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## Consumer Environmental Consciousness Perceptions of Social Studies Teacher Candidates: Mixed Method Research

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## **Abstract**

The aim of the research is to determine the consumer environmental awareness perception levels of social studies teacher candidates and their views on the issue. For this reason, the research was carried out using the combining pattern, which is one of the mixed research methods. The study group of the research consisted of 357 social studies teacher candidates determined by convenient sampling method in the quantitative section, and 20 social studies teacher candidates determined through easily accessible case sampling, one of the purposive sampling methods, in the qualitative section. In this context, "Consumer Environmental Awareness Perception Scale", "Semi-Structured Interview" and "Personal Information Form" were used as data collection tools. Quantitative and qualitative data were analysed by descriptive statistical methods and content analysis respectively and the collected data were combined and interpreted. As a result of the research, it was determined that the social studies teacher candidates' perceptions of consumer environmental awareness were high. Similarly, it was found that a statistically significant difference existed in the participating in environmental activities variable in favor of those who participated in environmental activities. It was also determined that the results obtained from the quantitative findings of the research were similar to the results obtained from the qualitative findings.

**Keywords:** Consumer environmental awareness, perception, social studies, teacher candidate.

## **Introduction**

The place where living things maintain their relationships and interact with each other throughout their lives is called environment (Keleş & Hamamcı, 2002). It is seen that the environment is examined under two main headings: natural and artificial. The environment formed by human intervention is called as artificial environment while natural environment refers to the environment where there is no human intervention (Görmez, 2015).

The endless consumption ambition of human beings has led to a series of problems expressed as "environmental problems" in both environmental types. So much so that when environmental problems are mentioned, "The problems resulting from the pressures of the artificial environments developed by the people on the natural environment and the negativities seen in both environments" (Özer, 1974) come to mind. It is seen that environmental problems have undergone a change in terms of quality and quantity especially since the second half of the 19<sup>th</sup> century. Briefly, the industrial revolution at the time, the two world wars that followed, and the subsequent developments in science and technology have led to the handling of different problems such as radioactive, visual, noise and light pollution in the context of environmental problems, apart from soil, air and water pollution. It is stated in the literature that it is important to increase environmental awareness and sensitivity of individuals (Gordon-Wilson and Modi, 2015) and adopt environmentally friendly behaviors in eliminating environmental problems (Coelho et al., 2017; Demirbaş & Pektaş, 2009).

Based on the view that such problems can be solved by changing attitudes and behaviors towards the environment (Sinha and Watters, 1985), it is stated that it is of great importance for individuals to exhibit environmentally responsible and consumption-conscious behaviors and to be educated on this issue (Çelik et al., 2016). When the relevant literature is examined, it is asserted that education plays an important role in the formation of environmental awareness (Gül and Özey-Köse, 2015) and is effective in displaying

environmentally sensitive behaviors (Fernandez-Manzanal et al., 2007). Another point that should not be overlooked at this stage is the relationship between education and consumer behavior. Although, when it comes to consumption, the act of using existing resources to meet people's needs and desires comes to mind, the results of consumption include not only economic but also social, cultural and physical elements (Aksu, 2014), which also requires it be considered within education.

The fact that consumption is a phenomenon affected by human behavior brings with it the view that it should be shaped by education. Özsungur and Güven (2017) explained this view by stating that one of the most important factors in shaping consumer behavior is education. One of the main objectives of this kind of training is to raise environmentally conscious individuals (Dikmenli and Konca, 2016) who purchase and use environmentally friendly products (Mostafa, 2006). In the international literature, these individuals are also referred to as green consumers or environmentally conscious consumers (Coddington, 1993; Ottman, 1992).

Cordes and Miller (2000), who stated that the prerequisite for consumers to exhibit positive behaviors towards the environment is that they have positive perceptions about the environment, urged that such education should start at an early age. With the education to be carried out, students will be able to protect nature, have positive attitudes, values, skills and perceptions towards the environment (Ardoin et al., 2020; Carleton-Hug and Hug, 2010) and gain awareness about the environment as well as becoming citizens who value the environment. In the process of achieving these goals, while environmental education is given in the content of courses such as citizenship, science and social studies in schools around the world (Carleton-Hug and Hug, 2010), in Türkiye students are tried to be structured through various achievements in the curriculum of courses such as life science, social studies, science, geography, biology, health sciences and chemistry in primary, secondary and high school (Demir & Yalçın, 2014).

What makes social studies course stand out among these courses is its mission in raising citizens (Kırıkçı, 2013). Because the concept of citizenship covers not only the relations of individuals with each other, society or the state, but also with the environment. This situation is expressed within the special objectives of the Social Studies Curriculum as "Recognizing the limitations of the natural environment and resources, trying to protect natural resources with environmental awareness and having a sustainable environmental understanding" (Ministry of National Education [MoNE], 2018).

As it can be understood from this special purpose, it is also aimed that the students become citizens with consumer environmental awareness through the social studies course. At this stage, it cannot be ignored that social studies teachers, who are in the position of guide and role-model, will affect the consumer environmental awareness perception levels of their students. Determining the perception levels of social studies teacher candidates is important in terms of evaluating the undergraduate education given to them and eliminating the problems that arise. However, while studies conducted to measure the environmental awareness of teacher candidates (Akçay and Pekel, 2017; Diken and Çıbık, 2009; Dolenc-Orbanić and Kovač, 2021; Ergin, 2019) and their consumption awareness related to

environmental responsibility (Bhatia and Jain, 2017; Gül and Özey-Köse, 2015; Karademir, 2016; Ichsan et al., 2018) exist in literature, no study has been found that directly addresses the consumer environmental awareness perceptions of social studies teacher candidates and their views on the issue. This study is thought to contribute to the literature in this sense. The sub-problems of the research can be listed as follows:

1. What is the level of consumer environmental awareness perceptions of social studies teacher candidates?

2. Do social studies teacher candidates' perception levels of consumer environmental awareness differ significantly according to the variables of gender, grade, whether they take environmental education courses, whether they follow visual and printed publications on the environment, whether they participate in activities on the environment, and whether they are members of non-governmental organizations for protecting the environment?

3. Do social studies teacher candidates' perception levels of consumer environmental awareness and their views on consumer environmental awareness support each other?

## Method

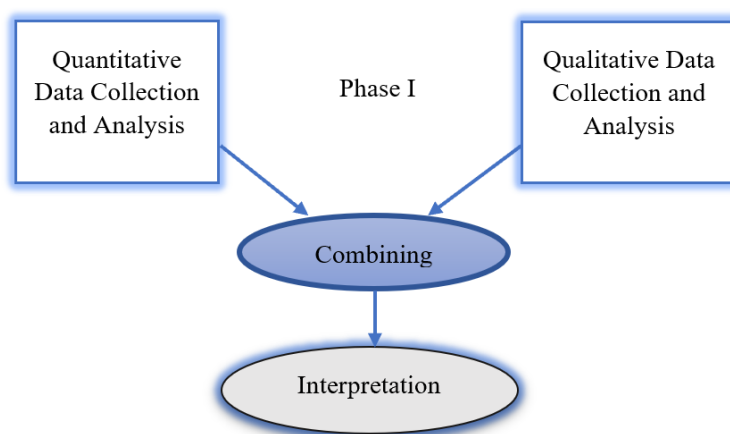
### Research Design

The mixed research method was used in the research conducted to determine the consumer environmental awareness perception levels of social studies teacher candidates and their views on the subject. Mixed research is a method in which both quantitative and qualitative data are integrated to understand research problems (Creswell, 2021). It is thought that quantitative methods are insufficient in revealing consumer environmental awareness in Social Studies teacher candidates in detail. For this reason, the research was carried out by combining quantitative and qualitative findings.

A mixed method design, "Combining Pattern", was used in the research. Combination pattern is defined as combining the results obtained from the analysis of quantitative and qualitative research data. In this context, quantitative results reveal general tendencies, and qualitative results reveal the personal views of individuals (Creswell, 2021).

