

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter will provide a description of the research design, methods of data collection, the research instruments employed in the study and the method of data analysis. The section on research design provides information on the main characteristics and the rationale behind the research method adopted in this study. Next, the description on the methods of collecting data will explain the processes involved in the selection of the business organization and the participants. A detailed description of the research instruments used in the study will then follow. Information on the reasons for the selection of the particular research instruments will also be provided. Lastly, the section on data analysis will explain the manner in which each instrument was implemented.

#### **3.2 RESEARCH DESIGN**

This study attempts to investigate the communication patterns among the current employees of the Safety Management Team in the construction Project Site at Putra Jaya. It is a qualitative exploration of the characteristics of the communicative skills and strategies used by the workforce to achieve their goals within the setting of their discourse community. The researcher employed qualitative methods to study the

workforce; an ethnographic approach was used to obtain the data needed to answer the research questions.

### **3.2.1 QUALITATIVE RESEARCH DESIGN**

A qualitative research describes events, persons and so forth scientifically without the use of numerical data, relying instead on the written or spoken word or the observable behaviour of the person or persons being studied as the principal source of data for analysis (Bloland, 1992). The focus of this kind of research is on the perceptions and experiences of the participants in a particular situation or event for the purpose of developing an understanding of that particular situation or event.

A qualitative research method was chosen because this method involved an attempt at obtaining a preliminary understanding of target situation requirements, where the Safety Management Team tries to achieve its common goals through communicative skills and strategies. The Safety Management Team's communicative activities and patterns are governed by the 'culture' or 'setting' of the discourse community. As such, the reality that will be observed is subjective and multiple, as seen by the participants in the communicative events. Furthermore, these contact-bound data is specific to the target situation of communicative events and the culture of the participants in that event.

Being an exploratory study in nature, the qualitative research design employed here attempts to arrive at interpretations that cannot be explained appropriately or satisfactorily in terms of experiments or statistics. In other words, the nature of the issues under investigation is not suited to quantitative measures.

### 3.2.2 THE ETHNOGRAPHIC METHOD

The ideal way of obtaining data in an ethnographic research attempting a 'thick description' (Geerts, 1983) would be participant observation because by being a member of the discourse community one gets first hand insight and information on the communication patterns. Since the researcher could not negotiate for a participant observation, the next best alternative was as non-participant observation as this study shows.

The researcher adopted an ethnographic approach because of a few reasons. The central issue in this study is the communicative patterns and strategies applied by the participants in a communicative event. The answers to the research questions depend on the communicative activities in the cultural settings in which the participants are involved. Thus, a methodological framework is needed to facilitate access to these answers. The researcher found that the ethnographic approach is best suited for this. According to Rajeswary Sargunan (1999: 57) 'The scope of ethnography includes the study of communicative behaviour against the backdrop of social contact-settings, participants, act sequences, topics and so forth. Its distinctive feature is that it is culture and community specific'.

Based on the premise that effective communication depends on knowledge of specific patterns of social behaviour that exist in a particular discourse community, ethnography investigates all factors that have a bearing on these aspects of the community. (Discussed clearly in Chapter Two)

### **3.3 NEGOTIATING ACCESS**

The researcher had approached the Safety Manager of this concern (Gadang Engineering (M) Sdn. Bhd.) through a personal recommendation in order to gain access into this construction site for the intended purpose.

A formal application was made and after an interview, a conditional approval was given to the researcher. The contractor also sought a letter of indemnification from the researcher. (Refer Appendix F)

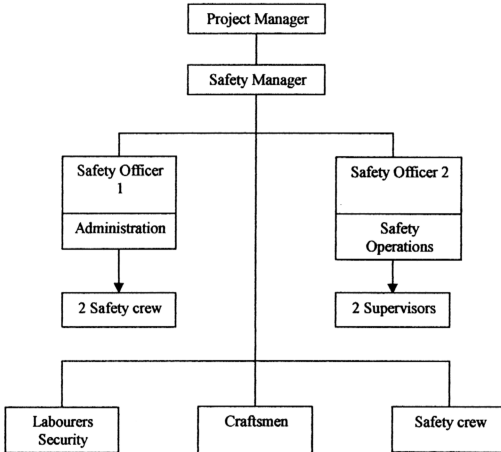
The researcher also underwent a 'field induction course' which emphasises the safety aspects of this particular project prior to gaining access into the 'working zone'. The hazards and risks present were also described to avoid any untoward incidents. With guidance and assistance from the Safety Manager and his team, the research was conducted accordingly. In order to avoid any confusion amongst the workforce, the aim of the research was clearly made known to the entire workforce by the Safety Manager.

