Profile of Prospective Teachers Based on 3R Eco Lifestyle: Case Study of Biology Education Students at Riau Islamic University

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ABSTRACT

Eco-lifestyle should be started from ourselves, participation is needed to support an environmentally friendly lifestyle. This research is intended to find out the 3R-based Eco-lifestyle Profile of Biology Education Students at Riau Islamic University Pekanbaru by employing survey methodology. The population consisted of 124 students of Biology Education Faculty of Education and Teacher Training Riau Islamic University Pekanbaru. The sampling process was carried out using a saturated sample method where the entire population was used as a sample. The instrument used is a closed questionnaire, containing questions that have been validated by material experts. The empirical test of the questionnaire obtained is carried out reliability test using the IBM SPSS Statistics 20 program. The reliability test uses the Alpha Cronbach technique with the SPSS 22 program. Distribution of the questionnaire to students is performed by utilizing Google form, containing 3 indicators of Reduce, Reuse, and Recycle totaling 30 questions. By using a Likert scale, it was obtained three categories such as strongly agree, agree, and disagree where respondents are asked to give a checklist mark (√) to fill out the questionnaire. The data collection technique used a questionnaire, qualitative descriptive data analysis, and data on the results of respondents' answers using the IBM SPSS Statistics 20 program. The research data obtained a value of Reduce 77.32, Reuse 79.56, and Recycle 77.39 good categories. The average (Reduce, Reuse, Recycle) obtained a value of 78.09 good category. It is concluded that the 3R-based Eco-lifestyle profile of Biology Education students at Faculty of Education and Teacher Training Islamic University of Riau Pekanbaru is in the good category.

Keywords: *eco-lifestyle, profile, 3R*

INTRODUCTION

To be honest in Indonesia, it can be said that the problem of waste is an unresolved problem. Instead of that, the population growth will obviously increase the volume of waste generated from human activities. Based on a comparison of the composition, the waste produced is 60-70% organic waste and the remainder is around 30-40% non-organic waste. Hence, the non-organic composition is is the second largest at 14% plastic waste. Moreover, Indonesia is ranked second after China in producing plastic waste which reaches 187.2 million tons. (Purwaningrum, 2016). Plastic is a synthetic polymer that is difficult to decompose in nature, it takes almost hundreds of years (Jambeck et al., 2016). (Jambeck et al., 2015). Plastic waste is one form of consequence of human activity, its volume is directly proportional to the population that need to be handled properly. (Nasution, 2015). The accumulation of plastic waste cannot be ignored. It needs to be overcome by burying it in the ground especially by burning it to produce chemical

compounds harmful to humans. Another way is to reduce the use of plastic bags to wrap goods, processing with fabrication methods, and the use of *biodegradable* plastics. (Qodriyatun, 2014).

There are many things that must be understood in order to minimize environmental damage which is increasingly worrying. One of them is by performing the *Eco-lifestyle* movement. *Eco-lifestyle* is a movement aimed at increasing consumer awareness and motivation to behave greenly and use natural resources efficiently. In addition, consumers should be wise and buy environmentally friendly products must be carried out by various parties, by prohibiting the use of plastic, *styrofoam* and others, to reduce the amount of waste, especially plastic which is difficult to decompose.

By reducing the use of plastic, consumers are encouraged to bring their own shopping bags. Through *Eco-lifestyle,* consumers have personally educated themselves on how to participate in protecting the environment. In addition, the social environment also plays an important role in influencing consumer awareness to continue living in an environmentally friendly style. (Kusumo et al., 2017). Furthermore Rezai at. All (2013) explained that consumer demographic characteristics such as age and education level influence views and behavior. Therefore, to reduce environmental problems, especially plastic waste, Eco-lifestyle (environmentally friendly lifestyle) is suggested to be implemented.

