


Student Opinions on the Sustainable Art Practice of Printmaking Papers Converted from Wastepaper

Yazar(lar) / Author(s)

Hasan Hüseyin Metin 
Niğde Ömer Halisdemir Üniversitesi, Eğitim
Fakültesi, Güzel Sanatlar Eğitimi Bölümü,
Resim-İş Öğretmenliği Anabilim Dalı, Niğde
Türkiye
e-posta: metinhasan24@gmail.com.

Merve Karadeniz 
Niğde Ömer Halisdemir Üniversitesi, Eğitim
Fakültesi, Güzel Sanatlar Eğitimi Bölümü,
Resim-İş Öğretmenliği Anabilim Dalı, Niğde
Türkiye.

e-posta: karadenizmerve058@gmail.com.

Dr. Öğr. Üyesi Buse Kızıllırmak Çekinmez 
Niğde Ömer Halisdemir Üniversitesi, Eğitim
Fakültesi, Güzel Sanatlar Eğitimi Bölümü,
Resim-İş Öğretmenliği Anabilim Dalı, Niğde
Türkiye

e-posta: busekizilirmak@gmail.com.

(Sorumlu Yazar/Corresponding author)

Makale Bilgileri/Article Information

Tür-Type: Araştırma makalesi-Research article

Geliş tarihi-Date of submission: 29. 08. 2024

Kabul tarihi-Date of acceptance: 30. 10. 2024

Yayın tarihi-Date of publication: 31. 10. 2024

Hakemlik-Review

Hakem sayısı-Reviewers: İki Dış Hakem-Two
External

Değerlendirme-Rewiev: Çift Taraflı Kör

Hakemlik-Double-blind

Etik/Ethics

Etik beyan- Ethical statement: Bu çalışmanın
hazırlanma sürecinde etik ilkelere uyulmuştur.

Benzerlik taraması- Plagiarism checks

Yapıldı-İntihal.net-Yes-İntihal.net

Etik bildirim- Complaints

ictimaiyatdergi@gmail.com

Çıkar çatışması-Conflict of interest

Çıkar çatışması beyan edilmemiştir.

The Author(s) declare(s) that there is no
conflict of interest

Finansman-Grant Support

This study was supported by TUBITAK 2209-A

University Students Research Projects with

application number 1919B012335148

Lisans- License

CC BY-NC 4.0

<https://creativecommons.org/licenses/by-nc/4.0/deed.tr>

Atıf- Citation (APA)

Metin, H. H.-Karadeniz, M. -Kızıllırmak Çekinmez, B. (2024). Student opinions on the sustainable art practice of printmaking papers converted from wastepaper. *İctimaiyat*, Türk Eğitim Sisteminde Değişimler ve Yeni Eğilimler Özel Sayısı, pp. 186-200. DOI: <https://doi.org/10.33709/ictimaiyat.1540776>.

Abstract

This research focuses on understanding and addressing environmental issues through art by integrating wastepaper into sustainable art practices. The unique value of this study lies in its emphasis on the fact that combining recycled paper with art carries not only environmental benefits but also social and creative potential. As part of the research, paper-making workshops were organized to facilitate the convergence of recycled paper with art, during which wastepaper was recycled to produce printmaking paper. Subsequently, participants were given the opportunity to carry out linoleum printing applications by incorporating local elements into their works. In this research, implementation and examination studies were conducted in line with the stated aims and objectives. The study employed a case study design, one of the qualitative research methods, and data were collected through a semi-structured interview form. Based on these data, it was clearly demonstrated that the students who participated in the paper recycling workshop and engaged in the processes of printing on recycled materials for sustainable art practices experienced an increase in environmental awareness, and their positive impact on sustainable art was clearly revealed.

Keywords: Wastepaper, recycling, art, sustainable art, printmaking.

Atık Kâğıtlardan Dönüştürülen Baskıresim Kağıtlarının Sürdürülebilir Sanat Pratiğine İlişkin Öğrenci Görüşleri

Öz

Bu araştırma, atık kâğıtların sürdürülebilir sanat pratiğine entegrasyonunu ele alarak, çevresel sorunları anlama ve sanat aracılığıyla çözme sürecine odaklanmaktadır. Çalışmanın özgün değeri, geri dönüştürülen kâğıtların sanatla birleştirilmesinin sadece çevresel değil, aynı zamanda toplumsal ve yaratıcı bir potansiyel taşıdığını vurgulamasında yatmaktadır. Araştırma kapsamında geri dönüştürülen kâğıtların sanatla buluşmasını gerçekleştirmek amacıyla kâğıt yapım atölyeleri düzenlenerek atık kâğıtlar geri dönüştürülmüş ve baskıresim kâğıtları elde edilmiştir. Ardından katılımcılara yerel unsurları eserleri ile birleştirerek linol baskı uygulamaları gerçekleştirme fırsatı verilmiştir. Bu çalışmada belirtilen amaç ve hedefler doğrultusunda uygulama ve inceleme çalışmaları yapılmıştır. Araştırmada nitel araştırma yöntemlerinden durum çalışması deseni kullanılmış ve yarı yapılandırılmış görüşme formu ile veriler elde edilmiştir. Bu veriler doğrultusunda kâğıt dönüşüm atölyesine katılıp uygulamalar gerçekleştiren öğrencilerin, sürdürülebilir sanat pratiklerine yönelik geri dönüştürülmüş malzemeler üzerine baskı yapma süreçleri neticesinde, çevreye duyarlılıkları artmış ve sürdürülebilir sanata olumlu etkileri açıkça ortaya konmuştur.