### **3.4 SOURCES OF DATA**

All the relevant data for the research was obtained from two main sources. The first set of data was through informal interviews with the Safety Manager and his crew. (Refer to figure 8).



## The Safety Management Team



**Figure 8:**

The second set of data was through observation of the behaviour of the various participants. (Safety Manager and his team) 'on site' and 'off site' especially at the temporary stall which has been build near the project site.

The Safety Management Team consists of eight workers, the Project Manager and Safety Manager being the top people in the hierarchy. There are two safety officers under his supervision, one for administration and the other for safety operations. Two safety

crew assists the Administration Safety Officer. There is no supervisory assistance for this officer. There are two Supervisors under the Officer for Safety Operations to assist in safety related matters. The bottom level workers are craftsmen, safety crew, trade labourers, and security workers. These bottom level personnel consist of approximately 120 workers.

According to the Safety Act, all personnel at the job site have the moral duty to take care of safety and to co-operate with their employer. (Refer Chapter Four - Duty of all personnel). Very often, the engineers are at the job site to monitor the work progress. They too are involved in the various meetings at the 'internal' level. Therefore the data for this study was obtained from the observations of the engineers, project manager, safety manager, safety officers, supervisors, and the group of foreign workers included in the team. ( basically skilled bottom level workers ).

### **3.5 COLLECTION OF DATA**

The researcher adopted the role of a non-participating observer and spent about four to five hours per working day, for six days over a period of one month at the site. During this research, the daily routine and tasks of the Safety Management Team were observed, in particular the various meetings held to enhance its daily performance. A total of 300 minutes of interaction was recorded. All the instruments used for the data collection will be explained in greater detail in section 3.6.

The researcher had to obtain the permission of the Safety Manager before gaining access into the 'working zone' as and when required. Half-day observations were normally allowed, with necessary precautionary measures and proper personal protective

safety equipment. However, the researcher was restricted from attending and observing high-level meetings for fear of intrusion into confidential matters. The researcher was also further advised by the Safety Manager on the level of risks involved, the presence of hazards and the control measures taken to minimize or eliminate them. In addition, the researcher also had to endure certain difficulties and discomfort in conducting this field research in particular climbing ladders, scaffoldings and temporary stages. The physical condition of the site also poses as a threat to safety especially after a heavy downpour.

The job-activity is carried out in an open-cut trench measuring approximately 10 metres wide, 8 metres deep and 2.5 kilometres long. The three major groups of workers involved are the carpenters, steel bar fixers and contractors whilst the safety crew provides the supporting facilities, safety systems and conditions for continuous work progress. The entire workforce assembles daily for the head count and the safety briefing.

The presence and movement of heavy machineries like excavators, cranes, dump trucks and bull dozers accompanied by blasting works within the construction area can be dangerous and this certainly requires accurate co-ordination work among the supervisory staff and operators in order to prevent any accidents.

The researcher focused on the entire Safety Management Team and the bottom level workers who are mainly foreigners engaged in a typical construction site. The study explores the type of language used, the medium of instruction and the methodology used by the Safety Management Team.

### 3.6 INSTRUMENTATION

The instruments used in this research are simple and effective. The researcher used five instruments to collect the data. The instruments are informal interviews, observations, audio recordings, note taking and photographs. However interviews, observations and audio recordings were the main instruments used to collect the data.

The nature of the study undertaken, the surrounding environment and the educational background of these groups of foreign workers (mostly with very little formal education) did not encourage the use of questionnaires and structured interviews.

The researcher used the method of 'triangulation' to analyse the data. According to Fetterman (1989) triangulation is a very basic method in ethnographic research. Triangulation means a researcher has to compare one source of information against another since it is the core of ethnographic validity. In this study, the researcher triangulated the data obtained from four main instruments - observations, audio recordings of informal interviews and note taking with the hope that the findings obtained from different data collecting methods would reflect the quality of data in terms of reliability, validity and representativeness. The researcher will justify the usage of the instruments in detail.

In the context of this study, site observations and recordings were done simultaneously. Note taking was also carried out. Occasionally, notes were also taken upon returning to the site office. The various tools and methods applied to collect data will be further elaborated upon in the following sections.