**Figure 1.**

*Integrative Mixed Research Process*



## **Study Group**

In this research conducted with mixed research method, different study groups determined by different sampling methods were used for the qualitative and quantitative parts. Convenience sampling method, one of the non-random sampling types, was used in the quantitative section. This type of sampling can be described as a type that makes it easier for researchers to access the sampling. 357 teacher candidates studying in 1, 2, 3 and 4. grades in the department of Social Studies Education in the Faculties of Education at Niğde Ömer Halisdemir, Nevşehir Hacı Bektaş Veli and Konya Necmettin Erbakan Universities constitute the study group of the quantitative part of the research. In the qualitative part of the research, the study group that consists of 20 teacher candidates studying in 1, 2, 3 and 4. grades in the department of Social Sciences Education in the Faculty of Education at Niğde Ömer Halisdemir University was determined through easily accessible case sampling, one of the purposeful sampling methods. Conveniently accessible situation sampling is expressed as a preferred sampling type when it is close to the researchers and easy to access and when other sampling types cannot be used (Baltacı, 2019).

## **Data Collection Tools**

In this research, the “Consumer Environmental Consciousness Perception Scale” by Dikmenli and Konca (2016), the “Semi-Structured Interview Form” developed by the researchers, and the “Personal Information Form” prepared based on the relevant literature were used as data collection tools.

### ***Consumer Environmental Awareness Perception Scale***

The “Consumer Environmental Awareness Perception Scale” developed by Dikmenli and Konca (2016) was used in the quantitative part of the research. In the exploratory factor analysis conducted by Dikmenli and Konca (2016), the KMO value of the scale, which consists of 28 items and 4 factors, was calculated as .901 and the Bartlett value was calculated as  $\chi^2=2905.957$  ( $p<.001$ ). Cronbach alpha reliability coefficient was found to be .87.

Following the exploratory factor analysis, confirmatory factor analysis was performed and Chi-square fit test, GFI, RMSEA, CFI, NFI, RFI, IFI and AGFI fit indices were examined. According to the first level confirmatory factor analysis performed on the scale, AGFI: .90, NFI: .89, CFI: .92, GFI: .84, RFI: .88, IFI: .92 were calculated to be at acceptable level. Participants were asked to evaluate the items in the scale as totally disagree, disagree, undecided, agree and totally agree.

### ***Personal Information Form***

The relevant literature was examined and variables such as participants’ gender, grade level, taking environmental education courses, following visual and printed publications on the environment, participating in environmental activities, and being members of non-governmental organizations aimed at protecting the environment, which could be effective on the participants’ consumer environmental awareness perception levels, were added to the personal information form so that the quantitative data could be combined with the qualitative data.

### **Semi-Structured Interview Form**

In the qualitative part of the research, a semi-structured interview form was prepared for consumer environmental awareness. In the first stage, draft interview questions were prepared by the researchers and the prepared questions were directed to two experts working as faculty members in the field of Social Studies Education. The questions were arranged in terms of content in line with the feedback from experts. In the second stage, the interview form was forwarded to an expert who works as a lecturer in the field of Turkish Education for language appropriateness and the necessary corrections were made. In the third stage, a pilot application was conducted with two students studying in the social studies education department and the semi-structured interview form was finalized to be used in the research.

### **Analysis of Data**

#### ***The Analysis of Consumer Environmental Awareness Perception Scale***

After the scale was applied to the study group, confirmatory factor analysis was performed. According to confirmatory factor analysis, the values of AGFI: .91, NFI: .90, GFI: .93 were calculated to be at an acceptable level while the  $X^2/df$ : 1.21, IFI: .98 CFI: .98 were found at perfect fit index level. Table 1 includes the fit index values stated by Schermelleh-Engel et al. (2003).

**Table 1.**

*Confirmatory Factor Analysis Fit Indexes*

Fit indexes	Good fit index	Acceptable fit index
$X^2/df$	<3	$3 < (X^2/df) < 5$
IFI	$.95 < IFI < .00$	$.90 < IFI < .95$
GFI	$.95 < GFI < .00$	$.90 < GFI < .95$
AGFI	$.90 < AGFI < .00$	$.85 < AGFI < .90$
NFI	$.95 < NFI < .00$	$.90 < NFI < .95$
CFI	$.95 < CFI < .00$	$.90 < CFI < .95$

SPSS 21 and AMOS 24 package programs were used to analyze the data. After deleting extreme values from the scale, Skewness and Kurtosis values were examined to determine distribution normality. Skewness and Kurtosis values of the data obtained from the personal information form and the consumer environmental awareness perception scale were examined and it was determined that the values were in the range of -1.5/+1.5, which means that the distribution is normal (Fidell et al., 2013).

In this case, parametric tests such as independent samples t-test and one-way analysis of variance [ANOVA] tests are used. ANOVA was used for the class level variable. On the other hand, independent samples t-test was used for the variables of gender, taking an environmental education course or not, following visual and printed publications on the environment or not, participating in environmental-themed events or not and being a member of non-governmental organizations aimed at protecting the environment or not. The Cronbach alpha reliability coefficient of the Consumer Environmental Awareness Perception Scale was calculated as .84.



## ***Semi-Structured Interview Process and Data Analysis***

A semi-structured interview form was used for the qualitative data of the research. Semi-structured interview is defined as a data collection tool prepared to obtain detailed information by adhering to pre-prepared questions and to obtain the same type of information from different people (Baltacı, 2019). In this research, 20 teacher candidates studying in the department of social studies education were asked to answer a semi-structured interview form in a quiet environment. The participants' answers to the semi-structured interview form were transferred to the computer environment for analysis. content analysis method was used to analyze the data. Content analysis is expressed as a systematic technique that helps to make inferences in order to determine human behavior and nature (Boyras & Tepe, 2019). Categories and codes were created in line with the content analysis.

In the qualitative part of the research, the relevant literature was taken as a basis in the preparation of the data collection tool used to ensure the credibility of the data in an objective manner. To achieve transferability, the steps of the process are presented to the reader in detail and direct quotations are given. In order to check the consistency of the codes obtained during the analysis process, a separate coding was requested by a different researcher. To calculate the consistency of the coding made by two different researchers, the [Reliability= Agreement/(Agreement+Disagreement) x 100] formula prepared by Miles and Huberman (1994) was used. The calculation concluded that there was a consistency between 92% and 96%. Finally, the data obtained in the research are stored by the researchers to ensure confirmability, which is external validity.

### **Ethical Permits of Research:**

In this study, all the rules specified to be followed within the scope of "Higher Education Institutions Scientific Research and Publication Ethics Directive" were complied with. None of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, have been taken.

### **Ethics Committee Permission Information:**

Name of the committee that made the ethical evaluation = Niğde Ömer Halisdemir University Ethics Committee

Date of ethical review decision = 23.11.2022

Ethics assessment document issue number = 2022/13-43

## **Findings**

The findings obtained as a result of the analysis of the data collected in order to determine the consumer environmental awareness perception levels of social studies teacher candidates are presented in this section.

### **Findings from the Quantitative Part of the Research**

Based on the general purpose of the research, first of all, social studies teacher candidates' consumer environmental awareness perception levels were determined. As a result of the analysis of the data obtained, the findings in Table 2 were obtained.

**Table 2.**

*Findings Regarding Social Studies Teacher Candidates' Consumer Environmental Awareness Perception Levels*

Consumer environmental awareness perception scale	<i>n</i>	<i>M</i>	Level
Total score average	357	3.54	High

In Table 2, the arithmetic average scores of the answers given by social studies teacher candidates to the questions on the Consumer Environmental Awareness Perception Scale were evaluated based on the frequencies from “Very Low (Strongly Disagree) ( $1.00 < M \leq 1.80$ ), Low (Disagree) ( $1.81 < M \leq 2.60$ ), Medium (Undecided), ( $2.61 < M \leq 3.40$ ), High (Agree) ( $3.41 < M \leq 4.20$ ) to Very High (Strongly Agree) ( $4.21 < M \leq 5.00$ )”. In line with these findings, it can be interpreted that the total score average obtained from the social studies teacher candidates' consumer environmental awareness perception scale is at a high level ( $M=3.54$  (I agree) ( $3.41 < M \leq 4.20$ )). Based on this finding, it can be stated that social studies teacher candidates' consumer environmental awareness perceptions are high.