Differences in activities, interests, and social status that a person has make the lifestyle that each person has different. This lifestyle is formed in order to preserve the environment (Escario et al., 2020). An environmentally friendly lifestyle can include many things, including *Reduce, Reuse and Recycle* (3R). Referring to the Regulation of the Minister of Environment Number 13 of 2012, *reduce, reuse,* and *recycle* activities called 3R activities are all activities that are able to reduce everything that can generate waste, activities to reuse waste that is suitable for the same or different functions, and activities to process waste into new products. (Amalia & Kusuma Putri, 2021). The trend of urban waste management that prioritizes the 3Rs, namely *Reduce, Reuse,* and *Recycle,* needs to be supported, so that the amount of waste disposed of is reduced, and future waste management patterns are organized. (Qodriyatun, 2014). In accordance with the opinion of (Luciana, 2017) in the current sense*, Eco-lifestyle is* guided by the 3R principle, namely *Recycle, Reduce* and *Reuse.*

However, efforts to improve environmental conditions and improve the quality of life is the responsibility of all parties, including Higher Education Institutions. Higher education involvement in improving the environment can be realized by involving all elements of the campus such as students, lecturers and employees. Students on campus must understand well the importance of 3R in order to reduce and minimize product use. Apart from that, reusing items that have been used previously gives a product a second chance so that it can become a usable product. Students must be prepared to start this lifestyle, so that it can then become a habit in their daily activities. For this reason, it is necessary to provide students with an understanding of the importance of a caring and friendly attitude towards the environment.

Unfortunately, the reality found is that some biology students are not yet optimal in understanding the 3Rs (Reduce, Reuse and Recycle). Although there are still several students who help reduce the accumulation of waste. The reality in the field is reinforced by the results of research by Nursalim & Adib (2020) this 3R model still has the potential to cause waste accumulation problems in the future. This waste accumulation problem can be overcome by needing a good understanding in order to reduce plastic waste.

The problems in this research that exist for FKIP biology education students are as follows ; there are still those who shop without bringing their own bags, still less aware of the importance of bringing their own bottles for drinking, few who use straws and *reusable cutlery,* avoid buying fruits and vegetables wrapped in plastic, avoid throwing away food, not all of them reduce the use of ordinary lights and replace energy-saving lamps (*LED*), and reduce the use

of private motorized vehicles. As well as the purpose of this study to determine the 3R-based *Eco-lifestyle* Profile of Biology Education Students FKIP Islamic University of Riau Pekanbaru. It is hoped that later there will be changes that occur in society and students who begin to apply environmentally friendly behavior, which of course will change their needs and desires as consumers. Starting from choosing the products they use, by preferring products that do not contribute to environmental damage. This action is also a social responsibility which is the obligation of consumers in preserving the environment. With the above, students should change the current *life style* to *Eco-lifestyle* so that things that can damage the environment are minimized. And we can enjoy it in the long term or sustainable.

In this research, the data analysis used is descriptive qualitative based on Sugiyono's (2019) approach. Qualitative descriptive statistical methods are applied to analyze data by describing or illustrating the data that has been collected as it is without intending to draw conclusions that apply to the general public. It is hoped that the material in this research can be taught, developed and applied in everyday life so that environmental pollution is reduced. Apart from that, this research is expected to help encourage the application of science that can change various areas of human life, help human productivity as individual and social creatures and become a guide in everyday actions.

METHODOLOGY

To obtain correct and accurate data, a survey method was applied. This technique is used to obtain quantitative and qualitative data from the results of the research conducted, the research was conducted in June-December 2022, on Biology Education Students FKIP Islamic University of Riau Pekanbaru. The population is Biology Education students FKIP Islamic University of Riau Pekanbaru, totaling 124 people. Using a saturated sample. According to Sugiyoano (2019) states where all members of the population are taken as samples.

