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Gender and Environmental Literacy on Islamic-based High School Students Under Spiritual Values

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Abstract

Environmental literacy may lead someone to act more responsibly towards the environment. This study aims to analyze gender differences in the environmental literacy of Islamic-based high school students. Although there have been many studies on similar topics, there is not much research found in the perspective of Islamic-based students, where they practice Islamic spiritual values about environmental sustainability. This study uses a quantitative approach using the multivariate analysis of variance (MANOVA) method to determine the effect of gender differences on students' environmental literacy levels. The sampling technique used is questionnaire distribution to as many as 53 students at a high school in Central Java who are randomly selected. Three dimensions of environmental literacy are analyzed; namely knowledge, attitudes, and pro-environmental behavior. The results of the analysis suggest that the students' literacy level is in a good category, which is at 80.67%. Islamic values that have been attached to students are believed to contribute to the level of environmental literacy of students. Then, the results also indicate those female students have better literacy levels in all dimensions. However, the results of the analysis found there is not enough evidence to suggest that male and female students differ significantly based on environmental literacy.

Keywords: *environment, gender, Islamic values, literacy, sustainability*

INTRODUCTION

Environmental literacy is an important idea that can help people change their habits and live more sustainably. As a result, it can consciously respond to environmental issues that become increasingly concerning in recent years, such as climate change. Environmental literacy

entails more than just knowledge; it also entails the opportunity to perform a specific behavior that is environmentally sustainable. An environmentally literate individual is able to make rational decisions to protect the environment (Desfandi, 2015). Environmental literacy has also been shown to promote environmentalist action by providing awareness and understanding of environmental issues (Bissinger & Bogner, 2018; Lloyd-Strovas et al., 2018; Nunez & Clores, 2017). Popular environmental literacy models consist of three dimensions, namely knowledge, environmental attitudes, and pro-environmental behavior (Bissinger & Bogner, 2018; Goulgouti et al., 2019; Lloyd-Strovas et al., 2018; Timur et al., 2013). Environmental literacy is closely linked to obtaining environmental knowledge, undertaking independent education on environmental issues, and guiding oneself to face and act to solve environmental problems. Individuals' awareness, skills, and encouragement to make responsible decisions about natural environments, societies, and future generations can be described as environmental literacy.

Environmental education can create an environmentally conscious citizen (Landriany, 2014; Pratama, 2020; Zsóka et al., 2013). Therefore, environmental literacy in education is an important topic to investigate. Many studies have looked at environmental literacy in schools (Ahmad et al., 2016; Ali & Anufriev, 2020; Dijkstra & Goedhart, 2012; Estrada-Vidal & Tójar-Hurtado, 2017; Ikhsan et al., 2019; Nurwidodo et al., 2020; Parker, 2017, 2018; Prabawa-Sear, 2018; Semarkhanova et al., 2018; Sousa et al., 2020). According to various studies, environmental awareness is not high in most countries around the world. The majority of studies place environmental literacy in the moderate to moderately high range (Abd Rahman & Nasri, 2018; Gavrilakis et al., 2017; Jannah et al., 2013; Liang et al., 2018; Nunez & Clores, 2017; Pratama, 2020; Timur et al., 2013). One of the factors contributing to students' poor environmental literacy is a lack of desire to learn and research environmental issues (Pratama, 2020). According to a study of 29,498 Taiwanese students, undergraduate university students have a low level of environmental knowledge and behavior, while moderate levels of environmental attitudes are achieved (Liang et al., 2018). Then, a study at an Iranian university discovers that, despite having a positive mindset, a high degree of interest, and environmental awareness, students still have a low to moderate level of knowledge (Veisi et al., 2019). Environmental literacy among students

is rated as moderate or even poor (Jannah et al., 2013). In reality, a study found that teacher candidates' environmental literacy levels were moderate, in all dimensions of environmental literacy (Timur et al., 2013).

