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Discovery Learning Model Assisted by Tri Hita Karana as a Learning Resource for Ecological Literacy and Student Geography Learning Outcomes in High School

Ida Bagus Made Astawa [1*]
[1] Universitas Pendidikan Ganesha, Singaraja, Indonesia

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ABSTRAK

Tujuan pembelajaran geografi belum sepenuhnya dapat diwujudkan. Salah satu permasalahan yang dihadapi yaitu siswa merasa pembelajaran tidak menarik dan membosankan. Penelitian ini bertujuan untuk menganalisis pengaruh Discovery Learning Model berbantuan Sumber Belajar Tri Hita Karana terhadap Ecological Literacy dan Hasil Belajar Geografi Siswa. Jenis penelitian ini yaitu eksperimen. Rancangan penelitian menggunakan quasi-eksperimental design dengan Non-Equivalent Post-Test Only Control Group Design. Sampel menggunakan 2 kelas dari 4 kelas yang ditetapkan secara random setelah dilakukan uji kesetaraan. Metode yang digunakan untuk mengumpulkan data yaitu kuesioner dan tes. Instrumen pengumpulan data menggunakan lembar tes dan angket. Teknik analisis data yang digunakan yaitu analisis deskriptif kualitatif, kuantitatif dan statistik inferensial. Hasil penelitian menunjukkan bahwa terdapat pengaruh Discovery Learning Model berbantuan Sumber Belajar Tri Hita Karana terhadap Ecological Literacy dan Hasil Belajar Geografi Siswa di. Hal tersebut dibuktikan dengan adanya perbedaan yang signifikan Ecological Literacy dan Hasil Belajar Geografi Siswa baik secara parsial maupun simultan antara kelas yang menggunakan dan tidak menggunakan Discovery Learning Model Berbantuan Sumber Belajar Tri Hita Karana.

ABSTRACT

The objectives of learning geography have not been fully realized. One of the problems faced is that students feel learning is not exciting and boring. This study aims to analyze the effect of the Discovery Learning Model assisted by Tri Hita Karana's Learning Resources on Ecological Literacy and Student Geography Learning Outcomes. This type of research is experimental. The research used a quasi-experimental design with a Non-Equivalent Post-Test Only Control Group Design. The sample uses two classes from 4 classes that are assigned randomly after the equivalence test is carried out. The methods used to collect data are questionnaires and tests. Data collection instruments used test sheets and questionnaires. The data analysis techniques are descriptive qualitative analysis and quantitative and inferential statistics. The results showed an effect of the Discovery Learning Model assisted by Tri Hita Karana's Learning Resources on Ecological Literacy and Student Geography Learning Outcomes. It is evidenced by the significant difference in Ecological Literacy and Student Geography Learning Outcomes, partially or simultaneously, between classes that use and do not use the Tri Hita Karana Learning Resource Assisted Discovery Learning Model.

1. INTRODUCTION

Ecological literacy is referred to as the ability to use understanding, thoughts and habits to live happily and/or to learn with the environment. The meaning of Ecological Literacy is focused on the knowledge and understanding of nature, and accepting how the ecological system works (Sumarwati et al., 2021; Suryani et al., 2021). Ecological intelligence is based on the cognitive aspect or understanding of how nature supports the lives of all living things (Chaidir, 2018; Wijaya, 2017). Ecological intelligence is also based on affective aspects which include emotions or feelings, awareness, and empathy, as well as psychomotor aspects related to behavior in the form of actions to preserve the environment (Atmoko et al., 2019; Nugraha, 2017). However, the goal of learning geography has not been fully realized. One of the problems faced in learning geography is the assessment from a number of students that the lesson is not interesting and boring (Alfi et al., 2016; Latief, 2014). In addition, the community considers that geography lessons have failed in meeting expectations in introducing geographical phenomena or objects to students, both on a global and local scale (Purnamawati, 2016; Simanihuruk & Simanungkalit, 2019). Many students do not know exactly where the country is among other countries. In addition, many of

*Corresponding author.
E-mail addresses: md.astawa@undiksha.ac.id (Ida Bagus Made Astawa)

them are not familiar with the physical and socio-cultural conditions in their area. These problems cannot be separated from the ability of the geography teachers and the lack of learning media, including outdoor study activities that make learning more contextual.

