

## **CHAPTER IV**

### **DATA PROCESSING AND ANALYSIS**

#### **4.1 INTRODUCTION**

The study is an ethnographic research on the communication patterns and strategies used by the Safety Management Team at a construction site. In this chapter the researcher will present the data, the analysis and findings of her research. Ethnographic data is obscure and difficult to organise. However the researcher has attempted to organise her results in a systematic form so as to make them relatively comprehensible.

The researcher begins with section 4.1, the overview of the primary objectives and the overall communication lines of the Safety Management Team. This is to enable the reader to understand the functions and communication patterns that create a need for effective communication. After this, the researcher attempts to answer each of the four research questions mentioned in Chapter One. In the discussion, attempts are made to illustrate the language choices and patterns. In addition, the researcher discusses possible reasons for these choices and patterns. Discussions of research questions 2 and 3 are combined in order to avoid repetition. Section 4.2 shows the overall organization of the Safety Management Team and Section 4.3 describes the roles and responsibilities of the Safety Management Team. Section 4.4 describes the roles and responsibilities of the people who interact with the Safety Management Team. Section 4.5 deals with the types

and patterns of communication at the internal level. The research attempts to delineate the nature of the communication in terms of 'who' communicates with 'whom', on 'what' topics, using 'what' channels of communication and 'what' speech acts. After this, the researcher describes the communicative patterns at the external level and the primary communicative activities with the government authorities. The Safety Management Team also has its 'Section-to-Section Meetings' to co-ordinate safety matters and procedures at the jobsite and Section 4.6 gives a clear description of these meetings. Section 4.7 explains the importance of the selected channels of communication at the job site. The Safety Management Team uses many communicative strategies to convey its messages in order to achieve its intended goals. Section 4.8 is the description of the communication patterns and strategies and the reasons for using such strategies. Section 4.9 is the summary of this chapter.

## **4.2 THE OVERALL ORGANIZATION OF THE SAFETY MANAGEMENT TEAM**

The Safety Management Team is led by a Safety Manager. It comprises a small number of staff responsible for different types of work. There is a need to co-ordinate the activities of the different types in order to avoid any untoward incidents. In addition, there is a need for all employees to clearly understand their duties and responsibilities as they interact with that of the other types or employees of the whole organization. (Refer to the organization chart in Chapter Three). Before discussing the duties of each person in the organization, the role and responsibilities of the Safety Management Team will be discussed.

## **4.3 ROLE AND RESPONSIBILITIES OF THE SAFETY MANAGEMENT TEAM**

The Safety Management Team must ensure that the implementation and supervision of the Project Safety Plan is carried out effectively and continuously. Its role is to eliminate or minimize any foreseeable hazard and risks that may be present or may arise from the day-to-day operations. The Safety Management Team must also manage, control, co-ordinate and ensure that all construction activities are carried out in a safe manner, without endangering anyone or damaging any property. Besides, it also has to ensure the compliance of the relevant statutory regulations, legal and moral obligations and advise the senior management on the needs and resources to administer jobsite safety.

In this respect, the role and responsibility of each and everyone is clearly defined and the management constantly seeks their co-operation, support and understanding in order to establish a safe and risk free working environment. The job responsibilities of each team member are further illustrated. (The illustration of the job responsibilities of each team member is borrowed from the Gadang Engineering's Safety Manual)

**(i) Safety Manager**

- (a) He is responsible for the development and implementation of the Project Safety Plan approved by the Board of Directors.
- (b) He conducts safety audits on a monthly basis and submits the report to the Executive Director. He trains the Safety Officers to take charge of OSH (Occupational Safety and Health) matters on site.
- (c) He advises the management on the needful issues if there have been significant changes in the organisation structure where amendments or adjustments of the Safety Plan are needed.
- (d) He is accountable for the implementation and enforcement of the Site Safety Plan and effectively ensures that everyone under his control operates within the legal, social and policy framework.

**(ii) Safety Officer**

- (a) The Safety Officer liaises with the Project Safety Manager on all issues regarding health and safety relating to the contract works.
- (b) The Safety Officer is, when advised by the Project Safety Manager, issue instructions to workers and sub contractors in relation to health and safety issues if it is deemed appropriate and he should consider health and safety as an added value in their operations.



- (c) He ensures that all sub contractors on the project prepare, submit and comply with a detailed project Safety Plan for their respective operations.
- (d) He considers, at the initial stage, and as the project progresses, any hazardous feature of the work and takes appropriate measures to eliminate or control the risks involved.
- (e) He establishes procedures to ensure that all activities on site are adequately assessed for health risk, safety and that any foreseeable hazards are eliminated or controlled.
- (f) He delegates specific duties to forefront personnel and supervisory staff to ensure that such persons are adequately trained and competent to fulfil any specific task.
- (g) He convenes the periodic Safety Committee meeting and is its secretary.

### **(iii) Site Supervisory Staff**

- (a) Supervisory Staff [usually more than one] are accountable to the Safety Officer for effectively monitoring and reporting on the sub contractors' implementation of the Site Safety Plan, relevant policies and compliance with all appropriate health and safety statutory requirements.

#### **The Site Supervisory Staff:**

- (i) ensures that places and systems of work are being maintained in a safe condition without risks to health and safety,
- (ii) ensure that all activities under their control are adequately assessed and upon such assessments, appropriate action is taken to rectify foreseeable hazards.

- (iii) fulfil any other health and safety duties and responsibilities assigned to them by the Safety Officer in the day-to-day operations.

#### **4.4 ROLES AND RESPONSIBILITIES OF PEOPLE WHO INTERACT WITH THE SAFETY MANAGEMENT TEAM**

The Safety Management Team works together with other parties to execute its day-to-day operations. The other parties are the sub contractors and all personnel connected with the project. The role and the responsibilities of the sub contractors and all personnel who are involved in the project will be presented in this section.