**Table 3.**

*Independent Samples t-test Results regarding Social Studies Teacher Candidates' Consumer Environmental Awareness Perception Levels in terms of Gender Variable*

Gender	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Female	262	3.57	.46	355	1.75	.081
Male	95	3.46	.56			

No statistically significant difference was detected between social studies teacher candidates' consumer environmental awareness perception levels in terms of gender. In Table 3 ( $t_{(355)}=1.75$ ;  $p > .05$ ). Based on this finding, it can be stated that gender does not affect social studies teacher candidates' consumer environmental awareness perception levels.

**Table 4.**

*One-Way ANOVA Results regarding the Consumer Environmental Awareness Perception Levels of Social Studies Teacher Candidates in terms of the Grade Variable*

	Sum of squares	<i>df</i>	Mean squares	<i>F</i>	<i>p</i>
Between groups	1.242	3	.414	1.728	.161
Within groups	84.589	353	.240		
Total	85.831	356			

Table 4 shows that there is no statistically significant difference between the grade level of social studies teacher candidates and their consumer environmental awareness perception levels ( $F_{(3-353)}=1.728$ ;  $p > .05$ ).

**Table 5.**

*Independent t-test Results regarding the Consumer Environmental Awareness Perception Levels of Social Studies Teacher Candidates in terms of the Environmental Education Course Variable*

Taking courses on environmental education	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	180	3.55	.519	354	.335	.738
No	176	3.53	.461			

According to the data in Table 5, no statistically significant difference exists between social studies teacher candidates' consumer environmental awareness perception levels in terms of taking environmental education course variable ( $t_{(354)}=335$ ;  $p > .05$ ). This finding can be interpreted as whether or not taking courses on environmental education is not effective on social studies teacher candidates' consumer environmental awareness perception levels.



**Table 6.**

*Independent t-test Results regarding Social Studies Teacher Candidates' Consumer Environmental Awareness Perception Levels in terms of the Following Environmental Visual Publications Variable*

Following visual publications	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	241	3.62	.482	355	4.60	.000*
No	116	3.37	.459			

Table 6 shows that there is a statistically significant difference between social studies teacher candidates' consumer environmental awareness perception levels in terms of the variable of following visual publications on the environment ( $t_{(355)}=4.60$ ;  $p<.05$ ). This finding, obtained in line with statistical analysis, indicates that visual content publications are effective in social studies teacher candidates' perception of consumer environmental awareness.

**Table 7.**

*Independent t-test Results regarding the Consumer Environmental Awareness Perception Levels of Social Studies Teacher Candidates in terms of the Following Printed Publications on the Environment Variable*

Following printed publications	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	112	3.68	.474	355	3.64	.000*
No	245	3.48	.486			

It is seen in Table 7 that there is a statistically significant difference between social studies teacher candidates' consumer environmental awareness perception levels in terms of the variable of following printed publications on the environment ( $t_{(355)}=3.64$ ;  $p<.05$ ). With reference to this finding obtained in line with statistical analysis, it can be expressed that printed publications are effective in social studies teacher candidates' perception of consumer environmental awareness.

**Table 8.**

*Independent t-test Results regarding the Consumer Environmental Awareness Perception Levels of Social Studies Teacher Candidates in terms of the Participation in Environmental Activities Variable*

Participation in environmental activities	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	183	3.60	.467	355	3.65	.008*
No	174	3.47	.507			

Table 8 shows that there is a statistically significant difference between social studies teacher candidates' consumer environmental awareness perception levels in terms of the participation in environmental activities variable ( $t_{(355)}=3.65$ ;  $p<.05$ ). Accordingly, it can be stated as participating in environmentally-themed activities is effective in social studies teacher candidates' perception of consumer environmental awareness.

**Table 9.**

*Independent t-test Results regarding the Consumer Environmental Awareness Perception Levels of Social Studies Teacher Candidates in terms of Membership in Environmental Protection Organizations*

Membership in environmental protection organizations	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
Yes	85	3.61	.527	355	1.63	.104
No	272	3.52	.478			

When Table 9 is examined, no statistically significant difference was found between the consumer environmental awareness perception levels of social studies teacher candidates

according to their membership in environmental protection organizations (TEMA, ÇEVKO, Greenpeace etc.) ( $t_{(355)}=1.63$ ;  $p<.05$ ). It can be interpreted from this finding that being a member of environmental protection organizations is not effective on social studies teacher candidates' consumer environmental awareness perception levels.

### Findings from the Qualitative Part of the Research

In this part of the research, the data obtained by analyzing the semi-structured interviews conducted with the participants regarding consumer environmental awareness using the content analysis method were interpreted by categorizing and coding them.

The opinions of social studies teacher candidates regarding their consumer environmental awareness perceptions were examined. In this context, the participants were first asked the question "How do you react when you see individuals whose consumption habits harm the environment?" and various codes related to the "Reaction" category presented in Table 10 were obtained.

**Table 10.**

*Opinions of Social Studies Teacher Candidates regarding Their Reactions When They See Individuals Whose Consumption Habits Harm the Environment*

Codes	Category	f
Warning		21
Reaction	Reaction	3
Complaint		2
Total		26

When the data is examined, it is seen that the participants' opinions about their reactions when they see individuals harming the environment are mostly limited to verbal warnings. In this context, participant with the nickname K13 said; "I think that many people in our society harm the environment. In order to prevent it, I start by warning, and when I see that this method is not sufficient, I talk about the problems we will encounter in the future." The participant with the nickname K21 expressed her reaction stating, "When I see individuals harming the environment, I first warn them. I explain to them that the environment is important to us. If they do not heed my warnings, I will file a complaint to the relevant authorities."

The participants were asked, "Do you pay attention for your consumption not to harm the environment?". The "Environmental awareness" category and codes in Table 11 were found as a result of the analysis of the participants' answers to the question.

**Table 11.**

*Opinions of Social Studies Teacher Candidates on Whether Their Consumption Harms the Environment or Not*

Codes	Category	f
Recycling		23
Trash	Environmental awareness	22
Awareness		20
I'm not paying attention.		3
Total		68

Accordingly, it is seen that the behavior of the participants as to whether their consumption harms the environment or not is limited to "not polluting the environment". The

participant nicknamed K3 verbalized her ideas on the issue by saying; *“Yes, I try to pay attention. When I come across it in the trash can, I throw it away. I take care to use recycling bins”*. K23 expressed her reaction as; *“Although I try to buy products that do not harm the environment, it is not possible in today’s conditions. Because environmentally friendly products are generally expensive”*.

The participants were asked the question “Does the fact that the products you consume are current and well-known brands/products affect your consumption habits?” and the “Brand awareness” category and codes presented in Table 12 were obtained.

**Table 12.**

*Opinions of Social Studies Teacher Candidates on the Effects of The Products’ They Consume Being Current and Well-Known Brands/Products on Their Consumption Habits*

Codes	Category	f
Quality		8
Environmentally friendly		7
It doesn’t affect me because I’m not obsessed with brands.	Brand awareness	7
Reliable		5
Popular		1
Total		28

When the data in Table 12 is examined, it is seen that the participants’ opinions about the effects of the products they consume on their consumption habits are positive. With regard to the question, K7 said, *“No. Of course, quality is important in the product. I’m not very interested in what’s current. Even if I were interested, this would not affect my consumption habits much.”* Similarly, K12 remarked her opinion by stating; *“It affects. I try not to consume cheap or unknown brand items. Because there may be a high probability that it contains substances that will harm me and the environment.”*

The participants were asked the question “Do other people’s opinions affect your consumption habits?” and the categories and codes in Table 13 were obtained.