Anahtar Kelimeler: Atık kâğıt, geri dönüşüm, sanat, sürdürülebilir sanat, baskıresim.

1. Introduction

The invention of paper is an important milestone in the development of human civilization. The history of paper was first started by Ts'ai Lun in China in the 2nd century BC (Ainsworth, 1962:24). Paper making then traveled from the Arab world to Spain and Italy, from where it spread to Europe (Poşul & Görcelioğlu, 2004:85). Subsequently, as the Arabs learnt paper production techniques in the Middle Ages, the use of paper increased rapidly and with the invention of the modern printing press, access and dissemination of information accelerated as never before. Over time, it spread all over the world and became a fundamental tool in the transfer of knowledge, culture, and art. Today, paper has a vital importance in our daily lives and industrial processes. However, this widespread use has also brought environmental problems. Firstly, the paper production process requires intensive use of natural resources. Cutting down trees causes deforestation and a reduction in biodiversity. Additionally, paper production involves a large amount of water consumption and pollution of water resources. Chemicals used during the bleaching and processing of paper pulp mix into water resources and cause water pollution. For all these reasons, reducing paper consumption and recycling wastepaper is critical in reducing environmental impacts. “If the world does not seek a solution for the recycling of these wastes, it will be inevitable to face problems such as environmental pollution, atmospheric change and the increase in various diseases (Yücel, 2020:35).” Therefore, the sustainable use of paper and the effective implementation of recycling processes play a major role in solving environmental problems.

With the development of the industrial system and technology, disposable commercial products that consume natural resources and turn into waste have emerged. The environmental impacts of these products have caused serious problems worldwide such as global warming, ozone depletion, decreasing productivity and desertification (Kaya, 2022:64). Therefore, the importance of sustainability and environmentally friendly practices is increasing day by day. Encouraging recycling, using renewable energy sources and adopting environmentally friendly production processes can contribute to reducing these problems. The unlimited production rate has caused a huge waste problem in developing societies. Many institutions and organizations at the international level are seeking projects and solutions to improve the negative relationship between nature and human beings. These activities aim to reduce environmental problems and ensure sustainability (Kayahan & Çevik, 2021:5).

Inadequacies in waste management strain the infrastructures of countries, especially developing societies, and have negative impacts on health, environment and economy. Problems such as garbage mountains, pollution of water resources, air pollution and soil erosion cause depletion of natural resources and deterioration of ecosystems.

To overcome these issues, it is vital for countries to develop more sustainable and innovative solutions in waste management, strengthen international cooperation, and raise public awareness. Otherwise, waste problems may drag countries into an irreversible collapse. Heinberg (2010), explains this situation as follows:

“Historically, collapse usually refers to a sudden decline in population due to social chaos, war, disease or famine. But decline can also occur more slowly, over many decades or even centuries. There is also a theoretical possibility that a society may choose to reduce its complexity in a controlled and gradual way. It is conceivable that a society could choose the path of change rather than collapse. However, the only option that can really change

the outcome is to stop using critical resources in an unsustainable way or to find alternative resources (Heinberg, 2010:3).”

Heinberg (2010) emphasizes that the collapse of societies can occur not only in sudden and dramatic ways, but also in a slow and controlled manner. It is also stated that a society can theoretically enter into a sustainable change process by voluntarily reducing its complexity in a controlled and gradual manner. In order to choose the path of change instead of collapse, it needs to stop using critical resources in an unsustainable way or find alternative resources. It is very important for countries to implement practices in the name of waste management to prevent this collapse. “Waste management consists of minimizing hazardous and non-hazardous wastes, collecting them by separating them at source, storing them, protecting them, recovering the wastes and disposing of the unusable part (Ak & Genç, 2018:21).” This process aims to minimize environmental damage and protect natural resources. Separation of wastes at source provides both economic and environmental benefits by increasing recycling rates. While the recovered materials can be used in the production of new products, advantages such as energy saving and reducing the need for raw materials are also achieved. In addition, proper disposal of waste that is no longer usable is vital for the environment and human health. This stage involves the safe disposal or storage of waste without harming nature.

“Societies no longer look at recycling only as a waste collection business but approach it as an initiative to raise environmental awareness and protect natural resources. It is aimed to create environmental awareness by adopting this work by institutions (Gürer & Sakız, 2018:1366).” The adoption of recycling is possible by increasing environmental awareness and integrating sustainability principles into corporate culture. While these efforts allow waste management to be carried out in a more effective and environmentally friendly manner, they also encourage societies to exhibit more conscious and responsible behaviors in environmental protection.

