

Exploring The Relationship Between Ecological and Critical Literacy Levels of Preservice English Language Teachers

İngilizce Öğretmeni Adaylarının Ekolojik ve Eleştirel Okuryazarlık Düzeyleri Arasındaki İlişkinin Araştırılması

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ABSTRACT

In the globalized world, numerous skills are needed for 21st-century language teachers, ranging from digital literacy to ecological literacy and critical literacy. This study investigated the relationship between preservice ELT teachers' ecological and critical literacy skills. The study adopted the quantitative survey method to accomplish this aim. The analyses showed that a slight correlation existed between preservice ELT teachers' ecological and critical literacy skills. The role of gender, age, and academic success (GPA) in the preservice ELT teachers' ecological and critical literacy skills was the second focus of the current study. The results revealed that there was a significant difference between female and male participants in favour of the female participants in terms of ecological literacy. As for the other variables, the results showed that there was no connection among these literacy types, and these variables did not play a crucial role in the participants' ecological and critical literacy skills.

Keywords: Ecological literacy, critical literacy, age, gender.

ÖZ

Küreselleşen dünyada, 21. yüzyıl dil öğretmenlerinin ihtiyaç duyduğu dijital okuryazarlıktan, ekolojik okuryazarlığa ve eleştirel okuryazarlığa kadar çok sayıda beceri bulunmaktadır. Bu çalışma, İngilizce öğretmen adaylarının ekolojik okuryazarlığı ile eleştirel okuryazarlık becerileri arasındaki ilişkiyi araştırmayı amaçlamıştır. Bu amacı gerçekleştirmek için çalışmada nicel araştırma yöntemi benimsenmiştir. Analizler, İngilizce öğretmen adaylarının ekolojik ve eleştirel okuryazarlık becerileri arasında hafif bir korelasyon olduğunu göstermiştir. Hizmet öncesi İngilizce öğretmeni adaylarının ekolojik ve eleştirel okuryazarlık becerilerinde cinsiyet, yaş ve akademik başarının (GPA) rolü bu çalışmanın ikinci odak noktası olmuştur. Sonuçlar, ekolojik okuryazarlık açısından kadın ve erkek katılımcılar arasında kadın katılımcılar lehine anlamlı bir fark olduğunu ortaya çıkarmıştır. Diğer değişkenlere gelince, sonuçlar bu okuryazarlık türleri arasında bir bağlantı olmadığını ve bu değişkenlerin katılımcıların ekolojik ve eleştirel okuryazarlık becerilerinde çok önemli bir rol oynamadığını göstermiştir.

Anahtar kelimeler: Ekolojik okuryazarlık, eleştirel okuryazarlık, yaş, cinsiyet.

INTRODUCTION

Global problems that we choose to ignore today might become irreversible in the near future. These global problems mainly result from human actions since, especially after the Industrial Revolution, there has been an ongoing conflict between humans and nature. People's desire to make profits from natural sources has triggered the exploitation of nature, causing the depletion of the environment and environmental resources. As humanity, we need to adopt a sustainable life so that we can stop harming nature with our actions because a sustainable society, as Orr (1992) suggests, "does not undermine the resource base and biotic stocks on which its future prosperity depends" (p. 11). Creating a sustainable society is only possible when we manage to enhance the ecological literacy skills of individuals through education. Ecological literacy refers to "the ability to use ecological understanding, thinking and habits of mind for living in, enjoying, and/or studying the environment" (Berkowitz et al., 2005, p. 228). That is, when we promote ecological literacy in society, people will be able to live in harmony with nature and avoid harming it, preventing us from compromising future generations' lives. Orr (1992) highlights that ecologically literate people and societies understand their relationship with each other and systems in nature, as well as how the sustainability of this relationship can be ensured. In other words, ecological literacy is deeply related to understanding how the world works and the dynamics of environmental catastrophe, thus knowing how to save and sustain the environment (Capra, 1996). We may not learn anything about human values or weaknesses from ecosystems. However, we can learn how to live sustainably because ecosystems have evolved to organize themselves naturally over millions of years to maximize sustainability. Therefore, ecological literacy is an essential skill that can help us survive together with nature. However, ecological literacy is not a simple skill that can be easily acquired. It is a skill that requires questioning the consequences of one's actions on the environment. Coyle (2005) suggests that ecological literacy starts with environmental awareness, where the person starts to have a basic understanding of environmental issues; continues with personal conduct knowledge, where the person shows actions to protect nature; then finally becomes true ecological literacy, where the person acquires environmental values, principles, and thinking based on environmental knowledge to take action. As a result, critical thinking is an essential aspect of reaching true ecological literacy.