**Table 13.**

*Opinions of Social Studies Teacher Candidates on Whether Others’ Opinions Affect Their Consumption Habits.*

Codes	Category	f
They impress because they are reliable.		8
It doesn’t affect me, because I don’t trust/care.	Being affected by the social environment	7
If he is an expert on the subject, it will affect.		7
Sometimes it affects because I think it’s popular.		4
Total		26

When Table 13 is examined, it can be seen that the participants’ opinions on whether others’ opinions affect their consumption habits are almost equal in positive and negative terms. Their ideas regarding the question; The participant K4 said, *“Effects. When you praise a product, I become curious and want to buy it. Also, I definitely take user comments into consideration before purchasing the product.”* and the participant nicknamed K23 expressed her opinion with the statement *“Yes, it does. Because experts on the product or subject specifying products that have positive or negative effects on human health and the environment affects my consumption habits.”*

The “Self-awareness” category and codes in Table 14 were found based on the fifth and the last question, which was “What are the situations that show whether you are an individual with consumer environmental consciousness?”.

**Table 14.**

*Opinions of Social Studies Teacher Candidates on Whether Others’ Opinions Affect Their Consumption Habits.*

Codes	Category	f
I don’t throw garbage around me.	Self-awareness	10
I try to consume recyclable products.		9
I do not consume more than I need/I am economical.		7
I engage in consumption behavior by thinking about the future of nature and humanity.		3
I warn those who harm the environment.		3
I participate in organizations/events organized to protect the environment.		2
I don’t think I have consumer environmental consciousness.		2
Total		36

When the data are examined, it is seen that the participants mostly have self-awareness about consumer environmental consciousness. To express its opinion regarding the question, the participant K9 said; “*I don’t think I am a fully conscious consumer. I need to read and research a little more on this subject.*” On the other hand, the participant K13 said, “*Although it is not very common in our society, I think I have environmental awareness. Because I am careful to keep my environment clean and use recyclable waste, and I do not hesitate to warn people who do not do these things.*”

### **Combining and Interpreting Quantitative and Qualitative Findings**

Based on the quantitative findings of the research, it is seen that social studies teacher candidates’ consumer environmental consciousness perception average is at a high level. Similarly, the qualitative findings of the research obtained through interviews also show that social studies teacher candidates mostly have a perception of environmental awareness. It was found that teacher candidates, regardless of gender and grade level, had positive views on environmental awareness, especially regarding environmental consciousness awareness. As a result of the analysis of the qualitative findings, it is seen that the participants stated that they would mostly react against individuals defined as unconscious consumers and the way they defined themselves as conscious consumers coincided with the quantitative findings.

### **Discussion and Conclusion**

In this section, it is aimed to reveal the consumer environmental awareness perceptions of social studies teacher candidates along with their opinions. Accordingly, “Combining Design”, a mixed method design, was used in the research. The results are given below.

It was concluded that social studies teacher candidates’ consumer environmental awareness perceptions were statistically high. In the relevant literature, no study has been found to determine the consumer environmental awareness perceptions of social studies teacher candidates. However, it is also thought that the environmental awareness of individuals as consumers is an important criterion. Individuals with high environmental awareness are also expected to have high consumer environmental awareness. It is seen that

there are studies in the literature aimed at determining the environmental literacy levels and environmental sensitivities of prospective teachers regarding the subject. In these studies (Artun, 2013; Daniel et al., 2022; Durmuş and Kınacı, 2021; Ergin, 2019; Dolenc-Orbanić and Kovač, 2021; Sumitro and Rohman, 2023) environmental literacy levels of teacher candidates were determined to be at a high level. Similarly, the results of the interviews with the participants and the quantitative findings also revealed that teacher candidates generally thought they had consumer environmental awareness. In particular, the participants' opinion that they will react to citizens who harm the environment and their self-criticism regarding environmental awareness also show that they have environmental awareness. It is thought that the behaviors expressed by teacher candidates towards protecting the environment and not polluting it are also a different indicator that they have self-awareness about environmental awareness.

In the relevant literature, it is seen that there are studies examining social studies teacher candidates' views on the environment (Bülbül & Yılmaz, 2019; Meral et al., 2016). According to the results obtained from these studies, it has been determined that although social studies teacher candidates generally have an environmentally-centered thinking tendency, this thinking tendency differs depending on the grade level. Researchers have determined that raising public awareness about the environment is mostly achieved through mass media such as television, radio, mobile phones and computers. It can be stated that the findings obtained as a result of the literature review are similar to the opinions expressed by social studies teacher candidates in this study and support each other (Xie, 2015). It can be stated that the determination of the high consumer environmental awareness of social studies teacher candidates in this study is an indication that teacher candidates will raise students with this awareness in their professional lives. It is thought that the research will contribute to the literature both in this aspect and by filling the gap in the relevant literature.

Besides, it was concluded that the impact of environmental organizations is important in informing individuals about the environment, in helping them become environmentally conscious and responsible individuals, and in solving environmental problems. It was stated that the contents covered in mass media such as TV, radio and mobile phones make the most contribution to raising public awareness about the environment. It can be stated that the results obtained in this research are similar to the abovementioned findings and support each other.

It was concluded that gender and grade variables had no statistical effect on social studies teacher candidates' consumer environmental awareness perception levels. In the interviews conducted with the participants, it was seen that the grade level and gender of the participants did not make a difference in their views on environmental awareness, which also supports the result obtained from quantitative findings (Diken & Çıbık, 2009). In their studies, Noordin and Sulaiman (2010) and Sivamoorthy et al. (2013), unlike this study, found that female students' environmental awareness levels were higher than male students. The reason for this situation can be stated as the fact that environmental awareness is a phenomenon specific to the individual rather than gender and university grade and is acquired at a younger age.

Another result obtained from the research is that taking environmental courses does not have any statistical effect on social studies teacher candidates' consumer environmental awareness perception levels. This can be interpreted as that consumer environmental awareness is rather an indicator of affective behavior. In the interviews conducted with the participants, it can be stated that the fact that they did not express their opinions about the training on consumer environmental awareness is an indicator of the quantitative result obtained. However, in the relevant literature (Elliott et al., 2020; Karrow et al., 2022; McGregor et al., 2022), it is stated that environmental courses given to prospective teachers contribute to environmental awareness.

It was determined that the consumer environmental awareness perception level of social studies teacher candidates who follow printed or visual publications on the environment was statistically significantly higher than that of teacher candidates who do not follow such publications. In the qualitative findings, the fact that the participants stated that they prefer products with high brand awareness is thought to be related to the fact that there is a significant difference in the consumer environmental awareness perceptions of social studies teacher candidates in favor of those who follow printed and visual publications. Relevant literature (Xie, 2015; León et al., 2022; Rabitz et al., 2021) also supports this result. These results show that advertisements in social media and printed publications affect consumers' product preferences. It is thought that the reason for this situation is that content producers take into account consumers' needs and interests in product advertisements.

As a result of the research, it was found that the environmental awareness perceptions of teacher candidates who participated in environmental activities were significant and high. In the interviews with the participants, it was seen that many of the teacher candidates stated that they were influenced by the views of the social environment they were in. Therefore, environmental-themed activities carried out with the social environment are thought to be effective in creating participants' perception of consumer environmental awareness.

## **Recommendations**

Some recommendations that can be made on this issue are:

Environment-related visuals and news can be included more in various course contents in the social studies teaching undergraduate program.

Various environmental-themed activities can be organized for social studies teacher candidates to create consumer environmental awareness.

Research can be conducted using action research or experimental methods on how to raise the consumer environmental awareness levels of social studies teacher candidates to a higher level.

Studies can also be conducted in different teaching branches and applications can be made for groups with low consumer environmental awareness.