Recycling one tone of paper provides significant benefits on the environment and resources. This recycling prevents 177 kg of greenhouse gas emissions, saves 4100 kWh of energy (a 40% reduction), and prevents the cutting down of 17 trees while saving 2.5 cubic meters of storage space (<https://sifiratik.gov.tr/kagit-atik>). In addition, the World Wildlife Fund (2022) shares the dates on which we consume the resources offered to us by nature as Global Exceeding the Limits Day every year and announces its reports. In 2022, this date was set as 28 July and it was stated that we have consumed one year of natural resources offered by the Earth and that we have started to borrow from the future. These dates come earlier each year, creating increasingly serious problems. Sustainable management of resources and re-evaluation of consumption habits are critical for the solution of these problems. Raising awareness and taking action by societies and organizations on this issue supports efforts to leave a healthier environment for future generations.

“The awareness of the society and the knowledge that cellulose, which is already present in the structure of paper sheets, can be used again and again causes an increase in interest in the recycling of wastepaper (Şahin, 2013:74).” Awareness of wastepaper recycling and the knowledge of the reusability of cellulose in the paper structure encourage artists to use this material in their artistic expressions. In this way, the use of wastepaper in artworks not only reduces environmental impacts, but also can set an example for sustainable art practices by expanding the boundaries of art. “Artists who aim to raise awareness about nature and want to

inform people about environmental awareness have produced sustainable and environmentally sensitive artistic productions with completely natural materials or directly with nature itself (Kaya, 2022:64).” Such artistic productions create sensitivity to nature in the audience and make them think about their environmental responsibilities. Eliminating waste entirely, reusing it, and producing works of art from it are among the goals of sustainable art (Aslan, 2022:104). It is important for individuals and societies to act with environmental awareness, to review their consumption habits and to adopt the principles of sustainability, to protect natural resources and to leave a clean environment for future generations. In this context, art's support for environmental sustainability contributes to raising awareness of global environmental problems.

“For the artist, the paper form is important not only as a surface but also as the carrier of the images he creates. The fact that the paper pulp can be used as a form during the production phase of handmade paper, and that the paper produced has a structure that can be bent, twisted and cut, becomes a tool that expands the artist's field of creativity and enables him to go beyond the boundaries unlike the canvas surface (Doğan, 2024: 612).”

With these features, handmade paper offers the artist a visual and tactile experience and adds depth to the creation process. “The ease and expressive power of the artist's effective use of paper as a means of expression brings the artist to a different place in contemporary art (Yayan & Yağcı, 2019: 7437).” In addition, the flexibility and workability of paper allows the artist to move more freely in the creation process and experiment with different techniques. These characteristics make paper an innovative and dynamic material in contemporary art. Paper, which is an indispensable element of printmaking technique, offers new expression possibilities to artists in interdisciplinary approaches. “As in every field, there is no end to creativity in printmaking. Being open to new ideas and experimental works that differ both in content and form is a prerequisite for development (Yıldız & Aslan, 2019: 3154).” In this context, the use of wastepaper in printmaking is of great importance both environmentally and artistically. While the reuse of wastepaper increases sensitivity to nature by integrating sustainability awareness into art practice, it also allows the artist to discover new materials in the creation process. Handmade paper has a workability that allows the artist to create unique paper objects by offering various surface textures, weights and colours suitable for various printing techniques (Doğan, 2024:615).

Art and sustainable art encourages constructive and constructive cooperation between the individual and society and is the most direct expression of global responsibility. Appealing to emotions and senses, art has the power to unite people on a common ground. In addition, art has a great potential in guiding individuals and communities (Aslan, 2022:113). In this context, it can be said that art brings people together, unites them on common ground, and encourages societies to fulfill their environmental and social responsibilities. In this regard, raising awareness of societies and developing environmentally sensitive behaviors of individuals can be achieved through art in education programs. In this context, the role of university students as a dynamic and active group in the development and maintenance of recycling awareness is critical (Ak & Genç, 2018:21).

Within the scope of this research, it is thought that the participation of the students determined as the study group, especially in the process of re-evaluating their own wastepaper, will contribute to the increase of sustainability awareness and the spread of environmentally

friendly practices. For this reason, the aim of the study was determined as examining student views on the sustainable art practice of printmaking papers transformed from wastepaper.

2. Method

2.1. Research Design

This study is conducted with the case study method, which is one of the qualitative research designs. A case study is a method used in cases where the boundaries of a particular event or phenomenon are not clear. According to Yıldırım and Şimşek (2021), this method focuses on in-depth examination of an event or phenomenon that the researcher cannot control and basically tries to answer the “how” and “why” questions.

2.2. Participants

The study group of the research consists of 14 students studying in the third year of Niğde Ömer Halisdemir University Faculty of Education, Department of Fine Arts Education, Department of Painting and Art Education. The students were selected from the third grade because they had taken a printmaking course in this semester and were technically suitable for the skills, knowledge and experience used in the process.

2.3. Data Collection Tools

In the study, a semi-structured interview form, developed by the researcher and consisting of five open-ended questions, was used as a data collection tool. The interview form was submitted for review to two language experts and three field experts to evaluate its suitability for the research purpose and its comprehensibility. The form was finalized after necessary adjustments were made based on the feedback received.

