

The Relationship between Knowledge and Behavior of Local Communities in Maintaining Environmental Conservation: Literature Review

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ABSTRACT

This study aims to determine the relationship between knowledge and behavior of local communities in preserving the environment. This type of research is research that uses the literature review method. Literature review research is a method in research to identify, evaluate, and interpret research results that are relevant to a particular research topic, or phenomena that are the focus of research conducted by reviewing scientific articles in a structured and planned manner. In this study, it is known that knowledge has a relationship with people's behavior in maintaining, managing, and utilizing the environment properly without damaging the environment. This is based on the knowledge gained that makes people aware of the importance of protecting the environment so that it can be used by the next generation.

KeyWords: Community Knowledge, Community Behavior, Environment.



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INTRODUCTION

The living environment is the unity of space with all objects, forces, conditions, and living creatures, including humans and their behavior, which influence nature itself, the continuity of life, and the welfare of humans and other living creatures (Law No. 32/2009). Human life cannot be separated from its environment. With an understanding of environmental science that is supported by the growth of ethics, wisdom, and environmental concern for all parties, the quality of the environment will not become increasingly damaged and polluted. Harmonious and balanced environmental quality can be achieved only with good and correct environmental management. The environment is very influential on human life and can change its function due to various factors, one of which is the global era. The impact of environmental problems can be felt by the entire population of the earth with the presence of natural symptoms that indicate irregularities (Widodo et al, 2021).

Environmental issues are closely related to local wisdom. It can be seen that the existence of local wisdom played a role in preserving the environment before environmental care movements emerged (Putra et al, 2023). Local wisdom is part of a community's ability to survive environmental conditions, according to needs and beliefs that have taken root and are difficult to eliminate (Rohana et al., 2016). Sumarmi & Amirudin (2014) explain that local wisdom is local knowledge used by society to survive in an environment that is integrated with belief systems, norms, and culture and is

expressed in traditions and myths that have been adhered to for a long period. Wibowo et al (2012) the existence of myths, rituals, and noble songs which are closely related to nature can regulate society in such a way about the surrounding environment.

Environmental conditions will describe the condition of the people in it. An environment has various components that are interconnected, both directly and indirectly. This relationship must have synergy so that everything can run in harmony according to their respective functions. This is deeply rooted, and fundamental, and has become a manifestation of the behavior of community members to manage and protect the environment wisely (Rohana et al., 2016; Yasril & Nur, 2017). To manage and prevent environmental damage, strategic and sustainable steps are needed. One of the strategic and sustainable steps in question is education. Education is the most appropriate vehicle for the internalization and transformation of beliefs, values, knowledge, and skills (Azhar et al., 2015). The research aims to determine the relationship between knowledge and behavior of local communities in preserving the environment so that they can manage and protect the environment from damage.

METHODS

This type of research is research that uses the literature review method. Literature review research is a research method for identifying, evaluating, and interpreting research results that are relevant to a particular research topic, or phenomena that are the focus of research carried out by reviewing scientific articles in a structured and planned manner (Kitchenham, 2004).

2.1 Research procedure

The stages of collecting literature used in this research refer to the guide Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISM). This stage consists of 4 (four) procedures, namely identification, screening, feasibility, and acceptance. In the identification stage, a search is carried out for article sources on the article searching. Next, at the screening stage, duplicate articles are filtered, and a feasibility assessment process is carried out by extracting information from the title and abstract of each article. Eligible articles are articles that are relevant to the questions and objectives of this literature review research. Then, at the acceptance stage, articles are determined that meet the predetermined inclusion criteria and are suitable for use for qualitative and quantitative synthesis by reading the entire content of the article (Liberati et al., 2009).

2.2 Inclusion criteria

This research uses five inclusion criteria, namely, research conducted on the relationship between knowledge and behavior of local communities in preserving the environment. Articles written in Indonesian or English are original research articles and not literature review articles with research spanning the last 15 years.

2.3 Article search keywords

Search for articles in this research using the publish or perish application with keywords that match the research conducted. Article search sources are Google Scholar, Scopus, Crossref, and Pubmed with a period of the last 15 years.

2.4 Article selection process

Information and data obtained from the results of literature extraction that have been obtained are then synthesized without meta-analysis or qualitative synthesis (PRISM) (Aryantie et al., 2023). Qualitative synthesis is carried out by summarizing research results comprehensively and narrating these results descriptively. Qualitative synthesis explains the relationships and behavior of local communities in preserving the environment.

RESULTS

Based on the results of searching for articles using the publish or perish application with keywords appropriate to this research, 200 articles were identified. Next, the title and abstract of each identified article were checked so that 200 articles were removed and 20 articles were found that were relevant to the determination of articles that met the specified inclusion criteria and were suitable for use for qualitative and quantitative synthesis. Then, 20 relevant articles were read in their entire text, resulting in 6 articles that met eligibility and acceptability. The stages and process of selecting articles from identification to determining the selected articles can be seen in Fig 1 below.

