

[POM 13] STML STUDENT'S PERCEPTION ON 3R PROGRAM IN UUM

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ABSTRACT

Green concept is the priority in the higher education institution for reducing the pollution, thus, the issue of 3R being popular to discuss. STML had been run this program during a long time period already. However, there is no any impactful at the end of the program in STML. So, the Purpose of this research is to identify the level of STML students' awareness of 3R program at UUM and the barrier of implementation of 3R. Data was collect from 278 student from STML using a survey questionnaire. This research would like to know the STML students' perception on 3R program, what is the reason a few number of student participate in this program. 3R program should be perform in anywhere in UUM, not only in STML. The facility of 3R in UUM is insufficient. The facility provide is not the proper facility. UUM should take action in the facility.

Keywords: *3R program, barrier of implementation, awareness*

INTRODUCTION

As the awareness moving green is rising in a really high step in the society, campus as the higher education institution should begin the green concept. This is because student will learn the thing from the school. By implement the green concept, campus can be more environmental friendly. Early education on the importance of the environment is a good initiative to educate the students and create a society that practices the 3R activities. What is 3R? 3R are form by Reduce, Reuse and Recycle. Reduce means that you should control the number of purchase that make in the first place. Second R is reuse, we should reuse the items as much as possible before replacing them. The Third R is recycle. Recycle is mean that the item you could not use but the component of the item may put to other some new purpose as much as possible.

3R program are well to environment and also reduce the waste made by human. Screenivasan, Govindan, Chinnasami & Kadiresu (2012) point out that
“waste and waste management has given rise to many issues such as expansive land prices, strict environmental regulations, health and safety issues, improper management of waste disposal sites, landfill spaces becoming limited, policy problems and the unwillingness of local communities to accept new technologies and facility in their own back yards.” (p.56)

3R program giving many benefit to environment. While implementation of 3R, we will save resources. For example, recycling can control waste. In Malaysia, over 23,000 tons

of waste was produce every day. While having 3R program, we can reduce the number of waste. Besides that, we also can saves resources. For instance, recycling one aluminium can saves enough energy to power a television for three hours or a 100 watt light bulb for four hours.

Now a days, government was launch the campaign around whole Malaysia. They having the 3R campaign in all level of school, public area, and residential area. Although the campaign can be seen everywhere but the awareness of 3R are not strong enough. This is because the citizen are aware about 3R program but their response in action is showing they are not understand (Zamani, 2015). This study focused more on the 3R in Universiti Utara Malaysia (UUM) campus and research on the program that could involve students in UUM.

Problem statement

This research is based on the STML students' perception on 3R program in UUM. The factors that influence the students in their perception are awareness to the concept of the 3R, attitude of the students and barrier of executive committee in promote the 3R program in UUM. The awareness of student about the concept of the 3R is very important. That is a first step because students need have a mind that explicit about the important of the 3R program afterwards can make sure the program can run smoothly. That is because the students will give cooperation during the project. For UUM, STML had been run this program during a long time period already.

Besides that, the attitude of student also is one of the factors consider in the perception on 3R program. Many people getting the knowledge about protect the earth from education of school but they didn't apply in real life. The attitude of students is very important factor that we need to consider. According to the research from Fukushima University's students, they said behavior is central among them, and their cooperation is, in this sense, important for reduction and reuse as well. In STML, school has prepares the equipment for the recycle in every place but if the student's attitude with no care or just ignore then this program will be useless at all.

As an executive committee in university also plays an important role in manage the project well to make sure it can be run smoothly. However, there are many barriers will face during operate the program about 3R in particular lack commitment from the students (Aminu Dodo, Jibril, Jogana, Sipan, & Zulkepli, 2013). This may be the reason make the program hard to implement in campus. In addition, the executive committee also need consider all the procedure of the program. For example, they should make sure the amount of the recycle dustbin is enough and put at the suitable place for students to use it. They also need to arrange how to handle after collect all the recycle things after this. All the guidelines have to create and post as poster at everywhere which includes contact info.

Research objectives

In this research need to find out that the perception among student in 3R program. Every student may have different perception about the green technology. There are several objective in this research. The first objective is to identify the level of STML students' awareness of 3R program at UUM. Second, identify STML student's attitude of 3R program at UUM. The third objective is identify the barrier of implementation of 3R.