The instrument in this study is a closed questionnaire before collecting data, it is necessary to test its validity. According to (Purnomo & Palupi, 2017) Valid means the measuring instrument used to get valid data and the instrument used to measure what should be measured. For this reason, it is necessary to carry out construct and content validation, assisted by a peer material expert. The measuring instrument used as a questionnaire is in accordance with the research material.

The questions and questionnaires obtained from the empirical test results were then tested for reliability using the IBM SPSS *statistics* 20 program. The reliability test of this study used Alpha Cronbach technique data processing with the *SPSS 22* program. Sugiyono (2019) mentioned that decision making using the Alpha Cronbach technique has two provisions, namely:

1. If the Cronbach's Alpha value is> 0.60, the questionnaire or questionnaire is declared *reliable* or consistent.
2. If the Cronbach's Alpha value <0.60 then the questionnaire or questionnaire is declared unreliable or inconsistent.

Then the questionnaire distributed to Biology Education Study Program students using *google form* contains a filling format and the questionnaire consists of 3 indicators *Reduce* there are 9 questions, *reuse* 11 questions and *recycle* 10 questions so that the total number is 30 questions. The scale used is the Likert scale which is isused to measure attitudes, opinions and perceptions of a person or group of people about social phenomena Sugiyono (2019). It was using three categories, namely strongly agree, agree, and disagree.

The data collection technique uses a questionnaire, while the data analysis uses qualitative descriptive where the data obtained from the results of the respondents' answers using the IBM

SPSS *Statistics* 20. To make it easier to determine the results of the data obtained after calculation, score interpretation is carried out for each category as shown in table 1 below;

Table 1. 3R-based *Eco-lifestyle* score interpretation categories

No.	Figures	Category
1	81%-100%	Very good
2	61%-80%	Good
3	41%-60%	Simply
4	21%-40%	Less Good
5	0%-21%	Not good

Source: (Modified from Sugiyono. 2019)

RESULTS AND DISCUSSION

Awareness to always maintain and preserve the environment is the responsibility of all individuals. Hence as social creatures who depend on each other, it is necessary to establish an environmentally friendly and sustainable pattern or lifestyle. The research data regarding the 3R Based Eco-lifestyle Profile regarding the implementation of Eco-lifestyle with the Reduce indicator can be seen in table 2 below;

Table 2. *Eco-lifestyle* with *Reduce* Indicator

No	Statement	Average	Category
1	Choose products with recyclable packaging	85,02	Very good
2	Avoid using products that produce largequantities	90,82	Very good
3	Use products that can be refilled. For example, stationery that can be refilled	86,23	Very good
4	Maximize the use of electronic storage devices that can be erased and rewritten	78.50	Good
5	Reduce the use of disposable materials (-)	51,69	Simply
6	Use both sides of the paper for writing and photocopying	76,33	Good
7	Avoid buying unnecessary items	87,20	Very good
8	Use less unnecessary items (-)	49,03	Simply
9	Avoid buying products that produce largeamounts of waste	91,06	Very good
	Average	**77,32**	**Good**

Based on Table 2 above, it can be seen that the highest score was obtained regarding avoiding buying products that produce large amounts of waste with a total of 91.06 in the very good category. In an effort to process waste globally, it is a gradual effort, which begins when waste has not been produced, not an effort made after the waste appears. It can be concluded that

students in this case are very good at understanding waste issues, but the next step must be to avoid buying products that produce waste. This is a real action before waste exists since it is a *preventive* effort so that waste is not produced. The challenge is to involve millions and billions of Earth's populations to implement waste *reduction* actions. Because, most humans prefer to implement an instant lifestyle which is usually synonymous with disposable non-organic packaging products. Meanwhile, the lowest score was regarding reducing the use of single-use materials with a total of 51.69 for the simply category In principle, emphasizing human consumption attitudes will automatically make people live more economically, which is still effective as an effort to save the environment. Apart from that, this effort also encourages people to better understand their needs. Compared to buying things you want but are useless and will become garbage.

