# ACKNOWLEDGEMENT

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# Abstract

Today's world demands that engineers prepare themselves to rise to the challenges of the globalisation in the new millennium. To become global engineers, they need to acquire the soft skills on top of the hard skills. One of the important elements in soft skills is communication skills including presentation skills. In equipping Universiti Malaysia Pahang (UMP) engineering students for their professional world, oral presentation skills is one of the skills that is emphasized in our current English course syllabuses. It is believed that, being a successful and competitive engineer, one has to be excellent in both technical knowledge as well as formal oral presentations. Students must be able to communicate effectively using appropriate language and excellent features of presentation skills not only at academic setting, but also at workplace setting. Indeed, this skill is very important as there have been an increase number of communicative events in engineering profession. Being English educators, it is our concern to equip the engineering students with good formal oral presentation skills. This study aims 1) to discover the criteria for good project-based oral presentation from industry's perspective, 2) to identify the engineering lecturers' practice of oral presentation skills in their students 'Projek Sarjana Muda' (Final Project for Degree Students) presentation and finally 3) to propose a new marking scheme for project-based oral presentations that is aligned with industry's practice. Findings of research are gathered from documents from all the five engineering faculties in UMP and questionnaire distributed to the industry.

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# CHAPTER 1

# INTRODUCTION

## 1.0    Introduction

Today's world demands that engineers prepare themselves to rise to the challenges of the globalisation in the new millennium. To become global engineers, on top of the hard skills, they need to acquire the soft skills namely leadership skills, creativity, strategic thinking skills and communication skills. The role of an engineer is both varied and multifaceted, and today's engineers need to be able to communicate their knowledge on technical expertise effectively. Hence, oral presentation is a useful medium to communicate and share ideas and products (Davis & Wilcock, n.d.).

It is believed that being a successful and competitive engineer, one has to be excellent in both technical knowledge and formal oral presentations. Therefore, students must be able to communicate effectively using appropriate language and excellent features of presentation skills not only at the academic setting, but also at the workplace setting. According to Worden (1999), industrial recruiters rank the ability to communicate effectively as one of the most important attributes they look for in prospective employees. Indeed, this skill is very important as there have been an increase number of communicative events in engineering profession.

## 1.1    Background of the Study

Universiti Malaysia Pahang (UMP) is an engineering-based universities consisting of seven engineering, science and technology-related faculties. One of the requirements for students enrolled in a bachelor program is to carry out and pass a Final Year Project (FYP) in their final year before they are allowed to go for their industrial training. This project requires students to conduct an individual engineering project, write a 5-chapter report and present the project.

All bachelor students have undergone four English courses in the first two years of their study. The objectives of all the English courses are to enhance and improve the students' general and professional language and survival communication skills and to prepare them for the workplace environment. These courses are designed in tandem to the courses offered at the faculties, which means that whatever learnt in the English courses should be applied in the engineering classes wherever possible. Yet, an informal observation and inquiry found that during the FYP presentation, most students did not apply the oral presentation skills learnt in the English courses. It was found that the emphasis put on by the engineering students and lecturers for the project presentation was given on the content of the project with heavy disregard on the use of appropriate language expressions and delivery skills. A question, therefore, arises whether the current English syllabi designed have fulfilled the requirements and needs of the faculty and industry.

As part of communication skills and as one of the skills important for an engineer, ensuring that students can deliver effective and successful oral presentation is indeed essential. Therefore, to equip UMP engineering students for the workplace, there is a need to prepare them with oral presentation skills that are aligned with the industry's needs. However, there is no substantial information of what the industry really looks into during oral presentation. The most popular conviction is that the audience just prefers to listen to the content and as long as the message is conveyed, it is sufficient. However, such hasty generalization cannot be assumed as an acceptable opinion or practice at the industry. Hence, feedback from the industry on the elements that are emphasized during a presentation need to be identified and obtained in order to be included in the syllabi of the English courses.

This research aims to discover the importance of oral presentation at the industry and identify the engineering lecturers' practice of oral presentation skills in their students FYP's presentation. In addition, this study will also identify the criteria for good oral presentation from the industry's perspective. Findings of research are gathered from documents on FYP oral presentation from five faculties, and from questionnaire which were administered electronically to the engineers at the industry.

## 1.2    Objectives of the Study

The study aims to achieve the following objectives:

1. To find out the elements of oral presentation (OP) emphasized by the faculties in evaluating Final Year Project (FYP) presentation.
2. To investigate the oral presentation elements emphasized by the industry.
3. To propose to the engineering faculties the standard marking scheme for oral presentation which is aligned with the industry's criteria.

## 1.3    Scope of the Study

This study focuses on:

1. Five faculties which are Faculty of Mechanical Engineering (FKM), Faculty of Electric and Electronics (FKEE), Faculty of Chemical Engineering and Natural Resources (FKKSA), Faculty of Civil Engineering and (FKASA), and Faculty of Computer and Software Engineering (FKKSA).
2. Oral presentation skills of the Final Year Project (FYP).
3. Engineers at multinational companies.

## 1.4    Significance of the Study

The researchers hope that the study would contribute to the university, the industries and the country in the following aspects:

1. The collaborative revision of the oral presentation guidelines and schemes both at the faculties and at Center for Modern Language and Human Sciences (CMLHS) so that both are used correspondingly.
2. The development of oral presentation guidelines and schemes that are aligned with the needs of the industry.
3. The revision of the current modules of the English courses to cater the professional needs of the students.