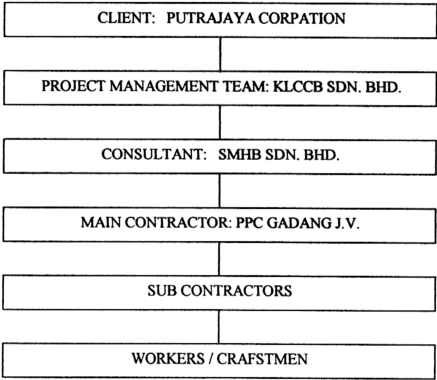
##### **(i) Sub Contractors**

- (a) The Sub Contractor is responsible for all health and safety matters relating to his work.
- (b) The Sub Contractor establishes a safety programme to ensure that all construction activities required to facilitate the completion of the said contract works are carried out in a safe manner and comply with all by laws, regulations and codes of practice relevant to health and safety.
- (c) The assistant site agent for each package is appointed as the safety representative and is responsible for all health and safety aspects relating to his scope of works. He reports to the Project Safety Officer. He carries out his works diligently with respect to the approved Health and Safety Plan and ensures that all procedures are followed accordingly.

**(ii) All Personnel**

The various parties which include the 'All Personnel' are the client, the project management team, the consultants, the engineers, the architect, the main contractor and the sub contractors. The diagram below depicts the project representatives of the C.U.T project.

**Project Representatives**



**(Figure 9)**

### **Duties of All Personnel:**

- (a) All personnel involved on the project have a moral duty to take reasonable care for the health and safety of themselves and others who may be affected by their actions or omissions at work.
- (b) With regard to the statutory duties imposed on their employer, they must co-operate with their employer to meet statutory requirements.
- (c) No person is intentionally interfere with or misuse anything provided for safety, health or welfare under the relevant statutory requirements.
- (d) All personnel must wear or use the appropriate safety equipment or clothing and use the appropriate safety devices.
- (e) All personnel must familiarise themselves with the relevant requirements of the safety plan and the appropriate requirements of the contractors' specific Safety Plan.
- (f) All personnel must report any accident, damage to property or equipment and near misses, to their immediate supervisor, irrespective of whether persons are injured or not.
- (g) All personnel are required to immediately report any hazardous activities, unsafe acts or unsafe conditions.

It must be noted that this particular construction site has employed a full-time Safety Manager who reports directly to the Project Director to take full charge of the Safety Management Team.

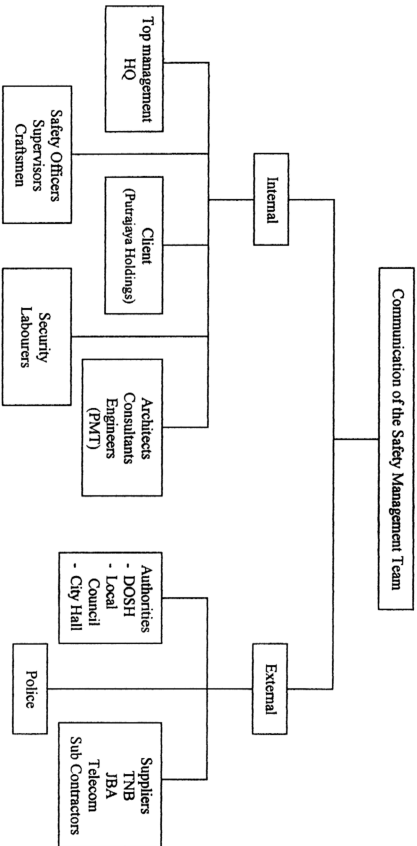


Figure 10: Overall Lines of Communication of the Safety Management Team

## **4.5 TYPES OF COMMUNICATION**

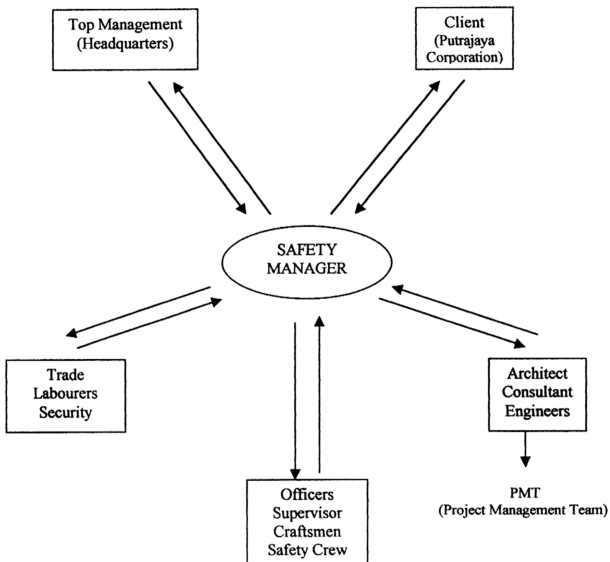
The types of communication at this construction site can be categorised into two categories: internal communication where the Safety Manager leads and directs his team and external communication where the Safety Manager deals with the government authorities. Figure 9 shows the overall lines of communication of the Safety Management Team. Within each aspect of communication, several patterns of communication were observed. In the following sections the researcher will explain the patterns in detail.

### **4.5.1 INTERNAL COMMUNICATION**

The internal communication of the Safety Management Team comprises communication events between the Safety Manager and the top management (Project Manager, General Manager and Directors). It also involves communication with the Project Management Team comprising the Architect, Project Manager, Consultants and Engineers. Sometimes, in extreme cases such as fatal accidents, fire or flood, the Safety Manager also deals with the Client (Putrajaya Corporation). The communicative patterns are basically to receive directives and changes on the ongoing development at the project site. The channel of communication is frequently 'face-to-face' and on certain occasions through the telephone. Due to the company's policy of restriction and limitations, the researcher was not allowed to be present at certain top-level meetings. However, the researcher was familiar with the communicative patterns of the top management and the clients through discussions with the Safety Manager.

