



## ENVIRONMENTAL LITERATION PROFILE BASED ON GENDER OF STUDENTS OF SENIOR HIGH SCHOOLS IN PEMALANG DISTRICT

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### Abstract

Environmental literacy is defined as knowledge of the mechanism of action of the natural environment, then the role of humans in it to preserve a sustainable environment. Relations between gender and environmental literacy be interesting to study it is interesting to study the framework of the influence of gender differences on environmental literacy education. This aims of research is to describe the profile of environmental literacy based on gender in high school students in Pemalang Regency. The research subject was students of class XI of SMAN throughout Pemalang District with a total sample of 351 students. Data were collected using a test and questionnaire method. From the results of the research, obtained an average value of environmental literacy profiles for male students at 63.54 and for female students at 64.05. Based on the Sig. Levene's Test for Equality of Variances test of 0.897, it means that the data variance for the male and female groups is homogeneous. Furthermore, data analysis is based on Sig (2 tailed) values of  $0.559 > 0.05$ , meaning  $H_0$  is accepted and  $H_1$  is rejected. Therefore, based on data analysis, there is no significant difference between the environmental literacy profiles of male and female students. Therefore, there is no need for differences in the implementation of assessments in environmental education, both for male and female students.

**Keywords:** environmental literacy, gender, profile

## INTRODUCTION

Environmental literacy is defined as knowledge of the working mechanisms of the natural environment, then the role of humans in it to preserve a sustainable environment (Roth, Harvey, Orr in Krnel & Naglic, 2009; Erdogan, Kostova, Marcinkowski, 2009; Karatekin 2012). The important role of environmental literacy is primarily related to the implementation of assessment in environmental education (Chu et. Al., 2007; Erdogan, Kostova, Marcinkowski, 2009). The facts on the ground are that schools in Pemalang Regency have not implemented environmental literacy activities. The application of environmental literacy activities is often carried out in schools that have Adiwiyata school degrees. Based on data from [psm.kemdikbud.go.id](http://psm.kemdikbud.go.id) (2016) in Pemalang Regency there is no Adiwiyata school but a referral school. This is supported by Decree No.882 / MENLHK / P2SDM / SDM.2 / 11/2016 that the absence of schools, both SD, SMP and SMA Pemalang Regency as schools receiving the national Adiwiyata award in 2016. Referring to Santoso research (2017) concludes that high school students Se Pemalang Regency still does not have the environmental literacy as expected and it still needs to improve cognitive skills which include identification of environmental issues and analysis of environmental issues.

According to Simmons' framework, environmental literacy consists of components of ecological knowledge, cognitive skills, environmental awareness, and environmentally responsible behavior. These four components play a role in determining the level of environmental literacy of students (Simmon in Chu et. Al., 2007; Erdogan, Kostova, Marcinkowski, 2009).

Environmental literacy becomes an interesting issue when it is related to gender. The term gender is put forward by social scientists to explain the differences between women and men that are innate as God's creation and which are cultural forms that are constructed, studied and socialized (Fazlurrachman, 2008). This distinction is very important because so far we often confuse natural and unchanging human characteristics with non-natural human characteristics that can actually change or be changed. In other words, society does not differentiate which one is sex (natural) and which is gender.

Gender equality is not the provision of the exact same rights and obligations between men and women without any exceptions. But it is more about how to optimize the role function in these rights and obligations optimally, according to each gender without closing the possibility of a role

exchange if it is necessary, because the concept of gender is not an absolute thing, many negotiations can be carried out to get the same role. appropriate.

With regard to gender, the government lists sustainable development to achieve gender equality and empower women as the fifth goal in the Sustainable Development Goals (SDGs). This goal has the aim of increasing the empowerment of women to develop their talents and potential, including literacy so that they have the same opportunities as men. This means that women have the opportunity to obtain, this just and sustainable development must also ensure women's access to productive resources and equal participation rights with men.

Thus, it is necessary to have a gender-based environmental literacy profile that can be used as a foothold for the government and various parties as a starting point for achieving sustainable development goals. Referring to the results of research on the analysis of knowledge, attitudes and environmental care behaviors based on gender, it shows that in the knowledge component of female students got a score of 66% and 64% for men, the attitude component for women 70% and 69% for men, the component of women's behavior 70% and men 69%. Thus it can be seen that of the three components women are superior to men (Laga: 2020).