The selection of relevant learning strategies or models greatly determines the learning patterns that are implemented, so that it is an effort to create effective learning (Puryadi et al., 2018; Sulfemi & Mayasari, 2019). Learning design is very helpful in facilitating one's learning process optimally. In this regard, the determination or determination of a model that is relevant to the learning method to achieve the desired learning outcomes or objectives is something that must be understood and mastered by an educator (Agustina et al., 2020; Anggraini et al., 2018; He et al., 2021). The selection of an appropriate learning model must also be considered in geography learning. The demand for geography learning is a challenge for geography teachers, especially in shaping students into cosmocentric beings, namely those who understand themselves as part of nature (Hodder et al., 2021; Simanihuruk & Simanungkalit, 2019). This essence makes the subject of geography a spatial education as well as character education. The educational value of learning geography serves to develop students' abilities as potential community members and citizens, as well as to train them to be responsive to environmental conditions and life on earth through a spatial perspective (Alsudais et al., 2022; Pranata et al., 2021). In addition, students are also expected to have ecological literacy skills.

Students' ecological literacy can be empowered as a tool to solve simple problems that they encountered in the real world. An individual's ecological literacy is based on knowledge, awareness, and life skills in harmony with nature conservation, which conceptually has the same meaning as ecological intelligence (Chaidir, 2018; Ramadhan, 2021). Someone who is ecologically intelligent is one who understands that his every behavior and action does not only have an impact on himself and others, but also on the natural environment in which he is located (Karmini & Paramartha, 2019; Nugraha, 2017). Ecological intelligence is built by understanding that the nature in which we live must be preserved so that its remains beneficial for the their lives and others (Rahmawati & Akhrani, 2020; Rusmiyati et al., 2019). Regarding this understanding, someone who has ecological intelligence will realize that the earth as a habitat for humans and other living things must be preserved so that all living things, including humans, can continue and improve their lives on this planet earth (McClure et al., 2020; Zucca, 2022). This ecological intelligence is in line with the fifth pillar of UNESCO learning, namely learning to live sustainability.

Economic developments have put increasing ecological pressure on Bali as a small island ecology. This has the potential to damage the environment compared to nature and resource conservation (Astawa, 2015). If a person lacks understanding and awareness of the importance of maintaining, caring for, preserving nature and having good relations with living creatures in nature, he will take actions that are not in harmony with nature conservation (Bahari et al., 2018; Masfuah et al., 2011). Ecological intelligence describes a person's ability or capacity to take actions related to ecological aspects, namely nature conservation (Chaidir, 2018; Niu & Xiao, 2021). Recognizing these problems and the ecological essence in geography learning, a contextual learning strategy that can encourage students to learn independently through their active involvement with the concepts and principles gained from the experience of carrying out activities that allow them to find concepts is urgently required. In this regard, discovery learning is considered the most relevant to implement in geography learning.

Discovery learning is a learning method that encourages students to ask questions and draw conclusions from general principles of practical experience (Astra & Wahidah, 2017; Nurrohmi et al., 2017). Discovery learning positions students to organize the material under studied in a final form (Ariana et al., 2020; Augustha et al., 2021). This type of learning builds their own knowledge by conducting an experiment and discovering a principle from the results. Discovery learning is a component of educational practice which includes teaching methods that promote active, process-oriented, self-directed and reflective learning (Oktaviani et al., 2018; Warsiki, 2018; Yuliana, 2018). In discovery, students are required to find principles or relationships that are unknown previously resulting from their learning experiences that have been carefully regulated by the teacher (Edeltrudis, 2018; Rahmayani, 2019). Discovery learning is learning that occurs as a result of students manipulating, structuring and transforming information so that they can find new information (Nurrohmi et al., 2017; Tias, 2017). In discovery learning, students can make estimates, formulate a hypothesis and find the truth using an inductive process or a deductive process, make observations and make extrapolations.

In line with the essence of discovery learning and based on ecological goals in geography learning with its special aspects, as well as being aware of the problems of Bali as a small island ecology, the implementation of discovery learning in geography learning becomes more meaningful if there are relevant learning resources to present learning rules which combine contents with experience, individuals, communities and the environment/nature. Tri Hita Karana in Balinese society is developed as

a philosophy which meaning is associated with the Three Causes of Happiness (Sedana Suci et al., 2018; Sugihartini et al., 2018; Sukarma, 2016). The cause of happiness that is created is not only from the attitude and behavior of living in harmony between filial piety to God (theological harmonization) and serving fellow human beings (social harmonization), but also attitudes and behavior of living in harmony by maintaining the welfare of the natural environment (ecological harmonization) (Anjasari et al., 2017; Prasedari et al., 2019; Widnyana & Sujana, 2017). If it refers to the essence of ecological intelligence, THK can be used as a learning resource in teaching geography lessons in order to make the learning becomes contextual through the stages of Stimulation, Problem Statement, Data Collection, Data Processing, Verification, and Generalization.