Reduce indicator data has an average value of 77.32 in the good category. This needs to be known that *Reduce* is reducing the use of goods as well as reducing something that causes waste. Students should be able to reduce the amount produced personally per day. This is an effort to reduce piles in the environment, sources and even done since before the waste is generated. This understanding is needed so that each individual can make reduction efforts by changing a very consumptive lifestyle, namely changing habits from being wasteful and producing a lot of waste to being more economical and efficient in order to reduce what is produced. Thus it can be concluded that the Reduce principle has been implemented by students at FKIP by minimizing the goods or materials used as much as possible. Even though results have been obtained in the good data category, high levels of awareness and willingness are still needed to change behavior. An example of implementing reduce measures is bringing a drinking bottle to college so you don't have to buy drinks in plastic packaging can be seen Figure 1.

Figure 1. Carrying a drinking bottle

The results of interviews with biology students regarding *Reduce are* expected to reduce waste so as to reduce environmental damage. Hence students must have a high awareness of buying disposable products. The goal is to reduce contamination by reducing its use so as not to create waste. Because reduce controls what materials will be used and decides what items to buy and how much is needed. (Arisona, 2018). Actions that can be taken in relation to the *Reduce* program are to avoid using and purchasing products that produce large amounts of waste. According to research by Dwi Riskina & Listyaningsih (2019) environmental care attitude is an action that is always developed in an effort to keep the environment from being damaged. This attitude is very important for every individual (person) to realize and understand with a good mind, considering that it is the environment that humans depend on for life. Reinforced by (Arisona, 2018) *Reduce* can also encourage and shape the attitude of students to be able to participate in implementing reduced product usage, is an effort to reduce environmental pollution and remain in sustainable development. Strengthened by from the research of Singkam & Putri (2022) shows that the application of the *Reduce* principle in the community along the Pondok Besi siring stream is still very lacking. However, there are positive actions that show that people in this

area have applied the reduce principle, namely not asking for bags if the items purchased can be held by hand and bringing drinking bottles from home when traveling. Because reduce means reducing everything that can result by not using materials that are only one-time use and immediately become waste, because this can damage the environment.

The research data regarding the 3R Based Eco-lifestyle Profile regarding the implementation of Eco-lifestyle with the Reuse indicator can be seen in table 3 below;

Table 3. *Eco-lifestyle* with *Reuse* Indicator

	Statement	Average	Category
1	Choose containers, bags or objects that can be used multiple times or repeatedly	84,78	Very good
2	Using cloth napkins instead of tissues, using rechargeable batteries	81,88	Very good
3	Reuse empty containers or packaging for otherfunctions	80,43	Very good
4	Maximize the use of erasable and writable electronic storage devices	78,26	Good
5	Use electronic storage devices that can beerased and rewritten	78,02	Good
6	Use the blank side of the paper to write	83,33	Very good
7	Use email (electronic mail to send letters	73,43	Good
8	Sell or give the segregated waste to those whoneed it	79,47	Good
9	Using your goobybag to go shopping	79,95	Good
10	Reuse empty containers or packaging for thesame function	78,26	Good
11	Use paper to send letters	77,29	Good
	Average	**79,56**	**Good**

Based on data table 3 above, it was obtained a statement with the highest value regarding Choose containers, bags or objects that can be used several times or repeatedly with a total of 84.78 very good categories, here biology students have done by reusing is the second principle in waste management. Students are asked to consider items before throwing them away and estimate their chances of being reused. In this case it also teaches humans to sort out waste that can still be used. In addition to reducing waste, these items can also be useful for others. Repairing damaged items instead of buying new ones is also a good and right thing. Because some used items can also be sold to second-hand shops, providing economic benefits forthose who implement it. As for the lowest score regarding Use email (electronic mail to send letters) with a total of 73.43 good categories, *email* or *electronic mail* is very useful in sending letters without having to use paper. A type of non-physical letter created and sent via digital media. Currently, the use of *email is* increasingly widespread along with the promotion of the *paperless* movement everywhere. This movement is not without reason, considering that the use of paper can increasingly cause environmental damage. So that everything that previously used paper, is now starting to be transformed to digital form.