Critical literacy is another skill that we need to possess in the 21st century. Critical literacy engages in ongoing dialogue with a text by raising questions that help us see past its obvious interpretations and understand how it affects and influences us (Lohrey, 1998). Therefore, readers can read beneath, behind, and beyond texts when they use a critical literacy approach to reading (Kurt Taşpınar & Çubukçu, 2020). According to Jones (2006), "Critical literacy is like a pair of eyeglasses that allow one to see beyond the familiar and comfortable; it is an understanding that language practices and texts are always informed by ideological beliefs and perspectives whether conscious or otherwise" (p. 67). Thus, critical literacy enables us to ask "the who, what, why and how" while reading so that we can comprehend the politics of the text (Lohrey, 1998, p. 9). Every text is written with a purpose and gives its reader a message. Readers who possess critical literacy skills should be able to see the purpose of the text so they are not manipulated. As a result, we can state that ecological and critical literacy are related skills because they both demand us to see beyond what is presented. Moreover, they are both essential skills to possess in the 21st century.

Critical literacy is known to have various tenets that can sustain individuals' learning and questioning processes not only in the curriculum but also across and over the curriculum. From the critical literacy perspective, the world is considered socially constructed, encompassing the answers to questions such as what counts as language, whose language counts, and who decides, as well as exploring ways texts can be revised, rewritten, or reconstructed to shift or reframe the messages conveyed (Vasquez, 2014; Vasquez & Felderman, 2012). Moreover, critical literacy is concerned with comprehending the sociopolitical systems through which we live our lives and questioning these systems. This means that people employ critical literacy to work on social

issues, including inequities of race, class, gender, disability, and the ways in which language is utilized to show how such linguistic and semiotic expressions are used to shape our understanding of these issues. Those who can use critical literacy successfully can easily have transformative ideas and practices, and they are prepared to make informed decisions, engage in the thinking of both sides of the issue, and implement their righteous ideas efficiently. In short, critical literacy enables people "to question, explore, or challenge the power relationships that exist between authors and readers. It examines issues of power and promotes reflection, transformative change, and action" (Norris et al., 2012,p.59).

Lewison et al. (2002) thoroughly analyzed recent literature that focused on critical literacy and found several common dimensions. They suggest that critical literacy can:

- "Disrupt a common situation or understanding—where students can gain perspective by understanding the text or situation in a different way.
- Examine multiple viewpoints—where students are encouraged to think about texts from the perspectives of different characters or from those not represented in the text.
- Focus on sociopolitical issues—where students examine power relationships between and among individuals.
- Take action and promote social justice—invite students to determine a course of action to bring about change in an inappropriate, unequal power relationship between people" (Norris et al., 2012, p.59).