The researcher was allowed to be present at the co-ordination meetings and other low level meetings. Hence, the researcher focused on the communication patterns of the Safety Manager and his team with the project manager, engineers, safety officers, supervisors, craftsman, labourers and the security workers from whom the data was collected.

The communication patterns of the Safety Manager and the various representatives of his team are described below (Refer to Figure 11). The researcher tabulated the findings on the various issues in relation to the functions, channels, topics and language used by each representative. Reasons cited for the language choices and the selected channels are explained. However, language strategies are described under a different supplementary heading in order to avoid repetition. Section 4.11 depicts the language strategies and skills employed by the Safety Management Team to achieve the corporative goals. An additional section on the channels used at the construction site and the effectiveness of the channels are also included in this chapter.



**Figure 11: Patterns of communication (Internal)**



Generally, the Safety Manager discusses the day-to-day planning of the various site activities with his engineers. The discussions are related to various issues. The table below illustrates the communication activities between the Safety Manager and his engineers.

a.     **Safety Manager - Engineers**

Functions	Channels	Topics	Language Choice
<ul style="list-style-type: none"> <li>• Inform</li> <li>• Explain</li> <li>• Command</li> <li>• Confirm</li> <li>• Instruct</li> <li>• Command</li> <li>• Report</li> </ul>	<ul style="list-style-type: none"> <li>• Face to face</li> <li>• Telephone</li> </ul>	<ul style="list-style-type: none"> <li>• Technical procedures</li> <li>• Technical problems</li> <li>• Physical changes on site</li> <li>• Reporting safety</li> <li>• Discrepancies on specs and drawings</li> <li>• Cost implementation</li> <li>• Time implementation</li> </ul>	<ul style="list-style-type: none"> <li>• English language 70 % Example: "We have identified the sentry points, the assembly points of the entire operation."</li> <li>• Malay language 30 % Example: "Dulu, ia tidak dikuatkuasakan dangerous zone you know so dia cakap 300 tapi dia letak 220."</li> </ul>

**Table 2: Communication activities between Safety Manager - Engineers**

The above topics of communication are discussed ‘face-to-face’ in direct communication and sometimes through the telephone. These two channels of communication are commonly used because they enable the contractor to resolve the arising physical or technical safety problems within the shortest period of time. Besides, these channels also provide room to rectify problems efficiently and quickly.

English is pre-dominantly used at this level. At least 70% of all communication activities are in the English language because the project contract is in English. As such, all the specifications are stipulated in English and the documentation is done in English also. Therefore, it is essential for the people involved in English. The usage of Malay is 30%. Owing to the new recruitment of engineers with Malay educational background, who are found to be incompetent in understanding English, the Malay language is also used for communication.

The researcher arrived at the percentage of the usage of the English and Malay language through analysing the data collected, the sentence patterns of the Safety Manager and the engineers. The number of words in each sentence is counted. If there are twenty words in a dialogue, six words are in the Malay language. Therefore the researcher made an approximate calculation: - 14 [English words]: 6 [Malay words] = 70: 30. Below are the examples.

#### **Example 1 (Transcript 21)**

S.Manager: We shouldn't delay the casting. By...by *esok* it should be completed.

*Macam mana zone you Zul?*

Engineer : Well, *tinggal sedikit lagi*.

#### **Example 2 (Transcript 22)**

S.Manager: There are no safety signboards at Zone 3, you notice or not?

Engineer : I *akan uruskan*. Already *beritahu*, *sebelum* scaffolding, *kena buat*.

The above calculation is used only to analyse the communicative patterns of the Safety Manager and the engineers. In analysing the communicative patterns and the percentage of the usage of English and Malay amongst the Safety Manager and the safety officers and supervisors, safety crew, and the labourers and security, the researcher arrived at an easy calculation that is 50%: 50% because the majority of the workforce is a mixture of Bangladeshi and Indonesians. The Safety Manager communicates in English to the Bangladeshi workers. The response from the Bangladeshi workers is usually in English. However the response from the Indonesian workers is in Malay. Therefore, the Safety Manager very often code switches and translates his messages in Malay to the Indonesian workers to achieve their common tasks. Below are some examples.

#### **Example 1 (Transcript 24)**

Safety Manager: Water ponding, all clean? *Dah? Itu air takung, kolam, sudah bersih?*

Indonesian W : Sudah *boss, takung base dua sudah, tiga sudah.*

#### **Example 2 (Transcript 25)**

Safety Manager: Please tie it, tie it properly, otherwise it may fall. *Tolong ikat*

*baik-baik, nanti jatuh.* Quick! Out of danger zone.

*Cepat! Cepat!...keluar dari zone bahaya.*

**b. Safety Manager - Safety Officers and Supervisors**

Table 3 shows the communicative activities related to the specific tasks or area of work under each safety officer and each supervisor’s jurisdiction. Examples are concrete work, enforcement work (bar bending), and machinery work.