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## 1.5    Definition of Terms

The followings are the acronyms used in this report:

AMO:          Academic Management Office

CEO:          Chief Executive Officer

CMLHS:        Centre for Modern Languages and Human Sciences

FKASA:        Faculty of Civil Engineering and Environmental

FKEE:         Faculty of Electric and Electronics

FKKSA:        Faculty of Chemical Engineering and Natural Resources

FKM:          Faculty of Mechanical Engineering

FSKKP:        Faculty of Computer Science and Software Engineering

FYP:          Final Year Project

HRM:          Human Resource Manager

OPQ:          Oral Presentation Questionnaire to the Industry

UMP:          Universiti Malaysia Pahang
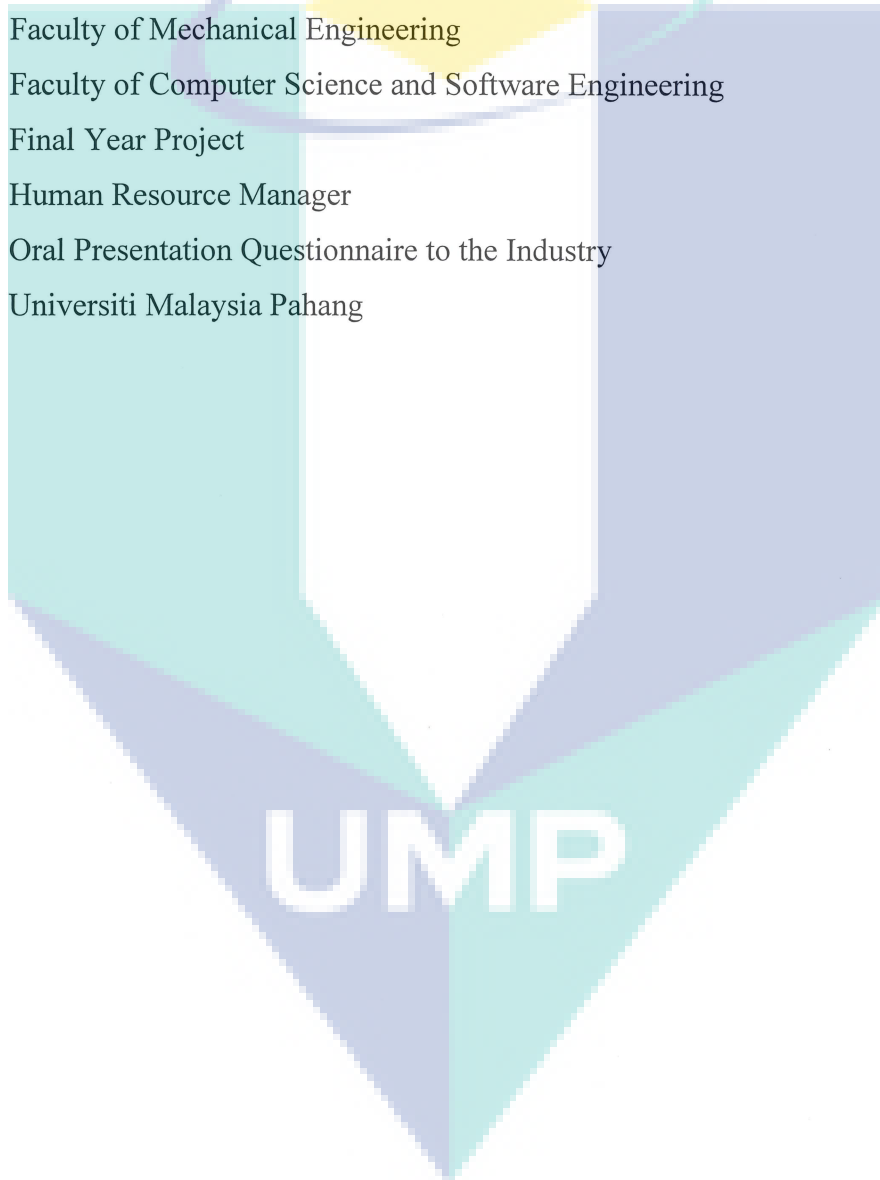
## CHAPTER 2
## REVIEW OF LITERATURE

### 2.0    Introduction

This section discusses overview of the theoretical framework and literature underlying this study. First, the importance of oral communication skills in academic setting as well as in the workplace is highlighted. Next, findings from the research conducted by other researchers on oral presentation skills are reviewed and finally, the different elements of presentation skills emphasized by different scholars and courses are presented.

### 2.1    The importance of oral communication skill

There has been some historical debate as to whether or not communication competencies are essential to the success of employees in organizations (Scudder & Guinan, 1989). However, recent literature suggests that oral communication is of significant importance to organizational success and is a critical factor in graduate placement decisions (Campbell et al., 2001). Besides, being competent in oral communication is also believed to be one of the aspects to ensure academic success (Kim, 2006). Based on his study, it was reported that content professors discovered the main problem with ESL students in the classroom is their unwillingness to participate actively in class discussion and asking and responding to questions. It is believed that the problem occurs due to their incompetence in oral communication skills especially in using English as a second language. To overcome this challenge, it was suggested that these students are taught effective communication skills in classroom.

### 2.2    The importance of oral presentation skills

In his study, Kim (2006) found that most Asian undergraduates who studied in the United States are concerned with oral presentation skills among other important skills such as whole-class discussion and note taking. Most respondents agreed that students must have the ability to do effective formal oral presentations as it is important for their educational success as well as in their professional life. This finding is supported by a study conducted by Palmer & Slavin (2003). Based on the industry's feedback on the graduates' performance in the workplace, the Faculty of Electrical Engineering in Georgia Institute of Technology

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introduced Graduate Professional Development programme for PhD candidates (Palmer & Slavin, 2003). It was informed that the graduates have fewer competencies in communication skills. Realizing that being competent in communication skills helps their academic and professional life, the programme emphasizes on the aspect of communication skills such as presentation skills, scientific technical writing and English as a second language issues. In other words, oral presentation skill is one of the communication skills that all undergraduates and postgraduates must master to ensure their success both in academic world and professional undertakings.

## 2.3    Elements emphasized in oral presentations

Assessment of oral communication skills in the academic environment is necessary (Campbell et al., 2001). In a study conducted by Moretto (1996), he found that technical communicators must always keep abreast with the advancement of technology in communication, especially with technical people as audience. As Moretto (1996) mentioned that technology such as LCD may be used as a tool to enhance technical presentation, but the essential skills for an effective presentation such as body language, tone, eye contact, movement and voice projection must still be practiced. In Graduate Professional Development Programme (Palmer and Slavin, 2003), a course offered in Georgia Institute of Technology, the students have to undergo a module on presentation skill. In this unit, the students are asked to focus on ten aspects on presentation skills namely, eye contact, facial expression and body language, volume and speed, articulation and pronunciation, correct grammar and style, vocal variety, avoiding the use of fillers, the use of laser pointer, audience and appearing enthusiastic. In the technical progress report (the final assessment in Presentation module), the students are evaluated on their delivery and graphics by the instructor, technical content and progress report presentation by a graduate teaching assistant as well as presentation skills by their peers. Most of the evaluation forms pay greater attention to the content of the speech or presentation than to the delivery of it (Campbell et al., 2001). This is in contrast to the work of communication consultants, who most often focus on issues related to delivery when describing how speakers could most improve their oral presentations. (Campbell et al., 2001).