The focus of this research is on the relationship between gender and environmental literacy among Indonesian students. In the 1970s, a strong connection between gender and the environment emerged, which is now known as eco-feminism (Shivakumara et al., 2015). Women's potential is harnessed in the most effective way possible to bring about an ecological transition and ensure the sustainability of planet Earth. Accordingly, gender plays a significant role in environmental literacy. Women are considered to pay more attention to the environment and act in ways that are beneficial to the environment. This is evident in their role in daily life. Women's contributions to the world have been clearly recorded (Mago & Gunwal, 2019; Mahour, 2016; Sachs, 2018). Subsequently, women are more attentive to the world and have a strong sense of responsibility for it. Women are more environmentally conscious than men (Liang et al., 2018; Lloyd-Strovas et al., 2018; Sigit et al., 2019). Additionally, women have greater environmental knowledge, attitudes, and behavior than men (Barnas & Ridwan, 2019).

Gender differences in environmental literacy levels produce mixed outcomes. According to previous studies, there is no substantial difference in environmental literacy among students based on gender (Abd Rahman & Nasri, 2018; Lloyd-Strovas et al., 2018; Nunez & Clores, 2017; Öztürk & Teksöz, 2016; Stevenson et al., 2013; Timur et al., 2013; Williams, 2017). Despite the fact that female students are said to have a higher degree of environmental knowledge than male students, the gap is not significant (Nunez & Clores, 2017). Environmental literacy scores on education are significantly higher in men, while attitudes and actions toward the environment are significantly higher in women. Environmental literacy ratings, on the other hand, do not vary significantly by gender. This suggests that there are significant gender differences in environmental literacy components (Lloyd-Strovas et al., 2018).

On the other hand, studies show that environmental literacy levels differ significantly by gender (Jannah et al., 2013; Liang et al., 2018; Sigit et al., 2019; Veisi et al., 2019). In terms of environmental literacy, female students have a better fit than male students (Liang et al., 2018; Wongchantra & Nuangchalerm, 2011). On the dimension of environmental literacy, female students outperform boys in all categories (Liang et al., 2018). Women have a higher degree of environmental literacy than men, according to the gender gap in environmental literacy (Sigit et al., 2019).

The world's women are the key to long-term sustainability. Women are likely to be capable of leading the protection and stabilization of the ecosystem because they play an important role in managing natural resources as a whole, such as water, fuel, forests, and agricultural land (Mago & Gunwal, 2019). Women from all over the world have made significant contributions to ensuring a healthy environment for all living beings (Breton, 2016). Women, on the other hand, are among the most vulnerable to environmental harm.

While several studies have looked at the relationship between gender and environmental literacy, there haven't been many on related topics from the perspective of Islamic students. This study examines the impact of gender disparities on the level of environmental literacy among Islamic students, whose everyday lives are saturated with Islamic values. This study is expected to provide more information and a better image of Islamic-based students' environmental literacy, allowing them to be valuable assets in environmental preservation. Religious beliefs, as is well recognized, are linked to people's everyday morality, behaviors, and actions in all facets of life. Thus, Islamic values stating that cleanliness is a part of faith should be emphasized to inspire the younger generation of Muslims to be more environmentally conscious.

This research uses a quantitative approach to provide an overview of Islamic-based student environmental literacy, as well as empirical evidence. The research instrument used was a questionnaire sheet, which was distributed online using Google Forms. In order to measure the level of environmental literacy, this study uses a percentage which is formulated as follows:

$$EL = \frac{A}{M} x100\%$$

where *EL* represents environmental literacy, *A* denotes the average, and *M* denotes the ideal maximum score Table 1 shows the measures used to assess a student's degree of environmental literacy (Widoyoko, 2016):

Table 1. Environmental Literacy Criteria

Criteria (%)	Information
≥90	Very high
80 – 89	High
70-79	Moderat
60-69	Low
< 60	Very low

The following are the hypotheses proposed to assess the impact of gender on students' level of environmental literacy:

Hypothesis 1
H0: There are no significant differences in environmental literacy among students based on gender.
H1: There are significant differences in environmental literacy among students based on gender.

Hypothesis 2
H0: There are no significant differences in environmental knowledge among students based on gender.
H1: There are significant differences in environmental knowledge among students based on gender.