The findings of previous studies also state that discovery learning can help students in learning (E. D. Putra & Amalia, 2020; I. G. D. Putra & Sujana, 2020). Other research findings also state that discovery learning can improve student learning outcomes (Dayanti, 2017; Fitriyah et al., 2017). Other findings also state that Tri Hita Karana is very appropriate to use in learning so as to increase students' understanding of learning (Anjarsari et al., 2017; Yunita & Tristiantari, 2018). There is no study on the discovery learning model assisted by Tri Hita Karana as a learning resource for ecological literacy and student geography learning outcomes in high school. This research aims at analyzing the effect of the Discovery Learning Model on Critical Thinking Ability and Student Learning Outcomes. It is hoped that the Discovery Learning Model can improve students' thinking skills and students' understanding.

2. METHODS

This study used a quasi-experimental design with a Non-Equivalent Post-Test Only Control Group Design (Rogers & Revesz, 2019). Based on the research design, the experimental group was given treatment using a discovery learning model assisted by THK learning resources (X) and was given a final test (Q1) Literacy Ecology (Y1) and Learning Outcomes (Y2). The control group was not given treatment and was given a final test (Q2) Literacy Ecology (Y1) and Learning Outcomes (Y2). The test results of both groups were analyzed to determine the success rate of treatment (X). The trial was conducted at SMA Negeri 1 Bangli, namely in Class XI-IIS. The use of Class XI-IIS as a research subject was because the material 'Wisdom in Utilization of Natural Resources and Environmental Conservation and Sustainable Development' in Geography was taught in class XI-IIS. There were 4 classes in SMA Negeri 1 Bangli in the XI-IIS class. The determination of the experimental class and the control class was done randomly using the lottery technique. However, before randomization, an equivalence test was carried out using a t-test on the results of the mid-semester test. All classes showed equality (t Coefficient $\alpha = 0.05$) using the t test, namely the Independent Samples t Test with the help of SPSS 24.0 for Windows. Based on the results of randomization using the lottery technique, Class XI-IIS-1 was selected as the experimental class and Class XI-IIS-3 as the control class.

The data collected in this study consisted of: (1) Post-test data in the experimental class which was treated with Discovery Learning assisted by THK as a learning source (Q1) which included Ecological Literacy data (Y1) and Learning Outcomes data (Y2), and (2) Post-test data in the control class without treatment (Q2) which includes Ecological Literacy data (Y1) and Learning Outcomes data (Y2). The instruments used to assess Ecological Literacy and student learning outcomes were in the form of tests. The steps taken in preparing the Ecological Literacy test and student learning outcomes were: (1) compiling the ecological literacy test blueprint, (2) determining the assessment criteria, (3) compiling the points of the ecological literacy tests, (4) expert assessment, (5) test try out, (6) analysis of try out test results, (7) revision of ecological literacy test items, (8) finalization of the instruments. The indicators that were taken into account in measuring Ecological Literacy and student learning outcomes along with the challenges in their aspects can be seen in Table 1 and Table 2.

Table 1. Student Ecological Literacy Test Grid

Variable	Indicator	Aspect	Question Item	
			Number of Items	Number of Items
(1)	(2)	(3)	(4)	(5)
Ecological Literacy	Knowledge	Impact of using fertilizers and chemical drugs on rice products	1	1a
		Impact of conversion of paddy fields to palemahan subak	1	2a
		Impact of waste on agricultural land and rivers	1	3a

Variable	Indicator	Aspect	Question Item	
			Number of Items	Number of Items
(1)	(2)	(3)	(4)	(5)
		Impact of increasing settlements on the lives of the subak community	1	4a
	Awareness	Alternative forms of concern related to the widespread use of chemical fertilizers and drugs in agriculture	1	1b
		Alternative forms of concern related to the threat of damage to subak palemahan due to widespread land conversion	1	2b
		Alternative forms of concern related to waste problems in rice fields	1	3b
		Alternative forms of concern related to the problem of rampant settlements	1	4b
	Application /Action	Alternative forms of attitude to maintain soil health and produce safe and healthy rice products	1	1c
		Alternative forms of attitude to maintain subak palemahan in order to remain sustainable	1	2c
		Alternative forms of attitude to address the waste problem to help combat some of the more sinister effects on the environment	1	3c
		Alternative forms of ways to overcome the negative impacts of increasing settlements	1	4c
		Total	**12**	