Functions	Channels	Topics	Language Choice
<ul style="list-style-type: none"><li>• Explain</li><li>• Instruct</li><li>• Command</li><li>• Report</li></ul>	<ul style="list-style-type: none"><li>• Face to face</li><li>• Telephone</li></ul>	<ul style="list-style-type: none"><li>• Safe operating procedures</li><li>• Proper handling of equipment</li><li>• Compliance with safety requirements</li><li>• Actions to accommodate physical changes</li><li>• Provision of safety equipment</li></ul> <p>Examples: Fire fighting equipments - extinguisher.</p> <p>Personal protective equipments - helmet, safety boots.</p>	<ul style="list-style-type: none"><li>• English language 50 %</li></ul> <p>Example: “No. We must target for today. Send more workers to level two.”</p> <ul style="list-style-type: none"><li>• Malay language 50 %</li></ul> <p>Example: “Ok. I cuba <i>arrange</i> beberapa orang Bangla. Mungkin OT 3 jam.”</p>

**Table 3: Communicative activities between Safety Manager - Safety Officers and Supervisors**

The above topics of communications are discussed ‘face-to-face’ and through the telephone. The reasons for using these channels are the same as in Table 1 that is to resolve arising safety problems within the shortest period of time. Besides, these channels give space to rectify problems efficiently and quickly.

In view of the educational level of the safety officers and supervisors, the communication involves a combination of Malay language and English. The safety officers and supervisors not well versed in the English language. However, the meetings are conducted in English and the minutes are also recorded in English in written form. Malay language is used to reinforce the messages sent to the officers and supervisors. Code switching and other communicative strategies are applied by the Safety Manager and the supervisory staff to enable a clear understanding of the messages.

### c. Safety Manager - Safety Crew

Table 4 shows the communicative activities and patterns among the Safety Manager and the safety crew, in their daily discussions, during day-to-day operations whereby the safety crew is responsible for providing adequate safety measures and provisions to maintain safety on site.

Functions	Channels	Topics	Language Choice
<ul style="list-style-type: none"> <li>• Instruction</li> <li>• Directives</li> <li>• Command</li> <li>• Explanation</li> </ul>	<ul style="list-style-type: none"> <li>• Face to face</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of safety items</li> <li>• To keep abreast of the changing physical environment</li> <li>• Safety and security control.</li> </ul>	<ul style="list-style-type: none"> <li>• English language 50 % Example: "Finished your work? <i>Sudah habis? Cepat-cepat pukul 5.00 pasang guard pergi ambil cone cone itu</i>"</li> <li>• Malay language 50 % Example: "Scaffolding itu bahaya. Ayuh jauh-jauh. Barricade that zone, tutup, tutup sebelah sana dulu."</li> </ul>

**Table 4 : Communicative activities between Safety Manager - Safety Crew**

The channel of communication is strictly ‘face-to-face’. The safety crew has found this approach to be the most effective in carrying out the day-to-day operations such as for example, putting up safety signboards, installation of safety barriers, and provision of temporary stairways and installation of fire extinguishers.

The use of English and Malay on a 50:50 ratio in this section is due to the presence of Indonesian and Bangladeshi workers. These workers only understand simple or the basilect variety of English. Malay is used specially when communicating with Indonesian workers to re enforce the said task

**d. Safety Manager – Craftsmen**

Table 5 shows the communicative patterns amongst the Safety Manager and the craftsmen. Basically the communication emphasizes ‘pre checks’ before operating machines and machinery precautions when the craftsmen are moving machinery in their vicinity. Besides, during loading, unloading and lifting operations, communication takes place through a few communication channels as shown in Table 5.

Functions	Channels	Topics	Language Choice
<ul style="list-style-type: none"> <li>• Instruction</li> <li>• Command</li> <li>• Explanation</li> <li>• Report</li> </ul>	<ul style="list-style-type: none"> <li>• Face to face</li> <li>• Walkie-talkie</li> <li>• Telephone</li> <li>• Signalling - non verbal</li> </ul>	<ul style="list-style-type: none"> <li>• Pre check start</li> <li>• Periodic maintenance</li> <li>• Machinery movements</li> <li>• Lifting operations</li> <li>• Permit requirements (Renewal, expiry of relevant permits)</li> </ul>	<ul style="list-style-type: none"> <li>• English language</li> <li>• Malay language</li> <li>• Vernacular languages               <ul style="list-style-type: none"> <li>- Chinese</li> <li>- Tamil</li> <li>- Filipino</li> </ul> </li> </ul>

**Table 5 : Communicative activities between Safety Manager – Craftsmen**

Channels such as face-to-face, telephone and the walkie-talkie are used to rectify any safety problems immediately. Besides, these channels of communication also help the workforce to communicate effectively due to their high mobility at the work site. Use of signals is common because of the noisy surroundings. Signalling gives a clear picture and understanding to the craftsmen to direct their machineries. (See Appendix E).

The use of language in this section depends on the ethnic origins of the operators. Some of the operators are illiterate and so understanding of English language and Malay could be limited. Therefore, vernacular languages are used. For example, if the crane operator is a Chinese, Chinese dialects such as Cantonese, Hakka or Hokein will be used if he fails to understand English or Malay. Usually the Safety Manager will seek the assistance of some workers who are bilingual, to interperate the message.

**e. Safety Manager – Labourers and Security**

Table 6 shows the communicative patterns amongst the Safety Manager, labourers and security workers. The obvious communication activity in this section is the overall safety briefings given to the entire workforce. The manager provides the information about the company's policy matters and administrative changes. The focus of the discussion is mainly on safety and security.

