



# Sustainable

# World Citizenship

# Training

## Monitoring and Evaluation Report

September 2023- March 2024



## OVERVIEW

Today, there is an increasing need for individuals to be equipped with human skills, which have become as important as cognitive skills and perhaps even more important. Human skills and values include characteristics such as communication, empathy, patience, cooperation, responsibility, respect, protection of peace and justice.

The "Sustainable World Citizenship" training program has been developed for environmental sustainability problems that arise from errors in the positioning of human beings in nature, which can be solved precisely with these values.

The main objective of this program, developed in cooperation with DOW, is to raise individuals who defend democracy, human rights and world peace, who feel responsible for all humanity, who are concerned about the problems of the world, and who care about the right to life of all living things. In line with this aim, it is aimed to enable our students to collect information about the problems of the world, to interpret this information correctly and to gain the skills to solve the problems in the most effective way by respecting the rights to life of all living things through our teachers. For example, instead of explaining the place of human beings in nature, we have focused on carrying out activities that will enable them to position human beings in terms of our responsibilities, and instead of explaining recycling, we have focused on not producing waste.

Thus, strong messages that will leave a mark on teachers and mobilize them are given throughout the program. While moving towards this goal, it is aimed to make them feel responsibility, not anxiety; not to transfer theories and concepts, but to create a perspective on real life practices that can be applied.

Humans as a part of nature, our place in nature and our responsibilities, our habits and their effects on the world, Atatürk's Republic Project, inspiring philosopher Arne Næss, Aldo Leopold's idea of "Thinking like a Mountain", World Overlimit Day, recycling, upcycling, school-based advocacy are major concerns and areas for inspiration.

With this program, approximately 22600 students were reached through 904 primary school teachers between October and January 2023.

The results of the scientific tests we applied at the end of the program, which was implemented in earthquake regions and in provinces receiving migration from earthquakes, showed that the teachers left the training with high satisfaction (68% of them scored 8 or above out of 10).

Teachers stated that they would like to work on the importance and internalization of the concepts of recycling and sustainability in their personal lives. They expressed that they would like to increase environmental awareness and realize their ideas for a sustainable world by sharing what they gained from this training with their colleagues, collaborating more, creating projects and campaigns.

After the training, they would like to work with their parents to raise environmental awareness, as well as inform and raise awareness for recycling, waste management, reuse and conscious consumption. According to the Environmental Literacy Scale, it was found that the training increased teachers' sensitivity towards the environment, enabled them to see environmental problems as a matter of concern, and created a perspective that they would care about the environment in their activities.

In the context of sustainable consumption behaviors, it was observed that the training had a strong effect on teachers' behaviors on reducing non-essential use and reusing. In the results of the scientific tests we applied at the end of the program, it was determined that teachers have made environmental problems an issue, and that they are aware of the power they have in actions to solve environmental problems. It was seen that the training they received increased their motivation in classroom practices.

## INTRODUCTION

The World Commission on Environment and Development (1987) defines the concept of sustainable development, which has been frequently used in recent years, as a development process in which the needs of the present generation can be met without depriving future generations of the opportunity to meet their needs.

This concept is based on two important features: The first is connectivity and the second is co-operation. In order to find solutions to the world's problems, economic growth alone is not sufficient, and the interrelatedness (interconnection) of economic, social and environmental dimensions should be taken into account in every decision taken.

While finding solutions to the problems, a mobilization (cooperation) that transcends borders in all aspects, both institutional and geographical, is required in this decision-making process (OECD, 2008). In establishing this connection and ensuring cooperation, it is important to increase the sphere of influence by reaching teachers and, through them, parents and students.

Teachers are powerful agents for change and social transformation in achieving sustainable development goals (Sánchez-Carracedo, Moreno-Pino, Romero-Portillo, Sureda, 2021). Well-equipped, conscious teachers can conduct their lessons on the axis of sustainable development and increase social awareness.

In studies conducted abroad, it is suggested that in-service teacher training focused on sustainable development should be practice-oriented, especially adequate and awareness-raising, and it is recommended to increase involvement in the process by supporting different organizations such as NGOs and associations (Atmaca, 2018; Imara & Altinay, 2021; Tsayang & Bose, 2013).

The first step to raise awareness in teachers through practices in line with this purpose and to put the elements of cooperation and connection to work is to ensure that "teachers embark on the journey of becoming a sustainable world citizen (SDC)". In this journey, it is critical for teachers to be a model by showing environmental literacy and conscious consumer behaviors.

An in-service training program has been designed to inspire/encourage teachers on their journey to become world citizens. In this training program, an understanding that

is concerned about the problems of the world by feeling responsible for all humanity, and that produces the most functional, economical and sustainable solutions to environmental problems in the current conditions by giving importance to the right to life of all living things has been adopted.

With this training program, it is aimed that students and parents gain the belief that they can make a difference for a sustainable future through teachers and move from "I" consciousness to "WE" consciousness by approaching people and objects with respect and empathy.

Teachers working as classroom teachers in grades 1-4 of public schools affiliated to the Ministry of National Education were targeted to participate in the training. In the face-to-face "Sustainable World Citizenship" training program, which lasted one full day, 6 hours, the following topics were covered:

- **Humans as a Part of Nature**
- **Our Place and Responsibilities in Nature**
- **Our Consumption Habits and Their Effects on the World**
- **Design Thinking as a Solution Method**

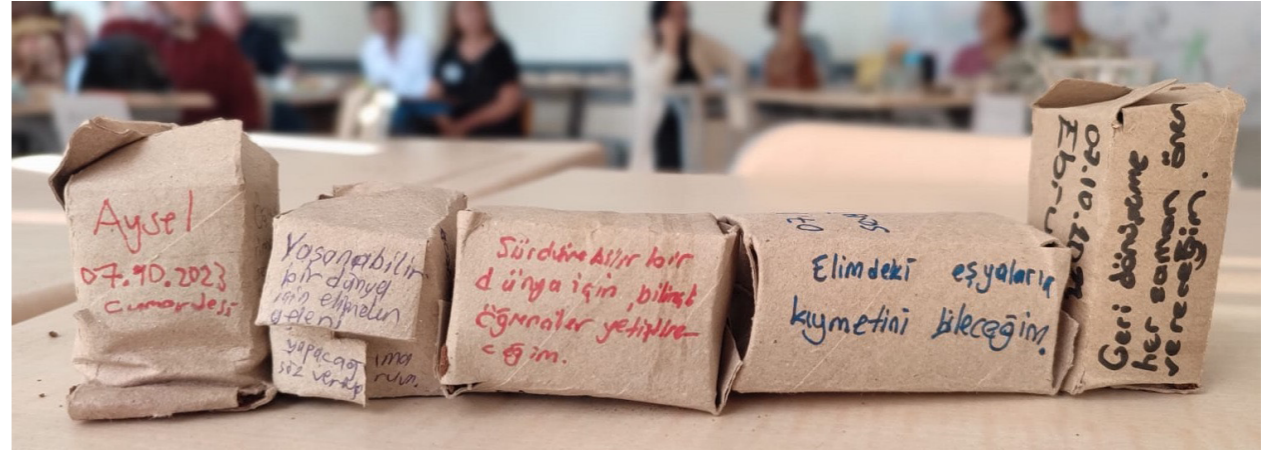
In these titles; the place of human in nature was handled within the framework of ecological movements, and practices were carried out to realize that all beings are interdependent and interdependent. Sustainable World Citizenship characteristics were evaluated under the headings of knowledge-understanding, skills, values and attitudes, and a poster describing these characteristics was prepared in cooperation.