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According to Crosling and Ward (2002) who examined the development and assessment of oral communication skills in undergraduate business education, they posited that formal presentation skills alone are inadequate. Students needed practice to translate what was learned to a workplace environment (Crosling & Ward, 2002).
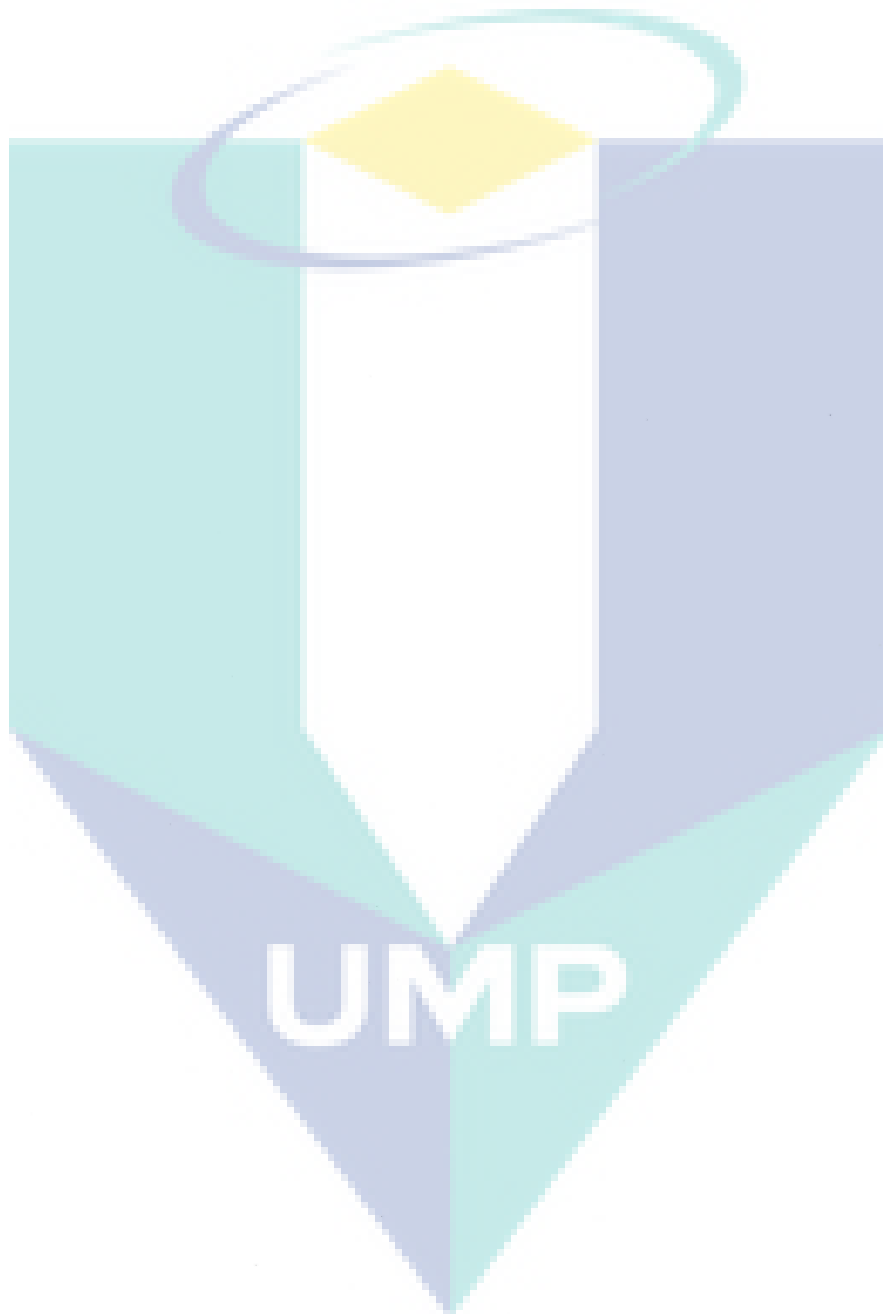
# CHAPTER 3
# RESEARCH METHODOLOGY

## 3.0    Introduction

In this study, the researchers adopted the qualitative method of investigation to probe into the elements of oral presentation skills used at the industry.

## 3.1    Research Design

Through researcher-made questionnaire and document analysis, qualitative research methodology was employed to explore the ways in which engineering students were assessed in their engineering project presentation and the elements of oral presentation emphasized at the industries.

## 3.2    Samples

The samples in this study consisted of Final Year Project (FYP) oral presentation marking scheme, and management personnel from the industry.

Final Year Project (FYP) Oral Presentation Marking Scheme

The FYP oral presentation marking schemes are the marking schemes used by the faculty lecturers to evaluate the bachelor students' final engineering project. Each faculty developed its own FYP oral presentation marking schemes. These marking schemes were obtained from five faculties which were:

- Faculty of Civil Engineering and Environmental (FKASA)
- Faculty of Electric and Electronics Engineering (FKEE)
- Faculty of Chemical Engineering and Natural Resources (FKKSA)
- Faculty of Mechanical Engineering (FKM)
- Faculty of Computer Science and Software Engineering (FSKKP)

The oral presentation marking scheme for FYP was chosen because the students were engaged in an engineering project that required them to present individually. Therefore, an

engineering project presentation would be the most suitable as comparison to the industry's criteria.

Management Personnel and Engineers

The management personnel involved in this study included the Chief Executive Officer (CEO), Director, Vice President, departmental manager, training manager and engineers of the industries which were attached with UMP in providing opportunities and places for final year bachelor students to undergo the industrial training at the industries. The management personnel were chosen for this study because through an informal survey, it was found these management personnel were not only involved in the interview of new employees, but also were involved in the engineers' presentations for project approval. Therefore, their opinions on what they look for in a candidate as well as during the project presentation would be valuable for this study.

## 3.3 Instrumentation and Data Collection Procedures

Only one instrument was developed and utilized by the researchers in the study that is the Oral Presentation Questionnaire to the Industry.

