

## CHAPTER III

### METHODOLOGY

#### Research Design

This research was conducted as a survey research. It was designed to study the demographics, knowledge and media exposure factors affecting the level of awareness of Kasetsart University sanitation workers towards solid waste separation management.

#### Population

The total number of 209 sanitation workers classified by each faculty who served as population of this study is shown in Table 2.

Table 2 Sanitation workers from 13 faculties at Kasetsart University, Bangkhen Campus

Faculty	Sanitation Workers			Total
	Permanent	Temporary	Outsourcing Company	
Agriculture	18	4	2	24
Business -Administration	3	6	-	9
Fisheries	4	4	-	8
Humanities	7	13	-	20
Forestry	9	5	-	14
Science	5	10	13	28
Engineering	2	-	28	30
Education	10	2	-	12
Economics	6	5	-	11
Architecture	-	3	-	3

Table 2 (Continued)

Faculty	Sanitation workers			Total
	Permanent	Temporary	Outsourcing Company	
Social Science	2	3	8	13
Veterinary Medicine	4	2	16	22
Agro-Industry	1	14	-	15
Total	71	71	67	209

Table 2 shows that there were 209 sanitation workers in the 13 faculties of Kasetsart University, Bangkok Campus consisting of 71 permanent workers, 71 temporary workers and 67 outsource cleaning company workers.

### **Research Instrument**

Questionnaire was used as research instrument consisting of both open-ended and close-ended questions. There were four parts as follows:

Part 1: Demographics of sanitation workers such as sex, age, type of employment, education and length of working experience as sanitation workers.

Part 2: Knowledge on solid waste separation management. By using 25 questions for true and false questions. Questions were based on the Department of Environmental Quality Promotion's information (2005).

Part 3: Kasetsart University media exposure and effect of media on solid waste separation management affecting sanitation workers awareness on solid waste separation management. It was divided into 2 groups; number of time of media exposure and effect of media exposure on solid waste separation behavior.

Part 4: Awareness on solid waste separation management consisting of 24 questions which included both positive and negative questions.

### **Measurement of Data**

The score on knowledge testing of solid waste management was determined as follows:

- True answer = 1 score
- False answer = 0 score

Level of knowledge was divided into 3 groups; high level, moderate level and low level. The criterion for knowledge level was calculated following Kajornsini's computation formula (Kajornsini, 1982).

$$\text{Range} = \frac{\text{High score} - \text{low score}}{\text{Interval}}$$

Represented the score

$$\begin{aligned} \text{Range} &= \frac{1-0}{3} \\ &= 0.33 \end{aligned}$$

The score on level of knowledge on solid waste separation were grouped into three as follows:

High level of knowledge	mean 0.68 – 1.00
Moderate level of knowledge	mean 0.34 – 0.67
Low level of knowledge	mean 0.00 – 0.33

The score on level of effect on solid waste separation behavior were determined as follows:

- High effect = 3 scores
- Moderate effect = 2 scores
- Low effect = 1 score

The Level of effect of media exposure on solid waste separation behavior was categorized into 3 groups; high level, moderate level and low level. The criterion for scoring used the following computation formula.

$$\text{Range} = \frac{\text{High score} - \text{low score}}{\text{Interval}}$$

Represented the score

$$\begin{aligned} \text{Range} &= \frac{3-1}{3} \\ &= 0.66 \end{aligned}$$

The score on level of effect of media exposure on solid waste separation behavior were grouped into three as follows:

High level of awareness	mean 2.34 – 3.00
Moderate level of awareness	mean 1.67 – 2.33
Low level of awareness	mean 1.00 – 1.66

The score on level of awareness of solid waste separation were determined as follows:

Positive question

- Agree = 3 scores
- Not sure = 2 scores
- Disagree = 1 score

Negative question

- Agree = 1 score
- Not sure = 2 scores
- Disagree = 3 scores

The level of awareness was divided into 3 groups; high level, moderate level and low level. The criterion for level of awareness was calculated using the following computation formula.

$$\text{Range} = \frac{\text{High score} - \text{low score}}{\text{Interval}}$$

Represented the score

$$\begin{aligned} \text{Range} &= \frac{3-1}{3} \\ &= 0.66 \end{aligned}$$

The score on level of awareness on solid waste separation were grouped into three as follows:

High level of awareness	mean 2.34 – 3.00
Moderate level of awareness	mean 1.67 – 2.33
Low level of awareness	mean 1.00 – 1.66

### **Data Collection**

The questionnaire was distributed directly to the respondents and collected immediately once they have finished answering all questions.

### **Data Analysis**

Data were analyzed and presented through frequency, percentage, mean and standard deviation. Chi-square test at 0.05 level was employed to test hypotheses.