Reuse indicator data has an average value of 79.56, categorized as good. It is expected that all students reuse, at this stage inviting reuse of products that have been used by finding new ways

to reuse so that there is no need to throw them away. By reusing them, the waste arising from these products is reduced. With the *Reuse* method, *the* spread of plastic waste can be purchased, reduced and reused. Students can also reduce the possibility of waste generated from disposable products. In principle, it also invites students to reconsider before throwing away an item while taking into account the possibility that it can be reused. In the long run, *reuse* can prevent unnecessary waste. To start with, you can try to utilize used items around the home environment. One of the best ways to manage and also handle waste properly with its various problems. Reuse is different from recycling, which destroys used goods into raw materials used to make new products. It includes the conventional reuse of an item where the item is reused with the same function. In addition, it can also be interpreted as reuse where the same item is used with a different function. Repairing damaged items rather than buying new ones is also a principle of *reuse*. A simple example of the conventional reuse process of using both sides of paper to reuse notes can be seen in Figure 2.

Figure 2. Two-sided Reuse of Used Paper

The results of interviews with students mentione that items that have been purchased and used either in the form of plastic or paper should be reused, such as using used bottles as flower pots and many other examples. Therefore, the way to process waste to be environmentally friendly, students must know that waste is one of the factors that damage the environment and must get more attention, for that awareness is needed to prevent environmental damage. Supported by research by (Helmi et al., 2018). In increasing student awareness of the utilization of used goods, it is an effort to care for the environment. Environmental awareness is needed, and then environmental awareness can save the environment from waste contamination. Then (Nursalim & Adib, 2020). *Reuse* can also be done by sorting the garbage collected from the results we use to be reused and not thrown away and then selling it.

The research data regarding the 3R Based Eco-lifestyle Profile regarding the implementation of Eco-lifestyle with the Recycle indicator can be seen in table 4 below;

Table 4. *Eco-lifestyle* with *Recycle* Indicator

	Statement	Average	Category
1	Recycling paper that cannot be used anymore	78,02	Good
2	Recycling plastic into handicrafts	83,82	Very good
3	Recycling plastic bottles into flower pots, pencilholders, kitchen utensil holders and so on	85,75	Very good
4	Recycling light bulbs into hanging pots	80,68	Very good
5	Reusing CD/DVDs for glass tethering	76,81	Good

	Statement	Average	Category
6	Use a large paper clip to tidy up the cable	71,74	Good
7	Using a powder bottle for a cell phone case while it is charging	69,08	Good
8	Purchase products from recycled materials	72,22	Good
9	Not using recycled materials for daily use (-)	80,19	Very good
10	Using plastic bags to store or pack householdappliances at home (-)	75,60	Good
	Average	**77,39**	**Good**

Based on data in table 3 above, it was obtained a statement with the highest value regarding Recycling plastic bottles into flower pots, pencil cases, kitchen utensils andso on with an amount of 85.75 very good categories. This indicates that all plastic usage will have a significant impact on the environment, because plastic waste threatens marine fauna and takes hundreds of years to decompose. Moreover, most of the plastics that exist today are derived from petroleum, which is a non-renewable resource. It is very necessary to know especially as a biology education, student must be aware of the problem. Therefore, how to recycle plastic is one of the efforts that must be understood and can reduce the problem. Unfortunately, the use of plastic seems to have taken root in life, making it difficult to remove. Hence by doing plastic recycling is one of the best solutions to reduce the production of new plastics. This plastic recycling method has many advantages. Such as reducing the need for a lot of fossil fuels, saving energy, reducing the use of landfill space, and reducing carbon dioxide and greenhouse gas emissions. Steps taken before recycling plastic. Collection, *sorting*, washing, resizing, identifying and separating plastics, combining. As for the lowest value regarding using a powder bottle for cell phone containers while charging with a total of 69.08 good categories. It is hoped that biology students can carry out these activities to keep the cellphone alive and can carry out its proper function. This is a simple and easy activity to do. In a fairly simple and practical way, clean the bottle that has been prepared and then sketch the place of the cellphone on a plastic bottle or can form a place as desired. Give a special hanger so that it is easy when stored on the wall. Can add decorations or accessories.If it can be done by students, it will certainly help reduce waste in the environment.