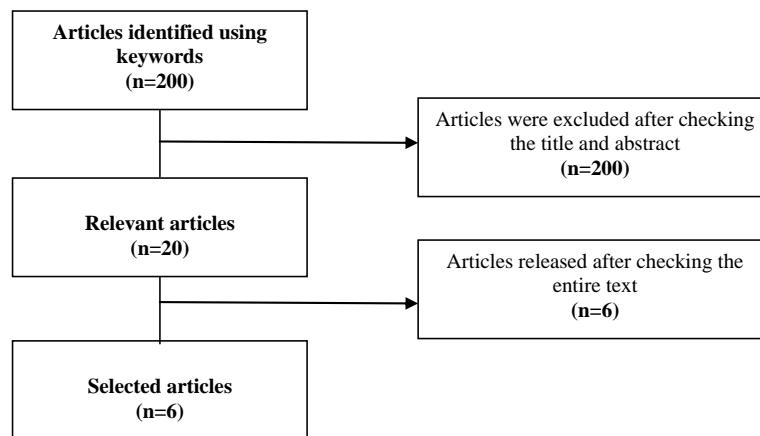


Figure 1. Article selection

Based on the results of the literature review, articles that meet the eligibility stated in this systematic review are original research articles or not literature reviews with research spanning the last 15 years. As a result of the literature review, it was found that community knowledge and behavior have an impact on environmental sustainability. A summary of the data descriptions of the 6 included research results can be seen in Table 1 below.

Table 1. Summary description of data from included studies

Title	Writer/Year	Method	Result
Hubungan Pengetahuan dan Etika Lingkungan Dengan Sikap Dan Prilaku Menjaga Kelestarian Lingkungan	(Azhar et al., 2015)	The research method used in this research is a survey method with a design <i>correlational</i> . The research population was secondary school students in Pagar Alam City, South Sumatra, consisting of 11 public/private schools with a total of 7,034 students. From a population of 7,034 people, 335 people were selected as research	The results of the correlation and regression tests at a significant level of $\alpha = 0.05$, obtained four conclusions, namely: (1) there is a quite significant positive relationship between environmental knowledge and attitudes towards preserving the environment with the regression line equation $Y_1 = 0.528X_1 + 43.427$,

		samples using techniques <i>proposional random sampling</i> ..	with a correlation coefficient value $r_{x_1y_1}$ of 0.506; (2) there is a significant positive relationship between knowledge of environmental ethics and attitudes towards preserving the environment whose regression line equation is $Y_1 = 0.540X_2 + 42.825$, with a correlation coefficient value $r_{x_2y_1}$ of 0.395; (3) there is a significant positive relationship between environmental knowledge and knowledge of environmental ethics together with attitudes towards preserving the environment whose regression equation is $Y_1 = 0.429X_1 + 0.261X_2 + 32.008$, with a correlation coefficient $r_{x_1x_2y_1}$ of 0.532; (4) there is a fairly significant positive relationship between attitudes towards preserving the environment and behavior towards preserving the environment with the regression equation $Y_2 = 0.353Y_1 + 42.682$, with a correlation coefficient value $r_{y_1y_2}$ of 0.363.
Kearifan Lokal Dalam Melestarikan Lingkungan Hidup (Studi KASUS Masyarakat Adat Desa Kamiren Kecamatan Glagah Kabupaten Banyuwangi)	(Sufia et al., 2016)	This research uses a qualitative approach with participant interviews and a natural setting. Using techniques purposive to determine informants to help smooth the research objectives. Several informants as data sources are: Kemiren Village head, Hamlet Head, traditional leader, caretaker (kuncen), and community members who are directly involved with the Buyut Cili site. Data validity and reliability were carried out through member checks and triangulation with different informants. Apart from that, he always refers to books and the results of relevant previous research. Some of these books are also used as material for study and deeper study.	The results of the research show that indigenous peoples have a simple, harmonious life, and subconsciously their beliefs about the Buyut Cili site are able to play a role in preserving the environment in the region, such as; water sources, rice fields and fields.
Prilaku Masyarakat Dalam Pengelolaan Kesehatan Lingkungan (Studi di Desa Segiguk Sebagai Salah Satu Desa Penyangga Kawasan Hutan Suaka Marga Satwa Gunung Raya Ogan Komering Ulu Selatan)	(Fitriany et al., 2016)	This research is a type of descriptive research to get an overview of the quality of the residential environment in the buffer village of the Gunung Raya Wildlife Reserve Forest area, South Ogan Komering Ulu Regency and qualitative research to determine community participation in environmental health management.	Public understanding of the importance of healthy behavior is quite good. However, the implementation of this has not yet been seen. In this research, the intended form of participating behavior in healthy environmental management does not yet exist, because all activities in this area are efforts to fulfill needs. There is no participation in this area, among other things, because the level of education is low, there are very few experts, so there is very little knowledge about the importance of protecting health and the environment.
Kerarifan Lokal Dalam Menjaga Lingkungan Hidup (Studi Kasus Masyarakat Di Desa Colo Kecamatan Dawe Kabupaten Kudus)	(Wibowo et al., 2012)	This research uses qualitative research methods, namely research that produces descriptive data in the form of written or spoken words from research objects and observable behavior.	The results of the research show that there is a role in environmental protection carried out by the Colo village community. Researchers suspect that there is economism, namely activities that focus on environmental movements related to local wisdom which is related to the local community's belief in forces outside humans that help preserve the environment. The trust of the Colo village community regarding the flora