2.4. Process and Data Analysis

With the increasing population and the development of technology, problems such as overconsumption, climate change, harmful substances, fossil fuels and the proliferation of non-recyclable packaging are emerging. Therefore, sustainability projects are important for a more livable world (Merih Böcek, 2019:1). When the research is evaluated in this context, it aims to raise awareness about creating environmental awareness by using artistic practices in order to produce solutions to the aforementioned problems.

In this research recycling workshop, the students were asked to evaluate the manuscript papers they had accumulated. In this process, the students firstly cut these papers into small pieces and kept them in water for two days. Then, the softened papers were made more homogenous by means of a mixer and pulp was obtained. The paper pulps were added to a large reservoir filled with water. Then, the pulleys obtained from fly screen wires were dipped into this reservoir and the pulp remaining on the sieve was carefully transferred to a clean surface. Then, the excess water on the pulp was removed and left to dry. The students completed their linoleum printing works by making designs related to the society on these papers.



Image 1. While re-paper is being produced in the paper recycling workshop

The basic principle in the colored linoleum printing stage is that a separate printing stage is carried out for each colour and the colours are in contact with each other. In the application, problems were encountered due to the lack of a flat perimeter of the wastepaper and the inability to print with a guide at each printing stage. This problem was solved by cutting only a part of the paper properly and performing the alignment stages before printing from the cut surface. An important advantage compared to the prints printed on normal paper is that the paper dries easily. Since the absorbency level of wastepaper is much higher than other papers, even the printing ink, which takes days to dry, dried in a very short time and allowed the second colour to be printed on it immediately. This advantage significantly shortened the printing process. However, the wastepaper, which reached a certain saturation level after the fourth colour, slowed down the printing process because it did not dry quickly. However, if less colourful work is planned at the design stage, this process can be significantly shortened.



Image 2. Exhibition of printmaking applications on recycled paper

Data were collected from the participants in the last week of the spring semester of the 2023-2024 academic year. At this stage, the students studying in the 3rd year of the undergraduate program of the Department of Art and Art Education were informed about the collection of qualitative data and were asked to answer the questions in the form in line with their own views.

The data obtained during the research process were analysed by descriptive analysis method. Participant opinions were collected in certain categories and supported by percentage-frequency analyses and arranged in a way that the reader can easily understand.

2.5. Ethical Considerations

This research was ethically approved by the Ethics Committee of Niğde Ömer Halisdemir University with the decision dated 07/05/2024 and numbered 2024/10-46.

3. Findings

The first question of the research was “What are the advantages of making art with recycled materials?”. Table 1 below shows the answers given by the students:

Table 1. Student views on the advantages of making art with recycled materials

Categories	Coders	Student	f	%
Environmental Sensitivity and Contribution to Nature	Responsiveness	S1, S7, S9, S10, S11	10	41,7
	Environmental Awareness	S1, S5, S7, S9		
	Environmental Cleanliness	S5		
Artistic Advantages	Material Savings	S1, S2, S10	10	41,7
	Authenticity	S1, S3, S14		
	Contribution to Artistic Production	S9, S12		
	Waste Material Utilization	S3, S13		
Economic Contribution	Savings	S1, S2,S5,S10	4	16,6
Total			24	100

In the data analysis related to the first sub-problem, the answers given by the students participating in the wastepaper recycling workshop about the advantages of making art with recycled materials were categorised according to their similarities and three categories were obtained. These categories are “environmental sensitivity and contribution to nature”, “artistic advantages” and “economic contribution”. When the frequency values in Table 1 are analysed, it is seen that the opinions of the students who participated in the wastepaper recycling workshop regarding the advantages of making art with recycled materials are equally ($f=10$) in the categories of “environmental sensitivity and contribution to nature” and “artistic advantages”, and the least in the category of “economic contribution” ($f=4$). In the category of environmental sensitivity and contribution to nature, with the “sensitivity” code coming to the fore, the awareness of the students participating in the wastepaper recycling workshop after making art with recycled materials was emphasised. Sample opinions related to these categories are as follows:

S1: "While increasing my sensitivity to the environment, it also helped me save money. I used the recycled paper as art material and it helped me to generate new ideas. At the same time, recycling old and unused paper prevented me from buying new paper. This also contributed to my budget."

S9: "I had a different experience. I am now more conscious about consumption and waste culture. I can adapt my artworks by thinking that waste materials are transformed."

S10: "It was advantageous both in terms of material savings and ease of access to recycled materials."

The second question of the research was "After this workshop experience, is there a project or activity you plan to do for environmentally friendly art practices?". Table 2 below shows the answers given by the students:

Table 2: After the workshop experience, students' opinions on project or activity plans within the scope of environmentally friendly art practices

Categories	Coders	Student	f	%
There is (Continuity)	Continuing to Make Wastepaper	S2, S6, S11, S13	13	81,3
	Producing Artistic Projects with Wastepaper	S3, S4, S7, S9, S10		
	New Techniques Trial	S3, S6, S8, S12		
There is not		S1, S5, S14	3	18,7
Total			16	100

In the data analysis related to the second sub-problem, the answers given by the students participating in the wastepaper recycling workshop regarding the project or activity plans within the scope of environmentally friendly art practices were categorised according to their similarities and two categories were obtained. These categories were determined as "there is" and "there is not" and it was seen that the answers given in the direction of continuing environmentally friendly art practices after the workshop experience were mostly. When the frequency values in Table 2 were examined, it was determined that the answers emphasising that they wanted to continue wastepaper practices with the code "producing artistic projects with wastepaper" were mostly ($f=13$). In the "None" category, it was observed that there were fewer students expressing an opinion ($f=3$) and the students emphasised that even if they did not have a project at the moment, they had plans for the future. Some of the opinions related to these categories are as follows:

S13: "Since I learnt how to make paper from wastepaper again, it has created an alternative that I can use in the rest of my life's work."

