



SUSTAINABLE DEVELOPMENT AWARENESS OF SOCIAL SERVICE UNDERGRADUATE STUDENTS

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Abstract:

This study aimed to determine the sustainable development awareness of the students studying in the social service program and to explain the factors that predict it. A survey method was used. Data were gathered with a scale called the "Sustainable Development Awareness Scale" developed by Ozturk-Demirbas (2011). Participants consisted of 55 students studying in the second year of the social service undergraduate program of a state university in Turkey. The measurement tool was applied to the students in an online environment in the first quarter of 2022. It was concluded that sustainable development awareness levels of social service undergraduate students are high in terms of environmental ethics, social factors, and total points and medium in terms of environmental-economic as measured in pre-service teachers in many other studies. Social service students' awareness of sustainable development was higher in the first two dimensions of the scale and lower in the third dimension when compared to the others. It has been revealed that the experiences during the normal flow of life do not have sufficient effect on this awareness. It is an important necessity for students to take action so that they can have concrete experiences in social responsibility projects and gain awareness of sustainable development.

Keywords: sustainable development, environmental education, social service undergraduate program

1. Introduction

Human is both a producer and a consumer. The difference between these two is accepted as a scientific measure of economic growth and development. However, it needs raw materials both while production and consumption. The source of these raw materials in nature is believed to be unlimited for many years. Industrial Revolution, which first emerged in the United Kingdom in the 18th century, then spread to Western Europe,

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North America, and Japan, and finally to the whole world and it is clear that nature somewhat balanced the consumption and the resulting waste before it. However, it has been exhausted over the years. The realization of this, that is, the inability to solve the problems created by human beings in the natural cycle of nature, was unfortunately realized too late. The situation was revealed in the report, which was first prepared in 1987 by the United Nations World Commission on Environment and Development (WCED), referred to as the "Brundtland Report" or the "Report on Our Common Future". In this report, for the first time in the world, a rightful initiative has been started for the sustainability of humanity. In this report, solutions such as the abolition of poverty, the equal distribution of benefits from natural resources, population control, and the development of environmentally friendly technologies, will be the goals of sustainability, or as it is known, sustainable development, which is a new concept, has started to be discussed.

Before this report, development was only considered from an economic point of view, without adequate and/or no consideration of the environmental dimension. Einstein said, *"If a person can't explain the subject in popular language in a way that the public can understand, he probably doesn't know it himself."* In this context, the subject should be explained in simple language so that society can understand sustainability and sustainable development. When this is done, a society with awareness of sustainable development and transforming it not only into knowledge but also into skills and behavior can be built (Kucuk & Burkaz Ekinci, 2021). In this context, the issue of sustainability can be explained by analogy to someone who takes the soil necessary to grow crops at home from the foundation of the building. This initiative, which started with good intentions, will last for a while, and when it finally collapses, it will disappear together with its contents. A similar situation can be given in water. It can be given to the situation of a person who, with good intentions, constantly receives water from the stream passing near the house to be used in the field for both social development and to meet own needs and increases it day by day. After a while, when the water runs out, neither an initiative for social development nor a human will remain.

Based on these popular explanations, sustainable development aims to evaluate development not only in terms of economics but also in terms of the environment, and to use the resources in a balanced and economical way, not only for the present but also for the future generations (Harris, 2000). These goals are not just a task for today's people. This is to respect the rights of future societies (Kucuk et al., 2022).

In addition to the economy and the environment, a third dimension has been added to the issue of sustainability. To build a sustainable society, there is a need for a consistent and appropriate alignment on economic, social, and environmental issues (Hermans & Reid, 2002; Summers et al., 2004). Nowadays, almost everyone agreed that the environment and economy form an inseparable whole. In this process, the role of man finds itself in the third dimension, social values. It plays the executive role in ensuring the balance between these two dimensions of sustainable development, namely humans, the environment, and the economy.