Some studies related to ecological and critical literacy exist in the literature. Erol and Gezer (2006) investigated university students' views regarding environmental issues. The findings suggested that the participants could have been more environmentally conscious. The results also demonstrated that age was a significant factor in determining attitude towards the environment. Goldman et al. (2006) evaluated the environmental behaviours of first-year students from three different teacher training colleges and investigated the relationship between their environmental behaviours and backgrounds. The results suggested, and their behaviours corroborated, that the newcomer students possessed a poor degree of ecological literacy. Additionally, compared to individuals who grew up in rural regions, the participants from urban settings had a lower degree of environmental behaviours. Padmanabhan and Rao (2008) examined the environmental knowledge and attitudes of a group of secondary school teachers. The findings revealed that many secondary school teachers had a basic understanding of environmental problems and challenges. Moreover, there was a relationship between environmental awareness and environmental attitude. Finally, the findings showed that gender did not significantly affect environmental awareness and attitude. Erkiş (2019) conducted a mixed methods study to assess secondary school students' environmental attitudes and literacy. They concluded that there were significant differences in the participants' environmental literacy levels and environmental attitudes based on their academic success. Uyar and Temiz (2019) examined classroom teachers' ecological literacy level with regard to a number of characteristics. The findings of the survey study revealed that the participants possessed a high degree of ecological literacy. However, there were not any significant differences among the participants regarding variables like gender, school location, and sources of environmental information. Hastürk (2022) conducted a correlational study to examine the relationship between preservice teachers' ecological literacy and ecological identities. The data collected from 135 preservice teachers indicated that a significant relationship existed between the preservice teachers' ecological identities and environmental literacy. Şengül (2023) evaluated middle school students' ecological literacy levels. According to the findings, the participants' ecological literacy was relatively high. Moreover, female students' ecological literacy levels were higher than male students' ecological literacy skills. The findings also revealed that participants from urban regions had higher levels of ecological literacy than those from rural areas. In another study, Karademir and Uluçınar (2017) examined the relationship between critical reading skills, science literacy skills and attitudes of secondary school students.

The study concluded that a strong and positive relationship existed between the participants' critical reading skills, science literacy skills and attitudes toward science. Çiftçi (2019) also carried out a study to investigate university students' critical literacy skills on the internet in terms of gender and age variables. The results indicated that there were not any significant differences in the participants' critical literacy skills based on gender and age. However, in a study conducted by Karaman (2016), the results showed that there was a positive correlation between the media literacy levels of preservice teachers and their critical literacy skills. The study also revealed that male participants exhibited significantly higher media and critical literacy skills compared to female participants. Semerci and Semerci (2017) examined the relationship between teacher candidates' media literacy skills and their critical literacy levels. The findings demonstrated that there were not any statistically significant differences between media literacy and critical literacy with respect to gender. Finally, after conducting a study on the effect of scientific teaching materials on students' critical thinking skills, Ramdani and colleagues (2021) found that male students demonstrated higher levels of critical thinking proficiency compared to female students.

Based on the existing body of literature, there is a wealth of research focusing on the development of ecological literacy and critical literacy skills. However, it is difficult to find an adequate number of studies that investigate the relationship between ecological and critical literacy skills. Therefore, the focus of this study was centred on understanding if there was a relationship between these two skills among preservice ELT students and the effect of some variables. The following research questions were formulated to reach the aim of the study.

1. What are preservice teachers' critical and ecological literacy levels?
2. Is there a relationship between preservice teachers' critical and ecological literacy levels?
3. Do gender and age play a role in preservice teachers' critical and ecological literacy levels?
4. Is there a difference in preservice teachers' critical and ecological literacy levels in terms of GPA?

METHODOLOGY

2.1. Research Design

This study was designed as a quantitative survey research. Two different scales were used in the data collection process. The first scale, 'Environmental Literacy Scale for Adults', was administered to gain insight into the ecological literacy skills of the participants, while the 'Critical Literacy Scale' was administered to see the critical literacy levels of the participants.

2.2. Participants

The participants of this study were preservice ELT teachers who enrolled in a public university. In total, 86 students volunteered to participate in this study. The demographic information about the participants is presented in Table 1.

