CHAPTER 3

RESEARCH METHODOLOGY

In this chapter, I present the methodology that I adopted for this study. The chapter describes a combination of quantitative and qualitative approaches to research, the research design, the data collection methods, sampling, data processing and analysis methods. My study area was located at Kuala Nerus, Terengganu. I have divided the area of Kuala Nerus into 10 sampling stations.

Figure 3.1: Sampling stations in the study area
3.1 COMBINATION OF BOTH QUANTITATIVE (QT) AND QUALITATIVE (QL) APPROACHES

In this study I adopted a combination of both quantitative and qualitative methodologies to research. The objectives for this study (in chapter one) clearly show that the intention of this research was to explore the way the public engages in solid waste management, at what level and how the relationship between the local government and the public is with regard to solid waste management. Using a combined approach would therefore enable me to collect numerous forms of data and examine them from various angles to construct a rich and meaningful picture of a complex, multifaceted situation. The research questions were divided into two parts. On one hand, the first two research questions were addressed by use of quantitative techniques. On the other hand, the last two research questions necessitated the use of qualitative techniques. This decision was based on the conviction that for this study to yield meaningful conclusions, it had to draw on the advantages of using both qualitative and quantitative methods as explained below.

Quantitative

Quantitative research is applauded for the fact that the findings are generalisable and the data are objective. It was hoped that the findings from this study would help in reflecting what is happening in the whole of Kuala Nerus Town Council.

At the same time, it was important to have an amount of objectivity to dispel the concerns to the effect that qualitative research may be biased. Quantitative data and statistical analysis would also help in testing some hypotheses and increase on the validity of the findings from this study.
Qualitative

In this study, there was need for me to “dig deep” in order to get a complete understanding of the situation from the perspective of the stakeholders in the solid waste management sector. Making statistical conclusions could not suffice in unveiling the picture of solid waste management in Kuala Nerus Town council from different perspectives. The perspective of the people could only be appreciated with the collection and analysis of qualitative data also. Qualitative research permits “understanding in context”. In this study, I tried to understand whether there was any kind of collaborative relationship between the public and the local administration (Town Council) in managing solid waste. The collaboration I was interested in was the public participation in solid waste management alongside the Town Council. Special focus was put on the challenges of involving the public in solid waste management. I was further interested in exploring whether there were any mechanisms put in place by Kuala Nerus Town Council to enhance collaboration in solid waste management with the public.

3.2 RESEARCH DESIGN

As already discussed above, I employed both quantitative and qualitative methodologies. This research essentially took on a descriptive survey design, seeking to “describe phenomena accurately” not only using quantitative data but also qualitative data. This research design aims at getting data from multiple cases at a given point in time so as to analyse relationships across a number of variables of interest.

This study was based on such a design because its quantification characteristic helps in consistent benchmarking (Bryman, 2004). However, cross-sectional studies usually lack internal validity (Bryman, 2004) and I tried to respond to this concern through the qualitative component of this study.

In this study therefore, the qualitative data was used to enrich the descriptions generated or from the quantitative data and thus build the picture of solid waste management in the study area, better. In doing so, aspects of a phenomenological study design to research were employed to guide qualitative data collection and analysis.