Basic concepts such as World Limit Exceeding Day, carbon footprint, linear and circular economy, recycling and upcycling were studied. Activities were carried out to produce solutions with design thinking methodology through personal precautions that can be taken for waste management and sample situations. Examples of applications that teachers can reflect what they have learnt in the classroom and implement with their students were also presented.

A total of 904 teachers in 31 groups in 10 provinces affected by the earthquake disaster (having experienced the earthquake or having migrated after the earthquake disaster) were trained about Sustainable World Citizenship. In this way, approximately 22,600 students were reached through their teachers.



Photograph 1. Application of the spider web activity to realize that all beings are interconnected and interdependent



Photograph 3. Seed rolls on which the participants wrote their promises to each other for a sustainable environment



Photograph 2. An example of a collaboratively prepared poster describing the knowledge-understanding, skills, values and attitudes of Sustainable World Citizen characteristics



## TRAINING PARTICIPANTS

The Sustainable World Citizenship training was delivered to 904 teachers in 10 provinces by ÖRAV part-time trainers between October 2023 and January 2024 (Table 1). At the very beginning of this face-to-face training, a pre-test was administered to profile the participants and collect preliminary information about their environmental literacy, sustainable consumption behaviors and habits.

The demographic information presented in this section belongs to the 771 participants who completed the pre-test.

| DATE                 | CITY          | GROUP NUMBER | NUMBER OF PARTICIPANT TEACHERS |
|----------------------|---------------|--------------|--------------------------------|
| 7-8 October 2023     | KİLİS         | 1            | 29                             |
|                      |               | 1            | 26                             |
| 21-22 October 2023   | OSMANİYE      | 1            | 25                             |
|                      |               | 1            | 22                             |
| 04- 05 November 2023 | HATAY         | 2            | 60                             |
| 02- 03 December 2023 | ŞANLIURFA     | 2            | 56                             |
|                      | BURSA         | 1            | 28                             |
|                      | HATAY         | 2            | 51                             |
|                      | BURSA         | 1            | 25                             |
| 9- 10 December 2023  | MERSİN        | 1            | 28                             |
|                      | ANTALYA       | 1            | 28                             |
|                      | BURSA         | 1            | 23                             |
|                      | KAHRAMANMARAŞ | 2            | 67                             |
|                      | MERSİN        | 1            | 34                             |
|                      | ANTALYA       | 1            | 29                             |
|                      | BURSA         | 1            | 32                             |
| 16- 17 December 2023 | MALATYA       | 1            | 35                             |
|                      | HATAY         | 2            | 43                             |
|                      | MALATYA       | 1            | 27                             |
| 13-14 January 2024   | OSMANİYE      | 2            | 59                             |
|                      | ŞANLIURFA     | 2            | 43                             |
|                      | ELAZIĞ        | 1            | 31                             |
|                      | HATAY         | 1            | 79                             |
|                      | ELAZIĞ        | 1            | 24                             |
| <b>TOTAL</b>         |               | <b>31</b>    | <b>904</b>                     |

Table 1. Provinces where the training was conducted and the number of participating teachers by weeks

## Demographic Information

Based on the results of the pre-test administered at the very beginning of the training, a participant profile was drawn. The participants of the Sustainable World Citizenship training were 70% female and 30 % male teachers (Figure 1) and their ages ranged from 21 to 62 (M = 38.4, SD = 9.5) (Figure 2). It can be seen from the graph in Figure 3 that teachers of all ages with different professional experience participated in the training.