Table 1*The Demographic Information about the Participants*

		N	%
Gender	female	49	57.0
	male	37	43.0
	Total	86	100.0
Age	18	5	5.8
	19	43	50.0
	20	26	30.2
	21	7	8.1
	22	5	5.8
	Total	86	100.0
GPA	0-1.99	4	4.7
	2.00-2.50	13	15.1
	2.51-3.00	31	36.0
	3.00+	38	44.2
	Total	86	100.0

2.3. Data Collection Tools and Procedure

The data was collected through the 'Environmental Literacy Scale for Adults', which was developed by Atabek-Yiğit et al. (2014) and the 'Critical Literacy Scale', which was developed by Yılmaz (2013). Although the first scale was used without any changes, some modifications in the 'Critical Literacy Scale' had to be done to fit the study's aim. After the necessary modifications, the ethics committee's approval was taken to carry out the study. Later, the data collection process was initiated. Therefore, the scales were given to the participants. The purpose of the study was explained to the participants prior to administering the questionnaires. Moreover, it was emphasized that their participation was voluntary and that the information they submitted would be kept confidential. Consent forms were taken from those who volunteered to participate in the study. In the end, 86 preservice ELT students agreed to act as participants.

2.4. Data Analysis

The study was structured as a quantitative survey research, and as a result, various quantitative data analysis methods were employed to analyze the data collected. First of all, the reliability scores were found for each scale. The Cronbach's Alpha value for the 'Environmental Literacy Scale for Adults' was found to be .77, while the value was .76 for the 'Critical Literacy Scale'. Descriptive statistics were obtained to gather information about the participants' demographics. In the study, Pearson's correlation coefficient was employed to analyze the degree of the relationship between the preservice ELT teachers' ecological literacy and their critical literacy skills. Furthermore, independent sample t-tests were implemented to compare the mean scores of ecological and critical literacy skills between male and female participants in order to identify any statistically significant differences based on gender. Finally, analysis of variance (ANOVA) tests were performed to examine the differences in age and GPA among the study participants.

FINDINGS

The primary purpose of the current study was to demonstrate the relationships between the ecological and critical literacy levels of preservice ELT teachers and examine these skills in terms of different variables. The data for the study was collected using the 'Environmental Literacy Scale for Adults' (Atabek-Yiğit et al., 2014) and the 'Critical Literacy Scale' (Yılmaz, 2013), which are compatible with this study. In this section, the findings of the study were presented.

Table 2

Pearson Correlation Test Results for Ecological Literacy and Critical Literacy

		Ecological literacy	Critical literacy
Ecological Literacy Levels	Pearson Correlation	1	.36**
	Sig. (2-tailed)		.00
	N	86	86
Critical Literacy Levels	Pearson Correlation	.36**	1
	Sig. (2-tailed)	.00	
	N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

Firstly, the results in terms of the relationship between the preservice teachers' ecological literacy and critical literacy level were obtained. As shown in Table 2, when the preservice teachers' ecological literacy and critical literacy levels were compared, a slight correlation was found (.36); however, it was considered significant (.00).

Table 3

Independent Samples T-Test Results for the Ecological Literacy Levels in Terms of Gender

	Gender	N	Mean	Std. Deviation	Sig.
Ecological Literacy Levels	female	49	77.10	7.80	.01
	male	37	72.83	7.69	

As to whether there was a significant difference in the preservice teachers' ecological literacy levels in terms of gender, the independent samples t-test results in Table 3 demonstrated that there was a statistically significant difference between the ecological literacy levels of female and male preservice teachers ($P = .01$).

Table 4

Independent Samples T-Test Results for the Critical Literacy Levels in Terms of Gender

	Gender	N	Mean	Std. Deviation	Sig.
Critical Literacy Levels	female	49	55.89	6.17	.18
	male	37	54.13	5.74	

Table 4 shows the independent samples t-test results of the preservice teachers' critical literacy levels in terms of gender. As shown in the table, the difference was not significant between the critical literacy levels of female and male preservice teachers ($P = .18$).