LITERATURE REVIEW

Awareness

According to Palansamy (2016), only 15 percent of all national waste collected was recycled, criticizing the poor perception to the government's waste segregation program. In 2016, Datuk Abdul Rahman Dahlan had stated that the 3R program is running for a long time period, but the level of awareness on the reuse, reduce and recycle is still low.

The main source of knowledge toward awareness of 3R program was mass media. Since 1960s, mass media has played vital role in building perceptions and awareness in environmental issues (Shabecoff, 1993). Sachsman (2000) had mentioned that television as a national and international medium that had greatly increased the visibility everyone to concern about the environmental issues. As the advancement of technology developed rapidly, the internet was accessible almost everywhere and to a certain extent; it contributes to positive attitudes towards the environment issues (Baym, Zhang & Lin, 2002).

On the other hand, education also can increase the students' awareness about environmental problems and solutions (Maddox, Doran & Williams, 2011). Students can increase the awareness of 3R program through the environmental education by gaining the particular skills and knowledge (Ballantyne & Connell, 2006). Students are motivated to take part in environment protection activities and awareness for environmental issue if they are with some knowledge and skills on environmental education and thus would generate many new ideas for the solution to solve the environmental problems (Tal, nd).

Furthermore, people who are living in the rural and urban have different perception towards the awareness of 3R program. As a matter of fact, for those living in rural environment that have a more well-developed sense of moral obligation to concern about the environment, and that behave more responsibly compare with the person who's living in urban. In short, by the study shall explore more about the relationship between place of residence of rural and urban with their environmental value, specific attitudes and behaviors. Several of authors had been discussing of this aspect which who point out that need to pay more attention to the particular features of group and cultural characteristics with respect to environmental evaluation, interpretation, and behavior (Olli, et al., 2001; Stern, Dietz & Guagnano, 1995; Tanner & Foppa 1996; Zelez-ny et al., 2000).

Attitude of student

Attitude is factor that will affect student's perception on 3R program. Attitude towards behavior is defined as a function of an individual's beliefs towards a behavior and a subjective evaluation of that behavior (Fishbein & Ajzen, 1975). Many studies proved that attitudes is related with behavioral intention (Kelly et al., 2006; Oskamp et al., 1991; Tonglet et al., 2004a; Vining & Ebreo, 1990).

To the influence of attitude, convenience play an important role to determine the recycling behavior of student. Convenience is about a situation that make people easily to implement something by reducing time, workload and increase efficiency. The present of convenient recycling bins was related to a positive perception of recycling (Barker et al., 1994). People will more doing recycle when they found that there are

easy ways to recycle even a group of people with low concern on environment and 3R program (Nixon & Saphores, 2009 referred to Derksen & Gartrell, 1993). Adenso-Díaz (2005) found that when people who are environmentally concerned have convenience recycle bins nearby them, they are willing to recycle more frequent than when they have to walk for a longer distance to drop off.

A person with good personality and habitual will automatic having positive attitude. Further (e.g., Schwartz, 1977) suggests that the attitude towards recycling acquires a status as a moral imperative, a sense of personal obligation to act in a certain way (cf. also Dietz & Stern, 1995). People with good habit on recycle will treat it like common activities, not intentionally but automatically. People will do the thing they feel it is right to do (Hopper & Nielsen, 1991). On the other hand, there are many studies shows that people who have positive views towards recycling willing to recycle more (Gamba & Oskamp, 1994; Oskamp et al., 1991). People which is more concern on environmental will cover with the knowledge and obligation to manage the waste. They may have a good feeling after doing recycling. Feeling good about doing something good for the environment had a strong influence on recycling (DeYoung, 1986).

Third party also significant to student's attitude towards implement the 3R program. Contribution of the third parties involved in 3R program such as the families, peer and social. Peer is an important and motivational factor to influence in recycling activity (Oskamp et al., 1991). In the other word is when presence of others, the implementation of recycling is more frequent, especially when peer actually recycled. With respect to the factors that encourage selective collection, social influences and regulatory factors are some of the reasons why certain communities develop strong recycling habits (Vining & Ebrero, 1992; Ewing, 2001).