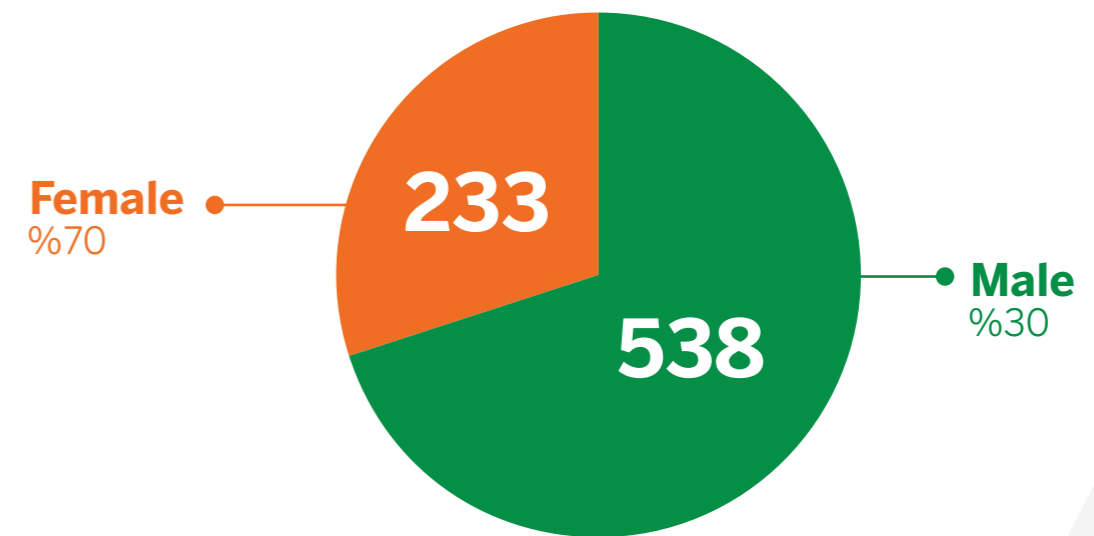


Figure 1. Gender distribution

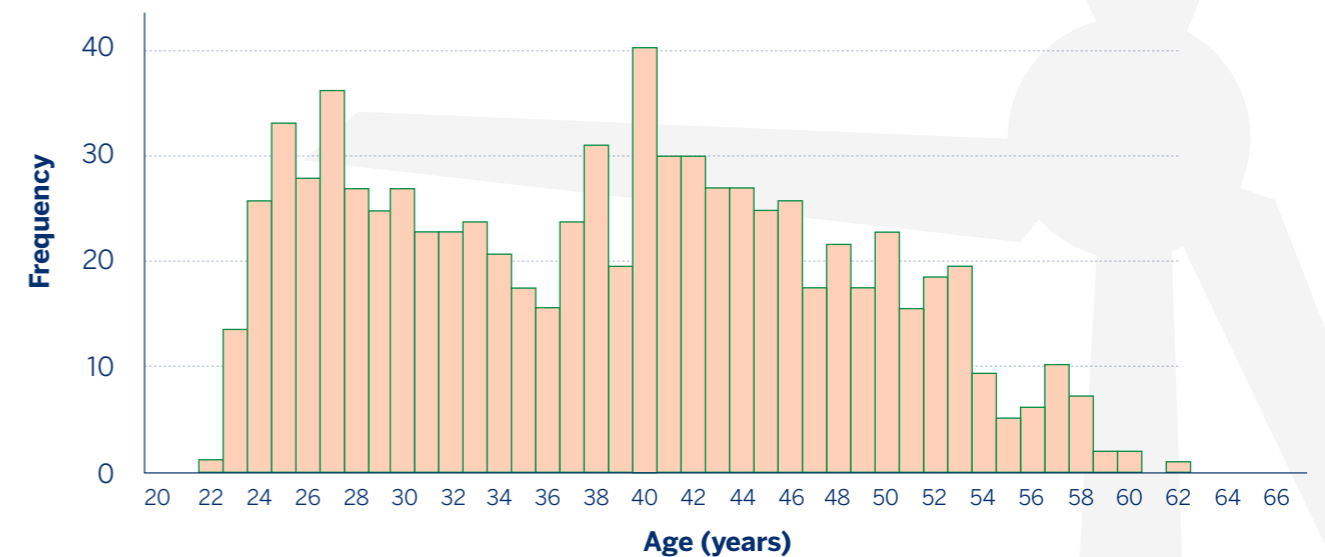


Figure 2. Age distribution

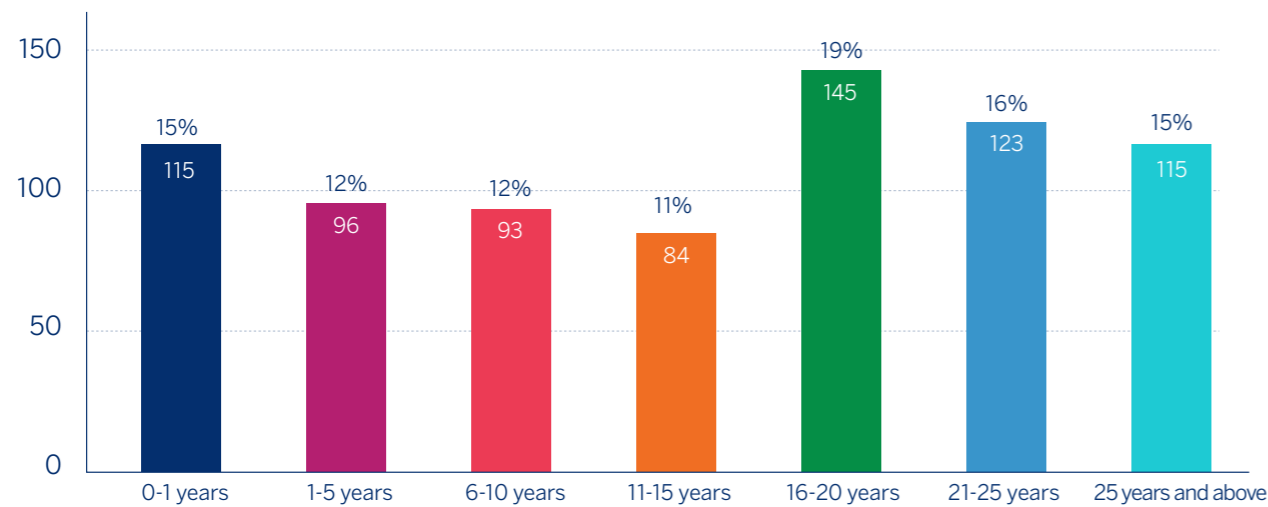


Figure 3. Distribution of professional experience

In the training held in different schools in 10 provinces affected by the earthquake disaster (having experienced the earthquake or having migrated after the earthquake disaster), the participants were also asked about the settlements where they work. 45% of the participants teach in metropolitan and city centers, 42% in districts and 13% in towns, villages and neighborhoods at different school levels (pre-school, primary school, secondary school, high school).

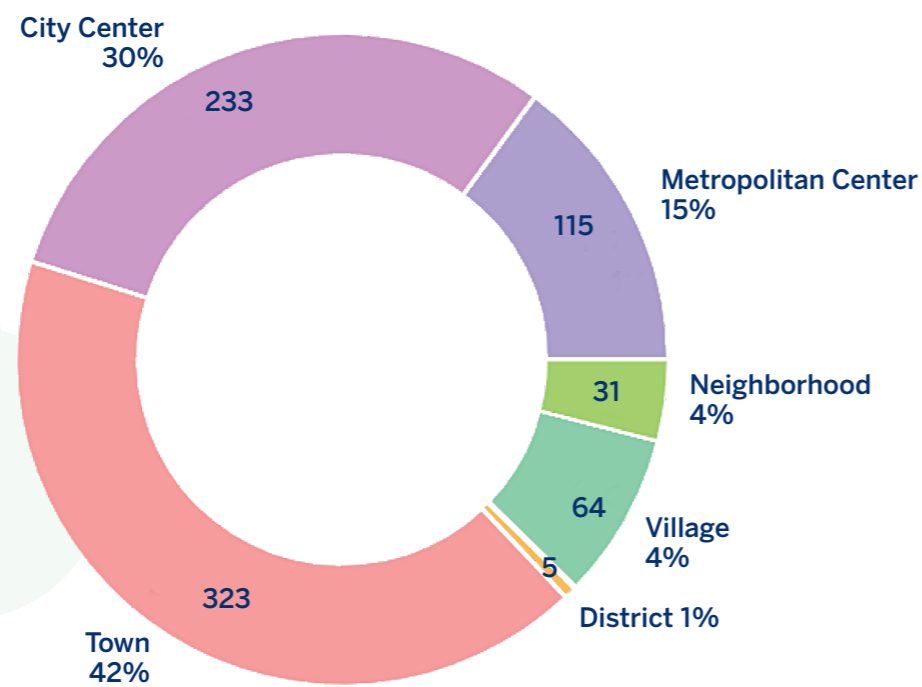


Figure 4. shows the distribution of participant teachers according to their residential units.