The results of the above research need to be strengthened by subsequent research which displays the environmental literacy profile of students according to the demographics of each area. One of them is in Pemalang Regency which has various geographical conditions ranging from lowlands to highlands, mountains to beaches. Environmental literacy is important to know so that environmental awareness can increase.

It is interesting to study the relationship between gender and environmental literacy in terms of the influence of gender differences on environmental literacy education. This study aims to describe the environmental literacy profile based on gender in high school students in Pemalang Regency. Hopefully, the results of this study can be used as a basis for government policies and related parties regarding environmental education for students.

## METHOD

The research design used is quantitative research using descriptive methods (descriptive-quantitative), namely research that uses size, quantity or frequency. The collection and processing of research data is carried out by presenting the data as is. The research conducted

does not provide treatment, manipulation or alteration to the independent variables, but describes a condition as it is (Sukmadinata, 2016).

This research was conducted in the second week of December 2019. The research subjects were students of class XI SMAN in Pemalang Regency. The total population of eight State Senior High Schools in Pemalang Regency is 2887 students. The number of samples of 351 students who were taken using the Proportionate Random Sampling technique. Data were collected using test and questionnaire methods. The test is given using an environmental literacy

questionnaire based on the MSELS (Middle School Environmental Literacy Survey). Data were analyzed using qualitative descriptive method, namely by describing the overall data obtained during the research process. In general, according to Moleong (2010), the data analysis process includes data reduction, data categorization, synthesis and ends with compiling data hypotheses.

Then, the data was categorized with the following criteria:

**Table 1.** Qualification Criteria for Environmental Literacy

Percentage Interval (%)	Criteria of Environmental Literacy
81-100	Very Good
61-80	Good
41-60	Fair
21-40	Less
≤21	Unacceptable

(Arikunto & Abdul Jabar, 2010)

## RESULTS AND DISCUSSIONS

This part provided discussions and elaboration for evaluating the profile of the profile of environmental literacy of high school students

based on gender in Pemalang. The findings are written in Table 2.

**Table 2.** General Description of Findings

Gender	Sum	Average	Very Good	Good	Fair	Less
Boys	111	63.54	0	71	39	3
Girls	240	64.06	0	162	76	0
All	351	63.89	0	233	115	3

Based on the data above, it is known that the number of respondent data, for male students as many as 111 respondents, and for female students as many as 240 respondents. The average value of the environmental literacy profile for male students is 63.54 and for female students is 64.05. That is, by means of descriptive analysis, there are

differences in the environmental literacy profiles of male and female students.

Furthermore, to determine differences in environmental literacy profiles based on gender, the T test results were obtained as follows:

**Table 3.** Result of T-test

	Levene's Test for Equality of Variances		t-test for Equality of Means
	F	Sig.	Sig. (2-tailed)
Equal variances assumed	0,017	0,897	0,559
Equal variances not assumed			0,561

Based on the data above, it is known that the number of respondent data, for male students as many as 111 respondents, and for female students as many as 240 respondents. The average value of the environmental literacy profile for male students is 63.54 and for female students is 64.05. That is, by means of descriptive analysis, there are

differences in the environmental literacy profiles of male and female students.

However, based on the results of the Sig. Levene Test for Equality of Variances of 0.897, it means that the data variant for the male and female groups is homogeneous. Furthermore, data analysis is based on the Sig. (2 tailed) value

of  $0.559 > 0.05$ , meaning that  $H_0$  is accepted and  $H_1$  is rejected. Thus, based on data analysis, there is no significant difference between the environmental literacy profiles of male students and female students. Therefore, there is no need for differences in the implementation of assessment in environmental education, for both male and female students.

Gender differences certainly cause physiological differences and affect psychological differences in learning. So that male and female students certainly have many differences in learning mathematics. (Karmila, 2017) However, in his research conducted at SMA Negeri 1 Masamba class X IPA 1, it was shown that male students' mathematical literacy skills were equivalent to female students' mathematical literacy abilities. In line with Stevenson's research, differences in environmental literacy levels by gender suggest that boys and girls may have complementary skill sets when approaching environmental problems (Stevenson, 2013)

## CONCLUSION

Based on the results of research and discussion of the Environmental Literacy Profile based on gender in SMAN students in Pemalang Regency, it is concluded that there is no significant difference between the environmental literacy profile of male students and female students.

Also, there is no need for differences in the implementation of assessment in environmental education, both for male and female students. In the future, further research is needed to determine environmental literacy in students based on age, education level, socio-economic conditions and ethnicity.

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