Functions	Channels	Topics	Language Choice
<ul style="list-style-type: none"> <li>• Command</li> <li>• Explanation</li> <li>• Information</li> <li>• Report (Security)</li> </ul>	<ul style="list-style-type: none"> <li>• Face to face</li> <li>• P.A. System</li> <li>• Megaphone</li> <li>• Audio – video equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Do and don'ts at the job site</li> <li>• Logistic changes</li> <li>• Security matters</li> <li>• Safety issues</li> </ul>	<ul style="list-style-type: none"> <li>• English language 50 %</li> </ul> <p>Example: "Kita kena cast level ini today. Concrete by this evening."</p> <ul style="list-style-type: none"> <li>• Malay language 50 %</li> </ul> <p>Example: "Bersih, <i>clean</i> all sampah-sampah, nyamuk-nyamuk bertelur, <i>mosquito breeding</i>, tahu tak?"</p>

**Table 6: Communicative activities between Safety Manager–Labourers and Security**

All the above channels in Table 6 are used as they involve addressing a big crowd at the same time. Due to the illiteracy of this major workforce (the bottom level workers) graphic illustrations are also displayed for easy understanding. Video and audio equipment is also used to further promote and enhance safety, for example video programmes such as safe working procedures are shown periodically for clear and better understanding. These bottom level workers consist of various foreign workers especially Bangladeshis and Indonesians. Therefore, a mixture of English and Malay is the obvious choice in the communicative activities. Usually, code switching and code mixing are used by the Safety Manger to convey the messages to the workforce.

The Safety Manager clearly defines the responsibilities of the various groups and seeks their support and co-operation to establish a risk free project site. He too observes



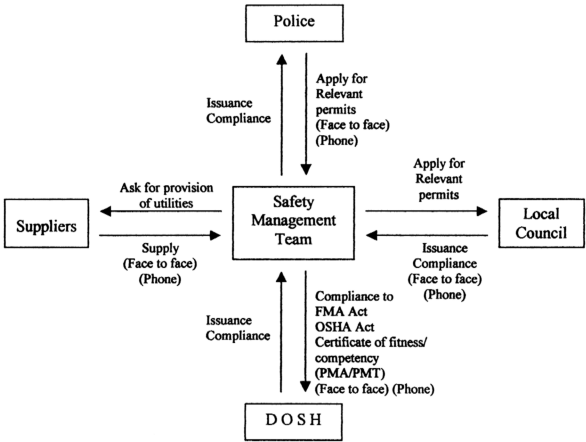
and monitors his team of workers every now and then so that everyone under his control operates within the legal, framework, social and company policy.

#### **4.5.2 External Communication**

The external communication of the Safety Management team includes communication events between the Safety Manager and the government authorities such as police, local council and Department of Safety and Health (DOSH). Another important party in the external communication is the suppliers. (Refer to Figure 12)

The researcher was not allowed to be present at the meetings of these external parties when the Safety Manager was involved personally with them. However, the Safety Manager outlined the communicative patterns used with these authorities.

The Safety Manager is required to establish a good rapport with relevant authorities to acquire the various approvals such as blasting permit, building permit, certificate of fitness and other relative issues on site. Besides, the relevant authorities also check the compliance to all legal, moral and social obligations. Due to the dominance of Malay workers in these departments, the Malay language is widely used in the communication. All correspondence is also in the Malay language, in line with the Government's policy where the official language is Malay.



**Figure 12: Patterns of communication (External)**



**Figure 13: Communication Patterns of Section-to-Section Meetings**

## **4.6 Section –to- Section Meeting**

The internal level communication also involves the section-to-section meetings. Figure 13 illustrates the four main section-to-section meetings, which include progress meetings, co-ordination meetings, safety committee meetings and safety briefings. In Section 4.6 the researcher describes the communicative activities and the patterns of these meetings in detail.

### **4.6.1 Progress Meetings**

These meetings entail the overall work progress of the project. The work schedules and delays matters, which have time and cost impact, are addressed. Details of engineering discrepancies are also highlighted when necessary, for example delayed concrete casting and omissions of openings. The meeting is chaired by the Project Manager and attended by the Client, Consultant, Architect and the Contractors, Quantity Surveyor (quality assurance and quality control), Safety Manager and the Engineers. The meetings also discuss the setbacks of the Safety and Quality matters (if any). The meetings are held on a fixed day and time every week (Every Thursday 2.30 p.m.).

Basically, the English language is used for every meeting. The minutes are also written in English and attendance at the meetings is recorded for future reference, as well as to clearly indicate the responsibilities of the various parties within the given time frame. As the Project Contract is specified in English, all the variations, ( the additional work which is not specified in the original Project Contract such as drainage and disposal of rubbish) instructions and recommendations are also written in English.

Sometimes code switching also occurs in these meetings, especially switching from English to Malay. This is due to the presence of Malay officers who are not well-versed in the English language. Their doubts, queries and explanations are expressed in Malay but questions are posed to them in English.

#### **Example: (Transcript 5)**

- Project Manager : Last year it happen *lah*. It was at the other side. Actually what was the root cause ah? Maybe the left hand side.....ah?
- Safety Manager : Zul ....were you there at the scene, I wasn't there, so, I.....
- Zul : Ah.....One hour after the accident, I...I back there *lah*, but ...  
*sebelum itu I pun tak ada dekat sana.....*

#### **4.6.2 Co-ordination Meetings**

These meetings are to facilitate and incorporate the various trades of work amongst a few contractors who have to work within a stated premise. In these meetings, amicable solutions are adopted to accommodate and adjust their respective work programmes in order to cater for all the needs. In the event of an evitable clash, the work programme of one contractor would be reviewed and rescheduled. This further helps to prevent or eliminate any untoward incident specifically in the area of safety.

These meetings are chaired by the Resident Engineer and attended by the various contractors, Project Manager, Safety Manager and the safety officers. Meetings are held weekly at a fixed date and time, example, Monday 3.00 p.m. English is predominantly used in these meetings. Malay is also prevalent when the safety officers and various contractors are present in the meetings. Some of the contractors are Malays and Chinese

and as they are more competent Malay, they clarify and express their doubts in that language.

**Example: (Transcript 26)**

Safety Manager : The scaffoldings must be ready, should be up by tomorrow. No more delay, no more pending.