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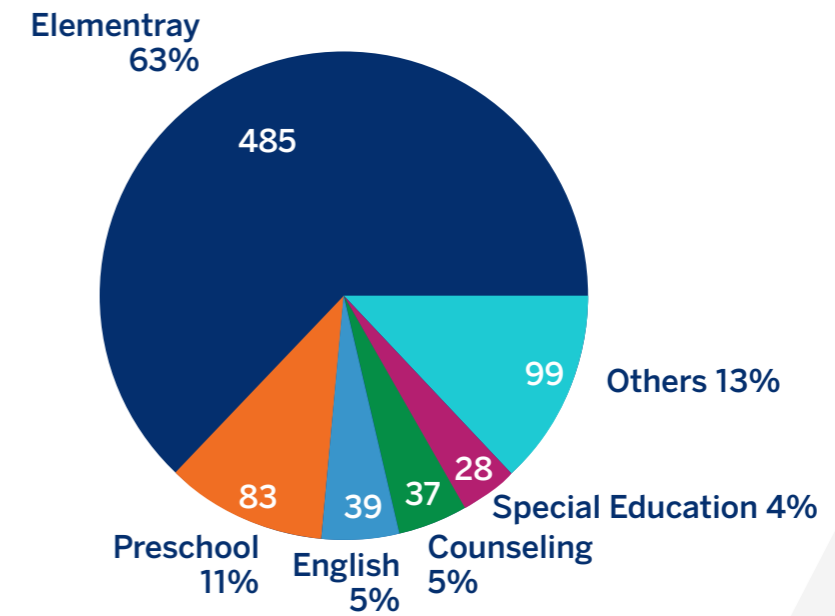


Figure 5. Distribution of subject areas.

Of the participants, 63% were elementary school teachers, 11% were pre-school teachers, 5% were English teachers, 5% were counselling teachers, 4% were special education teachers and the remaining 13% were teachers from other branches (Figure 5).

## EVALUATION OF THE TRAINING

The Sustainable World Citizenship training was delivered by ÖRAV trainers as a 6-hour face to face training consisting of 4 sessions on weekends (Saturdays or Sundays) in 10 different provinces. As a part of the last session of the training, participants were asked to fill in the training evaluation questionnaire.

Through the training evaluation questionnaire, each participant's general satisfaction with the training they attended and their opinions about the trainers were collected. In addition, evaluations on the content, implementation, planning and organization of the training were collected through scales.

Moreover, open-ended questions in the training evaluation questionnaire asked to what extent and how this training encouraged them to change and develop. This training evaluation questionnaire, which was administered immediately at the end of the training, also included some questions about the main outcomes.

Additionally, the Expectation-Value-Cost scale (Bümen & Uslu, 2020) was used to collect data on teachers' motivation to apply what they gained from this training in the classroom.

Furthermore, to assess the impact of the training on teachers, two scales that overlap with the training objectives and outcomes; the Environmental Literacy Scale for Adults (Yiğit, Köklükaya & Demirhan, 2014) and the Sustainable Consumption Behaviors Scale (Doğan, Bulut & Kökalan-Çımrın, 2015) were re-applied both as a pre-test just before the training and as a post-test approximately one month after the training.

Within the scope of this report, the information obtained in the light of the data obtained from the participants who completed the measurement tools will be shared separately under the aforementioned headings.

The scales used to measure the impact of this training are listed below and the number of participants who completed the measurement tools applied within the scope of the training is presented in Table 2 together with the percentages.

### Scales

- Environmental Literacy Scale for Adults (Pre-Test - Post-Test)
- Sustainable Consumption Behavior Scale (Pre-Test - Post-Test)
- Expectation-Value-Cost Scale (Training Evaluation Questionnaire)
- ÖRAV (Training Evaluation Questionnaire)

| Measurement Tools                 | Implementation Time        | Number of People | Percentage (%) |
|-----------------------------------|----------------------------|------------------|----------------|
| Pre-Test                          | Before the training        | 771              | 85.3           |
| Training Evaluation Questionnaire | At the end of the training | 617              | 68.3           |
| Post-Test                         | 1 month after the training | 200              | 22.1           |

## Satisfaction Level

In the training evaluation questionnaire, the participants were asked to rate their level of satisfaction with this training program between 1 and 10. When the answers were analyzed it was seen that the average was 9.33, 68% of the participants gave a score of 10 out of 10 and 93% gave a score of 8 and above. This shows that the participants left the training with high satisfaction.



Figure 6. General Satisfaction Level with Education

At the end of the training, in addition to their general satisfaction, the participants were also asked to evaluate their level of satisfaction with the trainers and the content, implementation, planning and organization of the training.

The participants evaluated the trainer of the training they attended according to ÖRAV trainer characteristics consisting of 17 items by marking the most appropriate option on a scale graded as "1: Improvable", "2: Moderate", "3: Good", "4: Very Good" and "5: Excellent". The average of the answers given to these 17 items is 4.87 and 92% of the participants answered, "Very Good" and "Excellent" for educator characteristics (Figure 7).



Figure 7. Level of Satisfaction with Trainers (Very Good and Excellent)

Similarly, the mean of the items in the 19-item scale in which the participants evaluated the content, implementation, planning and organization of the training was 4.61 and 90% of the participants rated it as "Very good" and "Excellent". In the light of this data, it can be said that the participants were quite satisfied with both the trainers and the training in general.