The ability of a person to perform this duty in the dimension of social values depends, first of all, on gaining competence in sustainability. What these competencies are and how they can be gained by individuals is an important topic of discussion. Educators and bureaucrats who agree on the use of education and training programs cannot reach a sufficient consensus on how to employ them (McKeown, 2002; Petersen & Alkis, 2009). Now, the term Education of Sustainable Development emerged as a new concept (Yang et al., 2010; Bonnett, 1999). There are also differences of opinion on how to position education as pedagogical, content, and curriculum for sustainable development (Hesselink et al., 2000; Olsson et al., 2016). As an example, would it be sufficient to place the acquisitions and subjects in the curriculum of only one course (for example, science, social sciences) to achieve the goals of sustainable development? Or should the issue of sustainability be addressed with an interdisciplinary approach? Can this subject be given better informal teaching environments or in informal settings? Should modular teaching be done to create the content of a single course, as in a recent study? (Kucuk & Burkaz-Ekinci, 2021). Discussions on these issues will continue, at least for a while. However, it is known that subjects and achievements related to sustainable development are included in science and social studies courses in Turkey (Ates, 2019; Burkaz-Ekinci, 2021). Numerous studies have measured the outcomes of such an approach (Al-Naqbi & Alshannag, 2018; Kitamura et al., 2015; Ozdemir, 2007; Unal, 2011; Wood, 2014). A conclusion that can be drawn from the examination of these studies is that students at different learning levels, from pre-school to university, have difficulty understanding sustainable development, which is an abstract subject (Burkaz Ekinci, 2021; Weinberger et al., 2015).

Whether the subject of sustainable development is taught within a discipline, with an interdisciplinary approach, or in a modular way, as claimed recently, the affective goals for the subject are common. One of these goals is known as sustainable development awareness. This awareness starts with the individuals learning about the subject and continues with the learning of the responsibilities (Kucuk et al., 2022). Now, it is clear that the starting point is awareness of sustainable development. This awareness includes being aware of the sustainable development goals of the society and providing convenience in reaching the goals together with the knowledge and skills (McKeown, 2002). The issue of who can do this job best and how is debatable. Schools and curricula are functional tools in Turkey where a K-12 level education is mandatory for all individuals. At this point, as in all other responsibilities, the task is given to the teachers. However, schools should not be the only places to transform society, and teachers should not be the only ones. Besides, the extent to which teachers are competent at this point is another matter (Sagdic & Sahin, 2016; Summers et al., 2004; Tuncer, 2008; Turer, 2010). In a study conducted by Cobanoglu and Turer (2015), the sustainable development awareness of science teaching undergraduate program students was 60.5% in the environmental dimension, 53.5% in the social dimension, and 51.2% in the economic dimension. A similar conclusion was reached in the study by Ozturk-Demirbas (2015). In that study, pre-service teachers in different branches, including science and social science, were "high" in terms of "environmental ethics" and "societal-social" factors and total

scores, whereas they were moderate in the "environmental economic" factor of sustainable development. The lowest sustainable development awareness mean scores were measured in Social Studies and Science Education undergraduate students. Summers et al. (2004) also measured the sustainable development understanding of undergraduate students in science and geography teaching. As a result of this study, in the definitions of sustainable development, the dominance in terms of social dimension was determined by geography students, and the environmental dimension was determined as the dimensions that were more important and defined by science students. In another study, using the environmental literacy scale, it was determined that although the pre-service teachers had an environmentally oriented way of thinking and a positive environmental awareness, their environmental knowledge scores were insufficient (Teksoz et al., 2010)

Now, some help should be sought from other service sectors and therefore from people or institutions that can direct the society. As an example, graduates of social service undergraduate programs of universities in Turkey can also take part in this job. Graduates of the program work in public institutions with the title of "social worker". Moreover, the purpose of the relevant undergraduate program is explained as "*to train competent social workers equipped with contemporary and universal knowledge, who can contribute to the development of social justice and human health for sustainable human and social development, who can demonstrate the power of social institutions and social policies*" (SSPD, 2020). Among the learning outcomes of the program are the expressions "*organizes projects and activities for the social environment in which they live with a sense of social responsibility*" and "*follows and evaluates the events/developments on the agenda of the society and the world in the fields of social work*".

In this process, they have important duties such as being in cooperation with the society, producing social policy, supporting the producers, and contributing to the solution of the social problems in the society. Only two of these duties, being in cooperation with the society and contributing to the solution of the social problems in the society, are also the duties of the teachers. On the other hand, it is the job of social service graduates to produce social policy and support those who produce it. The aim is not to facilitate the work of teachers, but to hand over the job to the owner by the job description. In this context, teachers and social workers must cooperate on a subject with a high social dimension such as sustainable development.

At this point, it is an important problem situation to reveal the sustainable development awareness of social workers and therefore social service undergraduate students. If no study may have been carried out on the relevant audience in the subject area, it is probably because the relationship with sustainable development has not been adequately established, even if it is the aim of the service program. However, there are many studies on the measurement of other kinds of awareness on them (Acar, Akar, & Acar, 2016; Babahanoglu & Mavili, 2018; Sevim & Altun, 2017).