Hypothesis 3
H0: There are no significant differences in environmental attitude among students based on gender.
H1: There are significant differences in environmental attitude among students based on gender.

Hypothesis 4
H0: There are no significant differences in environmental pro-environmental behavior among students based on gender.

H1: There are significant differences in environmental pro-environmental behavior among students based on gender.

The method of multivariate analysis of variance (MANOVA) is used to investigate gender differences in environmental literacy. The level of environmental literacy of students is measured in this study using three dimensions of environmental literacy: knowledge, environmental attitudes, and pro-environmental behavior (Bissinger & Bogner, 2018; Dijkstra & Goedhart, 2012; Goulgouti et al., 2019). On a Likert scale of 1 to 5, five statement items are used to measure each dimension. A score of 1 indicates a strongly disagreeing response, while a score of 5 indicates a strongly agreeing response. The statement items included in this study are also linked to Islamic teachings since it is conducted from the viewpoint of Islamic values.

DISCUSSION

The primary data for this study is gathered by handing out questionnaires to students at MAN IC Pekalongan in Central Java, Indonesia. A total of 53 students are chosen at random for the study. The distribution of questionnaires uses an online survey method, which is conducted on 10-17 December 2020. The questionnaire is distributed using a method known as purposive sampling, which is based on the researcher's predetermined criteria (Mahmudah, 2020). The issue at hand is determining the location and subject of research for Islamic-based students, specifically MAN Insan Cendekia (IC) Pekalongan, Central Java. This school is an Islamic religion-based high school under the auspices of the Ministry of Religion of the Republic of Indonesia. This school is also regarded as one of the most favorites, serving as a model and guide for other schools in terms of integrating religious values and scientific development.

The following is a general overview of the respondents. The students who take part in the survey are on average 16 years old. The students with the youngest and oldest ages are 14 and 17, respectively. Figure 1 illustrates the frequency of respondents based on their gender.

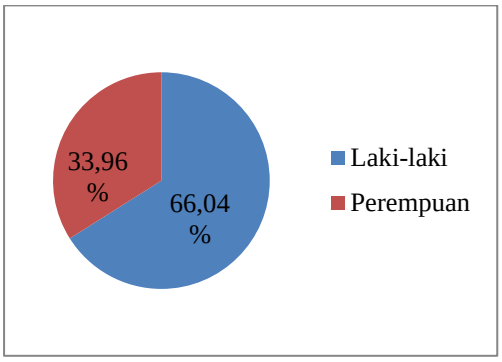

Figure 1. Gender Frequency

The majority of respondents, 66.04 percent or 35 students, are males, as shown in Figure 1. Female respondents made up 33.96 percent of the number, or 18 students.

Student Environmental Literacy Level

According to the findings of the data analysis, students' environmental literacy is generally strong, with an average of 80.67 percent. This figure suggests a high degree of literacy, based on table 1. These findings suggest that students at MAN IC Pekalongan are already environmentally literate, indicating environmental-loving behavior (Nunez & Clores, 2017). Since they are aware of and consider environmental issues, students with a high degree of environmental literacy are more likely to want to protect and conserve the environment (Desfandi, 2015). Students with good environmental knowledge and a conscientious environmental sensitivity and attitude, but not necessarily strong pro-environmental behavior (Nunez & Clores, 2017). While students' environmental literacy is generally high, not all aspects of environmental literacy are excellent. However, based on the findings of the analysis, only the dimensions of pro-environmental behavior were found to be in the positive group, with an overall score of 81.25 percent.

This finding contradicts the findings of many previous studies, which found that the majority of people in society, including students and teachers, have a moderate level of literacy (Gavrilakis et al., 2017; Liang et al., 2018; Timur et al., 2013). One of the factors that may contribute to this inconsistency is the study sample, which is made up of Islamic-based students

who have been educated about the doctrines of environmental sustainability in the Koran and the Prophet's Sunnah. Islamic teachings firmly command its followers to protect the environment from various damages on land and sea. A positive response to form a Muslim person with a character that cares for environmental sustainability is faith that is realized in daily life and becomes a habit of life. Islamic teachings emphasize not only the development of humanistic attitudes toward other people but also the formation of an environmentally friendly attitude that preserves the ecosystem's balance in the world (Karim, 2018; Nurulloh, 2019). According to a report, the religious climate in Islamic education facilities as it relates to the environment can be expressed in the following ways: (1) the creation of a natural educational environment; (2) the realization of means of worship such as prayer; (3) the realization of learning approaches that incorporate environmental-based religious values; and (4) the creation of educators that are concerned about the environment because they have strong morals and character (Obaid, 2013).