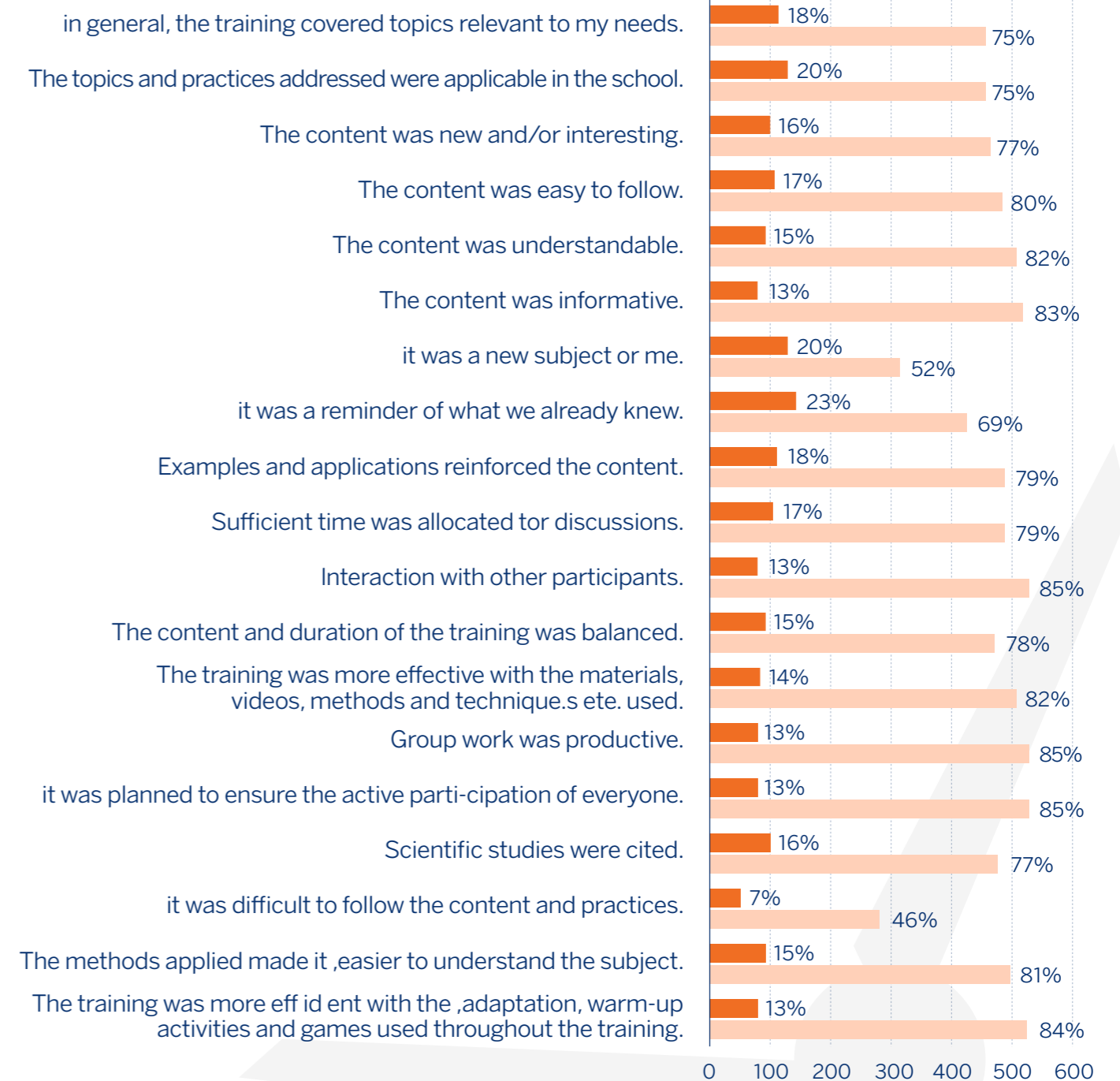


Figure 8. Level of Satisfaction with the Content, Implementation and Planning of the Training (Very Good and Excellent)

### Evaluation of Education in Terms of Teacher Motivation

At the end of the training, a training evaluation questionnaire was administered in order to obtain teachers' opinions on what and to what extent they would change and improve their professional practices, as well as their satisfaction.

Teachers were asked to what extent this training encouraged them to change and improve and they were asked to rate it out of 10 (1: Not at all - 10: Very much). It was observed that 55.4% of the participants gave this question a score of 10 out of 10 and almost 90% of them gave a score of 7 and above (Figure 9).



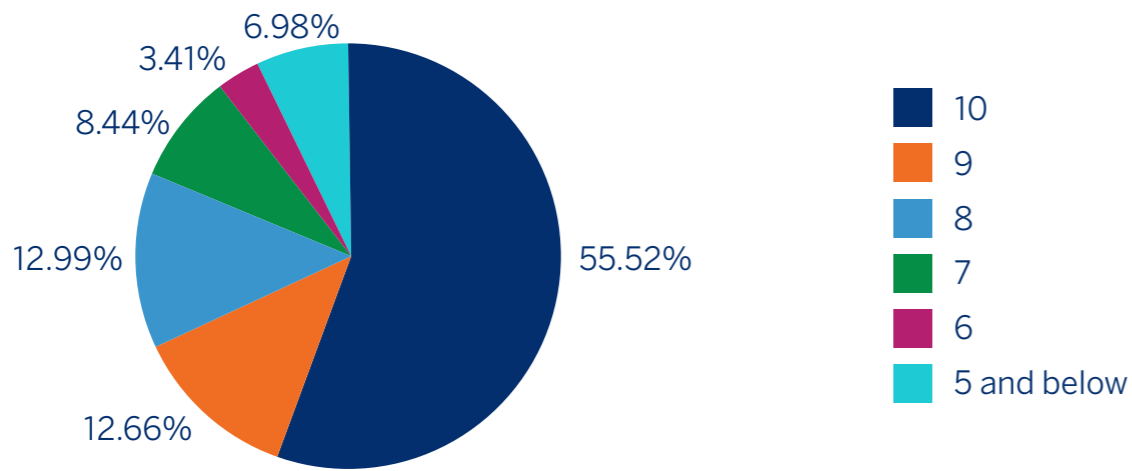


Figure 9. Score Distribution for Encouraging Change and Development

The participants were also asked to what extent this training contributed to their motivation to work for a common goal as a team with the teachers working in their schools and they were asked to rate it out of 10 (1: Not at all - 10: Very much). It was observed that 55.4% of the participants gave this question a score of 10 out of 10 and more than 90% of them gave a score of 7 and above (Figure 10).