S5: "I do not have a project in mind at the moment, but I would like to take part in a certain project and produce it in the future."

S6: "I want to make wastepaper again and try painting techniques on them this time."

The third question of the research was “How did this workshop experience affect your environmental awareness?”. Table 3 below shows the answers given by the students:

Table 3: Student views on environmental awareness after the workshop experience

Categories	Coders	Student	f	%
Positive	Environmental Awareness	S1, S3, S4, S5, S6, S7, S9, S10, S11, S12, S13	19	100
	Waste Materials Transforming into Art	S3, S10		
	Recycling Awareness	S4, S5, S8, S11		
	Citizen Scientist	S13, S14		
Negative	-	-	0	0
Total			19	100

In the data analysis related to the third sub-problem, the answers given by the students participating in the wastepaper recycling workshop regarding their environmental awareness were categorised according to their similarities and two categories were obtained. These categories were determined as “positive” and “negative”. When the frequency values in Table 3 are analysed, it is seen that the students who gave “positive” answers to the question about how the workshop experiences affected their environmental awareness were in the majority ($f=19$) and no “negative” answer was found. It was observed that the students who participated in the wastepaper recycling workshop and gave positive answers mainly gave answers compatible with the “environmental awareness” code. Sample opinions related to these categories are as follows:

S1: “There is a lot of paper waste and it all ends up as rubbish. Recycling paper reduced the amount of waste and helped us to save money by preventing the need for new paper. Recycling the waste we produce has made me more sensitive to the environment.”

S3: “When we are in impossibilities, it enabled me to create an opportunity for myself by making use of nature, that is, the objects in the environment. It enabled me to see the objects in the environment as an art material, not as waste material.”

S11: “Thanks to this project, I learnt that I can recycle this paper into paper instead of throwing it away. In this way, it is very important for me that even 1 tree can be saved.”

S14: “I don’t look at things as rubbish, I think about how they can be utilised, how they can be transformed into a work of art, and I do research. I try to contribute to raising awareness about this issue not only by myself but also by telling people around me about these things.”

The fourth question of the research was “What do you think about the social effects of sustainable art?”. Table 4 below shows the answers given by the students:

Table 4: Student views on the social effects of sustainable art

Categories	Coders	Student	f	%
Contributions	Raising Environmental Awareness through Art	S1, S2, S7, S9, S10, S12	16	100
	Sustainable Art	S4, S6, S14		
	Economic Contribution	S5, S13		
	Aesthetic Contribution	S4, S8, S14		
	Innovative Approaches	S3, S11		
No Contribution	-	-	0	0
Total			16	100

In the data analysis related to the fourth sub-problem, the answers given by the students participating in the wastepaper recycling workshop were categorised according to the similarities of the social effects of sustainable art and two categories were obtained. These categories were determined as “contributions” and “no contribution”. When the frequency values in Table 4 are analysed, the students who answered “contributes” in the question about the contribution of workshop experiences to the social effects of sustainable art are in the majority ($f=16$), and no answer with the characteristic of “does not contribute” was found. The students who participated in the wastepaper recycling workshop and gave answers that they contributed mainly gave answers compatible with the code “raising environmental awareness through art”. Some of the opinions related to these categories are as follows:

Ö6: “Since we had never seen an example of sustainable art, we didn’t know much about it. However, the papers and prints we made showed us that the end of art is very open.”

Ö9: “It contributes to a more conscious society. You can design posters about this and arouse interest in the society.”

Ö13: “When we look at the current state of the world, I think that recycling paper has a positive effect on both society and the environment. I think that recycling is very important and it is necessary to increase it when the environment is getting so bad.”

Ö14: “Art can provide an aesthetic perspective to many audiences. Making recycling more enjoyable also makes saving more enjoyable. In this way, people do not look at many materials as waste or rubbish.”

Ö10: “People react positively when they see the final results of the works made of these papers. It is quite remarkable that these objects that will serve no purpose become usable.”

The fifth question of the research was “Do you establish a connection between art and the environment? If so, how would you define this connection?”. Table 5 below shows the answers given by the students:

Table 5: Student views on whether there is a connection between art and the environment

Categories	Coders	Student	f	%
There is a connection	Reflection of the environment on art	S1, S2, S3, S4, S5, S7, S9, S10, S12, S13	20	100
	Inspiration from nature and the environment	S2, S3, S7, S10, S8, S11, S14		
	Use of environmental elements in art	S4, S6, S10		
No Connection	-	-	0	0
Total			20	100

In the data analysis related to the fifth sub-problem, the answers given by the students participating in the wastepaper recycling workshop about whether there is a connection between art and the environment were categorised according to their similarities and two categories were obtained. These categories were determined as “there is a connection” and “there is no connection”. When the frequency values in Table 5 are analysed, it is seen that the students who answered “there is a connection” in the question about whether there is a connection between art and the environment in the workshop experiences are in the majority ($f=20$), and no answer with the characteristic of “no connection” was encountered. The students who participated in the wastepaper recycling workshop and gave answers that there was a connection mainly gave answers compatible with the code “reflection of the environment on art”. Some of the opinions related to these categories are as follows:

S1: “Yes, I do. The environment we live in also affects our perception of art. The attitude of the environment and social events in the environment also affect the psychology of the person who makes art. This is directly or indirectly reflected in the art of the person.”