This study was carried out to determine the sustainable development awareness of the students studying in the social service program of a state university in Turkey and to explain the factors that predict it.

2. Method

In this study, a survey method was used to determine the awareness of social service undergraduate program students about sustainable development. The measurement tool prepared for this purpose was applied to the sample in an online environment in the first quarter of 2022. Many studies are using the same method for similar purposes (Cobanoglu & Turer, 2015; Kucuk & Burkaz-Ekinci, 2021; Ozturk-Demirbas, 2015; Turer, 2010). In these measurement tools, there are items for rating sustainable development in three dimensions social, economic, and environmental. These concepts and related subjects were defined in detail by UNESCO (2005). For example, the environment was defined as "*The environment regards the development of an awareness of the resources, the fragility of the physical environment, and how human activity and decisions affect it, with a commitment to factoring environmental concerns into social and economic policy development*" and topics are "*Natural resources, climate change, rural development, sustainable urbanization, disaster prevention, and mitigation*". There are attitude scales as well as awareness towards sustainable development (Atmaca et al., 2019; Biasutti & Frate, 2017; Kaya, 2013). In this research, the "Sustainable Development Awareness Scale" developed by Ozturk-Demirbas (2011) was used.

2.1 The sample

The sample consisted of 55 students studying in the second year of the social service undergraduate program of a state university in Turkey.

85,5% of them are women and 14,5% are men. 18,2% chose the village, 34,5% the district, and 47,3 % the city as the type of settlement where they spent most of their life (for example, where they were born and raised). 10,9% declared that they took a course on environmental education at the university, and 89,1% declared that they did not. However, 56,4% stated that they would like to take a course on environmental education at the university if there was an opportunity (for example, if it was included in the elective course list), while 5,5% did not and 38,2% partly. Environmentally sensitive rated from 1 (Very Sensitive) to 5 (Very Sensitive) with 16,4% -5, 61,8% -4 and 21,3% -3. 81,8% stated that they knew an official institution and/or non-governmental organization working on environmental issues, while 18,2% stated that they did not. 10,9% stated that they are a member of at least one non-governmental organization related to the environment, while 89,1% stated that they are not. With this, 45,5% stated that they have never thought of becoming a member of a non-governmental organization related to the environment.

When considered in the operational dimension as the expression that best reflects their level of participation in environmental actions, 27,3% said that they actively joined and 72,7% said that "I support them as an emotion, but I do not actively join". By the expression that best reflects their curiosity about the environment, 14,5% said "I am highly curious", 80,0% "moderately curious", and 5,5% "lowly curious". The expression that best reflects the frequency of being in natural areas (for example, a park, forest, lakeside, etc.) is 49,1% high, 49,1% moderate, and 1,80% low. 20% said that the Covid-19 outbreak had an impact on their sensitivity to environmental issues (for example, are

interested in the news in the media about environmental issues, following the work of student clubs, if any), 54,5% partially and 25,5% stated that there was no change.

67.3% of them also stated that they knew about sustainable development before they started to fill out this scale, while 32.7% stated that they did not know. 65.5% of them stated that they found it realistic about the natural disasters that will occur in 2040, whereas 34.5% stated that they did not.

2.2 Data Collection and Analysis

Data were collected with a measurement tool consisting of two parts. In the first part prepared for the classification of personal information, questions such as gender, type of place where they were born and raised, membership in a non-governmental organization related to the environment, level of social participation in events related to environmental problems, sensitivity to the environment and similar questions took place. The scoring of these questions is yes, no or maybe for some (for example, if you had the opportunity to take a course on environmental education at the university, would you prefer it?), others as I actively join, I support emotionally, but I actively join and I do not agree (for example, what is the statement that best reflects your level of social participation in events related to environmental problems?)

In the second part, there are "Sustainable Development Awareness Scale" items developed by Ozturk-Demirbas (2011). In this scale, there are a total of thirty items in three dimensions of environment, economy, and social. The rating of these items; was made as "(1) I totally disagree", "(2) I disagree", "(3) I agree moderately", "(4) I agree", and "(5) I totally agree". The Cronbach Alpha reliability coefficient of the scale was calculated as ,83.