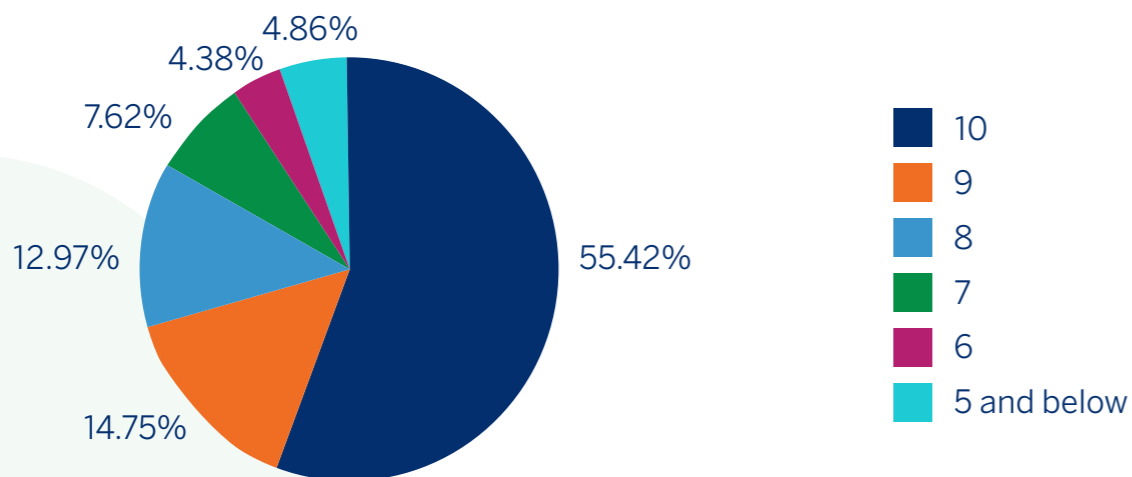


Figure 10. Score Distribution of Motivation to Work as a Team

With these questions asked at the end of the training, it was aimed to obtain information about the motivation of the teachers to contribute to their own professional and personal development and their motivation to carry what they gained from this training to their classrooms. Based on the answers given to these two questions, it can be said that the motivation of the teachers who participated in the training was at a high level.

In addition to these questions, in order to measure the motivation of the teachers who participated in the Sustainable World Citizenship training to carry what they gained from this program to the classroom, the Expectation-Cost-Value-Scale in Professional Development, developed by Osman and Warner (2020) and adapted into Turkish by Bümen and Uslu (2020), was applied to the participants at the end of the training program as part of the training evaluation questionnaire.

This scale, which aims to measure teachers' motivation to apply what they have learnt in professional development programs in their classrooms, has three dimensions: expectation of success, value of the task and perceived cost; 3 items in each dimension, 9 items in total. The scale was graded from "1: Strongly Disagree" to "6: Strongly Agree" and the participants were asked to answer these 9 statements by marking the most appropriate option for them.

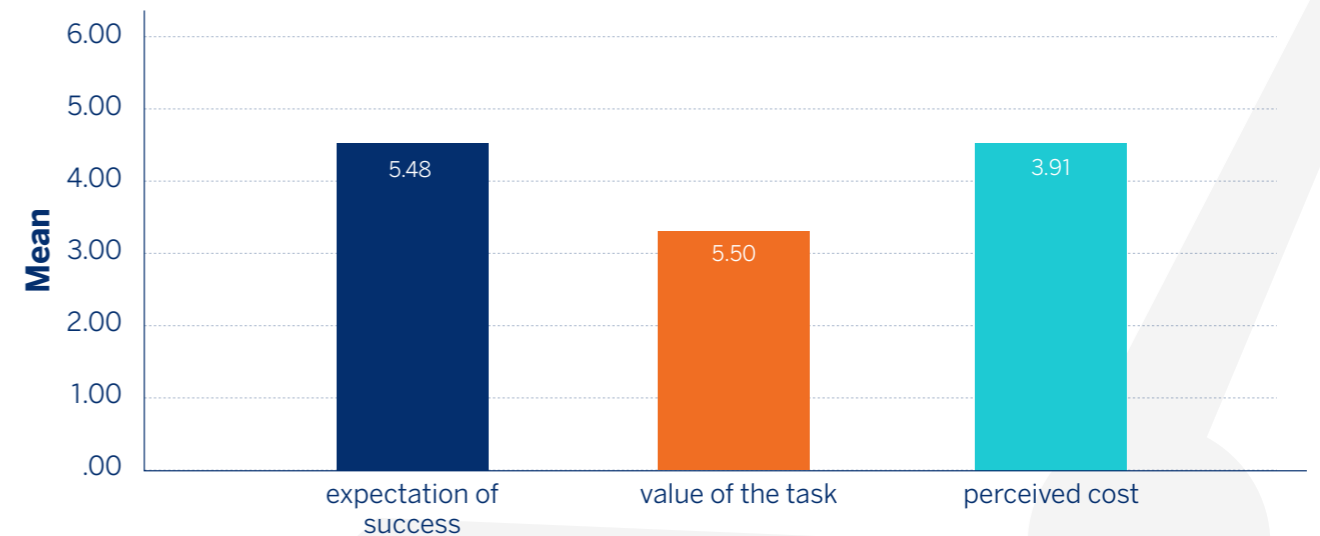


Figure 11. Expectation-Cost-Value 3 Dimension Mean Values

When the mean scores of the participants for each item are analyzed, it is seen that their success expectations for bringing this education to their classrooms and the value they attach to the task of bringing this education to the classroom are quite high (Figure 11). However, it is seen that they are aware that implementing this training in the classroom will have a cost, but these perceived costs are at a level that will not prevent them from implementing the task. In Figure 12, the averages of the answers given to each item in the scale are shown on the graph.



Figure 12. Expectation-Cost-Value Mean Values of 9 Items

In addition, at the end of the Training Evaluation Questionnaire, participant teachers were asked open-ended questions about how they would carry what they gained from this training to their professional and personal lives. They were asked to answer the question "What do you think you will do/change differently in both your professional and personal life after this training?" under different headings.

They expressed what they would do and what they would change in their professional lives with their students, colleagues, administrators and parents, and in their personal lives with their families and environment (friends, relatives, neighbors, etc.).

When the answers given are examined, it is seen that the teachers want to carry out activities to increase environmental awareness, environmental awareness and environmental consciousness in their students in their professional lives, as well as the importance and internalization of the concepts of recycling and sustainability.

*"I can do many activities with the help of materials to make students realize the importance of recycling."*

*"We will talk more about recycling, upcycling and production and do more activities. I will try to create this awareness in my students."*

*"I will try to realize the work we can do for a sustainable world together with my students and constantly raise their awareness on this issue."*

In addition to what they want to do with students, it is seen that they want to cooperate more with their colleagues and managers in their professional lives by sharing what they have learned from this training, to create projects, campaigns and to raise environmental awareness and to realize their ideas for a sustainable world.