Oral Presentation Questionnaire to the Industry (OPQ)

OPQ was a simple questionnaire which contained only five items. The first two questions were the demographic questions which inquired on the participants' position at the company and years of working experience. The third item asked the participants to give appropriate weighting totaling up to 100% for oral presentation criteria in assessing a project-based oral presentation. All six criteria stated in item three were selected based on the comparison of the current criteria used in the guidelines of the English courses for oral presentation as well as the guidelines used by engineering lecturers in assessing their students' presentation.

The fourth item listed 24 specific elements of the six criteria in item three. The respondents were required to assess the importance of each criterion based on a likert-type scale of four scale which ranged from 1 – very important to 4 – not important. Pilot test for this item was carried out in order to determine the reliability for the internal consistency of the items since it is a scale-based item. The result of Cronbach's Alpha for this item is shown below:

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Table 1: Result of Cronbach Alpha for item 4 of OPQ

| Reliability Coefficients | 24 items |
| N of Cases = | 63.0 |
| Alpha = .7544 | Standardized item alpha = .8691 |

The internal consistency result shows that the score has achieved above the required 0.70 of reliability for internal consistency of items. This score, however, was achieved after six new items were added to the original 16 items. With this rectification, the total number of elements for item three was increased to 24 before the validated OPQ was subsequently administered.

The last item in OPQ is an open-ended question requesting the participants to state other criteria that they might look at or emphasize on during a project-based oral presentation which were not included in the criteria listed by the researchers.

## 3.4    Data Collection Procedures

The data collection procedures started with the selection of participants. A list of industries was obtained from Academic Management Office (AMO), a unit which is responsible in liaising with the industries in sending UMP students for their industrial training. The participants were selected by means of convenience sampling in which from over 200 industries listed by AMO. The industries which provided complete contact details of its manager, or the industries which provided telecommunication agreement were initially selected. 100 OPQ were snail mailed to 100 industries, and 63 OPQ were returned.

On the other hand, to obtain the FYP oral presentation marking scheme, the researchers liaised with the FYP coordinator at each faculty. The electronic copy of the latest version of the oral presentation marking scheme was obtained.

## 3.5    Data Analysis

Since the words or terms used to identify one particular criterion as stated in the marking schemes differ from one faculty to another, the researchers categorized each criterion (with reference to the FYP coordinators) as the followings.

1. Appearance
2. Creativity and Innovation
3. Effective use of presentation time
4. Effective use of presentation tool (slide, demonstration equipment)
5. Language and Clarity
6. Technical Content (Description of Gantt Chart, equipment, hardware and software used
7. Content (synopsis, problem statement, literature review, objective)
8. Quality of project
9. Communication skills (confidence, fluency)
10. Questions and Answers Technique

The content analysis of the oral presentation marking schemes was done based on the listed criteria.

The OPQ data were tabulated into SPSS 11.0 and descriptive analysis was done. A comparison was also done between the summarized data found in FYP oral presentation marking schemes and the data from the industry.

# CHAPTER 4
# FINDINGS AND DISCUSSION

## 4.0    Introduction

This chapter presents the findings on the oral presentation skills collected from the five engineering faculties as well as from the industry. It is then followed by the discussions of the findings.

## 4.1    Findings from the Five Engineering Faculties

The content analysis on all the FYP oral presentation marking schemes yielded ten criteria of oral presentation skills being applied at the engineering faculties. The criteria and the allocation of percentages given to individual criterion are shown in Table 1.

Table 2: Oral presentation criteria and the percentages allocated by different faculties

| OP Criteria | FSKKP 2% | FKM 30% | FKASA 20% | FKEE 35% | FKKSA 25% |
|---|---|---|---|---|---|
| Appearance | 0.67% | | | | |
| Creativity & Innovation | 0.67% | | | 5% | |
| Effective use of presentation time | | | 4% | | |
| Effective use of presentation tool (slide, demonstration) | | 10% | 4% | 1.66% | 1.25% |
| Language & Clarity | | | 4% | | 1.25% |
| Technical content (Description of Gantt Chart, equipment, hardware and software used | | 10% | 4% | 5% | |
| Content (Synopsis, Problem Statement, Lit Review, Objective) | | | | 10% | 15% |
| Quality of Project | | | | 5% | |
| Communication Skills (Confidence, Fluency | 0.67% | | | 4.17% | 1.25% |

| Question & Answer Techniques | | 10% | 4% | 4.17% | 6.25% |
|---|---|---|---|---|---|

The allocation of percentage for project-based oral presentation by each faculty for final year project is different as indicated in the above table. FKEE gave the highest percentage (35%) out of overall marks for FYP whereas FSKKP gave the lowest percentage (2%). FKEE also emphasized on more OP criteria compared to other faculties (7 criteria out of 10). FSKKP is the only faculty which gave the emphasis on appearance while the other four faculties evaluate students on their question and answer techniques. Surprisingly, FKM did not allocate any marks for language or communication skills unlike the other faculties which rated students on their language use or fluency or both. The average percentage given for each criterion across faculty is shown below:

Table 3: Average Percentage given for each Criterion across Faculty

| OP Criteria | Average Percentage Across Faculty |
|---|---|
| Appearance | 6.67 |
| Creativity & Innovation | 9.52 |
| Effective use of presentation time | 4 |
| Effective use of presentation tool (slide, demonstration) | 7.94 |
| Language & Clarity | 5 |
| Technical content (Description of Gantt Chart, equipment, hardware and software used | 8.87 |
| Content (Synopsis, Problem Statement, Lit Review, Objective) | 29.72 |
| Quality of Project | 2.86 |
| Communication Skills (Confidence, Fluency) | 12.04 |
| Question & Answer Techniques | 13.38 |
| **TOTAL** | **100** |

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Table 3 illustrates that content of the presentation earns the highest percentage at 29.72%. With almost 17% difference, the emphasis on question and answer techniques and the confidence and fluency of communicating comes next. The remaining seven criteria show an average percentage of less than 10% with quality of project having the least percentage (2.86%).

On the other hand, the percentage for technical content is only 8.87%, which is among the criteria with low percentages. This is probably because the technical content requires students to only describe the equipment used and timeline followed of the project compared to the major content of the project which requires students' critical and problem-solving skills. As a result, the lecturers highly regarded the importance of the major part of the content during the presentation.

## 4.2 Findings from the industry

### 4.2.1 Respondents' position in the company

The respondents consisted of 63 personnel from related engineering industries who hold managerial posts ranging from Chief Executive Officers (CEO) to supervisors and senior engineers as illustrated in Table 4. 81% of the respondents are the decision-makers of their respective companies while the rest are directly involved in a decision-making process.