Figure 2 shows the level of students' environmental literacy based on the three dimensions used, namely environmental knowledge, environmental attitudes, and pro-environmental behavior.

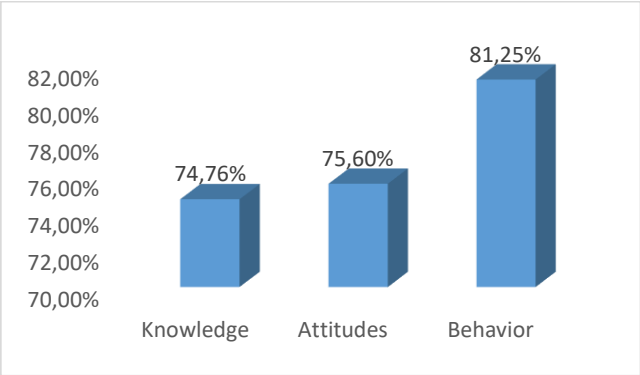

Figure 2. Environmental Literacy Level

Figure 2 shows that the dimensions of pro-environmental behavior have the highest degree of pro-environmental behavior as compared to the dimensions of knowledge and environmental attitudes, which have a percentage of 81.25 percent. This figure shows that the dimensions of students' pro-environmental behavior meet the high standards, as shown in table

1. The dimension of environmental knowledge has the lowest level, with a figure of 74.76 percent, which falls into the moderate category. The dimensions of students' environmental attitudes are then calculated, yielding a figure of 75.60 percent, indicating a moderate category. These findings show that, despite the students' modest levels of knowledge and environmental attitudes, their daily behavior represents an environmentally literate society. They understand that their contribution to the ecosystem can have a positive effect, so they are more likely to want to protect and conserve it.

This finding may be due to the fact that the students in this study lived in an Islamic Boarding School, which applied strict rules to their students. The school instills education in Islamic values that must be obeyed by all parties, one of which is environmental protection. Cleanliness is a part of the school's faith, not only a slogan but a way of life for all students. It needs to be informed that all MAN IC Pekalongan students live in boarding schools that are still part of the school environment. The results of observations made by researchers found that when students choose to leave the school community because there is something outside, they must first seek permission from the current supervisor. Then, all students must adhere to a rigid and strict schedule to develop the habit of following the rules at school. Students' loyalty and diligence in observing school schedules and tasks gradually spread to their protection and preservation of the community. They are environmentally literate because of their daily routines that are concerned with environmental sustainability. This is in line with the characteristics of an environmentally literate individual, such as a sense of responsibility for the environment's cleanliness and sustainability (Desfandi, 2015). Moreover, they also have a sensitive and friendly attitude toward the environment, as shown by their respect for the environment demonstrated by community service programs and school cleaning (Bissinger & Bogner, 2018; Lloyd-Strovas et al., 2018; Nunez & Clores, 2017).

However, the environmental literacy practices of MAN IC Pekalongan students may not be focused on adequate knowledge of environmental literacy. This can be explained by the fact

that the school has more direct role models with practical experience in the field related to love and responsibility for environmental sustainability. Meanwhile, there are few theories on the topic since there are no particular subjects that address environmental literacy, such as theories on the value of environmental sustainability. The disciplinary pattern implemented by the school appears to trigger environmental literacy in MAN IC Pekalongan students, which develops optimistic environmental habits.