*"I will share what I learned from the training with my colleagues."*

*"I believe that by exchanging ideas with my colleagues, we will be in solidarity with each other for new, different and creative works."*

*"My colleagues and I will develop and implement projects in this direction at school."*

Furthermore, teachers stated that they would like to work with parents, another stakeholder of the school community, to raise environmental awareness as well as inform and raise awareness about recycling, waste management, reuse and conscious consumption. In addition, they would like to keep in touch with them and exchange ideas about activities that can be done in the classroom and what kind of activities they can do with their children at home.

Participant teachers were also asked what/what they would do differently and change in their personal lives. The answers given to this question include statements that they will carry out awareness-raising and awareness-raising activities similar to their professional lives, as well as findings that they will put into action what they have gained from this training in their own lives.

In particular, teachers mentioned that they would change their habits or develop new habits.

*"I will raise awareness of my family about actions for the benefit of the environment. From now on, there will be two bins in our house for recyclable waste and organic waste."*

*"Paying attention to unnecessary resource consumption at home. Buying what we need. Avoiding waste."*

### **Evaluation of the Training in terms of Environmental Literacy and Sustainable Consumption Behaviors**

The Sustainable World Citizenship Program developed by ÖRAV was given as a one full-day training to teachers from different branches with different professional experiences, mostly from the classroom teaching branch, who teach at the primary school level.

After this training, it was investigated whether there was a change in both environmental literacy and sustainable consumption behaviors of the participant teachers.

The Environmental Literacy Scale for Adults (Atabek-Yiğit, Köklükaya & Demirhan, 2014) and the Sustainable Consumption Behaviors Scale (Doğan, Bulut & Kökalan-Çımrın, 2015) were administered to all participants as a pre-test at the beginning of the training and sent to all participants as a post-test one month after the training. This section presents the data of 156 participant teachers who completed the pre-test and post-test.

### Environmental Literacy:

The Environmental Literacy Scale for Adults consists of 20 items in 3 sub-dimensions: environmental awareness, environmental concern, and environmental awareness. The pre-test and post-test averages for each dimension are presented in Figure 13.

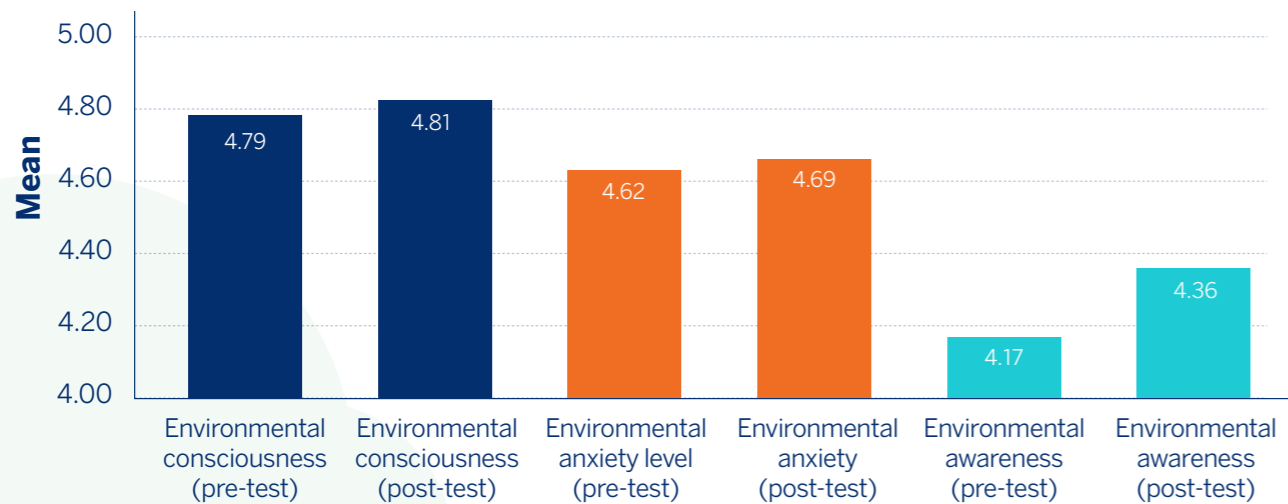


Figure 13. Pre/Post-Test Means of the Environmental Literacy Scale for Adults

It is seen that the post-test averages for each dimension are higher than the pre-test averages. Mann Whitney U test was used to analyze whether this difference was statistically significant.

It was found that there was a statistically significant increase in the environmental anxiety and environmental awareness dimensions, while the increase in the environmental awareness dimension was not statistically significant.

The fact that the pre-test averages of environmental awareness were also high shows that the participants had high environmental awareness at the beginning of this training. It can be said that the training had an effect on teachers regarding environmental anxiety and environmental awareness.

### Sustainable Consumption Behaviors

The Sustainable Consumption Behaviors scale consists of 20 items in 4 sub-dimensions: environmental awareness, non-essential purchasing, saving and reusability. The pre-test and post-test averages for each dimension are presented in Figure 14.