## References

- Akçay, S., & Pekel, F. O. (2017). Öğretmen adaylarının çevre bilinci ve çevresel duyarlılıklarının çeşitli değişkenler açısından incelenmesi [Investigation of prospective teachers' environmental awareness and sensitivity in terms of different variables]. *Elementary Education Online*, 16(3), 1174-1184.
- Aksu, C. K. (2014). *Üniversite çalışanlarının sürdürülebilir tüketime yönelik tutumlarının belirlenmesi: Kafkas Üniversitesi örneği* [Determining the attitudes of university employees towards sustainable consumption: The example of Kafkas University]. (Publication No. 363013) [Master thesis, Kafkas University]. National Thesis Center.
- Ardoin, N. M., Bowers, A. W., & Gaillard, E. (2020). Environmental education outcomes for conservation: A systematic review. *Biological Conservation*, 241, 108224.
- Artun, H., Uzunöz A., & Akbaş, Y. (2013). Sosyal bilgiler öğretmen adaylarının çevre okur-yazarlık düzeylerine etki eden faktörlerin değerlendirilmesi [The evaluation of the factors affecting the levels of environmental literacy of social science prospective teachers]. *Pamukkale University Journal of Education*, 34(34), 1-14.
- Baltacı, A. (2019). Nitel araştırma süreci: Nitel bir araştırma nasıl yapılır? [Qualitative research process: How to conduct a qualitative research?]. *Ahi Evran University Institute of Social Sciences Journal*, 5(2), 368-388.
- Bhatia, M., & Jain, A. (2017). Development of multi-item measurement scale for green consumer behaviour. *International Journal of Society Systems Science*, 9(3), 199-221.
- Boyras, S., & Tepe, M. E. (2019). Verilerin analizi [Analysis of data]. In G. Ocak (Ed.), *Eğitimde bilimsel araştırma yöntemleri* [Scientific research methods in education]. (pp. 274-320). Pegem.
- Bülbül, Y., & Yılmaz, A. (2019). Sosyal bilgiler öğretmen adaylarının çevre, çevre eğitim ve çevresel vatandaşlık kavramlarına ilişkin görüşleri [Views of prospective social studies teachers on the concepts of environment, environmental education and environmental citizenship]. *Journal of International Social Sciences Education*, 5(2), 165-183.
- Carleton-Hug, A., & Hug, J. W. (2010). Challenges and opportunities for evaluating environmental education programs. *Evaluation and Program Planning*, 33(2), 159-164.
- Coddington, W. (1993). Environmental marketing's new relationship with corporate environmental management. *Environmental Quality Management*, 2(3), 297-302.
- Coelho, F., Pereira, M. C., Cruz, L., Simoes P., & Barata, E. (2017). Affect and the adoption of pro-environmental behaviour: A structural model. *Journal of Environmental Psychology*, 54, 127-138.
- Cordes, C., & Miller, E. (2000). *Fool's gold: A critical look at computers in childhood* (ED445803). ERIC. <https://eric.ed.gov/?id=ED445803>
- Creswell, J. W. (2021). *A concise introduction to mixed methods research*. Sage.
- Çelik, S., Başaran T., Gökalp M. R., Yeşildal, M., & Han O. (2016). Hemşirelik ve tıp öğrencilerinin çevre sorunlarına yönelik tutumları [Nursing department and medical faculty students' attitudes towards environmental problem]. *Journal of Health Science and Profession*, 3(2), 91-98.
- Daniel, E. G. S., Sivapalan, S., Lee, K. E., & Nadeson, T. (2022). The missing pedagogical link for Malaysian environmental citizenship: An emerging model of interconnectedness of knowledge domains and values mediation. *Journal of International and Comparative Education*, 11(1), 1-22.
- Demir, E., & Yalçın, H. (2014). Türkiye'de çevre eğitimi [Environmental education in Turkey]. *Turkish Journal of Scientific Reviews*, 7(2), 7-18.
- Demirbaş, M., & Pektaş, H. M. (2009). İlköğretim öğrencilerinin çevre sorunu ile ilişkili temel kavramları gerçekleştirme düzeyleri [Elementary students' levels of realization of basic concepts related with environment problem]. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education*, 3(2), 195-211.
- Diken, E. H., & Sert-Çıbık, A. (2009). İlköğretim bölümü öğretmen adaylarının çevre bilincinin cinsiyete göre değişiminin incelenmesi [The investigation of pre-service primary teachers' levels of environmental consciousness according to gender]. *Journal of Bayburt Education Faculty*, 4(1), 14-25.

- Dikmenli, Y., & Konca, A. S. (2016). Tüketici çevre bilinci algı ölçeği geçerlik ve güvenilirlik çalışması [Validity and reliability study of environmental consciousness scale]. *Journal of Theory and Practice in Education*, 12(6), 1273-1289.
- Dolenc-Orbanić, N., & Kovač N. (2021). Environmental awareness, attitudes, and behaviour of preservice preschool and primary school teachers. *Journal of Baltic Science Education*, 20(3), 373-388.
- Durmuş, E., & Kınacı, M. K. (2021). Opinions of social studies teacher education students about the impact of environmental education on ecological literacy. *Review of International Geographical Education Online*, 11(2), 482-501.
- Elliott, P., Duerk, C., & Rodenburg, J. (2020). *Activating teacher candidates in community-wide environmental education: The pathway to stewardship and kinship project* (EJ1267559). ERIC. <https://eric.ed.gov/?id=EJ1267559>
- Ergin, D. Y. (2019). Environmental awareness of teacher candidates. *World Journal of Education*, 9(1), 152-161.
- Fernandez-Manzanal, R., Rodriguez-Barreiro, L., & Carrasquer, J. (2007). Evaluation of environmental attitudes: Analysis and result of a scale applied to university students. *Science Education*, 91(6), 988-1009.
- Fidell, S., Tabachnick, B., Mestre, V., & Fidell, L. (2013). Aircraft noise-induced awakenings are more reasonably predicted from relative than from absolute sound exposure levels. *The Journal of the Acoustical Society of America*, 134(5), 3645-3653.
- Gordon-Wilson, S., & Modi, P. (2015). Personality and older consumers' green behaviour in the UK. *Futures*, 71, 1-24.
- Görmez, K. (2015). *Çevre sorunları* [Environmental problems]. Nobel.
- Gül, Ş., & Özay-Köse, E. (2015). Öğretmen adaylarının çevre sorumluluğuna bağlı tüketim bilinç düzeylerinin belirlenmesi [Determination of prospective teachers' consumption consciousness levels depending on environmental responsibility]. *International Journal of Turkish Education Sciences*, 2015(4), 334-345.
- Ichsan, I. Z., Sigit, D. V., & Miarsyah, M. (2018). Learning environment: Gender profile of students' pro-environmental behavior [PEB] based on green consumerism. *Tadris: Jurnal Keguruan Dan Ilmu Tarbiyah*, 3(2), 97-107.
- Karademir, E. (2016). Eğitim fakültelerinin yapılandırılması sürecinde öğretmen adaylarının çevre bilinci ve özyeterliliklerinin belirlenmesi [In the structuring process of education faculty; determination of the teachers' environmental consciousness and self-efficacy]. *Journal of Education and Humanities: Theory and Practice*, 7(13), 3-18.
- Karrow, D. D., Fazio, X., & Zandvliet, D. (2022). *What's in a name? The signifiers and empty signifiers of environmental sustainability education: Implications for teacher education* (EJ1358383). ERIC. <https://eric.ed.gov/?id=EJ1358383>
- Keleş R., & Hamamcı C. (2002). *Çevrebilim* [Ecology]. İmge.
- Kırıkçı, A. C. (2013). *Sosyal bilgiler öğretmen adaylarının vatandaşlık yeterliliklerini geliştirmeye yönelik etkinlik temelli bir model oluşturma* [To develop citizenship competencies of social studies teacher candidates designing an activity-based model]. (Publication No. 350014) [Master thesis, Marmara University]. National Thesis Center.
- León, B., Negrodo, S., & Erviti, M. C. (2022). Social engagement with climate change: Principles for effective visual representation on social media. *Climate Policy*, 22(8), 976-992.
- McGregor, H. E., Karn, S., Evans, R. S., & Pind, J. (2022). Piloting historical thinking lessons to address climate change. *Canadian Social Studies*, 53(1), 1-16.
- Ministry of National Education [MoNE]. (2018). *Sosyal bilgiler dersi öğretim programı (İlkokul ve ortaokul 4, 5, 6 ve 7. sınıflar)* [Social studies course curriculum (primary and secondary school 4, 5, 6 and 7 grades)]. T.C. Millî Eğitim Bakanlığı.
- Meral, E., Küçük, B., & Gedik, F. (2016). Sosyal bilgiler öğretmen adaylarının çevre kavramına ilişkin metaforik algıları [Metaphoric comprehension of training teachers of social studies as regards the concept of environment]. *Kastamonu Education Journal*, 24(1), 65-78.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.