Recycle indicator data obtained on average with a value of 77.39 good categories. It is better for students that the waste produced can be recycled in order to give a second chance to a product so that it becomes a new product. Recycling is one of the efforts to overcome the increasing amount of waste every day. Thus, the new product from this recycling can be reused so that it does not only become a pile of garbage that will pollute the environment. In addition, it also aims to reduce the use of new resources and energy, the use of resources becomes more efficient. It is necessary to check that the item can really be recycled and then it should be considered first before throwing it into the trash can. *Recycling* is also a complex process that involves taking used materials and remaking them through various established processes, then selling them as new products, in addition to reducing waste, this stage is also considered economically beneficial with various wise applications. So, the first step to protecting the environment and recycling waste, especially plastic waste, starting from now on, must be understood by all students, the need to apply recycling to products that can be recycled in order to reduce environmental damage. As well as having a role in shaping the behavior of students who care about waste. From this research, the concept of *recycle* is towards *upcycle* because the recycling process in question is to change the original item into an item that has a new use without removing the original form of an item. Although it sounds the same, there are differences in the example of the process carried out in the *upcycle* concept is a collection of plastic gallon water bottle caps that have been cleaned cut into

certain parts according to the framework needed and desired to then be assembled into decorations Figure 3.

Figure 3. Bottle cap upcycle shape

The results of student interviews about recycling should always be done for waste is an effort to reuse rec*ycled* products, because the price also becomes inexpensive and more durable. In addition, recycling should also be an awareness so that the environment is always in a balanced state due to reduced waste disposal so as to reduce the environment from becoming damaged because it will have an impact on its sustainability. According to Andriyani & Hilmi (2020) *recycle* is recycling a material that is no longer useful (waste) into other materials after going through a processing process. For example, utilizing and processing old tires into flower pots and so on. Thus emphasizing on reducing waste more wisely and environmentally friendly. *Recycle* has a role in shaping the behavior of people who care about waste, also trying to utilize used goods or waste as development materials in physical structures that are environmentally friendly and use materials produced from *Recycle* activities. This is done so as not to pollute the environment as well as carry out a sustainable development system. (Hazam et al., 2020) One way to implement it is through community-based integrated waste management. Community-based which is directed towards recycling waste (*Recycle*). This is considered as an effort to reduce waste from its source, because of the potential for utilizing organic waste as raw material for compost and non-organic components as secondary materials for industrial activities such as plastic, paper, metal, glass and others. Supported by Juliandi's research (2022), it can be in the form of creating a clean and comfortable environment caused by the waste produced has been processed so that it does not have a negative impact on the environment.

To be conclude, the research data regarding the 3R Based Eco-lifestyle Profile regarding the implementation of Eco-lifestyle with the *Reduce, Reuse and Recycle* indicator can be seen in table 5 below.