S9: “I am. Environment is a phenomenon that shapes art. Therefore, works of art should be the voice of society.”

S13: “Of course I do. Just as art affects the environment, the environment also affects art. Since the reactions of the environment can affect the artist, they also affect the art.”

S6: “Environment and art are connected to each other in every way. With this connection, I believe that everything in the environment is related to art.”

4. Discussion

The main purpose of the research is to reveal the potential of sustainable art by utilising wastepaper and to increase environmental awareness in society. In line with this purpose, the findings obtained from student opinions were analysed. The first issue examined in the research reveals the perceptions and evaluations of the students participating in the wastepaper recycling workshop regarding the advantages of making art with recycled materials. It is seen that especially environmental sensitivity and contribution to nature and artistic advantages are important sources of motivation among the participants. The fact that

the economic contribution is less prominent indicates that such workshops are primarily focused on environmental and artistic benefits. In this context, it can be said that the positive effects of making art with recycled materials on students' environmental awareness and artistic creativity come to the fore. According to the findings of Mamur (2017), in his research on sustainability and environmental education in art education with primary and secondary school students, *“it was found that the art activities carried out within the framework of the project contributed to recognising and understanding the importance of nature, realising the beauties brought by art to nature and the environment, and discovering the diversity in art, as well as causing a willingness to correct it. The students developed ideas that beautiful things can be created through art, showed attitudes towards empathising with future generations, perceiving environmental problems in a multidimensional way and thinking about a better life for the future.”* In addition, according to the data obtained in the study conducted by Sağlam and Enginoğlu (2016:56) on “the use of waste objects in art education”, results such as more careful use of natural resources, development of recycling awareness, understanding the concept of three dimensions, improvement of visual perception, increase in creativity and reflection of the acquired behaviours to the whole life were reached. It is seen that the results of these studies support the results obtained in this study.

The second issue analysed in the study reveals the opinions of the students about whether they have a project or activity they plan to do for environmentally friendly art practices after the workshop experience. The findings obtained show that the majority of the students who participated in the wastepaper recycling workshop thought of doing projects or activities for environmentally friendly art practices after the workshop experience. Especially the high interest in producing artistic projects with wastepaper reveals the participants' desire to evaluate the environmental and artistic benefits of such practices. This leads students to consider how sustainable art practice functions as a source of motivation in educational processes and how to integrate environmentally friendly approaches in their future professional practice. In the master's thesis titled “Recycling materials used in contemporary art” by Oflu (2012), artists were interviewed and the results obtained were explained as follows; *“Artists who use recycling materials in their works, in the perspective of people towards the materials they use; A highly significant relationship was found with a value of 85% in total by expressing that it gives the audience a different perspective (46%), creates the perception that the materials can be used (23%), their art brings happiness (4%), intense labour is spent (4%), creates a different perspective on people (4%) and triggers personal memories (4%).”* These results indicate that art using recycled materials enriches the emotional and intellectual experience of the audience and leaves a positive impact on society. It shows the effects of using recycled materials on art and the audience and that these effects are compatible with the students' desire to make environmentally friendly art projects.

The third issue analysed in the study revealed the students' views on how the workshop experience affected their environmental awareness. The majority of the students who participated in the wastepaper recycling workshop showed that their environmental awareness was positively affected after the workshop experience. The positive responses indicating that the participants' environmental responsibilities and sensitivity to nature have increased reveal the potential effects of wastepaper recycling on sustainable art practice. Especially the prominence of the category “environmental awareness” emphasises how such workshop experiences contribute to the participants' awareness of environmental issues. In this context,