				in the Muria area can be seen from the belief that the Haji Fern, Mranti Tree, Pring Towo, and Parijoto have efficacious properties. The earth alms ceremony, which is a means of communication with nature, and the Kupatan Tradition which leads to a commemoration of worship related to society. The Colo village community has implemented the principles of environmental ethics, in the form of role norms to protect the Muria forest area. The strategy of the Colo village community in protecting the Muria Forest Area is to form a local organization that cares about the environment, namely PMPH (Forest Protector Community Association).
Hubungan Antara Pengetahuan Dan Sikap Lingkungan Dengan Prilaku Wisatawan Dalam Menjaga Kebersihan Lingkungan	(Darmawan & Fadjarajani, 2016)	The research that has been carried out uses a quantitative approach, with descriptive methods that are correlational analysis. Descriptive research method is research that includes data collection activities, in order to answer questions relating to the current situation of the subject of a research.		The results of this research show that the relationship between knowledge about environmental conservation and behavior in maintaining environmental cleanliness is in a very close category with a Spearman rank correlation value of 98.4%. Meanwhile, the relationship between environmental conservation attitudes and environmental conservation behavior has a determination value of 9.1%. Meanwhile, simultaneously the relationship between knowledge and attitudes about environmental conservation and behavior in maintaining environmental health is with the Kendall's W test value, namely chi square of 102.151.
Pengetahuan, Sikap Dan Kepedulian Mahasiswa Pascasarjana Ilmu Lingkungan Terhadap Hidup Lingkungan Hidup Kota Jakarta	(Kumurur., 2008)	Research design used is a correlational survey, where no specific treatment or intervention is carried out on the sample population and data collection is carried out at certain time units.		Gender is not related to attitudes, gender-related knowledge about the environment and gender is not related to concern for environmental quality in Jakarta. Age is not related to students' attitudes towards environmental science, age is not related to knowledge about environmental quality in Jakarta, but age is related to students graduating in environmental science. Knowledge is related to the attitudes of environmental science students, knowledge is also related to concern for environmental quality in Jakarta. Attitudes are not related to concern for environmental quality in Jakarta

Caring for the environment is an attitude or action that seeks to prevent damage to the surrounding natural environment and develop efforts to repair the natural damage that occurs. The character of caring for the environment is not entirely an innate talent or instinct but is the result of an educational process in the broadest sense. Environmental concern is a manifestation of an individual's mental attitude which is reflected in their behavior (Ramadhani et al., 2019). The environment can also be interpreted as everything that is around humans and then lives together and influences each other for the development of human life. Based on the research results of Darmawan & Fadjarajani, (2016) regarding the relationship between knowledge and attitudes towards environmental conservation and tourist behavior in protecting the environment. This research shows that the relationship between knowledge about environmental conservation and behavior in maintaining environmental cleanliness is in a very close category with a Spearman rank

correlation value of 98.4%. Meanwhile, the relationship between environmental conservation attitudes and environmental conservation behavior has a determination value of 9.1%. Meanwhile, simultaneously the relationship between knowledge and attitudes about environmental conservation and behavior in maintaining environmental health is with Kendall's W test value, namely chi-square of 102.151. Furthermore, according to Sufia et al (2016) regarding local wisdom in preserving the environment research results show that indigenous peoples have a simple, harmonious life and subconsciously their beliefs about the Buyut Cili site can play a role in preserving the environment in the region like water sources, rice fields, and fields.

CONCLUSIONS

Based on a literature review of research articles that have been carried out, knowledge has a relationship with people's behavior in maintaining, managing and utilizing the environment well without damaging the environment. This is based on the knowledge gained that makes people aware of the importance of protecting the environment and so that it can be utilized by the next generation.

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