Table 4: Respondents' designated posts in related industry

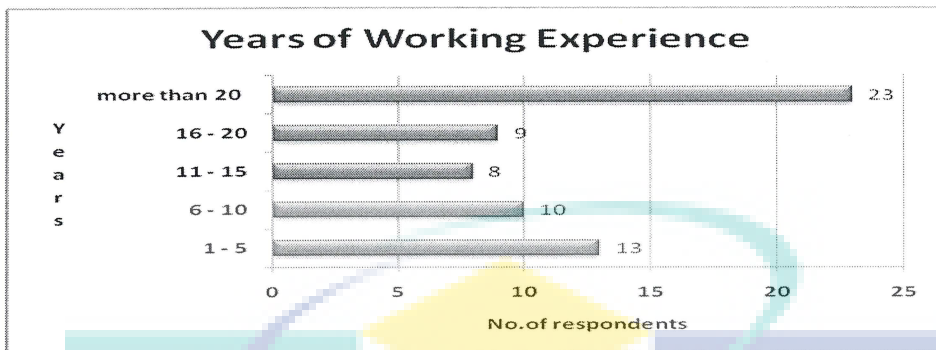| No | Position in the company | No. of respondent |
|----|-------------------------|-------------------|
| 1. | CEO | 2 |
| 2. | Director | 4 |
| 3. | Vice president | 1 |
| 4. | Manager | 25 |
| 5. | Executive | 18 |
| 6. | Training Manager | 1 |
| 7. | Training Coordinator | 1 |
| 8. | Head Unit | 1 |
| 9. | Group leader | 1 |
| 10. | Officer/Assistant Officer | 3 |
| 11. | Supervisor | 1 |
| 12 | Senior Engineer | 5 |

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### 4.2.2 Years of working experience



Figure 1: Respondents' Years of Working Experience

Almost 64% of the respondents have more than 10 years of industrial experience while almost 37% of them have been in the industry for more than 20 years. It is assumed that with longer period of experience at the industry, these personnel know what to look for in engineers' presentation, and what makes good presentation. With such invaluable knowledge and experience, their opinions carry a lot of weight. They are involved not only in the recruitment and promotion process of staff in their respective companies, but also in day-to-day activities such as listening and evaluating proposals and project presentations.

### 4.2.3 Weighting on oral presentation criteria in assessing a project-based oral presentation
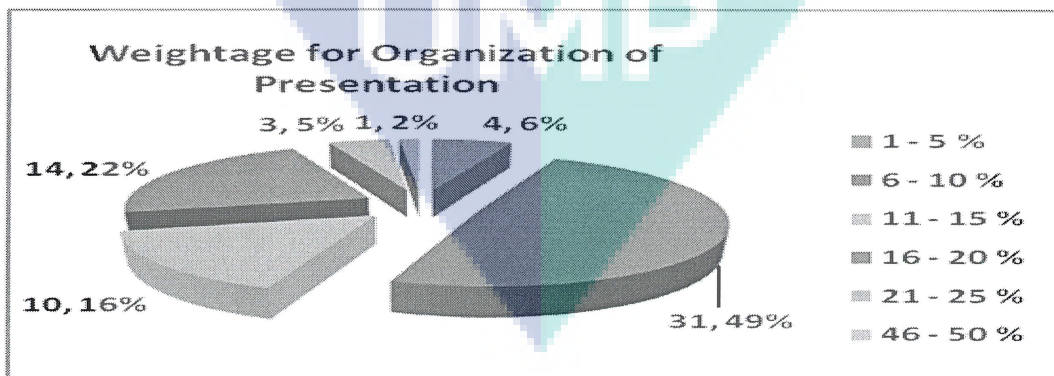
*Organization*



Figure 2: Weighting for Organization

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A good project-based oral presentation should be coherently organized. A good organization has smooth flows of ideas so that the audience is able to understand the content fully. Figure 2 depicts that 49% of the respondents agreed that the weighting should be between 6 – 10% while 38% gave marks between 11 – 20%. A total of about 87% of the respondents gave a high percentage of mark for organization of a presentation. This indicates the importance of good organization in an oral presentation.
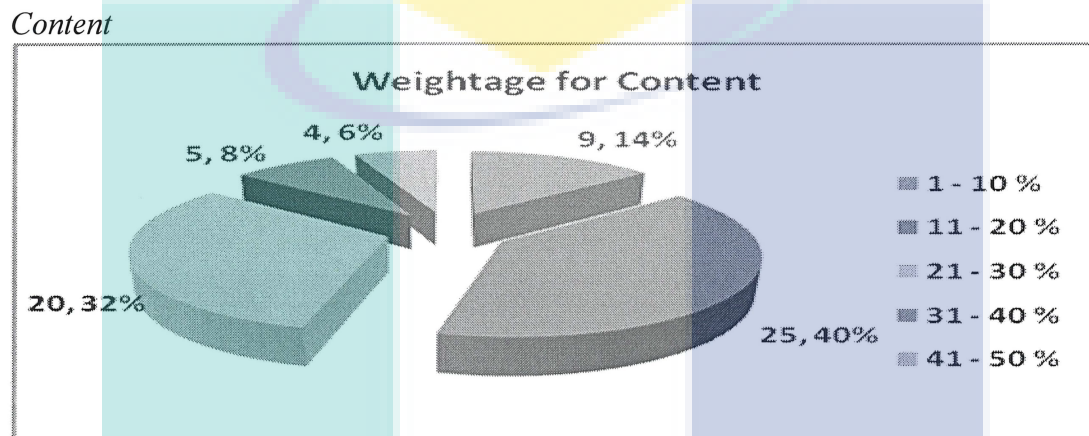
*Content*