Furthermore, instilling Islamic values in students' everyday lives will lead to more environmentally conscious behavior. As a result, they have unwittingly adopted a lifestyle that represents individual environmental literacy, which is in line with Islamic teachings and clearly exemplified by the Prophet Muhammad's behavior. According to a report, the Prophet Muhammad SAW developed a caring attitude toward the environment by establishing protected areas (hima) to preserve forest habitats and make them government-protected areas. Aside from that, the Prophet SAW was said to have preserved the valley and the trees within it, according to the study (Nurulloh, 2019). Thus, Islamic beliefs in students are more in the context of applying attitudes and actions toward the environment as exemplified by the Prophet SAW than they are in the form of standard environmental knowledge.

All Muslims must be able to play an active role in the environmental sector as individuals who have knowledge of Islamic teachings to have substantial output in protecting environmental degradation and creating friendlier and healthier earth. Awareness of the need to support a long-term environmental campaign will contribute to a desire to act to protect the environment.

Gender and Environmental Literacy

The key topic of this study, the relationship between gender and environmental literacy, is discussed in this section. As previously mentioned, previous researches on this subject have revealed a number of inconsistencies. According to some research, environmental literacy varies significantly depending on gender. However, most previous studies have reported that gender does not appear to have a significant impact on environmental literacy levels. The reports said there are no major gaps in environmental literacy between men and women.

Table 2 shows the degree of environmental literacy of students based on dimensions and gender. In plain view, the findings of the descriptive statistics analysis show that female students have a higher degree of environmental literacy than male students in all dimensions.

Table 2. Level of Environmental Literacy by Gender

Gender	Knowledge	Attitudes	Behavior
Male	75,18%	76,95%	80,89%
Female	78,89%	84,19%	81,94%

Tables 1 and 2 show that both male and female students have high levels of pro-environmental attitudes, with 80.89 percent and 81.89 percent, respectively. Then, the dimension of environmental attitudes is known to produce different outcomes in male and female students, with male students falling into the moderate category and female students falling into the high category. Table 2 also shows that the dimensions of male and female students' environmental knowledge are both moderate. These findings show that as compared to other dimensions, environmental literacy knowledge has the lowest degree. Meanwhile, the pro-environmental behavior dimension has the highest score. Consequently, even though their environmental knowledge is limited, students exhibit excellent environmental activity in protecting and maintaining the environment. These findings suggest that the students have a sense of environmental responsibility and care. As a result, they are happy to volunteer to clean classrooms and the school area, dispose of garbage according to its type, clean drains around the school environment, and so on, to preserve cleanliness and environmental sustainability. These attitudes and practices are also indicative of those who have applied Islamic values to environmental preservation. These principles have become a school doctrine that must be followed by all students. Table 2 also shows that female students have higher levels of environmental literacy in all areas. On top of that, the gap in environmental attitudes is very noticeable, standing at 7.24 percent. Meanwhile, the gap in environmental awareness is approximately 3.71 percent. Meanwhile, the pro-environmental behavior dimension is found to be just marginally different, at 1.05 percent.

The following are the findings of the MANOVA study used to assess the impact of gender on students' environmental literacy levels. The multivariate test in Table 3 demonstrates the impact of gender on the three dimensions of environmental literacy, namely pro-environmental knowledge, attitudes, and behavior, all at the same time.

Table 3. Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.
Pillai's trace	0,06	1,01	3,00	49,00	0,40
Wilks' lambda	0,94	1,01	3,00	49,00	0,40
Hotelling's trace	0,06	1,01	3,00	49,00	0,40
Roy's largest root	0,06	1,01	3,00	49,00	0,40

The significance (p-value) of the four tests given, namely Pillai's trace, Wilks' lambda, Hotelling's trace, and Roy's largest root, all produce numbers greater than 0.05, as shown in table 3. The four tests provide an identical p-value of 0.40. Based on hypothesis 1 that was previously offered, at the 5% significance level, the hypothesis in this analysis does not reject the null hypothesis (H0) since the p-value is not less than 0.05. To put it another way, this study has decided to accept H0. Accordingly, the null hypothesis "there are no significant differences in environmental literacy among students based on gender" is acknowledged, and H0 becomes the study's conclusion.

Table 4 demonstrates the univariate tests partially to assess the effect of gender on each of the dimensions of environmental literacy.