Table 5*ANOVA Result for the Ecological Literacy Levels in Terms of Age*

		Sum of Squares	df	Mean Square	F	Sig.
Ecological Literacy Levels	Between Groups	28.37	29	.97	1.17	.29
	Within Groups	46.53	56	.83		
	Total	74.93	85			

The ANOVA results for the ecological literacy levels in terms of age groups are presented in Table 5. The analysis revealed that the significance degree was .29, indicating that there was no significant difference among the age groups of preservice teachers in terms of ecological literacy levels.

Table 6*ANOVA Result for the Critical Literacy Levels in Terms of Age*

		Sum of Squares	df	Mean Square	F	Sig.
Critical Literacy Levels	Between Groups	20.57	25	.82	.90	.59
	Within Groups	54.35	60	.90		
	Total	74.93	85			

Table 6 presents the ANOVA result for the critical literacy levels in terms of age. As shown in the table, there was no statistically significant difference in the critical literacy level of the preservice teachers in terms of age.

Table 7*ANOVA Result for the Ecological Literacy Levels in Terms of GPA*

		Sum of Squares	df	Mean Square	F	Sig.
Ecological Literacy Levels	Between Groups	18.65	29	.64	.80	.73
	Within Groups	44.98	56	.80		
	Total	63.64	85			

The results of the ANOVA for the ecological literacy levels in relation to grade point average (GPA) are presented in Table 7. The findings from the analysis suggest that there were not any significant relationships between GPA and the ecological literacy levels of the preservice teachers.

Table 8*ANOVA Result for the Critical Literacy Levels in Terms of GPA*

		Sum of Squares	df	Mean Square	F	Sig.
Critical Literacy Levels	Between Groups	22.69	25	.90	1.33	.18
	Within Groups	40.94	60	.68		
	Total	63.64	85			

When the influence of GPA on critical literacy levels was considered, the results indicated that there were not any significant relationships between GPA and the critical literacy levels of the preservice teachers, as illustrated in Table 8.

DISCUSSION AND CONCLUSION

The purpose of this quantitative survey study was to investigate the relationship between preservice ELT teachers' ecological literacy and critical literacy skills with regard to some variables. The data for the study was collected through two scales, which were designed to assess the participants' ecological literacy and critical literacy skills. The results of the study revealed some valuable results for English language teaching, preservice teacher education, ecological literacy and critical literacy education within the scope of language education.

First of all, the results of the study demonstrated that there was a slight but statistically significant relationship between the ecological literacy and critical literacy skills of the preservice ELT teachers, which is a comparable result with the results of some other studies from the literature. In a similar vein to the present study, Hastürk (2022) also found a relationship between the ecological literacy skills of preservice teachers and their ecological identities, which indicates ecological literacy is a skill that can be associated with other skills. In this sense, it can be concluded that Hastürk's study and the current study reached similar results. Furthermore, The results of this study can also be compared to Karademir and Uluçınar's (2017) study, which revealed the existence of a strong and positive relationship between critical reading skills, science literacy skills and attitudes toward science. Karaman's study (2016) is also worth mentioning in that its results showed that critical literacy can be associated with another type of literacy, namely media literacy. In this way, it can be stated that the two studies shared similar results by demonstrating the relationship between the two types of literacies. Additionally, Padmanabhan and Rao (2008) found that a relationship existed between environmental awareness and environmental attitude in their study, which is a similar result to the current study. Overall, although the relationship between ecological literacy and critical literacy still seems to be an unexplored area, the existence of some kind of relationship between ecological literacy and other types of literacies or the relationship between critical literacy and other literacies gives us some clues as to what extend these two skills might be connectedly taught.

The study also intended to gain insights into the effect of gender on preservice ELT teachers' ecological literacy and critical literacy skills. The analysis of data revealed some noteworthy results in terms of the impact of gender variable. According to the results, it was observed that female preservice teachers were more likely to exhibit eco-friendly behaviours. Especially, the analysis of ecological literacy scales unveiled statistically significant results in favour of female participants. Regarding the findings of the study in terms of gender, this study can be compared with Karaman's (2016) study because, in both studies, gender was observed to be a significant factor in understanding the participants' related literacy skills.