Figure 3: Weighting for Content

In terms of content, 72% of the respondents felt that the weighting should be between 11% to 30% whilst another 14% believed that content should be given between 30 – 50% of mark.
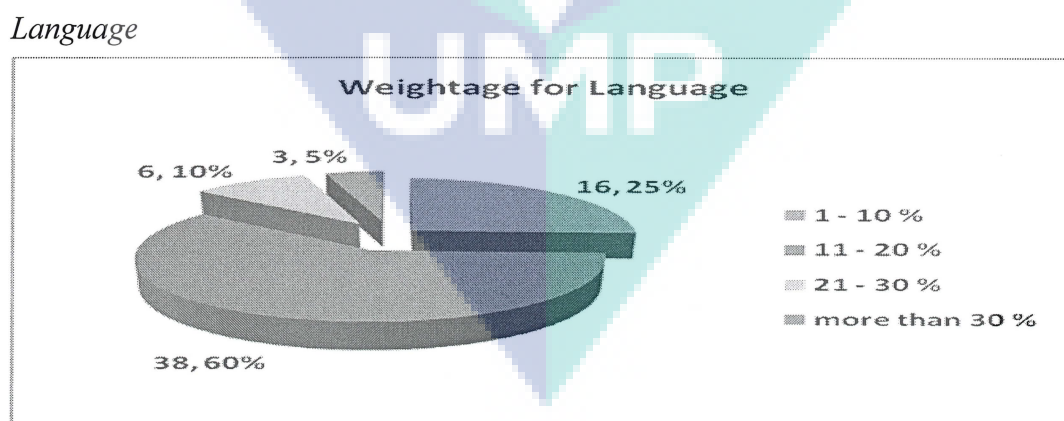
*Language*



Figure 4: Weighting for Language

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Unlike the engineering lecturers who gave a small percentage of marks to the component of language during an oral presentation, a big majority of the respondents from the industry gave a great emphasis on the criteria. Figure 4 shows that 60% of the respondents gave a weighting of 11-20% from 100% for language. Another 15% of the respondents gave a weighting of more than 21%. This indicates that the element of language could contribute to a good oral presentation.
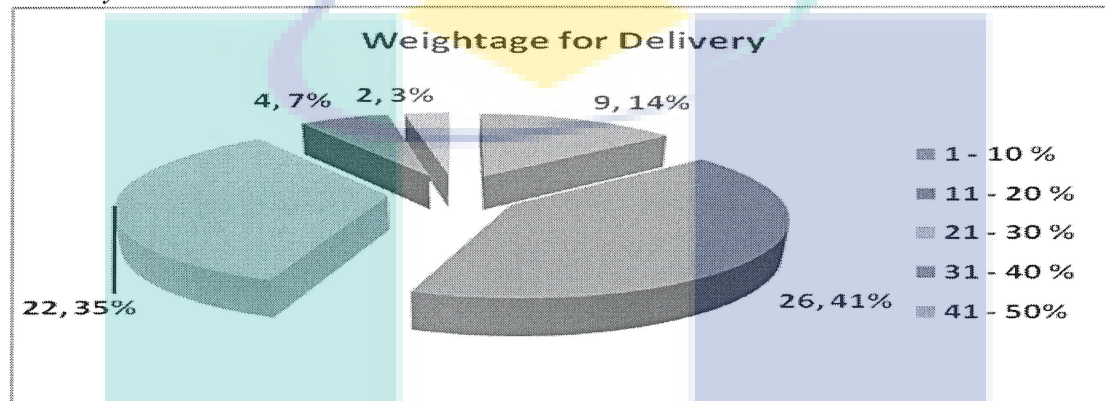
*Delivery*



Figure 5: Weighting for Delivery

Delivery is the way the presenter carries oneself to ensure the effectiveness and success of the presentation. Non-verbal communication skills such as intonation and loudness of voice, eye contact and correct postures and gestures are among the examples of delivery elements. As indicated in Figure 5, 76% of the respondents thought that delivery is one of the important criteria in oral presentations by allocating marks between 11 – 30%.

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*Visual Aids*



**Weightage for Visual Aids**

2, 3% 1, 2%
7, 11%
10, 16%
9, 14%
34, 54%

- 1 - 5 %
- 6 - 10 %
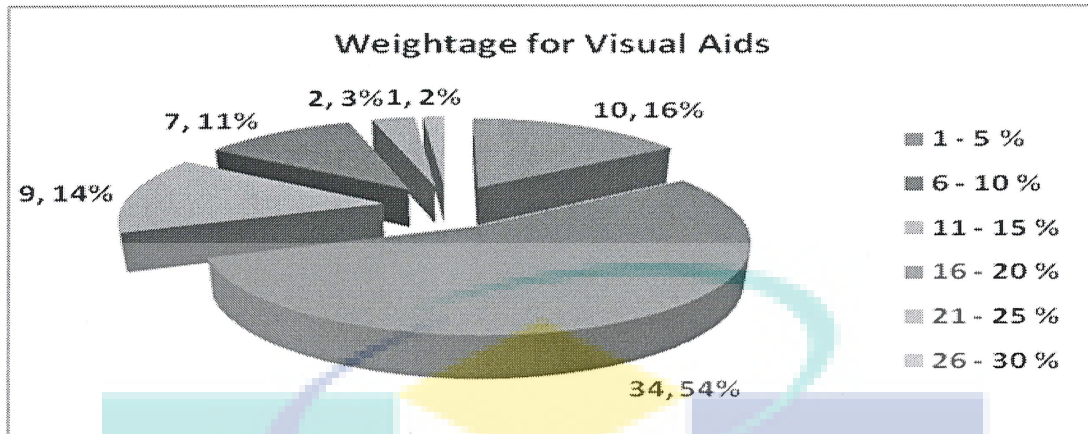- 11 - 15 %
- 16 - 20 %
- 21 - 25 %
- 26 - 30 %

Figure 6: Weighting for Visual Aids

Visual aids are important instruments to concurrently highlight and simplify information or data during presentation. Effective presentation and use of visual aids can ensure better comprehension of the information by the audience, and can also function as a tool to help the presenter follow the flow of the presentation organization and gain confidence. Examples of visual aids include Microsoft PowerPoint slides, multimedia presentation, pictures and real things. More than half of the respondents (54%) gave the weighting of between 6 – 10% for effective use of visual aids, and only 3% of the respondents weighted it above 21%. This points out that the importance of effectively using visual aids is considered even though the amount of marks given is small.