Contractor : Not enough man power.....*Tak cukup orang macam mana ?*  
*Besok... kalau tak boleh next day, saya try.*

Safety Manager : Try..*trylah habiskan* tomorrow. Other works also pending...  
*Sampah clearance pun belum !*

#### **4.6.3 Safety Committee Meetings**

The discussions at these meetings are on the various safety requirements for the job site. Safety shortcomings are highlighted and immediate rectification or corrective actions are taken to remedy the situation.

The Safety Committee comprises the Project Manager, Safety Manager, safety officers, sub contractors, project engineers, supervisors and worker's representatives from the various trades.

As required by OHSA [Occupational and Health Safety Act] Act 514, these safety meetings are held at least once in every two months (at this project site, it is held every month). By virtue of his position as a Safety Manager, the Safety Manager is the Secretary of the Committee (usually the Client's representative is also present at these meetings as an observer).

The English and Malay language are interchangeably used in these meetings. Malay is used because some of the trade workers are with little formal education and their command of English is very limited. The various trade workers are made up of mainly Indonesians and a few Chinese.

**Example : (Transcript 27 )**

- Safety Officer : It is not *senang* to clear the water ponding.
- Safety Manager : If that's the case, we have to arrange for fogging. I'll contact the fogging contractor today. Maybe at noon, his workers should be here.
- Safety Officer : *Nyamuk.....nyamuk banyak..takut nanti demam malaria.....Our workers pula kena nanti...*
- Safety Manager : Workers only? You, I, *tak kena*? Safety for everyone, you know!

#### **4.6.4 Safety Briefings**

These Safety Briefings involve each and every worker on the jobsite on the first day of every month. Here, accident statistics, job progress, all relevant information pertaining to the job site, and the impending changes on safety and security matters are highlighted. Occasionally, award presentations are also held. It is hoped that this will be an effective way of educating the workforce on safety awareness.

Usually the safety briefings are held in English because the majority of the workers are Bangladeshis. Malay is used through 'code switching', for example repeating the same task to the Indonesian workers. Therefore, the use of English and Malay language

provides a greater impact and level of understanding in conveying the information and messages to the participants.

**Example : (Transcript 4)**

Safety Manager : .....from now onwards I'm going to take photographs! I'm going to be very serious on this issue, I am going to take photographs and I'm am going to fine, *potong gaji!! Habis saya cakap baik-baik sekalian semua tak nak dengar, terpaksa saya buat secara keras. Jadi minta maaf*, I am very sorry brother, very sorry. You don't follow my instructions, I have to be very harsh!

**4.6.5 Tool Box Meetings**

Tool box meetings or safety talks are held once a week and is confined to a small group of ten to fifteen workers designated for a specific task, for example welding, tunnel works and working on manhole. These meetings illustrate the specific needs (if any) to be observed prior to commencement of the job, special tools and equipment or team effort required to execute the job safely. Hazards present are identified and eliminated promptly.

The respective supervisors usually handle these meetings with guidance from the safety officer or Safety Manager. The 'pre-start' talks only take about ten to fifteen minutes. Both English and Malay are used in these meetings. If the workers are mainly Indonesians, Malay is more dominant. If the Bangladeshi workers are larger in number, the option would be English. Attendance and a summary of the talk 'given' are recorded.



The minutes are written in English in line with the contract policy where the medium of instruction is English.

**Example : (Transcript 15)**

- Safety Manager : The scaffolding structure at the southern elevation needs to be immediately rectified.
- Supervisor : I know, but I have to *habiskan kerja saya dulu*.
- Safety Manager : Fine, but have it rectified first. Check on all vertical frames. Have them secured to the building. Use more wall ties, also reinforce with cross bracings. *Faham tak?*

**4.6.6 Safety Induction**

This is an indoctrination programme meant to introduce the project to all new recruits. It is compulsory that every one engaged at the project site has a basic understanding of safety requirements. The Safety Manager explains the do's and don'ts to all concerned. A standard format or a guidance table is then used to illustrate these general requirements. All personal particulars are listed during this induction programme and are kept in a register.

These Safety Induction programmes are conducted every Tuesday and Saturday. In special cases, they may be held when deemed necessary. The language used is English or Malay, depending on the ethnic group.

## **4.7 CHANNELS OF COMMUNICATION**

The researcher found that there are basically five main channels to transmit the intended tasks amongst the workforce. In this section, each of the channels will be illustrated clearly to show the effectiveness of the channel.

### **4.7.1 Face-To-Face Communication**

Face-to-face communication is one of the most effective channels used for communication among the Safety Management Team. Through this method, one can directly interact with the concerned parties. The effect of 'feedback' is very important and an obvious element in this channel. If there are any problems, they can be rectified immediately. If there are any doubts, clarification and recommendations can be delivered then and there

### **4.7.2 Telephone Conversation**

Telephone conversations are also very commonly used to express one's needs or requirements on the jobsite. It saves time and reduces travelling within the location. It further serves to clear any arising doubts or matters on the job site immediately. Besides, reaffirmation on job related matters are conveyed accordingly. Although there is bound to be misinterpretation occasionally, the system is quite simple and effective.

#### 4.7.3 Walkie-talkie

This system is not only effective but it is also cost saving. However this sort of communication is confined to the key personnel at site. (Resident Engineer, Surveyor, Safety Manager, Security, Lifting Operator). In order to avoid distraction amongst the users, various frequencies of channel are allocated, for example channel 1 is for lifting works, channel 2 is for loading works and channel 3 is for unloading works.