- Mostafa, M. M. (2006). Antecedents of Egyptian consumers' green purchase intentions: A hierarchical multivariate regression model. *Journal of International Consumer Marketing*, 19(2), 97-126.
- Hassan, A., Noordin, T. A., & Sulaiman, S. (2010). The status on the level of environmental awareness in the concept of sustainable development amongst secondary school students. *Procedia-Social and Behavioral Sciences*, 2(2), 1276-1280.
- Ottman, J. A. (1992). Industry's response to green consumerism. *Journal of Business Strategy*, 13(4), 3-7.
- Özer, A. Ö. (1974). *Çevre sorunlarına giriş* [Introduction to environmental problems]. Mobil.
- Özşungur, F., & Güven, S. (2017). Tüketici davranışlarını etkileyen sosyal faktörler ve aile [Social factors and family affecting consumer behavior]. *International Journal of Eurasian Education and Culture*, 3, 127-142.
- Rabitz, F., Telešienė, A., & Zolubienė, E. (2021). Topic modelling the news media representation of climate change. *Environmental Sociology*, 7(3), 214-224.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
- Sinha, R. N., & Watters, F. L. (1985). *Insect pests of flour mills, grain elevators, and feed mills and their control*. Agriculture Canada.
- Sivamoorthy, M., Nalini, R., & Kumar, C. S. (2013). Environmental awareness and practices among college students. *International Journal of Humanities and Social Science Invention*, 2(8), 11-15.
- Iwan, Sumitro, S. B., Ibrohim, & Rohman, F. (2023). *Environmental care attitude analysis of prospective biology teachers* (EJ1386841). ERIC. <https://eric.ed.gov/?id=EJ1386841>
- Xie, L. (2015). The story of two big chimneys: A frame analysis of climate change in US and Chinese newspapers. *Journal of Intercultural Communication Research*, 44(2), 151-177.

## **BIOGRAPHICAL NOTES**

### **Contribution Rate of Researchers**

Author 1: 33%

Author 2: 33%

Author 3: 33%

### **Conflict Statement**

There is no conflict of interest that the authors will declare in the research.

# Sosyal Bilgiler Öğretmen Adaylarının Tüketici Çevre Bilinci Algılarının İncelenmesi: Karma Yöntem Araştırması



## Özet

Araştırmanın amacı sosyal bilgiler öğretmen adaylarının küresel iklim değişikliği farkındalıklarını incelemek ve konuya yönelik görüşlerini tespit etmektir. Bu nedenle araştırma karma araştırma yöntemlerinden açıklayıcı ardışık desen kullanılarak yürütülmüştür. Katılımcıların belirlenmesinde kolay ulaşılabilir örnekleme yöntemi kullanılmıştır. Buna göre, 357 sosyal bilgiler öğretmen adayından nicel veri toplanmış, nicel veriler analiz edildikten sonra aynı grubun içinden farkındalık düzeyi yüksek çıkan adaylardan 20 kişi gönüllük esasına göre seçilerek görüşme yapılmıştır. Bu kapsamda veri toplama aracı olarak “Küresel İklim Değişikliği Farkındalık Ölçeği”, “Yarı Yapılandırılmış Görüşme Formu” ve “Kişisel Bilgi Formu” kullanılmıştır. Nicel veriler betimsel istatistik yöntemleriyle nitel veriler ise içerik analiziyle çözümlenmiş ve toplanan veriler birleştirilerek yorumlanmıştır. Araştırma sonucunda sosyal bilgiler öğretmen adaylarının küresel iklim değişikliği farkındalıklarının yüksek düzeyde olduğu tespit edilmiştir. Sosyal bilgiler öğretmen adaylarının küresel iklim değişikliği farkındalık düzeylerinin cinsiyet, sınıf, çevre eğitimi ile ilgili ders alma ve çevre koruma amaçlı kuruluşlara üye olma değişkenlerinde istatistiksel olarak anlamlı bir fark olmadığı belirlenirken küresel iklim değişikliği farkındalık düzeyleri ile çevre konulu görsel yayınları takip etme değişkeni arasında istatistiksel olarak anlamlı bir farklılık olduğu sonucuna ulaşılmıştır. Araştırmanın nitel bulgularından elde edilen sonuçların nicel bulgulardan elde edilen sonuçlarla benzerlik gösterdiği belirlenmiştir.

**Anahtar Kelimeler:** Tüketici çevre bilinci, algı, sosyal bilgiler, öğretmen adayı.

## Giriş

İnsanoğlunun bitmek bilmeyen tüketim hırsı, her iki çevre türünde de “çevre sorunları” olarak dile getirilen bir dizi problemle karşılaşılmasına yol açmıştır. Öyle ki çevre sorunları dendiğinde “insanların zamanla geliştirdiği yapay ortamların doğal çevre üzerine baskılarıyla yapay çevrede bulunan sorunlar ve her iki çevrede de görülen olumsuzluklar” (Özer, 1974) akla gelmektedir. Ortaya çıkan çevre sorunlarının giderilmesinde ise bireylerin çevre bilinç ve duyarlılıklarının artırılmasının (Gordon-Wilson ve Modi, 2015) ve çevre dostu davranışlar benimsemelerinin önemli olduğu alan yazında dile getirilmektedir (Coelho vd., 2017; Demirbaş & Pektaş, 2009). Çevreye yönelik tutum ve davranış değişikliğiyle yaşanan problemlerin giderilebileceği (Sinha ve Watters, 1985) görüşünden hareketle, bireylerin çevreye karşı sorumlu, tüketim bilincine sahip davranışlar sergilemelerinin ve konu ile ilgili eğitilmelerinin büyük önem taşıdığı ifade edilmektedir (Çelik vd., 2016). İlgili alan yazın incelendiğinde de benzer bir şekilde eğitimin, çevre bilincinin oluşmasında önemli rol oynadığı (Gül ve Özay-Köse, 2015) ve çevreye yönelik duyarlı davranışlar sergilemede etkili olduğu (Fernandez-Manzanal vd., 2007) belirtilmiştir. Bu aşamada dikkatlerden kaçırılmaması gereken hususlardan bir diğeri ise eğitim ile tüketici davranışları arasındaki ilişkidir. Her ne kadar tüketim dendiğinde insanların ihtiyaçlarını ve isteklerini karşılamak için mevcut kaynakları kullanma eylemi akla gelse bile sonuçları itibarıyla tüketimin sadece ekonomik değil

aynı zamanda sosyal, kültürel ve fiziksel unsurları da içermesi (Aksu, 2014) onun eğitim kapsamında ele alınmasını da gerekli kılmaktadır.