*Appearance*



**Weightage for Appearance**

3, 5% 1, 2%
5, 8%
26, 41%
28, 44%

- 1 - 5 %
- 6 - 10 %
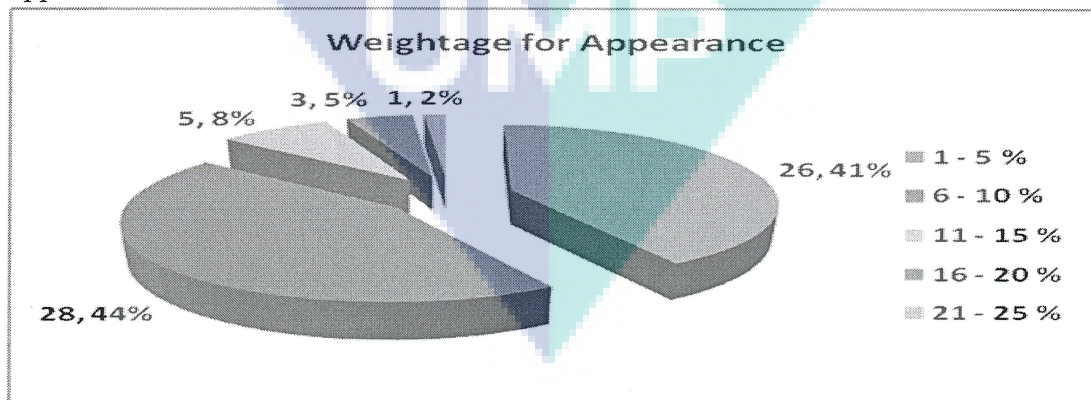- 11 - 15 %
- 16 - 20 %
- 21 - 25 %

Figure 7: Weighting for Appearance

Appearance although might seem a trivial criteria has its own advantages and benefits that respondents were almost equally divided in giving marks for this criteria. 41% of them thought marks allocated for appearance should not be more than 5% whereas a slightly higher percentage of the respondents were willing to give higher than 5 but not more than 10 marks.

### 4.2.4 Importance of the detailed elements of the oral presentation criteria
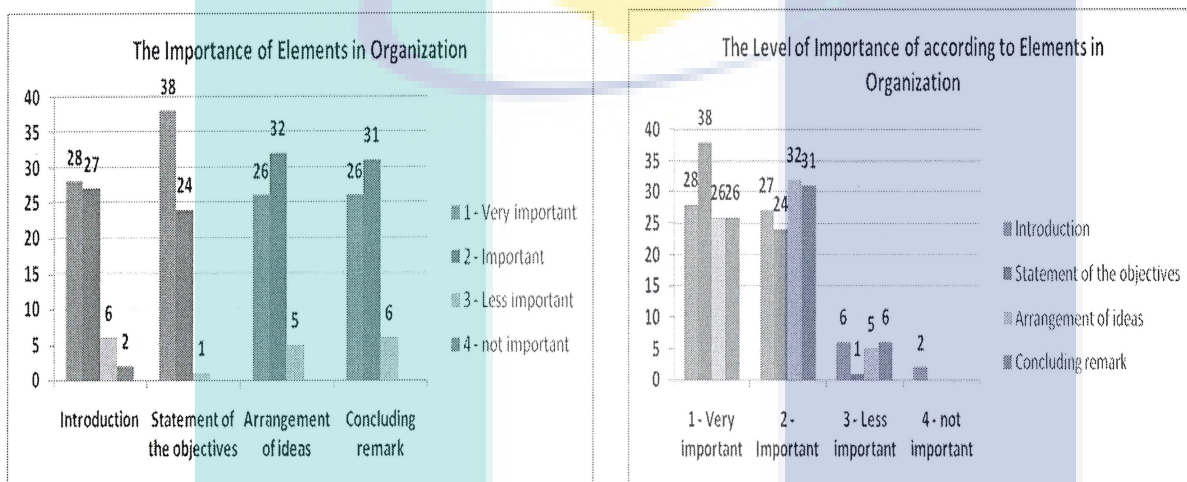
*Elements in Organization*



Figure 8 (a) and (b)

There are four elements for the organization of the oral presentation which are the 1) introduction, 2) statement of the objectives, 3) arrangement of the ideas, and 4) concluding remark. Figure 8 (a) clearly indicates that all the elements for organization were judged as important by the industry personnel. The statement of objectives, however, has the highest number of respondents (38) stating that it is a very important element, followed by the introduction with 10 respondents lesser and the remaining two elements have the same number of respondents at 26. Less than 5% of the respondents stated the elements are not important.

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*Elements in Content*



The Importance of the Elements of Content

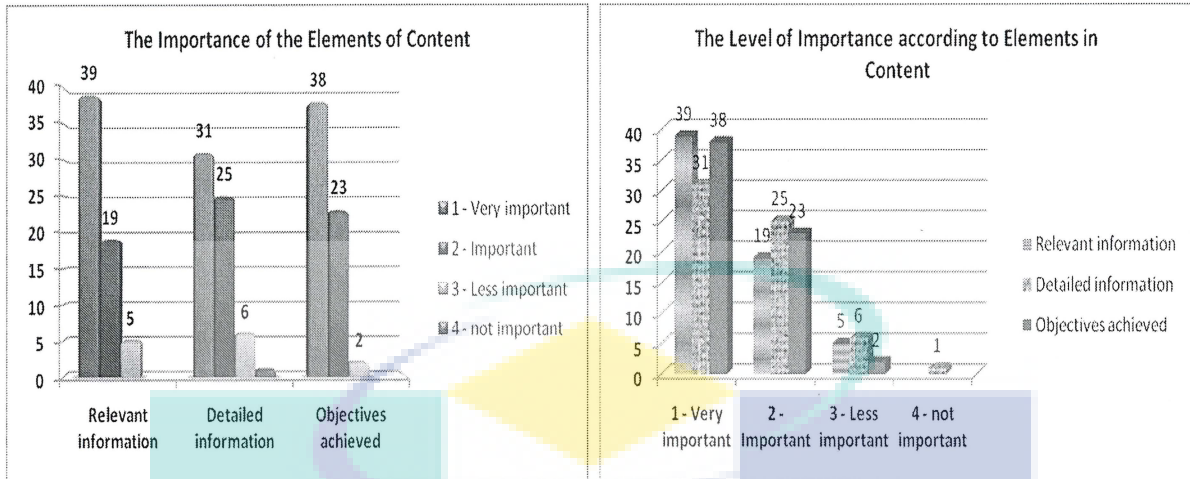The Level of Importance according to Elements in Content

Figure 9 (a) and (b)