Table 5. *Eco-lifestyle* with average *Reduce, Reuse and Recycle* Indicator

Competence	Indicator	Total	Category
Eco-lifestyle	Reduce	77,32	Good
	Reuse	79,56	Good
	Recycle	77,39	Good
Overall average		78,09	Good

The average data from *Reduce, Reuce* and *Recycle* with a value of 78.09 is a good category. Thus, tt is expected that students understand the best way to manage and handle plastic waste. Therefore it can be utilized and reduce the amount of waste in the environment. Because waste cannot be separated from daily life because the amount continues to grow, especially generated from home. The application of this system is also very capable enough in managing waste from various types of plastic, both safe waste and toxic waste. Because the 3Rs can be done by anyone, anytime, and anywhere with no cost, all it takes is a little time, responsibility, discipline and our concern as students. Then this can be done at home, on campus or other public places. However, this simple activity has a positive and significant impact on the handling of existing waste. From that, students must learn to love the environment to protect the earth so that it continues to be sustainable. With a good spirit, we can definitely realize a clean and beautiful environment which is reinforced by research Nursalim & Adib (2020). They succeeded in establishing and implementing the 3R policy to reduce waste in the Bengkulu University environment. *Reduce* is done by setting regulations to reduce waste in the Bengkulu University environment Then the collected waste is sorted so that it can be sold or reused. This 3R pattern reduces the waste that must be transported and disposed of from Bengkulu University to the Final Disposal Site (TPA). Apart from that Wong et al. (2022) stated that one of the efforts to reduce the adverse effects of plastic waste on the environment is to implement the 3R principle in everyday life, namely reducing usage (*reduce*), *reuse (reuse)*, and *recycle (recycle)*. Furthermore, Sabihi et al.(2020) mentioned that Waste management is a systematic, comprehensive, and sustainable activity that includes waste reduction and handling. Waste reduction activities can include limiting waste generation, recycling waste, and reusing waste. Sorting is one of the main activities in the recycling process. Waste management requires community participation. Moreover, Widaningsih & Qana'a B (2020) in their research concluded that Wide access to information is needed, including information about the environment and impacts on the environment, to deal with this problem. Currently, many companies offer products that are environmentally friendly, recyclable and other environmentally related issues that direct consumer interest in products. Supported by research which is conducted by Eprianti et al (2021), capacity building of community knowledge, attitudes, and skills builds awareness and increases the ability of the community or students to understand *Eco-lifestyle*. As stated by Yanto (2016) that the philosophy of empowerment is "helping people to help them selves", then in the empowerment process an expert is needed who serves as a student educator. Tasked with helping students to gain knowledge, improve their abilities so as to achieve a better life than before. This needs to be realized so that the full development of Indonesian human beings, especially students, can be realized and implemented. position themselves as educators. Therefore, the expected results can be achieved optimally.

In the research, there were unexpected things that were encountered by students who only saw without paying attention and involving all aspects of life. It is hoped that students can understand and carry out an environmentally friendly lifestyle by applying the 3Rs(*reduce, reuse* and *recycle*). It is hoped that the findings of students will be able to address the importance of the 3R problem (*reduce, reuse, recycle) for the* better in the future. The implication of the research results is that students realize that plastic waste should be utilized and be able to provide education about the 3Rs, plus students can be ambassadors promoting the 3Rs in the surrounding community. This study also has limitations in describing the number of questions using only the 3R indicators, for further research these indicators can be developed into 5R (concise, neat, clean, care, diligent). It is hoped that its sustainability will foster student participation, create a feeling of belonging and enable learning to achieve the goals that we hope for together. Then activities in reducing the amount of waste are also determined by the social character of students because there is a relationship with mindset andbehavior in treating waste. For this reason, it is necessary to develop the capacity of knowledge, attitudes and skills of these students which is the key to success and sustainability.

CONCLUSION

In principle, eco-lifestyle is not only seen from the environmental aspect, but also covers all aspects of human life. We must be as efficient as possible in utilizing natural resources. Based on the research results and data obtained, it was concluded that the 3R Based Eco-lifestyle Profile of Biology Education Students, FKIP, Islamic University of Riau Pekanbaru was in the good category. Suggestions for future similar research regarding Eco-lifestyle with the 3R indicators (Reduce, Reuse, Recycle), provide more material responsibility for lectures as a culture and part of life as well as carrying out further investigations into these problems, namely other activities that can empower students.

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