Tüketicilerin çevreye karşı olumlu davranışlar sergilemelerinin ön şartının çevreye yönelik olumlu algılara sahip olmaları olduğunu ifade eden Cordes ve Miller (2000), verilecek olan eğitimin erken yaşlarda başlatılması gerektiğini dile getirmişlerdir. Gerçekleştirilecek olan eğitimle öğrencilerin doğayı koruma, çevreye yönelik olumlu tutum, değer, beceri ve algılara sahip olma (Ardoin vd., 2020; Carleton-Hug ve Hug, 2010), çevreye yönelik farkındalık kazanmalarının yanı sıra, çevreye değer veren birer vatandaş olmaları da amaçlanmaktadır. Bu amaçlara ulaşılması aşamasında çevre eğitimi, dünya genelinde okullarda özellikle vatandaşlık, fen bilgisi ve sosyal bilgiler gibi derslerin içeriğinde verilirken (Carleton-Hug ve Hug, 2010) Türkiye’de ise ilköğretim, ortaöğretim ve lise ders programlarında hayat bilgisi, sosyal bilgiler, fen bilgisi, coğrafya, biyoloji, sağlık bilgisi ve kimya derslerinde çeşitli kazanımlar aracılığıyla öğrencilerde yapılandırılmaya çalışılmaktadır (Demir & Yalçın, 2014). Bu dersler içerisinde sosyal bilgiler derslerini öne çıkaran husus ise onun vatandaş yetiştirme konusunda yüklediği misyondur (Kırıkçı, 2013). Bu özel amaçtan da anlaşılacağı üzere sosyal bilgiler dersi ile öğrencilerin tüketici çevre bilincine sahip vatandaşlar olmaları da hedeflenmektedir. Bu aşamada rehber ve rol-model konumunda bulunan sosyal bilgiler öğretmenlerinin, öğrencilerinin tüketici çevre bilinci algı düzeylerine etkide bulunacağı ise göz ardı edilemez bir durumdur.

Sosyal bilgiler öğretmen adaylarının konu ile ilgili algı düzeylerinin belirlenmesi ise onlara verilen lisans eğitiminin değerlendirilmesi ve ortaya çıkan aksaklıkların giderilmesi açısından önemlidir. Ancak alan yazında öğretmen adaylarının çevre bilinçleri (Akçay ve Pekel, 2017; Diken ve Çıbık, 2009; Dolenc-Orbanic ve Kovac, 2021; Ergin, 2019) ile çevre sorumluluğuna bağlı tüketim bilinçlerini ölçme amaçlı yapılan çalışmalar (Bhatia ve Jain, 2017; Gül ve Özay-Köse, 2015; Ichsan vd., 2018; Karademir, 2016) bulunmasına rağmen doğrudan sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algılarının ve konuya ilişkin görüşlerinin ele alındığı herhangi bir çalışmaya rastlanılmamıştır. Çalışmanın bu yönüyle alan yazına katkı sağlayacağı düşünülmektedir. Araştırmanın alt problemleri şu şekildedir:

1. Sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algıları ne düzeydedir?
2. Sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algı düzeyleri; cinsiyet, sınıf, çevre eğitimi dersi alıp almama, çevre konulu görsel ve basılı yayınları takip edip etmeme, çevre konulu etkinliklere katılıp katılmama ve çevreyi korumaya yönelik sivil toplum kuruluşlarına üye olup olmama değişkenlerine göre anlamlı farklılık göstermekte midir?
3. Sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algı düzeyleri ile tüketici çevre bilincine yönelik görüşleri birbirini desteklemekte midir?

## **Yöntem**

Araştırmada bir karma yöntem deseni olan birleştirme deseni kullanılmıştır. Birleştirme deseni, nicel ve nitel araştırma verilerinin analizinden elde edilen sonuçların birleştirilmesi olarak tanımlanmaktadır. Bu bağlamda, nicel sonuçlar genel eğilimleri nitel sonuçlar ise bireylerin kişisel görüşlerini ortaya koymaktadır (Creswell, 2021). Nitel ve nicel



kısımlar için farklı örnekleme yöntemleriyle farklı çalışma grupları kullanılmıştır. Nicel bölümde, seçkisiz olmayan örnekleme türlerinden uygun örnekleme yöntemi kullanılmıştır. Bu örnekleme türü araştırmacılara örnekleme ulaşma noktasında kolaylık sağlayan bir tür olarak ifade edilebilir. Niğde Ömer Halisdemir, Nevşehir Hacı Bektaş Veli ve Konya Necmettin Erbakan Üniversiteleri, Eğitim Fakülteleri, Türkçe ve Sosyal Bilimler Eğitimi Bölümü, Sosyal Bilimler Eğitimi Ana Bilim Dalı'nda 1, 2, 3 ve 4. sınıflarda öğrenim gören 357 öğretmen adayı araştırmanın nicel kısmının çalışma grubunu oluşturmaktadır. Araştırmanın nitel kısmında ise Niğde Ömer Halisdemir Üniversitesi Eğitim Fakültesi Türkçe ve Sosyal Bilimler Eğitimi Bölümü, Sosyal Bilimler Eğitimi Ana Bilim Dalı'nda 1, 2, 3 ve 4. sınıflarda öğrenim gören 20 öğretmen adayı amaçlı örnekleme yöntemlerinden kolay ulaşılabilir durum örnekleme yoluyla çalışma grubu olarak belirlenmiştir.

Bu çalışmada Dikmenli ve Konca (2016) tarafından geliştirilen "Tüketici Çevre Bilinci Algı Ölçeği", araştırmacılar tarafından geliştirilen "Yarı Yapılandırılmış Görüşme Formu" ve ilgili alan yazın incelenerek oluşturulmuş "Kişisel Bilgi Formu" veri toplama araçları olarak kullanılmıştır. Nicel verilerin analizinde SPSS 21 ile AMOS 24 paket programları kullanılmıştır. Kullanılan ölçekten uç değerlerin silinmesinin ardından dağılım normalliğinin belirlenmesi için Skewness ve Kurtosis değerlerine bakılmıştır. Kişisel Bilgi Formu'ndan ve Tüketici Çevre Bilinci Algı Ölçeği'nden elde edilen verilerin Skewness ile Kurtosis değerleri incelenmiş ve değerlerin -1.5/+1.5 aralığında olduğu saptanmıştır. Skewness ve Kurtosis değerlerinin -1.5/+1.5 aralığında olması normal dağılım gösterdiği anlamına gelmektedir (Fidell vd., 2013). Bu durumda parametrik testlerden bağımsız gruplar t-testi ve tek yönlü varyans analizi [ANOVA] testlerinden yararlanılmaktadır. Nitel verilerin çözümlenmesinde ise içerik analizi yöntemi kullanılmıştır. İçerik analizi, insan davranışlarını ve doğasını belirlemek amacıyla çıkarımlarda bulunmaya yarayan sistematik bir teknik olarak ifade edilmektedir (Boyraz & Tepe, 2019). Yapılan içerik analizi doğrultusunda kod ve kategoriler oluşturulmuştur.

### **Araştırmanın Etik İzinleri:**

Bu çalışmada "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması gerektiği belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerin hiçbiri gerçekleştirilmemiştir.

### **Etik Kurul İzin Bilgileri:**

Etik değerlendirmeyi yapan kurulun adı = Niğde Ömer Halisdemir Üniversitesi Etik Kurulu

Etik kurul etik inceleme karar tarihi= 23.11.2022

Etik değerlendirme belgesi konu numarası= 2022/13-43

### **Bulgular**

Sosyal bilgiler öğretmen adaylarının Tüketici Çevre Bilinci Algı Ölçeği'nden elde edilen toplam puan ortalamasının yüksek düzeyde olduğu belirlenmiştir. Kişisel Bilgi Formu'nda yer alan değişkenlere göre ele alındığında ise, sosyal bilgiler öğretmen adaylarının tüketici çevre

bilinci algı düzeyleri ile cinsiyet, sınıf, çevre dersi alma değişkenleri arasında istatistiksel olarak anlamlı bir farklılık tespit edilmemiştir. Çevre ile ilgili görsel, basılı yayınları takip etme ve çevre konulu etkinliklere katılma değişkenlerinde ise istatistiksel olarak anlamlı bir farklılık olduğu bulgularına ulaşılmıştır.

