

CHAPTER FIVE

CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

This chapter presents (1) a summary of the study, (2) a summary of the findings, (3) discussions of the findings, (4) conclusions, and (5) recommendations for further research.

5.1 SUMMARY OF THE STUDY

This research aimed to reveal the knowledge of solid-waste separation of people and their solid-waste separation behaviors. The objectives of this study were to find out how much do people in Anusaowaree sub-district, Bangkhen district in Bangkok Metropolis know about solid-waste separation, to examine the frequency of solid-waste separation behaviors among the people, and to identify the relationship between the knowledge of waste-separation and peoples' behaviors.

A cross-sectional study was used to conduct the research and the subjects of this study were 127 residents living in Anusaowaree sub-district, Bangkhen district. The research instrument was a questionnaire which contained closed-ended questions. The questionnaires were distributed during January – March 2009.

5.2 SUMMARY OF THE FINDINGS

The results of the study can be summarized as follows:

5.2.1 Demographic Data

The result indicated that the gender of respondents was slightly different between males (42.5%) and females (57.5%). Most of them (41.7%) were older than 39 years and were company employees (49.6%) while more than half of the respondents (51.2%) graduated with a Bachelor's degree or higher. However, most of the respondents (29.9%) had a rather low income per month (7,000 – 14,000 baht).

5.2.2 Knowledge of Solid-Waste Separation

The overall result of the study indicated that most of the respondents had good knowledge of solid-waste separation ($X = 8.46$). Table 2 in chapter 4

revealed that most of the respondents (>80%) could get a score of answering 6 of 13 statements.

5.2.3 Behavior of Solid-Waste Separation

When considering to the behavior of people about solid-waste separation, the overall result of the study indicated that most of the respondents had the frequency of solid-waste separation behavior at sometimes level ($X = 18.83$).

5.2.4 Hypotheses Testing

The research hypotheses and the results of their testing in this study were as follows:

Hypothesis 1: Women and men are not different in their solid-waste separation behavior.

This null hypothesis was accepted as the result illustrates no significant difference between males and females in the solid-waste separation behavior.

Hypothesis 2: Old people and young people are not different in waste separation behavior.

This hypothesis was rejected because the results revealed a significant difference in the solid-waste separation behavior.

So, it might be concluded that people would have better solid-waste behavior as they become old.

Hypothesis 3: People who have an education of lower than Bachelor's degree and those who have a Bachelor's degree or higher degree are not different in waste separation behavior.

Because the results showed a significant difference in the solid-waste separation behavior among respondents graduating with a bachelor degree and those who got lower or higher degree, this null hypothesis is accepted. In other words, the education level was not a factor which influenced people to have more waste separation behaviors.

Hypothesis 4: People who have high income and people who have low income are not different in waste separation behavior.

This null hypothesis was accepted because there was no significant difference in the solid-waste behavior of respondents who earned low, medium, rather high and high income.

Hypothesis 5: People who have a different degree of solid-waste separation knowledge are not different in waste separation behavior.

This null hypothesis was rejected because the test result revealed a correlation significance between these 2 variables at the 0.01 level ($p < 0.01$).

However, the variable of knowledge and the variable of behavior had low correlation in the same direction, this meant even respondents who had very much waste separation knowledge might not practice much of the knowledge they had.

5.3 DISCUSSION

5.3.1 In this study, the people were found to separate solid-waste at a moderate level. The frequency of behavior depends on various factors as follows:

Firstly, most wastes that people separated were salable wastes as shown in statement nos. 2, 3, 4 and 7 in table 4.3 and they did it as their general practice. So, this can not prove whether they concerned about environment problem or health effect. Statement nos. 9 and 11 asked about the frequency of separation of unburnable glass and spray bottles, how that the majority of subjects recognize that these hazardous wastes should be disposed of separately from other wastes.

Secondly, the difficulty may be the reason why people selected to separate only some kinds of wastes and only in sometimes. Regarding table 4.3 statement nos. 1, 14 and 15, it is evident that most people prefer to separate waste in a simple way. In contrast, in statement nos. 5, 6, 10, 12, 16 and 17, it is obviously shown that people feel the operation is difficulty so that they avoid doing the waste separation.

5.3.2 Regarding the research of question 2: the mean score of part 2 of the questionnaire was 8.46, which could be interpreted to mean that most of the people had a good level of knowledge about solid-waste separation. When considering each waste category, results were found as follows:

Dried waste separation: most of the people had the simple knowledge about solid-waste separation and could answer questions correctly as shown in table 4.2 statement nos. 1, 2, 4, 5, 7. However, they made the wrong answers in statement no. 3 while hesitating to answer statement nos.6 and 8. These questions are difficult to answer because they are the advanced separation method.

Biowaste separation: it can be seen obviously that most of the people were unfamiliar with biowaste bins and didn't understand how to practice with this kind of bins. However, the majority of the people answered three-fifth of the questions correctly as shown in table 4.2 statement nos. 9, 12 and 13. These 3 questions are simple questions which may be easy to guess for the answers of, but the answers to statement nos. 10 and 11 reflected that most of the people didn't know how and why biowaste bin were different from a general bin.

5.3.3 Regarding the research of question 3: the correlation between the knowledge of solid-waste separation and the behavior was 0.226, and had a significant difference at the 0.01 level. The result showed that the knowledge and the behavior were not related at a high level. In other words, the people who have the knowledge of solid-waste separation at a high level may not put it into practice perfectly.

5.3.4 Regarding the research of question 4: as a result of hypotheses testing shown in chapter 4, it could be summarized that sex and income were not factors which were related to the behavior of people, while age and education were significantly different in solid-waste separation behavior at 0.05 level. There are many reasons which may describe the result of this testing as follows:

Regarding the test result in table 6, it could be reviewed that people who were 40 years old or older had solid-waste separation behavior more than the people who were young; especially, younger than 29 years old. Since adult people were persons who controlled the solid-waste separation system anywhere e.g. households, schools, etc.; all adults always had tendency to do the solid-waste separation more than children. Meanwhile, children always were followers, so they would have the separation behavior just when they stayed where a system was

operated; otherwise, their behaviors depended on their conscience about saving the environment.

Regarding education, it was found that people who graduated below a Bachelor's degree had better solid-waste separation behavior than people who had a bachelor's degree or higher. It could be said that the lower education people had better behavior of keeping all reusable and recyclable waste for selling to merchants to increase a household income than people who had a Bachelor's degree or higher.

5.4 CONCLUSIONS

The findings of the study showed that most of the respondents had good knowledge of solid-waste separation; however, they didn't apply their knowledge into practice perfectly. Most of them preferred to apply the simple waste separation in their everyday life but they accepted the complicated method only sometimes. From this it could be inferred that there was little relationship between the knowledge of solid-waste separation and the behavior. Moreover, the results of this study showed that the respondent's demographic factors such as age and education were related to the frequency of solid-waste separation behavior.

5.5 RECOMMENDATIONS FOR FURTHER RESEARCH

Based on the findings and conclusions of this study, the following recommendations are made for future research.

5.5.1 More subjects should be added in the future research.

5.5.2 The result of the research came from people in Bangkhen district except some military areas which have a strict rule for entrance. The researcher recommended that future research should be done in other areas of Bangkok or in many provinces of Thailand.

5.5.3 Because the majority of the respondents in this study were company employees, future research should be included respondents in various occupations too.