Table 4. Univariate Tests

Dependent Variable		Sum of Squares	*df*	Mean Square	*F*	*Sig.*
Knowledge	Contrast	0,45	1	0,45	0,17	0,68
	Error	135,47	51	2,66		
Attitudes	Contrast	4,26	1	4,26	1,94	0,17
	Error	111,63	51	2,19		
Behavior	Contrast	0,34	1	0,34	0,12	0,72
	Error	137,66	51	2,70		

The influence of gender on environmental attitudes for hypothesis 2, the influence of gender on environmental attitudes for hypothesis 3, and the influence of gender on pro-environmental behavior for hypothesis 4 are all based on Table 4.

Gender and Environmental Knowledge

The relationship between gender differences and environmental knowledge among students is discussed. Table 4 shows that the p-value or significance value in the dimension of environmental knowledge is 0.68, which is greater than 0.05. This figure is used to make a decision on hypothesis 2, which states that "there are no significant differences in environmental knowledge among students based on gender". Consequently, at the 5% significance level, the hypothesis's decision is not to reject, so the null hypothesis must be accepted (H0). As a result, the finding is that gender gaps have no substantial impact on students' environmental knowledge. In other words, there is no substantial gap in environmental knowledge between male and female students. This finding is in line with previous studies, which found that there was no major gender gap in environmentally friendly knowledge (Julina, 2016).

However, it is clear from table 1 that female students have a higher level of environmental knowledge than male students, with 78.89 percent compared to 75.18 percent. This finding seems to be in line with previous studies, which claim that female students have a greater depth of understanding in environmental knowledge than male students (Barnas & Ridwan, 2019; Nunez & Clores, 2017). Similar findings are found in another study, where the average environmental knowledge of men is found to be slightly lower than women's. (Jannah et al., 2013).

Gender and Environmental Attitudes

This section analyzes the effect of gender differences on environmental attitudes based on hypothesis 3 which states "there are no significant differences in environmental attitudes among students based on gender". Table 4 clearly shows that the p-value in the dimensions of students' environmental attitudes is 0.17, indicating that the null hypothesis is not rejected (H0). It can be

inferred that there is no substantial difference in students' environmental attitudes based on gender because of the hypothesis decision. There are no discernible difference between male and female students' attitudes toward the environment.

Table 2 also shows that, while the gap is not significant, female students have better environmental attitudes than male students. This finding is also consistent with previous researches, which found that women generally have better attitudes and environmental consciousness than men (Jannah et al., 2013; Liang et al., 2018; Lloyd-Strovas et al., 2018; Sigit et al., 2019; Stevenson et al., 2013).

Gender and Pro-environmental Behavior

This section analyzes the effect of gender differences on pro-environmental behavior based on hypothesis 4, which states "there are no significant differences in environmental pro-environmental behavior among students based on gender". The significance value of the analysis using the MANOVA method provides a number of 0.72, which is greater than 0.05, as shown in table 2. As a consequence of these findings, the hypothesis decides not to reject the null hypothesis (H0). As a result, the study concludes that there is insufficient empirical evidence to claim that gender disparities influence students' pro-environmental behaviors. To put it another way, gender has no bearing on pro-environmental behaviors. Women, on the other hand, appear to score higher in pro-environmental behaviors, according to table 2. These findings are also in line with previous researches that provide similar claims (Jannah et al., 2013; Lloyd-Strovas et al., 2018).

Overall, the findings of this study conclud that gender disparities in students' environmental literacy levels have no substantial effect. This finding is consistent with previous studies, which found no significant gender differences in environmental literacy (Abd Rahman & Nasri, 2018; Lloyd-Strovas et al., 2018; Nunez & Clores, 2017; Öztürk & Teksöz, 2016; Stevenson et al., 2013; Timur et al., 2013; Williams, 2017). At the level of environmental literacy, gender disparities are complementary. Each gender excels in areas where the other does not, implying that there are synergistic opportunities for both men and women to improve their environmental literacy (Stevenson et al., 2013).