##### Example :

Safety Manager: (Using walkie-talkie) Lorry *keluar ikut jalan sebelah kanan. Jalan kiri sudah ditutup. Ok?*

#### 4.7.4 Megaphone / Siren

This equipment is mainly used to address a large crowd or gathering, for example, during Safety Briefings to convey information, directions and commands to the workforce, especially to the labourers. The Megaphone is also equipped with a siren that is used for evacuation and also for emergency purposes.

##### Example : ((Transcript 4)

Safety Manager : (Using hailer) I send my man, *itu... hari-hari kasihan budak itu. I send my man, Nur Ali Khan and Babu here, everyday go and do the barricade there, they spend a lot of time barricade up everything, then suddenly some of you want to do the work there, you take on the barricade, never put it back. Eh.....if somebody open.....eh it somebody open, you know somebody not careful, he may just.....land into the pit.*

#### **4.7.5 NON-VERBAL SAFETY SIGNAGES**

These signages speak for themselves for twenty-four hours a day. Large, pronounced, relevant signboards are displayed at suitable locations to send the messages or forewarn every one at the jobsite on the impending danger. Some signage depict clear pictures or symbols relevant to safety, for example, a skull with a multiple sign over it means “Danger”. (More examples in Appendix C)

##### **(i) Whistle**

The whistle is used to direct heavy machinery operations such as cranes. Sometimes, it is also used to ‘call out’ to someone in noisy surroundings. It also serves to halt and to move traffic on job site.

##### **(ii) Gestures**

Sign language, especially hand gesturing, plays an important role in communicating specific messages to the workforce. Various messages are transmitted through this method and these messages are easily understood. These hand gesturing movements are very commonly used at the job site whenever there are loading and lifting works done. (Examples on Appendix C)

##### **(iii) Flags**

The usage of flags is very important on construction sites, especially the red and green ones. Red flags are commonly used for demarcation purposes, especially during blasting works to indicate the extent (Radius) of the ‘Danger Zone,’ thus preventing unauthorised entry. Green flags are also used as signals for ‘Go Ahead’ / ‘OK’ / ‘Blast’.

#### **(iv ) Road Furniture**

Road furniture is tools or equipment used to demarcate ‘ danger zones’ on the jobsite. These road furniture are placed at appropriate places to forewarn the motorist and workforce of the impending dangers/risks on their way. Examples of these items are shuttle barriers, delineators, beacons and warning lights. These road furniture, too, are essential communicative tools to maintain the safety of moving vehicles. Luminous road signage/lights are used for easy vision at night. (Refer to Appendix C)

All the above-mentioned items are essential communicative tools, which can simplify and send out loud and clear messages about safety effectively to the entire workforce. These communicative tools are a valuable asset to the company, and every effort is made to upkeep and maintains them. The road furniture makes the task of the Safety Management Team more effective as they are unable to provide twenty-four hour standby supervision for each and every job.

#### **4.8 COMMUNICATIVE STRATEGIES**

The Safety Management Team uses many communicative strategies to achieve their common shared goals. These strategies are very important to transmit or pass a message accurately. The messages are usually in the form of instructions, information, explanations and directives. These communicative strategies will provide answers to research question 3 and 4 in Chapter One: ‘What are the strategies and the reasons for using these strategies?’

There are a few strategies that are significant in this setting. One of the strategies is the accommodation strategy when a speech shift occurs in a conversation. The Safety Manager 'converges' with his top level management because their level of the proficiency and competency is good. He corresponds with them using the mesolect variety or the competent form of English.

#### **Extract 1 (From transcript 1)**

Safety Manager : "Now we more or less formalised all the application and all the submissions to the relevant authorities. This is one of the requirements that under the DBKL, we should disseminate this information well to all our neighbours."

#### **Extract 2 (Transcript 1)**

Safety Manager : "And then, once the blasting work all completed, you will have a long siren, meaning that you can return to your place. But not to worry, I'll be full time doing the checking and we will call back once the whole operation is completed safely."

Sometimes the Safety Manager, safety officer and his supervisory level staff 'diverge' to accommodate their counterparts for the same reason, that is to accommodate the level of proficiency among their interlocutors. This is because they want the labourers to comprehend the instructions or directives easily so that they can fulfil the given tasks accurately.

### **Extract 3 ( Transcript 4)**

Safety Manager : “No! You simply say, say, safety first and then, one man have no shoe,  
one man no helmet. What is this? Cannot! Big problem! I big  
problem! Big boss come everyday. Scold! Everyday questions me.”

### **Extract 4 (Transcript 7 )**

Safety Supervisor: “Now, start work. I see big boss! No, cheat! Cheat! No relax. Work  
hard. I tell boss, put OT. Lazy work, 5 o'clock, all man go back.  
Okay?”

Another communicative strategy employed by the Safety Management Team is switching from English to Malay whenever the speech situations change. Sometimes, the functions of code switching are crucial to transmit the message effectively. Code switching is quite rampant whenever it involves the engineers at top level, especially if the engineers are from the Malay ethnic group. They prefer to use Malay because they feel comfortable and are more confident in expressing their views in Malay compared to English. Perhaps, lack of confidence and fluency in English could be the reasons for this. During the Coordination Meetings, where English is dominant, these Engineers ask and answer in Malay to clarify their doubts regarding their job tasks. For example,

### **Extract 5 (Transcript 3)**

Engineer: *Itu macam, result itu kena buat ke?*

Safety Manager : We will indicatelah the proposed dates.

Engineer : No, I think *kalau kita ada pun.....*

Safety Manager : But the final is the notice that I give.

Engineer : *Yang perlu itu memang sederhana, okay. Itu.....itu mustahak.*

Safety Manager : Right at now, it's all been designed and taken care of by the consultants. But if you want a reading, I think.....

Project Manager : I don't think it is necessary.

Engineer : *I rasa tak perlu juga.*

Safety Manager : No, but to the authorities, *yeslah*.