Araştırmanın nitel bölümünde, 5 ayrı tema çerçevesinde farklı kategori ve kodlara ulaşılmıştır. Katılımcıların çevreye zarar veren bireyler gördüklerinde verecekleri tepkilere ilişkin görüşlerinin “Tepki” kategorisinde çoğunlukla yalnızca sözel uyarı ile sınırlı olduğu belirlenmiştir. “Çevre bilinci” kategorisinde katılımcıların yapmış oldukları tüketimlerin çevreye zarar verip vermeme davranışının “çevreyi kirletmeme” ile sınırlı kaldığı görülmektedir. “Marka bilinirliği” kategorisinde katılımcıların tükettikleri ürünlerin güncel ve bilinir marka/ürün olmasının tüketim alışkanlıklarına etkilerine ilişkin görüşlerinin olumlu yönde olduğu saptanmıştır. “Sosyal çevreden etkilenme” kategorisinde katılımcıların başkalarının görüşlerinin tüketim alışkanlıklarını etkileyip etkilemediğine ilişkin görüşlerinin olumlu ve olumsuz anlamda hemen hemen eşit olduğu belirlenmiştir. “Öz farkındalık” kategorisinde ise katılımcıların çoğunlukla tüketici çevre bilinci konusunda öz farkındalığa sahip olduğu saptanmıştır.

Nicel ve nitel verilerin çözümlenmesinin ardından elde edilen bulgular birleştirilmiştir. Buna göre, sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algı ortalamasının yüksek düzeyde olduğu araştırmanın nicel bulguları ile elde edilmiştir. Araştırmanın nitel kısmında ise yapılan görüşmeler neticesinde sosyal bilgiler öğretmen adaylarının cinsiyet ve sınıf düzeyi gözetmeksizin çevresel farkındalıklarına yönelik olumlu görüşlere sahip oldukları bulgusuna ulaşılmıştır. Nitel bulguların analizi sonucunda katılımcıların çoğunlukla bilinçsiz tüketici olarak tanımlanan bireylere karşı tepki gösterme davranışında bulunacağını ifade etmesi ve kendilerini bilinçli tüketici olarak tanımlama şekillerinin nicel bulgularla bütünleştiği görülmektedir.

## **Tartışma ve Sonuç**

Sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algılarının istatistiksel olarak yüksek düzeyde olduğu sonucuna ulaşılmıştır. İlgili alan yazında sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algılarını tespit etmeye yönelik herhangi bir çalışmaya rastlanmamıştır. Ancak konu ile ilişkili olarak öğretmen adaylarının çevre okuryazarlığı düzeylerini ve çevresel duyarlılıklarını tespit etmek amacıyla yapılan çalışmaların alan yazında var olduğu görülmektedir. Bu araştırmalarda da (Artun, 2013; Daniel vd., 2022; Dolenc-Orbanic ve Kovac, 2021; Durmuş ve Kınacı, 2021; Ergin, 2019; Sumitro ve Rohman, 2023) öğretmen adaylarının çevre okuryazarlık düzeylerinin yüksek seviyede olduğu belirlenmiştir. Katılımcılarla yapılan görüşmeler sonucunda da nicel bulgulara benzer şekilde öğretmen adaylarının genellikle tüketici çevre bilincine sahip olduklarına yönelik görüşleri olduğu sonucuna ulaşılmıştır. Özellikle katılımcıların çevreye zarar veren vatandaşlara tepki göstereceğini ifade etmesi ve çevre bilinci konusunda yapmış oldukları öz eleştiri de çevre bilincine sahip olduklarını gösterir niteliktedir. Öğretmen adaylarının çevreyi koruma ve kirletmeme yönünde ifade ettikleri davranışların da onların çevre bilinci konusunda öz farkındalığa sahip olduğunun farklı bir göstergesi olduğu düşünülmektedir.

İlgili alan yazında sosyal bilgiler öğretmen adaylarının çevreye yönelik görüşlerini ele alan çalışmaların olduğu görülmektedir (Bülbül & Yılmaz, 2019; Meral vd., 2016). Gerçekleştirilen bu araştırmalardan elde edilen sonuçlara göre sosyal bilgiler öğretmen adayları genel anlamda çevre merkezli düşünme eğilimine sahip olsalar da sınıf seviyesine göre bu düşünme eğiliminin farklılaştığı belirlenmiştir. Araştırmacılar tarafından toplumun çevre konusunda bilinçlendirilmesinin çoğunlukla televizyon, radyo, cep telefonu, bilgisayar gibi kitle iletişim araçları aracılığıyla sağlandığı belirlenmiştir. Alan yazın incelemesi sonucunda elde edilen bulguların bu araştırmada sosyal bilgiler öğretmen adaylarının ifade ettikleri görüşlerle benzerlik gösterdiği ve birbirlerini desteklediği dile getirilebilir (Xie, 2015).

Sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algı düzeylerinin cinsiyet ve sınıf değişkenlerine göre anlamlı farklılık göstermediği sonucuna ulaşılmıştır. Katılımcılar ile yapılan görüşmelerde katılımcıların öğrenim gördükleri sınıf düzeyinin ve cinsiyetlerinin çevre bilincine yönelik görüşlerinde bir farklılık oluşturmadığı görülmektedir. Bu durum nicel bulgulardan elde edilen sonucu da destekler niteliktedir. Bununla birlikte bu araştırmadan farklı olarak çeşitli araştırmalarda kız öğrencilerin çevresel farkındalık düzeylerinin erkek öğrencilerden daha yüksek olduğu tespit edilmiştir (Diken & Çıbık, 2009; Noordin & Sulaiman, 2010; Sivamoorthy vd., 2013).

Araştırmadan elde edilen diğer bir sonuç, çevre içerikli ders almalarının sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algı düzeylerinde anlamlı bir fark oluşturmadığıdır. Elde edilen bu sonucun, tüketici çevre bilinci farkındalığının daha çok duyuşsal davranışın bir göstergesi olmasıyla ilgili olduğu ifade edilebilir. Katılımcılarla gerçekleştirilen görüşmelerde onların tüketici çevre bilinci konusunda eğitimle ilgili görüş bildirmemelerinin, elde edilen nicel sonucun bir göstergesi olduğu dile getirilebilir. Ancak ilgili alan yazında (Elliott vd., 2020; Karrow vd., 2022; McGregor vd., 2022) öğretmen adaylarına verilmiş olan çevre içerikli derslerin çevre bilincine katkı sağladığı ifade edilmektedir.

Çevre konulu basılı veya görsel yayınları takip eden sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algı düzeyinin bu yayınları takip etmeyen öğretmen adaylarına göre istatistiksel olarak anlamlı bir şekilde yüksek olduğu belirlenmiştir. Nitel bulgularda da katılımcıların marka bilinirliği yüksek ürünler tercih ettiğini ifade etmesinin de sosyal bilgiler öğretmen adaylarının tüketici çevre bilinci algılarında basılı ve görsel yayınları takip edenlerin lehine anlamlı bir farkın olması ile ilişkili olduğu düşünülmektedir. İlgili alan yazın da (León vd., 2022; Rabitz vd., 2021; Xie, 2015;) bu sonucu desteklemektedir.

Araştırma sonucunda çevre ile ilgili düzenlenen etkinliklere katılan öğretmen adaylarının çevre bilinci algılarının anlamlı düzeyde yüksek olduğu tespit edilmiştir. Katılımcılarla yapılan görüşmelerde de öğretmen adaylarının birçoğunun içinde bulunduğu sosyal çevrenin görüşlerinden etkilendiklerini ifade ettiği görülmektedir. Dolayısıyla sosyal çevre ile yapılan çevre temalı etkinliklerin katılımcıların tüketici çevre bilinci algılarının oluşmasında etkili olduğu düşünülmektedir.

## **Öneriler**

Araştırma bulgularından elde edilen sonuçlara göre;

Sosyal bilgiler öğretmenliği lisans programında çeşitli ders içeriklerinde çevre konulu görsellere ve haberlere daha çok yer verilmesi,

Sosyal bilgiler öğretmen adaylarına tüketici çevre bilinci oluşturmaya yönelik çevre konulu çeşitli etkinlikler yapılması,

Sosyal bilgiler öğretmen adaylarının tüketici çevre bilinç düzeylerinin hangi yöntemlerle daha yüksek seviyeye getirilebileceğine ilişkin eylem araştırması veya deneysel yöntemler kullanılarak araştırmalar yapılması,

Farklı öğretmenlik branşlarında da çalışmalar yapılması ve tüketici çevre bilincinin düşük olduğu gruplara yönelik uygulamaların yapılması önerilmektedir.