it offers important clues on how sustainable art can be used as a tool in educational processes and what role it can play in students' future professional practices. Ak and Genç (2018); in their study to determine recycling awareness on Sakarya University students; in one of their findings, *“The hypothesis that Sakarya University students lack education/information about recycling is confirmed. 63.7% said that there is a lack of education/information. 57.1% claim that they know what happens to recycling waste afterwards.”* Students also stated that they gained environmental awareness after the workshop experience and that they did not have such awareness before. For this reason, it is seen that the data of Ak and Genç (2018) support the results obtained in the study. Another issue examined in the study reveals the views on the social effects of sustainable art. The findings show that the students participating in the wastepaper recycling workshop have a positive perception of the social impacts of sustainable art. It was revealed that the majority of the participants believed that art provides social benefits, especially environmental awareness. This emphasises the importance of the role of sustainable art in education and society. It provides an important perspective on how drawing attention to environmental problems and providing alternative solutions through art can contribute to social awareness. In addition, these findings may provide guidance on how sustainable art practice can be included more broadly in future education programmes and social projects. In order for the social effects to become visibly widespread, the awareness of individuals from all age groups on this issue should be raised. In their study, Sayın and Yerli (2022), examined the awareness of recycling in household wastes and its contribution to the economy and concluded: *“In the fourth finding of the study, it can be concluded that education levels differ in the transformation of wastes and the development of environmental awareness of individuals. While it is seen that individuals with primary and high school education do not have a positive effect on the recycling of waste, it is seen that individuals with university and postgraduate education have a positive contribution.”* On the other hand, Yılmaz, Morgil, Aktuğ & Göbekli (2002), in their study in which they investigated the knowledge of secondary school and university students about the environment, environmental concepts and problems, obtained the following result: *“It shows that the students' level of knowledge about the environment is insufficient, especially the environmental concepts within the scope of the study cannot be learnt or taught sufficiently. Accordingly, it has been revealed that students do not fully recognise the problems related to the environment.”* In line with these studies, it is necessary to raise awareness of all individuals on these issues in order to provide a social benefit for the perception of art, environment and sustainability.

The last issue analysed in the study reveals the opinions of the students on whether they establish a connection between art and the environment, and if so, how they define this connection. The findings showed that the students who participated in the wastepaper recycling workshop thought that there was a strong connection between art and the environment. The majority of the participants emphasised that art is an important tool in the processes of explaining environmental issues and raising environmental awareness. This situation shows that the relationship between art and nature is effective in sensitising people to environmental problems. These findings on how art's relationship with the environment is defined as the expression of nature through visual imagery and emotion help us to understand the social and environmental benefits of art. Furthermore, these results provide important clues on how arts education can be further integrated in the context of environmental education and sustainability education.

“In the process of environmental education, it is aimed to provide basic information such as the rational use of natural resources and the functioning mechanisms of the ecosystem in order to meet the basic needs of human beings, as well as to create positive behavioural changes in individuals in order to protect the ability of the environment to renew itself (Marin & Yıldırım, 2004).”

This statement supports students' views on whether there is a connection between art and the environment. Issues such as the rational use of natural resources and the functioning mechanisms of the ecosystem, which are the main objectives of environmental education, provide an important background for understanding how students define the connection between art and the environment and what kind of awareness they develop in this context. In this context, the knowledge that students acquire in the process of environmental education can help them to comprehend the relationship between the environment and art and to form their thoughts on this issue.

5. Conclusion

Wastepaper poses a serious threat to the environment when it is not recycled properly. Paper waste that accumulates in landfills can remain undegraded for long periods of time and contribute to climate change by releasing greenhouse gases such as methane. In addition, the felling of trees required for paper production leads to deforestation and a decrease in biodiversity. Therefore, this process causes loss of natural habitats and deterioration of ecosystem balance. In order to minimise the damage of wastepaper to the environment, it is of great importance to implement recycling processes effectively. The transformation of wastepaper and its applicability in art practices is of great importance in terms of environmental sustainability and artistic creativity. The transformation of recycled materials into works of art both contributes to the protection of natural resources and reveals the potential to create environmental awareness through art. Consequently, the use of wastepaper in artistic practices plays an important role in increasing environmental awareness and making individuals aware of their environmental responsibilities.

The research findings reveal that students evaluate the advantages of making art with recycled materials in terms of environmental sensitivity and artistic creativity. The workshop experience positively affected the participants' environmental awareness and increased their interest in environmentally friendly art projects. These findings show that sustainable art is an effective tool in educational processes and raising social awareness. Student experiences highlight the importance of integrating art made with recycled materials into educational programmes and community projects, combining environmental and artistic benefits.

As a result, this research reveals that recycling of wastepaper and its applicability in art practices have an important potential in terms of both creating environmental awareness and encouraging artistic creativity. The students' process of making linoleum prints on recycled materials increased their environmental awareness and revealed the positive effects of sustainable art on society.