Nevertheless, the current study opposed Karaman's study in that while the female participants of this study showed higher levels of ecological literacy, the significant difference was in favour of male participants in Karaman's study. Furthermore, although the results of the current study demonstrated that female preservice teachers' ecological and critical literacy levels were higher, the difference was only statistically significant regarding the participants' ecological literacy levels. In this respect, Uyar and Temiz's (2019) study was not in line with the current study since there was no significant relationship between the participants' ecological literacy skills in terms of gender in their study. Moreover, Padmanabhan and Rao (2008) reached opposing results in terms of gender variable. Their study showed that environmental awareness and attitude were not affected by gender variable. On the other hand, Şengül (2023) found similar results to

the current study, which indicated that female students possessed a higher degree of ecological literacy than male students.

When it comes to the preservice teachers' critical literacy skills, the results of the current study indicated that the participants' critical literacy skills did not show any significant changes in terms of gender variable. This result is consistent with some other studies from the literature while contradicting some others. For example, Semerci and Semerci (2017) also found that there was no statistically significant difference between media literacy and critical literacy levels of their participants in terms of gender. However, the results of the current study are opposed to the results of the study conducted by Ramdani et al. (2021) since their results unveiled that male students had more critical thinking skills compared to female students. As a result, given the results of this study in terms of gender, it can be concluded that the study was partially in line with the related studies from the literature.

Moreover, the current study focused on the levels of ecological literacy and critical literacy among preservice English Language Teaching teachers in relation to age variables. In this respect, the results of the study demonstrated that there were not any significant differences in the participants' ecological literacy and critical literacy skills in terms of age variable, which is a consistent result when compared to Çiftçi's (2019) study, which similarly concluded that gender does not have a substantial influence on the critical literacy skills of university students. However, Erol and Gezer (2006) opposed the current study because, in their study, age was proved to be a significant factor in determining attitudes towards the environment. Therefore, age is a controversial variable when having insights into preservice teachers' ecological and critical literacy skills.

Another aspect of the current study focused on the relationship between the academic performance of preservice English Language Teaching teachers and their levels of ecological and critical literacy skills. The study concluded that academic performance was not a significant factor that affected the participants' ecological and critical literacy skills. When compared with Erkılıç's (2019) study, this should be considered contradictory because, unlike the current study, Erkılıç proposed that significant differences existed in the participants' ecological literacy levels and environmental attitudes based on their academic success. As a result, it was observed that the academic success related results of the study opposed the results of previous studies in the field.

To sum up, the results of the current study indicated that there was a relationship, albeit slight, between preservice ELT teachers' ecological literacy and critical literacy levels. Based on this, it can be concluded that ecological literacy and critical literacy skills can be enhanced together. We should note that ecological literacy requires individuals to question the current situation of nature and how people exploit it in order to understand the underlying reasons for environmental problems. Moreover, critical literacy is another crucial skill that demands individuals to see beyond what is presented to them. Thus, it can be assumed that while improving learners' ecological literacy and critical literacy skills, English language teachers can encourage learners to take a critical stance on reading texts to have a deeper understanding of the texts. As a result, the results of the current study imply that since both skills are critical by nature, ecological literacy can be promoted through reading text with a critical stance. Finally, it is now evident that English teachers should do more than just teach language skills. They should include the 21st-century skills that an individual needs to possess in their practice. In this respect, the results showed that the preservice ELT teachers possessed some degree of ecological literacy and critical literacy, implying they can make use of these skills in their own professional lives.