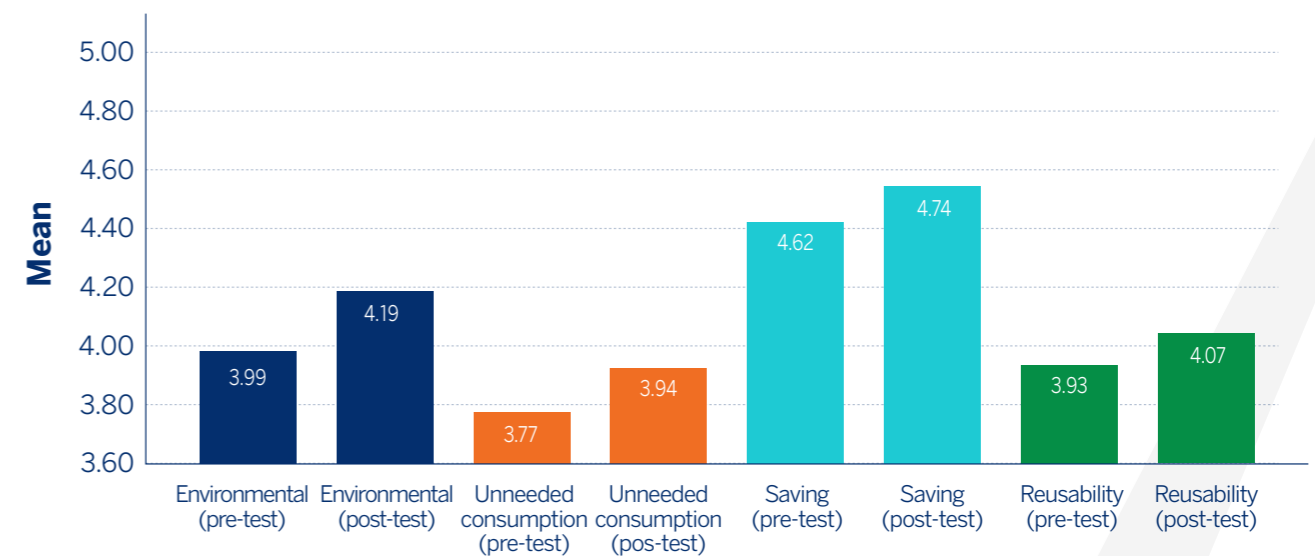


Figure 14. Sustainable Consumption Behaviors Scale Pre/Post-Test Averages

It is seen that the post-test averages for each dimension are higher than the pre-test averages. Mann Whitney U test was used to analyze whether this difference was statistically significant.

It was found that there was a statistically significant increase in the environmental awareness, non-essential use and reusability dimensions, while the increase in the savings dimension was not statistically significant.

The fact that the saving dimension was also high in the pre-test averages indicates that the participants showed saving behavior at the beginning of this training.

It can be said that the training had an impact on teachers' environmental awareness, non-essential use and reusability behaviors.



### Consumption Habits:

Participating teachers were asked 6 questions about their consumption habits immediately before and at least 1 month after the training, to which they could answer “yes” or “no”. Table 3 lists the answers given before and after the training.

| Expressions  | Before Training |       | After Training |       |
|--|-----------------|-------|----------------|-------|
|  | Yes             | No    | Yes            | No    |
| I think recycled products are of poor quality and harmful to human health.   | 14.0%           | 86.0% | 6.7%           | 93.3% |
| I delete unnecessary and uninteresting promotional and advertising emails / SMS.                                     | 93.3%           | 6.7%  | 86.7%          | 13.3% |
| I take photos on my phone until I get the best shot and keep them all.   | 24.7%           | 75.3% | 17.3%          | 82.7% |
| I have regular newsletter subscriptions on topics that I have signed up for before, but which no longer interest me. | 26.0%           | 74.0% | 27.3%          | 72.7% |
| I have apps on my phone that I have installed before and no longer use.  | 32.7%           | 67.3% | 30.7%          | 69.3% |
| I use, freeze or recycle leftover food for another meal the next day.  | 90.0%           | 10.0% | 84.0%          | 16.0% |

Table 3. Frequency Percentages of Consumption Habits Before and After the Training

At the end of the training, it was observed that teachers' opinions about recycled products being of poor quality and harmful to human health changed slightly.

### CONCLUSION

In the first half of the 2023-2024 academic year, the "Sustainable World Citizenship" Program developed in cooperation with the Teachers Academy Foundation and Dow reached a total of 904 teachers and approximately 22600 students through their teachers. It is seen that the participating teachers are very satisfied with this training and are highly motivated to carry what they have gained from this training to the classroom. They also revealed that they would like to share, develop projects and carry out activities with all stakeholders of the school community in their professional lives in order to create awareness and consciousness with the goal of a sustainable world.

They stated that they would raise awareness and consciousness by sharing with their families and close circles in their personal lives, and that they would review their consumption habits and adopt new habits for a sustainable world from now on. Statistical analyses revealed that the training had an effect on teachers on both environmental literacy and sustainable consumption behaviors through the scales applied before and after the training. In the context of environmental literacy, it is seen that the training has an impact on teachers regarding environmental concern and environmental awareness.

It can be said that the training enables teachers to see environmental problems as a matter of concern and creates a perspective that they will care about the environment in their activities. This change in environmental awareness and concern can be seen as a reflection of teachers' sensitivity to the environment.

The strong impact of the circular economy concept, which directs reuse with the understanding of "want or need" in education, is quite clear.

The Sustainable World Citizenship Training program has once again proved that such programs involving practical applications have a huge impact in changing teachers' attitudes and behavior to a more sustainable future, preparing their students towards this goal.

We would like to thank DOW and the Turkish Ministry of National Education for their collaboration and support in preparing our children towards a more sustainable world as global citizens and developing teachers' skills in preparing their students towards this desired future.

## Resources

IAtabek-Yiğit, E., Köklükaya, N., Yavuz, M., & Demirhan, E. (2014). Development and validation of environmental literacy scale for adults (ELSA). *Journal of Baltic Science Education*, 13(3), 425.

Atmaca, A. C. (2018). Determining the sustainable development awareness of pre-service science teachers. Unpublished master's thesis, Necmettin Erbakan University, Konya

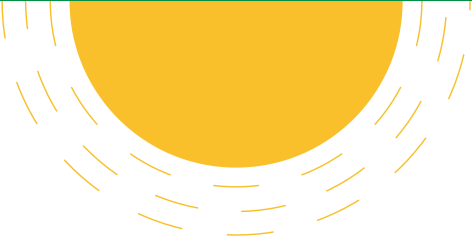
Doğan, O., Bulut, Z., & Çimrin, F. K. (2015). A Scale Development Study for Measuring Sustainable Consumption Behaviors of Individuals. *Atatürk University Journal of Economics and Administrative Sciences*, 29(4), Article 4.

Imara K, & Altınay F. (2021). Integrating education for sustainable development competencies in teacher education. *Sustainability*; 13(22):12555. <https://doi.org/10.3390/su132212555>

OECD (2008). OECD Insights Sustainable Growth: Linking Economy, Society, Environment Summary in Turkish <https://www.oecd-ilibrary.org/docserver/9789264055742-sum-tr.pdf?expires=1697196522&id=id&accname=guest&checksum=0599035EB4C2E7AFE09392F97E3B8F75>

Sánchez-Carracedo F., Moreno-Pino FM., Romero-Portillo D., Sureda B. (2021). Education for sustainable development in Spanish university Education Degrees. *Sustainability*; 13(3):1467. <https://doi.org/10.3390/su13031467>

Tsayang, G. T. & Bose, K. (2013). The status of education for sustainable development in the faculty of education. Views from faculty members: University of Botswana. *Academic Journals Educational Research and Reviews*, Vol. 8(18), pp. 1698-1708. <http://hdl.handle.net/10311/1176>.



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