Table 2. Grid of Student Geography Learning Outcomes

Basic Competencies		Indicators	Cognitive Area				Question Number
			C3	C4	C5	C6	
(1)		(2)	(3)	(4)	(5)	(6)	(7)
3.6	Analyzing forms of local wisdom in the utilization of natural resources in agriculture, mining, industry, and tourism	Examining forms of local wisdom in the utilization of natural resources in agriculture, mining, industry, and tourism	√	√			3
		Proving the application of forms of local wisdom in the utilization of natural resources in the fields of agriculture, mining, industry, and tourism			√		4
4.6	Presenting examples of wise actions in the use of natural resources in agriculture, mining, industry, and tourism in the form of papers or other publications	Reconstructing the wise actions of THK's local wisdom in the utilization of natural resources in the tourism sector				√	3
		Reconstructing the wise actions of THK's local wisdom in the utilization of natural resources in the tourism sector				√	3
3.7	Evaluate appropriate actions in environmental conservation in relation to sustainable development.	Provide arguments against environmental conservation actions in the area			√		3
		Outlining the link between THK and sustainable development			√		3
4.7	Communicating examples of appropriate actions in environmental conservation in relation to sustainable development in the form of papers or other forms of publication	Provide academic arguments examples of environmental conservation actions with local wisdom			√		3
		Provide academic arguments examples of sustainable development with local wisdom			√		3
		Total	**1**	**2**	**16**	**6**	**25**

Before the instrument was used, a number of initial tests were carried out. Content validity with Gregory and item validity with Product Moment (rxy) (Azwar, 2016) showed that the Ecology Literacy Instrument was categorized as valid. The instrument reliability test with Alpha Croncbach (Azwar, 2016) showed that the Ecology Literacy Instrument was categorized as reliable. Item validity with Biserial Point Correlation (rpbi) indicated that the test instrument for geography learning outcomes was valid. The geography learning achievement test instrument also had a high item difficulty index, and had good discriminating power. There were two methods of data analysis used in this study, namely ANOVA and one-way MANOVA. Prior to data analysis, a prerequisite test was carried out with the help of SPSS 25.0 for Windows, namely normality test with Kolmogrof-Smirnov, homogeneity test with Levene's Test of Equality of Error Variance and Box's M test and linearity test with Product Moment aimed to determine whether there was linear relationship in each analyzed dependent variable.

3. RESULT AND DISCUSSION

Results

The average score of ecological literacy achieved by the students in the experimental class was 25.63, with the highest score of 33 and the lowest of 17. Meanwhile, in the control class, the average score was 21.47, with the highest score of 30 and the lowest of 15. The standard deviation of the ecological literacy of students in the experimental class was 3.75, while in the control class was 3.80. This shows that the variation in scores in the experimental class was lower than that of the control class. This means that not only the score achievements in the experimental class were higher than the control class, but the distribution of scores in the experimental class was also more homogeneous than those in the control class.

The results of students' learning geography in the experimental class after the discovery learning model assisted by THK as a learning resource were applied, reaching an average score of 77.03, with the highest score of 90 and the lowest of 55. While in the control class, the average score of students' geography learning outcomes was 58.13, with the highest score of 75 and the lowest of 40. The standard deviation of students' learning outcomes of geography in the experimental class was 7.81, while in the control class was 8.40. This shows that the variation in scores in the experimental class was lower than that of the control class. This means that not only the score achievements were higher in the experimental class than those of the control class, the distribution of scores in the experimental class was also more homogeneous than that of the control class.

Before testing the hypothesis, the classical assumption was tested in the form of prerequisite tests in the form of normality test, homogeneity of variance test, and multicollinearity test. Normality test was performed using the Kolmogorov-Smirnov statistic. The test criteria used were the data having a normal distribution if the resulting significance number was more than 0.05 and in other cases, the data was not normally distributed. The recapitulation of the results of the normality test is presented in Table 3. The results show that the significance figures are greater than 0.05. Based on the normality test criteria, it means that the distribution of data on all units of analysis is normally distributed.