Barrier of implementation 3R program

Environment sustainability is a major issue now. The causes for attract the human concern about their environment are the pollution, each people will add waste or rubbish to planet over their lifetime and so on. All of the facts make the people start concern the problem happen in their surrounding and start do something to reduce or prevent the issue become more serious.

Although we know we need to implement the 3R concept in school no matter that is pre-school or university, but there have many barriers during the implement. For example, (1) Facility or equipment, (2) Lack of information, (3) No time or busy and (4) Inconvenience. A vast literature has discussed regarding barriers of recycling, and inconvenience and lack of knowledge is among one of the greatest barriers (Thomas, 2001).

The facility is the main reason that people lack commitment in recycling. Bin location had an effect on quantities of recyclables and contamination levels (Jamar, Maria & Terry, 2015). Over the past few years, research has shown that use of recycling bins depends also upon waste bins, as recycling rates dramatically decrease when recycling bins are located away from waste bins. A survey show the people's tendency to use the nearest bin so that the location of the facility need to consider and must suitable (Fuat & Can, 2016).

However, there is one of the barriers that the lack of information. The apparent lack of knowledge of where to recycle was one of the challenges to students engaging in recycling (Jamar, 2015). There was a lack of signage on campus displaying information on the Recycling Initiative, such as where the recycling bins are located and the types of items recycled. Therefore, they will place improper wastes into recycling bins. It will bring many problems for the staff in separate the waste.

In addition, the other barrier is people have no time in commitment the 3R activity. They are busy in doing their own stuff. People may be aware of sustainability issues, but they may not act on those concerns consistently. Somehow this indicates that they know the importance of recycling but are not willing to spend time doing it and not adapting it as a lifestyle (Jasmine, et al., 2015).

The lack of commitment from student in recycling activities is because they feel that it is inconvenience. It is related to the facility of recycling thus if the location of the bin is very far or lack of quantity then it will make problem for people.

RESEARCH METHOD

The research methodology is the process used to collect the information and data for the purpose of making decision to achieve a satisfactory result. The respondent in this study enclose the undergraduate student under School of Technology Management and Logistic (STML), which are taking course Operation Management (POM), Technology Management (MOT), and Business Administration Logistic & Transportation (L&T).

The sampling method used to define the number of respondent from each course under STML is stratified sampling as there are three different courses. Different courses is equally to represent various strata or subpopulations. Total 226 respondents is needed in this study. 76 respondents from POM, 75 respondents from MOT and 75 respondents from L&T will be selected randomly to giving their own opinion and perception toward 3R program in campus UUM.

In this statistic data analysis, descriptive statistic is applied. Its purpose is to get a general view of the data and variables by table and graph such as mean and standard deviation. IBM SPSS statistics is used as analysis tool in this study by gaining more deeper and accurate insight from the data given and drive better decision making.

FINDING

The result of the study are presented by descriptive statistic and table for demographic characteristics of the respondent, the level of awareness , attitude of student towards 3R program and the barrier of implementation 3R program.

Demographic of respondent

In this research, a set of questionnaire was be distribute to 278 students in STML. From a total of 278 survey, only 226 set of data had returned. It means only 81.30% of the survey was successful be collected. The balance of the survey was returned but answer incompletely. Table 1 is showing the gender of the respondent. There are 226

respondent which 83 are male and 143 are female. While 76 students, 75 students and 75 students are from Operation Management, Management of Technology and Business Administration Logistic & Transportation respectively. Among the 226 student, 32 students are semester 1, 17 students are semester 2, 49 student are semester 3, 18 students are semester 4, 48 students are semester 5, 14 students are semester 6, 47 students are semester 7 and only one student in semester 8.