Project Manager : Ah, to the authorities yes, but to our people....

#### **Extract 6 (Transcript 2)**

Project Manager : Zul, Zul, your 'dangerous zone' is very important.

Engineer (Zul) : *Dulu, dulu, ia tidak dikuatkuasakan 'dangerous zone' you know? So, dia orang cakap tiga ratus, tapi, dia letak 220. That's why, bila, bila, letup hari itu, memang letup besar, dekat sini, lebih kurang 300, berapa meter dia. So, maybe elok-elok tak sampailah.*

Code mixing is also another strategy employed by the Safety Management Team when they use the jargon of the construction site. This strategy is very rampant among the top and medium level workers when they interact with the bottom level workers.

#### **Extract 7 (Transcript 11)**

Safety Supervisor : Sani, Sani, pasang 'guard', pergi ambil 'cone-cone' itu.

Besides code switching and code mixing another obvious strategy employed at the construction site is the bilingual translation. Whenever explanations or information on job progress is disseminated among the workers, especially to the bottom level



workers, this strategy is adopted, so that each and everyone in the workforce can comprehend the message given by the Safety Manager. For example,

**Extract 8 (Transcript 4)**

Safety Manager : "...gate A will be closed because we going to start excavating our trench, excavating our trench, *kita akan mula korek, korek lubang sana, buat, buat terowong.*"

**Extract 9 (Transcript 4)**

Safety Manager : "Please ah! *Kemalangan itu tidak berbau.* Accidents can happen anywhere, anytime."

**Extract 10 (Transcript 4)**

Safety Manager : "*Jadi sekalian semua ini harus fikir tentang, setiap saat, every second* you must think of your own safety."

Code switching, code mixing and translation strategies are important and inevitable communication strategies which facilitate functional interaction amongst the workforce. It was noticed that these strategies were appropriate in achieving effective communication especially when disseminating information and during explanations and clarification. Besides, these strategies also generate 'easy understanding or comprehending,' thereby facilitating the goals of interaction. Other than at the top management level, these strategies are very rampant at the middle (supervisory) and bottom (labourers) level of the organization. The bottom level workers are mainly

Bangladeshis and Indonesians. In this context, these strategies are important and a must when explanations and information are being distributed to them.

One of the distinguishing features that is interwoven with or often overlap in these strategies is the device of 'repetition.' Repetition is commonly used at all three levels of communications, top, middle and bottom. Repetition is mainly employed for functional purposes such as for emphasising, confirmation, clearing doubts, checking, and understanding and also as 'feedback'. Below are a few examples of repetition according to its functional purposes.

**(i) Repetition for emphasising.**

**Extract 11 (Transcript 1)**

Safety Manager : "This blasting is a very *high risk* .....*high risk* operation. We would like to seek your helplah, your *cooperation* ...I mean your *cooperation*...and seek your *cooperation* and support in ...in seeing this exercise goes on smooth lah."

The repetition here emphasises the 'risk' of the job that is 'blasting'. The Safety Manager emphasises the consequences that may happen if there is no cooperation among the Safety Management Team when a blasting job is in progress. The repetition of the word 'co-operation' shows the very high degree of co-operation necessary when the job needs to be executed.

**(ii) Repetition as feedback**

**Extract 12 (Transcript 7)**

Supervisor : All work clean by *ten o'clock*. This *small drains clear first*. Throw *all rubbish*, there! Over there, understand?

- Labourer : Okey boss, *small drain clean first, throw all rubbish, okey!*  
 Okey! What time boss come?
- Supervisor : *Ten o'clock, after makan morning*
- Labourer : Okey, *ten o'clock we finish. Boss come see, we go makan.*

Repetition as feedback gives a clear picture whether the 'receiver' understands the 'sender's' message. If there is any misunderstanding, through this strategy, immediate rectification or remedy take place.

### (iii) Repetition used as explanation or for giving information

#### Extract 13 (Transcript 4)

Safety Manager: "From today gate A will be closed because we going to start  
*excavating our trench, excavating our trench, kita akan mula korek,*  
*korek lubang sana, buat, buat terowong."*

Here, repetition is in the form of code switching. The code switching from English to Malay can give a clear understanding to the workers who are mainly Bangladeshis and Indonesians. This strategy is adopted whenever there is an important message to be delivered to the bottom level workers especially during safety briefings and safety inductions.

Non-verbal communication is another strategy in this scenario. It is very important because sometimes it is clearer in certain circumstances. The Safety Management Team uses this strategy as an important part of communication. Much of this non-verbal communication carries the functional approach. For example the 'hand gesture' is used frequently during the loading and lifting work. (Pictures see Appendix

C). Sometimes the noise level is too high for certain communication in this setting. The use of 'whistles', 'lights', 'sirens' or 'delineators' 'substitutes' the information in messages when speech is impossible, undesirable or inappropriate.

The distinguishing feature of the non-verbal communication is 'the meaning of the communication is understood in English' by the workers. Almost each worker at the jobsite understands this specific non-verbal form of communication. For example, 'a skull with a multiple sign on it', means danger and whistle means 'boss calling.'

These communicative strategies are extremely helpful to the Safety Management Team in transmitting the messages accurately, thus preventing any mishaps or misunderstandings. These strategies play significant roles in delivering of instructions and comprehension of messages by the workforce.

#### **4.9 SUMMARY AND CONCLUSION**

The results of this study show that communicative skills and strategies in the English language are important at construction sites. Though the bottom level workers do not need to be very proficient in the English language, the top management level employees need to be able to communicate effectively in the English language. For the engineers who are in the top management level, English language is very vital. They must have an adequate understanding of the English language to communicate and also to write technical reports. The results of this study have important implications for ESP practitioners, which will be discussed in the next chapter.