2.3 Analysis of Data

The scores obtained from the five-point Likert-type scale are not standard since the number of items in the three factors is not the same. For this reason, raw scores were converted into standard scores, with 20 as the lowest and 100 as the highest. Levels corresponding to the scores obtained for the three dimensions in this way were accepted as Low Awareness Level for 20-46 points, Medium Awareness Level for 47-72 points, and High Awareness Level for 72-100 points. These levels were also used by Ozturk-Demirbas (2015) in the same way. SPSS was used in the analysis of the data. The t-tests were used to analyze differences in scores. As in many other studies, the $p < 0.05$ significance level was taken into account in defining the differences.

3. Results and Discussion

Firstly, the sustainable development awareness score of social service students is shown in Table 1.

Table 1: Sustainable Development Awareness Scores

	N	Minimum	Maximum	Mean	Meaning of Score	Std. Deviation
Environmental-Ethical	55	60,00	100,00	88,70	High	8,38
Society	55	66,67	100,00	85,49	High	9,64
Environmental-Economic	55	22,86	100,00	48,31	Medium	14,41
Total	55	64,67	96,67	78,31	High	6,39

Table 1 revealed that the average sustainable development awareness scores of social service students vary between 48,31 and 88,70 according to factors and total score, and they have a “high” level of awareness of sustainable development in total and in two factors, excluding the third. The highest mean score was “environmental ethics” (=88.70), and the lowest score average was “environmental economic” (=48.31) of sustainable development awareness.

In this study, there are significant similarities when the scores obtained from the social service undergraduate program students are compared with the results of the studies mainly conducted with pre-service teachers. As an example, the results produced in the first two dimensions were slightly higher than in other studies (for example, Ozturk Demirbas, 2015). On the contrary, the third dimension scores were low. At this point, the reason for the high scores in the first two dimensions can be given that the subject is directly related to the learning outcomes of the social service program. Moreover, in the questions asked to describe the students, it is important that almost all of them stated that they know at least one official and/or non-governmental organization about the environment and exemplify this. They stated that they would prefer an environmental course when they had the opportunity can also be analyzed as they are aware of their needs in this regard. Finally, it was stated that awareness is the first stage for sustainable development (Kucuk & Burkaz Ekinici, 2021). In this context, it has been understood that social service undergraduate students are quite high at this first stage point. The last dimension, environmental-economic awareness, is poorly embraced by others. Based on this information, there is a need for attempts to teach the third dimension to social service undergraduate students.

Table 2 includes the comparison of the sustainable development awareness scores of those who find the news realistic about the natural disasters the world will face in 2040 and those who do not.

Table 2 shows that there is no statistical difference between the sustainable development awareness of the social service undergraduate students who find the news about the major disasters that await the world in the 2040s to be realistic and those who did not. However, the scores of the students who find the news realistic in the first two dimensions are partially higher. The number of them who find this news to be realistic is quite high. However, it is not clear how often they follow the news in question. Therefore, the frequency of following the disaster news in the media may have an impact on students' awareness of sustainable development. More evidence is needed for this in future research.

Table 2: The results for the awareness of sustainable development differences of students who find the news of possible disasters to be experienced in the world by 2040 realistic or not

Sub-scales	Answer	N	Mean	s	t	sd	p
Environmental-Ethical	Yes	36	90,00	8,41	1,60	53	,11
	No	19	86,24	7,97			
Society	Yes	36	86,85	8,78	1,45	53	,15
	No	19	82,92	10,88			
Environmental-Economic	Yes	36	48,01	16,17	-,20	53	,83
	No	19	48,87	10,68			
Total	Yes	36	79,25	6,41	1,52	53	,13
	No	19	76,52	6,12			

Table 3 shows the results of the students who stated that they have not taken any course on environmental education at the university so far, and the effect of their willingness to take the opportunity, if there is an opportunity, on their awareness of sustainable development.

Table 3: The results of the sustainable development awareness of the students who did not take environmental education courses at the university and who do or do not think to take them when they have the opportunity

Sub-scales	Answer	N	Mean	s	t	sd	p
Environmental-Ethical	Yes	31	88,75	9,48	,054	53	,95
	No	24	88,63	6,90			
Society	Yes	31	85,44	9,52	-,041	53	,96
	No	24	85,55	10,00			
Environmental-Economic	Yes	31	50,50	16,46	1,291	53	,20
	No	24	45,47	10,91			
Total	Yes	31	78,83	6,90	,686	53	,49
	No	24	77,63	5,74			

Based on Table 3, if an opportunity arises, the number of students who want and do not want to take environmental education courses is very close to each other. Only half of the students, who shared in a previous question that they did not take such courses, stated that they could take courses. In this case, the fact that they do not have strong beliefs about the compensation for the inadequacy of environmental-economic awareness, which is the third dimension of the scale, emerges. This result is probably a reflection of the negative experiences they experienced in the science lessons they took during their primary, secondary, and even high school years. As a result of this, they preferred to settle in a verbal program rather than a numerical program in higher education.