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GENİŞLETİLMİŞ ÖZ

Ekolojik okuryazarlığın ve eleştirel okuryazarlık becerilerinin geliştirilmesine odaklanan çok sayıda araştırma bulunmaktadır. Ancak ekolojik ve eleştirel okuryazarlık becerileri arasındaki ilişkiyi inceleyen yeterli sayıda çalışma bulmak zordur. Bu nedenle, çalışmada ekolojik okuryazarlık ve eleştirel okuryazarlık arasında bir ilişki olup olmadığının anlaşılmasına odaklanılmıştır.

Bu çalışma nicel bir tarama araştırması olarak tasarlanmıştır. Veri toplama sürecinde iki farklı ölçek kullanılmıştır. Bu çalışmanın katılımcılarını bir devlet üniversitesine kayıtlı İngilizce öğretmen adayları oluşturmaktadır. Çalışmaya toplamda 86 öğrenci katılmaya gönüllü olmuştur. Katılımcıların demografik özellikleri hakkında bilgi toplamak amacıyla tanımlayıcı istatistikler elde edilmiştir. Araştırmacılar, katılımcıların ekolojik okuryazarlık ile eleştirel okuryazarlık becerileri arasındaki ilişkinin gücünü etmek için Pearson korelasyon katsayısını kullanmıştır. Ayrıca, erkek ve kadın katılımcılar arasındaki ekolojik ve eleştirel okuryazarlık becerileri ortalama puanlarını karşılaştırmak için bağımsız örnek t-testleri gerçekleştirilmiştir. Bu sayede, cinsiyete dayalı istatistiksel olarak anlamlı farklılıklar tespit edilmek istenmiştir. Son olarak, varyans analizi (ANOVA) testleri, araştırmaya katılanlar arasında yaş ve not ortalaması değişkenliklerindeki farklılıkları belirlemek amacı ile yürütülmüştür.

Analizler, İngilizce öğretmen adaylarının ekolojik ve eleştirel okuryazarlık becerileri arasında hafif bir korelasyon olduğunu göstermiştir. Hizmet öncesi İngilizce öğretmeni

adaylarının ekolojik ve eleştirel okuryazarlık becerilerinde cinsiyet, yaş ve akademik başarının (GPA) rolü bu çalışmanın ikinci odak noktası olmuştur. Sonuçlar, ekolojik okuryazarlık açısından kadın ve erkek katılımcılar arasında kadın katılımcılar lehine anlamlı bir fark olduğunu ortaya çıkarmıştır. Diğer değişkenlere gelince, sonuçlar bu okuryazarlık türleri arasında bir bağlantı olmadığını ve bu değişkenlerin katılımcıların ekolojik ve eleştirel okuryazarlık becerilerinde çok önemli bir rol oynamadığını göstermiştir.

Bu sonuçlara dayanarak ekolojik ve eleştirel okuryazarlık becerilerinin birlikte geliştirilebileceği sonucuna varılabilir. Ekolojik okuryazarlık becerisine sahip kişilerin aynı zamanda belli düzeyde eleştirel okuryazarlığa da sahip olmaları gerektiği açıktır. İngilizce öğretmenleri, öğrencilerin ekolojik ve eleştirel okuryazarlık becerilerini geliştirebilecek metinleri okurken eleştirel bir duruş sergilemelerini teşvik ederek öğrencilerin eleştirel düşünmesini teşvik edebilir. Son olarak, İngilizce öğretmenlerinin sadece dil becerilerini öğretmenin ötesinde daha kapsamlı bir rol üstlenmeleri gerektiği giderek daha belirgin hale gelmiştir. İngilizce derslerinde öğrencilerin sahip olması gereken 21. yüzyıl becerilerine yer verilmelidir. Bulgular, İngilizce öğretmen adaylarının belirli bir düzeyde ekolojik okuryazarlığa ve eleştirel okuryazarlığa sahip olduğunu göstermiştir. Bu da onların İngilizce öğretirken bu becerileri gelecekteki kariyerlerinde etkili bir şekilde uygulayabileceklerini ortaya koymuştur.