Table 3. Recapitulation of Normality Test Results

Analysis Unit	Group	Kolmogorov-Smirnov		
		Statistic	df	Sig.
(1)	(2)	(3)	(4)	(5)
Ecological literacy	Experiment	0,143	32	0,094
	Control	0,143	32	0,095
Experimental Geography learning outcomes	Experiment	0,148	32	0,072
	Control	0,145	32	0,085

The homogeneity test of variance between groups was carried out using Levene's Test of Equality of Error Variance (Santoso, 2010). The data having the same variance if the resulting significance number is greater than 0.05. The homogeneity test of the variance matrix was carried out using the Box's M test. The variance matrix of the dependent variable would be the same if the significance of the Box's M test was greater than 0.05 (Santoso, 2010). A summary of the results of the homogeneity of variance test between groups and the homogeneity of the variance matrix is presented in Table 4.

Table 4. Results of Homogeneity of Variance Test

Analysis Unit	Levene Statistic	df1	df2	Sig.
(1)	(2)	(3)	(4)	(5)
Ecological literacy	0,000	1	62	0,991
Geography learning outcomes	0,144	1	62	0,706
Box's M			0,655	
F			0,211	
df1			3	
df2			691920,000	
Sig.			0,889	

Based on Table 4, the results of the homogeneity of variance test show that Levene's statistical significance figures are greater than 0.05. This shows that the variance between learning models in all units of analysis is homogeneous. Table 9 shows that Box's M has a value of 0.655 with a significance of 0.889 and greater than 0.05. Thus, it can be concluded that the variance matrix of the dependent variable is not different. The multicollinearity test is intended to determine whether there is a significant correlation between variables. Multicollinearity can be tested with Product Moment correlation. A summary of the results of the multicollinearity test is presented in Table 5.

Table 5. Summary of Multicollinearity Test Results

		Ecological literacy	Geography learning outcomes
Ecological literacy	Pearson Correlation	1	-0,165
	Sig. (2-tailed)		0,193
	N	64	64

Based on Table 5, the magnitude of the rcount correlation (Pearson Correlation) is -0.165 with a Sig. (2-tailed) value of 0.193. Because r_{count} < 0.800 and Sig.(2-tailed) > 0.05, it can be concluded that the variables of ecological literacy and geography learning outcomes are not collinear. The prerequisite tests for hypothesis testing have been met, so that hypothesis testing can be continued. The results of the data analysis carried out can be seen in Table 6.

Table 6. Recapitulation of the Results of One Path Analysis of Variance for Ecological Literacy and Geography Learning Outcomes

Student Ecological Literacy					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	276,391	1	276,391	19,397	0,000
Within Groups	883,469	62	14,249		
Total	1159,859	63			
Geography learning outcomes					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	5719,141	1	5719,141	86,899	0,000
Within Groups	4080,469	62	65,814		
Total	9799,609	63			

Table 6 shows that for the students' Ecological Literacy, the value of F = 19.397 (p < 0.05). This means that H0 is rejected, so it can be stated that there is a significant difference in ecological literacy between students whose learning was assisted by the THK-assisted discovery learning model as a learning resource and the class where the strategy was not employed. The results show that for the Student Geography Learning Outcomes, the value of F = 86,899 (p < 0.05). This means that H0 is rejected, so it can be stated that there are significant differences in student geography learning outcomes between students who learn to use and not use the THK-assisted discovery learning model as a learning resource. The results of the one-way Manova are presented in Table 7.

Table 7. Recapitulation of One Way Manova Results

Effect	Value	F	Hypothesis df	Error df	Sig.
Pillai's Trace	0,971	1024,079	2,000	61,000	0,000
Wilks' Lambda	0,029	1024,079	2,000	61,000	0,000

Effect	Value	F	Hypothesis df	Error df	Sig.
Hotelling's Trace	33,576	1024,079	2,000	61,000	0,000
Roy's Largest Root	33,576	1024,079	2,000	61,000	0,000

Based on Table 7, it can be interpreted that the significance level for the value of F-Wilks' Lambda = 1024.079 ($p < 0.05$), meaning that H0 is rejected, so it can be stated that there is a significant difference between ecological literacy and geography learning outcomes simultaneously between students who learn to use and not use the THK-assisted discovery learning model as a learning resource.