Table 17
Background of respondent

Demographic Factor	Frequency	Percentage (%)
Gender		
Male	83	36.70
Female	143	63.30
Course		
Operation Management (POM)	76	33.60
Management of Technology (MOT)	75	33.20
Business Administration Logistics & Transportation (L&T)	75	33.20
Semester		
1	32	14.20
2	17	7.50
3	49	21.70
4	18	8.00
5	48	21.20
6	14	6.20
7	47	20.80
8	1	4.0

Reliability

Reliability test is refers to a test with a consistent of measurement across time and across various items in the instruments which without any bias. In another saying, an indication of stability and consistency with which the instrument measures the concept and helps to assess the „goodness of a measure“ is being known as reliability measure. Table 2 present the reliability test of each variable in the questionnaire. The variables by referring to the Cronbach’s alpha. Cronbach’s alpha that is lesser than 0.5 will be considered as poor, those in the range of 0.5 to 0.7 will be considered as moderate or acceptable, whereas those that score over 0.7 are good. In this study, the values are indicated high statistical reliability. Since the value are all above 0.7.

Table 18
Reliability test

Variables	No. of Items	Cronbach’s alpha
Level of awareness	10	0.931
Attitude of student	6	0.791
Barrier of implementation 3R program	5	0.878

Table 3 showing the level of the awareness and the attitude of the student toward the 3R program. In this research, 5 point scale was be used. From the table 2, the result show that STML’s student have a moderately low level of awareness (mean = 3.3107) of 3R program. The student understand the meaning of reduce, reuse and recycle, but

most of them are not aware the 3R program are relate to the green environment. The mean of the question is getting a moderate low. This is means that the student of STML student are not really aware that 3R program are helping to save the environment. Besides, mean of the attitude of student is 3.136. The number of the result is a high value, this is showing that the attitude of student not affect they commit to the program. Student in STML can commit the program, but they are not aware the program had run in the school.

Table 19
Awareness and attitude of student

Factor	Mean	Standard Deviation
Level of awareness	3.3107	0.9014
Attitude of student	3.1364	0.7527

Table 3 is showing the mean of barrier of implementation 3R program and Table 5 is showing the analysis of the questionnaire. While run a project, there will be the barrier when implementation. One of the factor that student did not commit in the project is the barrier. The barrier that student face was insufficient of recycling facility around the school. The facility around the school are less. The facility are provide in a certain area such as beside the office. Besides that, lack of the info also one of the barrier. The info provide by the school or local authority may not enough. The student may not understand what type of waste should be throw in the certain recycle bin.

Table 20
Barrier of 3R program implementation

Barrier of 3R program implementation	Mean	Std. Deviation
Insufficient of recycling facility preventing you from acting 3Rs Program	3.85	1.003
Lack of info preventing you from acting 3Rs Program	3.85	1.081
Recycling is time consuming	3.47	1.204
Insufficient of time preventing you from acting 3Rs Program	3.56	1.207
There are things that want to recycle but aren't sure how.	3.78	.982
Overall mean	3.70	.901

CONCLUSION AND RECOMMENDATION

In conclusion, level of STML students' awareness of 3R program at UUM is moderate low while the attitude was high. The low awareness was affect them commit the program run by the school. Barrier also is the reason stop them commit in the program. The barriers and problems need to overcome so that can make sure the 3R program can run smoothly and efficiency. The good environmental can bring many benefits for human, thus everyone need to cooperate in saving our environment to green.

Based on the result of the survey, the people's attitude toward recycling behavior need to concern so that can increase the awareness of people on 3R program. This can be achieved through educational and promotional program. . For example, the promotional messages need to illustrate the benefit of the recycling behavior and also the effect of

the change a person's lifestyle and values towards a better future. Therefore, it can attract people involve to the 3R program in order can increase the awareness of people at the same time.

In addition, the knowledge about the recycling need to enhance and people also need to understand about what is recycling. Therefore, the environmental protection groups or committee can be invited to rise the image of recycling activities and also can promote the ideal of the recycling to public. Moreover, people also need to concern the environmental impacts.

Last but not least, the procedure of the recycling proses need to be clear and notice to let people know in order can let them more convenient while do the recycle. For example, a related promotional program can show how recyclables should be allocated with, where the university students can find recycling facilities, and how to proceed the waste after collect all the recyclable things. Therefore, the promotional program can show how the recyclables should be sorted, stored and handled. In addition, directional signage can be considered to be placed in the campus to show the location of recycling facilities. It will be more effectiveness.

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