing, their awareness of individual responsibility has developed. They realized that many materials in nature can be recycled and reused. They have gained the awareness that the way to protect the environment is to recycle waste. Drawing the recycling symbol, recycling factory, waste, recycling bins, clean environment, dirty environment objects in the pictures they made on the paper they produced shows that they gained individual awareness. Informing their parents about the study has shown that family participation is also important in the formation of behavior.

6. Recommendations

- It is an important period in which self-awareness consciousness will be formed in early childhood education. In this period, environmental awareness and recycling activities can be integrated with the achievements of the development areas in the preschool education program.
- Projects and Symposiums targeting early childhood can be created on Environmental Education and individual awareness.
- By combining the recycling system with Stem applications in preschool children, Environmental-Science

activities can be organized for children to realize the problem situation, produce solutions and explore through trial and error.

- In order to raise environmental awareness and individual awareness in children, maid training can be given to improve teachers' knowledge and practice skills.
- In terms of education, europeanschoolnetacademy where teachers can participate. They can improve themselves by following exemplary training events held in the world at <https://www.europeanschoolnetacademy.eu/about>
- Parent support is very important in the preschool period. In order to create sustainable behavioral change in children, parent trainings can be organized on environmental awareness in their families.
- This study showed the importance of the methods used in the education of preschool children in gaining behavior.

References

- Akbayrak,N &Turaşlı,K,N.(2017). Play-based environmental activities of preschool children examination of the effect on their awareness. Journal of Early Childhood Studies.Volume 1Number 2.239.
- Aküzüm, C. &Ergenekon,Ö.(2021). Studies on Values Education in Preschool Education Examination. Electronic Journal of Educational Sciences. volume/volume:10 issues/issue:19,100.
- Bayırlı, H. Doruk, O & Tüfekci, A. (2020). Teachers' Views on Values Education: Afyonkarahisar Example. Journal of Qualitative Research in Education – ENAD. Volume 8 / Issue 3.865.
- Bayırlı, H. Doruk, O & Tüfekci, A. (2020). Teachers' Views on Values Education: Afyonkarahisar Example. Journal of Qualitative Research in Education – ENAD. Volume 8 / Issue 3.865.
- Boyraz, C. &, Serin,G.(2016). Force and Movement through Play-Based Physical Activities at Primary School Level Teaching Concepts. Journal of Trakya University Faculty of Education. Volume 6. Issue 1.94
- Bozkaya, M. (2006). Learner-to-instructor interaction in video conference applications: instructors' perceptions. Journal of Social Sciences, 6(1), 53-74. [Online: <https://earchiv.anadolu.edu.tr/xmlui/handle/11421/429>], Access Date: 13 July2015. (Specific page on a website).
- Buehl, M. M., & Fives, H. (2009). *Exploring teachers' beliefs about teaching knowledge: Where does it come from? Does it change?* The Journal of Experimental Education, 77(4), 367- 407. (Studies Published in Journals).
- Ceylan, O. &Yiğit, E.(2019). Determination of Secondary School Students' Opinions about Recycling. Turkish Studies Educational Sciences International Balkan University Volume 14 Issue 3.461
- Çelik, M G.(2010). Tiny Theme Training Program Teacher's Guide “My Front, My Back, My Right, My Left Soil”. Tema Foundation. Teknik Basım Printing Co. / İstanbul.9.10
- Toprak”.Tema Vakfı. Teknik Basım Matbaacılık A.Ş /İstanbul.9.10.
- Dönmez, Ö. Sözen, G.&. Demirdas,D,E.(2020). Social Values of Preschool Children Examination of Achievements According to Different Variables. International Primary Educational Research Journal. 4(1).60.
- İlgar, R. (2020). The Case of Recycling and the Recycling of 5th, 6th, 7th and 8th Grade Students Sensitivity, Çanakkale Province Example. Turkish Academic Research Review Turkish Academic Research Journal. Volume: 5 Issue: 4.
- Kahyaoğlu,M.(2016). Studies on Environmental Education in Turkey: A Content Analysis Study Marmara Geography Journal / Marmara Geographical Review . Issue/Issue: 34.51.
- Karaca, F.(2018). Environmental Awareness of Parents and Preschool Children Evaluation of Their Conditions. (Published Master's Thesis). Bartın University / Institute of Educational Sciences. Bartın.5.
- Kartal, E.& , Ada ,E,(2020). Recycling from the Eyes of Preschool Children Uludağ University Journal of the Faculty of Education. volume 33. issue 3, 779.
- Onur, A. Çağlar,A.ve Salman,M.(2016). 5 Yaş Okulöncesi Çocuklarda Atık Kâğıtların Değerlendirilmesi ve Çevre Bilincinin Kazandırılması. Kastamonu Eğitim Dergisi Eylül 2016 Cilt:24 No:5.2459.
- Sarıbiyik,S,K. (2022) The Effect of Preschool Environmental Education on Student Behaviors Analysis. (Published master's thesis). Kastamonu University Institute of Social Sciences / Kastamonu. T.R. Ministry of National Education General Directorate of Basic Education Preschool Education Program Book. (2013).17.
- Tezel, O. Yıldız, E. (2020). Comparison of the World and Türkiye in Sustainable Waste Management Practices: Edikab Example. Social Sciences Research Journal, 9 (2).37.
- Tosun, N. &Demir,K.(2018). Tiny Feet Are Back. Creative Drama Magazine. 13(1).115. www.yader.org
- Uzun ,M & Köse,A.(2017). Teacher for the Implementation of Values Education in Preschool Education

opinions. Journal of Bayburt Education Faculty, Vol. 12. No. 23,305.
Yazar,T &.Erkus,S. (2013). Values in Preschool Education Program of Preschool Teachers
Evaluation of Views on Education. Journal of Dicle University Ziya Gökalp Faculty of Education. 20,196.
Zero Waste Project with All Details | Ecologist.net. Access Date:18:37,10/12/2022.
Ministry of Environment and Urbanization, General Directorate of Environment, Zero Waste
Handbook.(2017).
Ankara,erisimtarihi,17/12/2022,09:21.s317.https://webdosya.csb.gov.tr/db/sifiratik/icerikler/k-tapc-k-
2017-1-20180129130757.pdf.
https://www.aksam.com.tr/guncel/30-mart-artik-sifir-atik-gunu/haber-1327450 access date: 17/12/2022, 09:18.