### **3.6.1 INFORMAL INTERVIEWS**

Informal interviews pertaining to site safety were conducted with the foreign workers in a friendly manner, thus enabling the researcher to collect the data easily and to find out their need for English at the job site. Important questions were those related to the nature of their job, their understanding of English when their superiors talk to them and their perception of the need for English to communicate in their workplace. (Refer Appendix A – Transcript 8,9 and 10). Besides this, informal interviews were also conducted with the Safety Manager, safety officers and engineers in order to counter-check the use of English at the job site.

These informal interviews enhanced the knowledge of the researcher regarding the meaning of certain instructions and how they are translated into actions. These informal chats were conducted mostly during lunch and tea breaks, and sometimes during the observation periods.

### **3.6.2 OBSERVATION**

In this study, the activities of the Safety Management Team were closely monitored while they were performing their daily tasks and notes were taken on the nature of their spoken communication, without any interruption or interference. The focus on the 'TSA Framework' of Hutchinson and Waters (1987) was greater. (Refer to Chapter Two). Throughout the observations, data for the research questions on – 'who talked with whom', 'for what purposes' and 'through what channel' were collected. In other words, the language forms and functions used were made visible through observations. The data also enabled the researcher to determine 'who is doing what,

when, why, where and how' in relation to this research. The communication patterns were observed directly.

### **3.6.3 AUDIO RECORDING**

Data was also collected through audio recording which was integral in this study. Prior to any recording, the permission of the Safety Manager had to be sought. All the spoken interactions of the workers and supervisors were recorded. This was done by playing a cassette recorder conveniently for this purpose. During the safety briefings the recorder was handed over to the Safety Manager (to be attached to the hailer) for clear recording because safety briefings were held in a wide area amidst noisy surroundings. The language output was then transcribed (Refer Appendix A) to determine the extent and the effects of the language used by the various categories of construction workers.

### **3.6.4 NOTE-TAKING**

For supplementary data, note taking was carried out in order to identify with whom interviews were conducted. Note taking also acted as an indispensable tool when the tape recording was poor or inaudible due to the noisy surroundings. The notes enabled the researcher to determine 'who was doing what, when, why, where and how' in this research. Note taking further helped to validate the information recorded.

### **3.6.5 PHOTOGRAPHS**

Photographic evidence of the settings, work activities, and site progress were also taken as further input into this research as some communication methods observed were non-verbal. (Refer to appendix C)

### **3.7 DATA ANALYSIS**

In this section the researcher will explain how the data collected will be analysed. The data analysis will be done in four stages.

The first stage of analysis is the presentation of data on the overall lines of communicative events and patterns of the Safety Management Team. At this stage, the parties involved in the organisation will be described. Following that, the next stage will be on the presentation of data on the communicative events and patterns at the internal and external level of the organisation. The language choices and the varieties of language, according to the level of proficiency among the work force on the construction site, will be analysed. Stage three will be data elicitation on the main communicative channels and the effectiveness of each channel. This is followed by the last stage where data elicitation on communicative strategies of the Safety Management Team and the effectiveness of each strategy in the target situation will be analysed.

### 3.8 CONSTRAINTS

This study faced a few constraints. For instance, the noisy surroundings interrupted some of the audio recordings. Further, the slow manner in which some of the workers responded to the researcher's questions also created some difficulties. Next, the lack of access to certain zones characterised as dangerous also was another problem. Nevertheless, these shortfalls were overcome by creating opportunities to collect additional data via informal interviews during the breaks and after working hours.

### 3.9 SUMMARY AND CONCLUSION

This chapter looked at the research methodology used in this research. The research design employed in this study was qualitative in nature. This was because it was more appropriate to the study as the study was conducted for the purpose of obtaining a clearer understanding of the English language needs in the target situation, as well as the communication skills and strategies employed by the various users in that particular situation. In this study, an ethnographic approach allowed the researcher to explore and understand 'the natural setting' of the working environment. The approach also allowed an in-depth investigation to be carried out on a small sample population within the construction industry. This provided valuable insights into the use of the English language in this particular industry selected.

The data collected through the informal interviews, audio-recordings, observations and note taking provided relevant information on the communicative patterns and strategies employed by members of the Safety Management Team in the construction



site. The audio-recordings of the interviews were further transcribed in order to confirm and substitute the information obtained from the workforce.

The analysis of the data obtained in this study was based on the communication patterns and strategies used by the Safety Management Team. It is hoped that, the results obtained would provide invaluable insights into the selected ‘management culture’, and how its ‘communicative skills and strategies’ would have significant influence on the communication within the organisation in the pursuit of common goals while performing its daily routine.