Table 4 contains the results related to the effects of students' preferences on sustainable development awareness, representing their experiences of frequency of being in natural areas (for example, a park, forest, lakeside, etc.) to date. At this point, the preferences of the students are stacked into two options medium and high level.

Table 4: The results of the effects of the preferences for the frequency of being in the natural environment on the sustainable development awareness of the students so far

Sub-scales	Answer	N	Mean	s	t	sd	p
Environmental-Ethical	High	28	87,75	7,31	-,850	53	,39
	Medium	27	89,68	9,40			
Society	High	28	83,88	8,37	-1,264	53	,21
	Medium	27	87,16	10,71			
Environmental-Economic	High	28	51,32	11,72	1,602	53	,11
	Medium	27	45,18	16,39			
Total	High	28	78,09	5,74	-,257	53	,79
	Medium	27	78,54	7,11			

Based on Table 4, the number of students who prefer medium and high levels in terms of the frequency of being in natural areas is very close to each other. Only half of the students, who shared in a previous question that they did not take such courses, stated that they could take courses. At this point, although there was no statistical difference in any dimension of the scale, the first two dimension scores of those who marked the frequency of being in nature as high were partially high. On the other hand, in the third dimension, which is known to be low in general, the opposite situation emerged. Awareness scores in this dimension are in favor of those whose frequency of being in nature is moderate. In this context, the reason for this effect of being in nature on environmental-economic awareness should be emphasized. In this process, the features of nature, which is stated to be in, need to be defined.

Table 5 includes the results of the sustainable development awareness of students who know or do not know an official and/or non-governmental organization on environmental issues. In this table, it is remarkable that the majority of the students can write one or more of them, whether public or civil society, working on environmental issues. In other studies on this subject, it was revealed that the answers given by the teacher candidates who will teach sustainable development were limited (Eryilmaz et al., 2018).

Table 5: Results of the effect of recognizing public or non-governmental organizations working on environmental education on students' awareness of sustainable development

Sub-scales	Answer	N	Mean	s	t	sd	p
Environmental-Ethical	Yes	45	89,17	7,50	,88	53	,38
	No	10	86,57	11,86			
Society	Yes	45	85,43	9,56	-,10	53	,91
	No	10	85,77	10,53			
Environmental-Economic	Yes	45	48,00	14,86	-,33	53	,73
	No	10	49,71	12,79			
Total	Yes	45	78,44	6,59	,31	53	,75
	No	10	77,73	5,71			

Based on the Table 5, although the awareness scores of the students who know the institutions working on environmental protection and similar subjects are high in all dimensions, there is no statistical difference. The main factor in this, however, is that

although they know the relevant institutions by only their name, the lack of concrete experience about what they do limits them to be positively affected in terms of raising awareness. The majority of the students answered the question of "What is the expression that best reflects your level of social participation in events related to environmental issues?" as "I support it as a feeling instead of I actively join". In short, the activities of the relevant institutions are monitored indirectly, not directly. However, it is well known that concrete experiences are more effective in the learning process. It is recommended that students become members of these organizations and participate in their activities to promote their awareness of sustainable development. If this is achieved, it is clear that awareness will increase if not only the emotion but also the action dimension is passed.

4. Conclusion

In this study, for the first time, the sustainable development awareness differences of the social service undergraduate program students who were trained to work for the society with a staff of social workers were measured. When it comes to education in society, schools and teachers come to mind. On the other hand, sustainable development education is quite far from the formal education given in schools. In this process, the importance of special approaches (eg interdisciplinary), special materials (eg modules approach) and special places (eg out-of-school learning environments) continues to be discussed (Kucuk & Burkaz Ekinci, 2021; Zachariou & Valanides, 2006). In this study, social service students' awareness of sustainable development was higher in the first two dimensions of the scale and lower in the third dimension when compared to the others. However, it has been revealed that the experiences in the normal flow of life do not have enough effect on this awareness. At this point, it is not enough for students to support social responsibility projects only emotionally. Instead, they need to take action so that they can have concrete experiences and, as a result, achieve significant gains, including awareness of sustainable development.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Author

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