Discussion

The characteristics of the education sector were considered to be the underlying reasons of the increase in ecological literacy and student geography learning outcomes. Discovery learning is a component of educational practice which includes teaching methods that promote active, process-oriented, self-directed and reflective learning (Astra & Wahidah, 2017; Nurrohmi et al., 2017). In discovery learning, students are required to find initially-unknown principles or relationship, resulting from their learning experiences that have been carefully regulated by the teacher (Ariana et al., 2020; Duwi, Tio Gusti Satria, 2021). The characteristics of the discovery learning model are an advantage compared to other learning models in order to achieve learning objectives to improve ecological literacy. This is because the aspect of ecological literacy is in accordance with the characteristics of the discovery learning model. The constituent aspects included in ecological literacy are aspects of understanding ecological concepts, caring and attitudes (Chaidir, 2018; Kristiawan, 2018; Rahmawati & Akhrani, 2020). The specific purpose of learning with the discovery learning learning model is that there are several facts that show that the skills, concepts and principles learned through discovery are more meaningful (Ariana et al., 2020; Augustha et al., 2021).

Students carry out investigation activities such as seeking information from references, planning problem solving, solving problems, and re-examining the results of their work. Investigation activities/searching for information and solving problems will make students' abilities in aspects of understanding ecological concepts develop (Chaidir, 2018; Yossa, 2015). The solutions given by students in solving problems can hone students' abilities in aspects of attitudes and student learning outcomes. All of these processes can result in students playing an active role in learning so that students' ecological literacy skills develop well which eventually has an impact on student learning outcomes (Nugraha, 2017; Ramadhan, 2021). In order to preserve the environment, every individual should have a qualified ecological literacy ability which can be improved through discovery learning.

The advantages of discovery learning is among others increasing students active learning since they will think and use their abilities to find final results (Augustha et al., 2021; Rahmayani, 2019). Students understand the lesson material correctly, because they experience the process of finding it themselves. Something obtained in this way is remembered longer, the process of discovering it yourself creates a sense of satisfaction for students. Discovery learning encourages students to learn through their own active engagement with the concepts and principles being taught, and teachers encourage students to have experiences that enable them to discover principles for themselves (Aprilianingrum & Wardani, 2021; Edeltrudis, 2018). In the implementation of the discovery learning model, students' self-study activities are very influential in learning outcomes with the discovery learning model (Luthfi et al., 2021; Nita Noviani, 2013). In discovery learning, activities or learning are designed in such a way that students can discover concepts and principles through their own mental processes. This is very important in improving student learning outcomes.

Ecological literacy is also in line with the characteristics of THK as a learning resource. The constituent aspects included in ecological literacy are aspects of understanding ecological concepts, caring and attitudes that are closely related to the local wisdom of THK in the community. The existence of THK as local wisdom with its harmonization (theological, social, and ecological) stimulates students to actively participate in building knowledge, solutions, communication, and decision making (Sedana Suci et al., 2018; Sugihartini et al., 2018). This contextual learning not only has an impact on increasing students' ecological understanding and students' concern for environmental sustainability and ability to behave well to prevent environmental destruction, but also can improve student learning outcomes. Thus, THK's local wisdom as a learning resource can develop ecological literacy and improve student geography learning outcomes to the fullest.

The findings of previous research stated that discovery learning increases the understanding of the effectiveness and student learning outcomes (Augustha et al., 2021; Warsiki, 2018; Yuliana, 2018). Other research also stated that discovery learning was very well applied in learning activities because they enable students to understand learning material easily (Edeltrudis, 2018; Luthfi et al., 2021;

Rahmayani, 2019). The results of the research as described above were proven theoretically and empirically that there were significant differences in ecological literacy and geography learning outcomes between students who learn to use and not use the THK-assisted discovery learning model as a learning resource at SMA Negeri I Bangli. Thus, it can be concluded that the discovery learning model assisted by THK as a learning resource had an effect on ecological literacy and student learning outcomes of geography.

4. CONCLUSION

The results of data analysis showed that first, there were significant differences in students' ecological literacy. Second, there were significant differences in student geography learning outcomes. Third, there were significant differences in ecological literacy and student learning outcomes of geography simultaneously. It can be concluded that there was an effect of discovery learning model assisted by THK as a learning resource on ecological literacy and student learning outcomes of Geography at SMA Negeri 1 Bangli.

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