References

- Ainsworth, J. H. (1962). *Asırlar boyunca kâğıt*. İstanbul: Çeltüt Matbaacılık.
- Ak, Ö. & Genç, A. T. (2018). Üniversite öğrencilerinin geri dönüşüm bilinci üzerine bir araştırma: Sakarya üniversitesi örneği. *Uluslararası Ekonomik Araştırmalar Dergisi*, 4(2), 19-39.
- Aslan, T. (2022). Sürdürülebilir tüketim davranışları üzerine sürdürülebilir sanat. *Yıldız Journal of Art and Design*, 9(2), 104-114.
- World Wildlife Fund (27.07.2022). *WWF-Türkiye'den Limit Aşım Günü Uyarısı: 1.75 Dünyamız varmış gibi tüketiyoruz*. Retrieved from: <https://www.wwf.org.tr/?12540/Limit-Asim-Gunu> Access date: 02.07.2024
- Doğan, M. S. (2024) Ekolojik bir yaklaşım olarak el yapımı kâğıdın çağdaş sanatta temsili. *Nevşehir Hacı Bektaş Veli Üniversitesi SBE Dergisi*, 14(2), 611-624.
- Gürer, A. & Sakız, G. (2018). Yetişkinlerin küresel ısınma ile ilgili bilgi düzeyleri ve geri dönüşüm farkındalıkları. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 7(2), 1364-1391.
- Heinberg, R. (2010). *What is sustainability? USA: Managing the 21st century's sustainability crises, the post carbon reader series*. USA: Post Carbon Institute.
- Kaya, F. M. (2022). Çağdaş sanatta sürdürülebilirlik teması bağlamında aralarla oluşturulan iş birliği. *İnsanat Sanat Tasarım ve Mimarlık Araştırmaları Dergisi*, 2(1), 62-81.
- Kayahan, Z. & Çevik, N. (2021). Çevre bilinci bağlamında sürdürülebilir sanatsal dil. *Akademik Sanat*, (14), 1-11.
- Mamur, N. (2017). Sanat eğitiminde sürdürülebilirlik ve çevre eğitimi üzerine bir çalışma. *Ege Eğitim Dergisi*, 18(2), 774-794.
- Marin, M. & Yıldırım U. (2004). *Çevre sorunlarına çağdaş yaklaşımlar*. İstanbul: Beta Yayıncılık.
- Merih Böcek, B. (2019). *Ambalaj tasarımı ve sürdürülebilirlik* [Unpublished Master Thesis]. Yaşar Üniversitesi Sosyal Bilimler Enstitüsü. İzmir.
- Oflu, G. (2017). *Günümüz sanatında kullanılan geri dönüşüm malzemeleri* [Unpublished Master Thesis]. Altınbaş Üniversitesi Sosyal Bilimler Enstitüsü. İstanbul.
- Poşul, S. & Görcelioğlu, E. (2004). Kâğıt, kitap ve kütüphaneler. *Journal of the Faculty of Forestry Istanbul University*, 54(2), 83-96.
- Sayın, A. A. & Yerli, A. (2020). Eysel atıklarda geri dönüşüm farkındalığı ve ekonomiye katkısının incelenmesi. *OPUS International Journal of Society Researches*, 16(29), 1849-1874.
- Şahin, H. T. (2013). Kâğıt geri dönüşüm işlemlerinin selülozun yapısında meydana getirdiği değişimler üzerine bir inceleme. *Süleyman Demirel Üniversitesi Orman Fakültesi Dergisi*, 14, 1-74.
- Yayan G. & Yağcı, U. (2019). Çağdaş tasarım olgusu içerisinde kâğıt sanatının yeri. *Social Sciences Studies Journal (SSS Journal)*, 5(53), 7437-7450.
- Yıldız, E. M. & Aslan, M. (2019). Disiplinlerarası etkileşimlerin baskiresim sanatına yansımaları. *Journal of Social and Humanities Sciences Research*, 6(43): 3153-3161.
- Yılmaz, A., Morgil, İ., Aktuğ, P. & Göbekli, İ. (2002). Ortaöğretim ve üniversite öğrencilerinin çevre, çevre kavramları ve sorunları konusundaki bilgileri ve öneriler. *Hacettepe Üniversitesi Eğitim Bilimleri Dergisi*, 22, 156-162.
- Yücel, B. (2020). Atık malzemelerin çağdaş sanatta yansımaları. *İdil Sanat ve Dil Dergisi*, 9(65), 31-40.

APPENDIX: 1

Ethics Committee Decision

Evrak Sayısı: 15/05/2024-507973



T.C.
NİĞDE ÖMER HALİSDEMİR ÜNİVERSİTESİ REKTÖRLÜĞÜ
ETİK KURUL
KARARI

Toplantı Tarihi	Kimlik/Dosya No	Toplantı Sayısı
07/05/2024	22504254-050.04	10

KARAR NO: 2024/10-46: Üniversitemiz Eğitim Fakültesi Güzel Sanatlar Eğitimi Resim İş Öğretmenliği Anabilim Dalı Dr. Öğr. Üyesi Buse KIZILIRMAK ÇEKİNMEZ'in danışmanlığında lisans öğrencileri Hasan Hüseyin METİN ile Merve KARADENİZ'in yürütücülüğünü yaptığı "Atık Kağıtlardan Dönüştürülen Baskıresim Kağıtlarının Sürdürülebilir Sanat Pratiğine İlişkin Öğrenci Görüşleri" konulu araştırma etik yönden incelenmiş olup etik açıdan **uygunluğuna**, oy birliği ile karar verilmiştir.

Prof. Dr. Zeliha YILDIRIM
Başkan

Prof. Dr. Mustafa SARIDEMİR
Üye

Prof. Dr. Ayhan CEYHAN
Üye

Prof. Dr. Esen GÜRBÜZ
Üye


Prof. Dr. Ayten ÖZTÜRK
Üye


Doç. Dr. Hande BALTACIOĞLU
Üye

Doç. Dr. Nalan GÖRDELES BEŞER
Üye

Dr. Öğr. Üyesi Çiğdem SAMANCI
TEKİN
Üye

Genel Sekreter V.
Abdulgani ÖZKAN
Üye


ASLI GIBİDİR
Prof. Dr. Zeliha YILDIRIM
Etik Kurul Başkanı



Bu belge, güvenli elektronik imza ile imzalanmıştır.