Although the findings show that female students have a higher degree of environmental literacy, the results of hypothesis testing using the inferential statistical approach do not find enough empirical evidence to conclude that there is a meaningful gap between male and female students' environmental literacy. Women's contributions to a sustainable environment, on the other hand, must not be ignored. Many studies have documented the propensity to believe that women have attitudes, behaviors, and involvement in fundamental environmental activities (Breton, 2016; Jannah et al., 2013; Mago & Gunwal, 2019). Regardless, several studies have shown that women have more environmentally conscious attitudes and knowledge than men (Jannah et al., 2013). This finding is also consistent with previous research findings, which show that women's environmental literacy is higher than men's, despite the fact that there is no statistically significant gap between the two (Lloyd-Strovas et al., 2018).

The researchers also discover that women tended to have higher knowledge, attitudes, and pro-environmental behavior scores than men. These findings back up previous research that found that women have stronger attitudes and behaviors when it comes to environmental literacy than men (Jannah et al., 2013; Lloyd-Strovas et al., 2018). Female students are more concerned about environmental issues so that they are more willing to change their behavior in protecting the environment. Women are more concerned about the environment and have a more optimistic outlook about it, which is reflected in their daily roles. Their environmental sensitivity and sense of responsibility are also higher than men's. Besides, women are well aware of the negative effects of reckless actions on the environment (Fitriani et al., 2018; Öztürk & Teksöz, 2016; Sigit et al., 2019). Women have higher levels of environmental attitudes, actions, understanding, and participation than men (Jannah et al., 2013).

Female students appear to have a higher degree of environmental literacy than male students. This is because women are more concerned about environmental threats. This is possible because women are mostly caregivers in their communities and the environment. As a result, they are perceived to be closer to nature, resulting in a protective attitude toward the

environment (Shivakumara et al., 2015). The rapid development of women's roles in the environmental sector can be explained by the fact that they have long since emerged above their conventional and obedient roles, namely since the 19th or 20th centuries. Finally, they are successful in bringing about significant reforms that helped to ensure that all people had a basic right to a healthy world by protecting nature (Breton, 2016).

Simply put, the research results indicate that students at MAN IC Pekalongan already have strong environmental knowledge, attitudes, awareness, and behavior. Since their environmental literacy level is in the high category, they can be said to have environmental literacy based on the three dimensions used in this analysis. The real proof comes in the form of their daily attitudes and behaviors, which represent their individual environmental literacy. Their passion for protecting and preserving the environment is reflected in their sense of environmental responsibility. They know and realize the importance of protecting the environment. Their attitudes and behavior appear to be in line with the values emphasized in Islamic teachings, which highlight the importance of cleanliness as a part of faith. Many verses of the Al-Quran and Sunnah of the Prophet contain very specific messages to pay attention to and protect the environment, as well as to take great care in handling the entire planet and everything on it (Nurulloh, 2019). Since the students already have a clear understanding of Allah SWT's environmental message, they recognize that all acts and activities that damage the environment are against Islamic teachings. Cleanliness is taught as part of the religion, which is a well-known Islamic doctrine among Muslims. As a result, they have realized that environmental protection is one of the ways they demonstrate their obedience and adherence to Islamic teachings.

CONCLUSION

This study analyzes the relationship between gender and environmental literacy among Islamic-based high school students. On the basis of their level of knowledge, attitudes, and pro-environmental behavior, the differences between male and female students are examined. The three dimensions of environmental literacy are used to assess students' environmental literacy levels. The impact of gender on environmental literacy is also discussed, both simultaneously

and partially. Islamic principles that explicitly command the protection of the environment from harm should be able to mold students into individuals who are mindful of and sensitive to environmental preservation.

The findings of the study indicate that high school students have a strong degree of environmental literacy. These findings suggest that they are also environmentally literate, implying that they care about the environment and are also more likely to want to conserve and maintain it because they know and understand environmental problems. Female students also had higher literacy levels in all fields, including knowledge, attitudes, and pro-environment behavior. The findings of hypothesis testing, however, indicate that there is insufficient evidence to conclude that gender gaps in students' environmental literacy levels exist. A deeper investigation of the relationship between Islamic values and the level of students' environmental literacy can be conducted to assess the degree to which religious moral principles can affect people's attitudes and actions toward the environment.

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