Three elements of the content were presented which were relevant information, detailed information and objectives achieved. Figure 9 (a) depicts a clear and wide difference between the important and not important domain scale of all the three elements with all elements considered important. Within the important domain itself, all three elements have higher number of votes for very important. Relevant information and objectives achieved are seen as almost equally very important compared to detailed information which comes third.
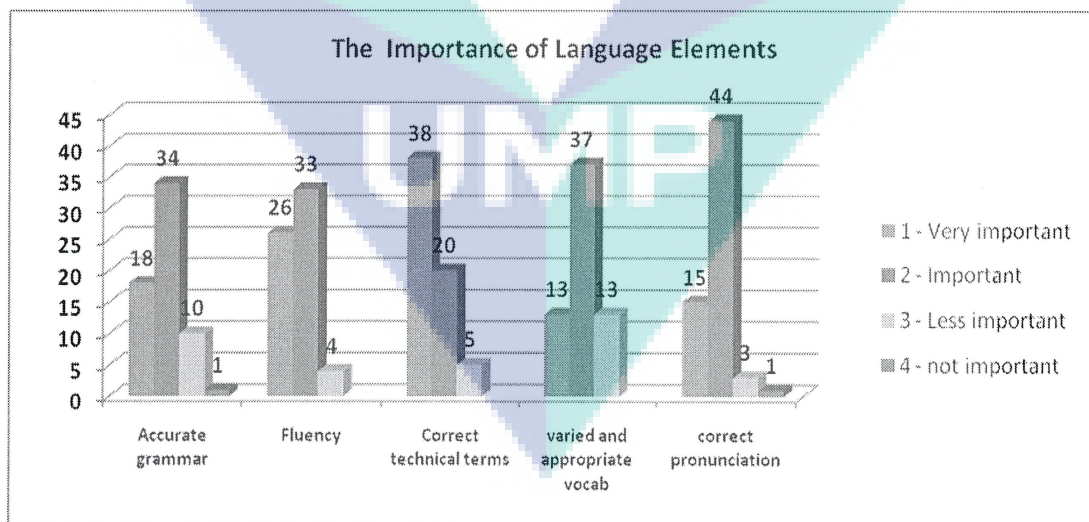
*Elements in Language*



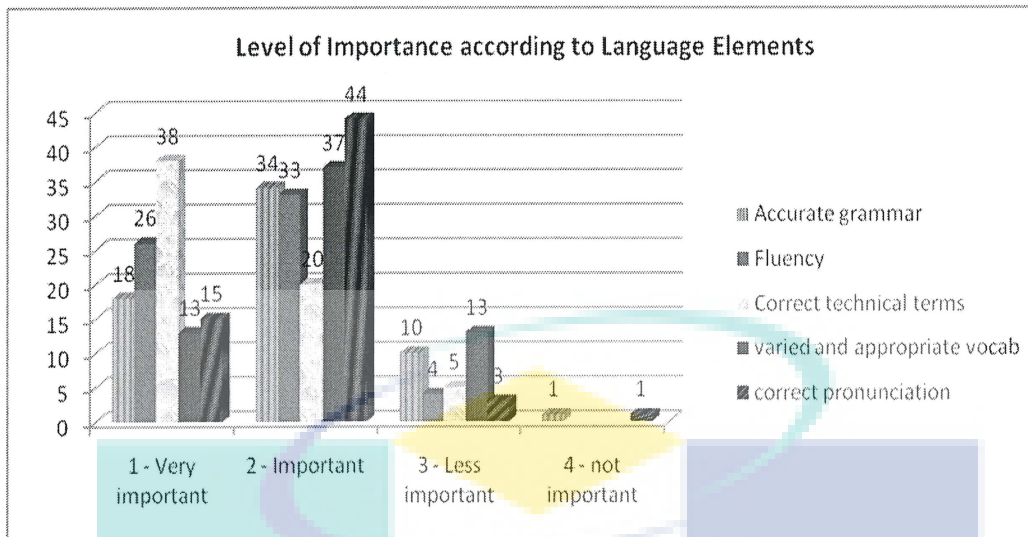The Importance of Language Elements

Figure 10 (a)

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Figure 10 (b)

Accurate grammar, fluency, correct technical terms, varied and appropriate vocabulary and correct pronunciation are the five elements of language investigated. Generally, to compare between the domain scale of importance, all the five elements were regarded as important, but the pattern of voting within the domain of important itself differs from one element to another. The element which is pointed out as very important with the highest number of respondents (38) is the use of correct technical terms. The difference between very important and important for fluency is rather small whereas the other three elements received more votes for important to very important. As a conclusion, it can be said that in terms of language use, the personnel from the industry believed that stress on technical terms or jargons and fluency is more important than accuracy.

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*Elements in Delivery*
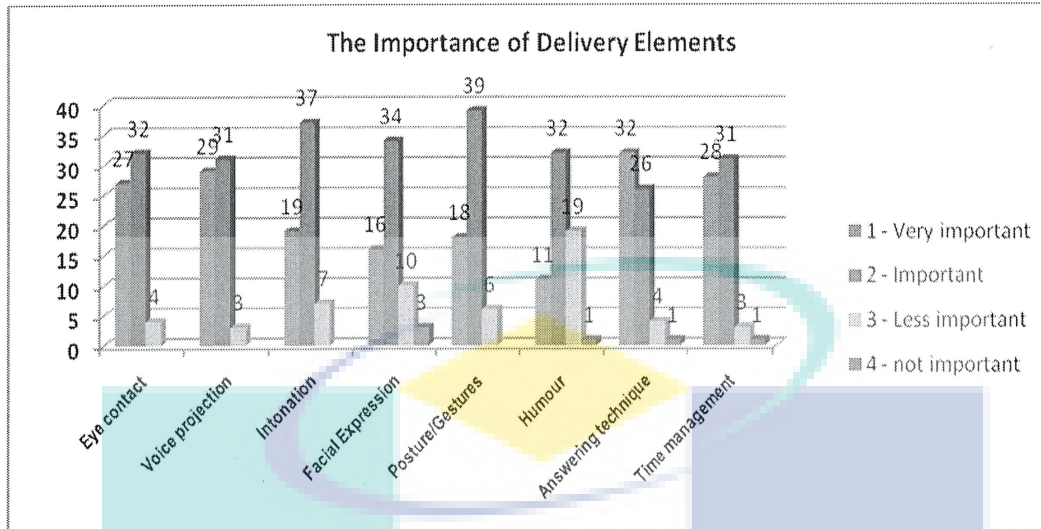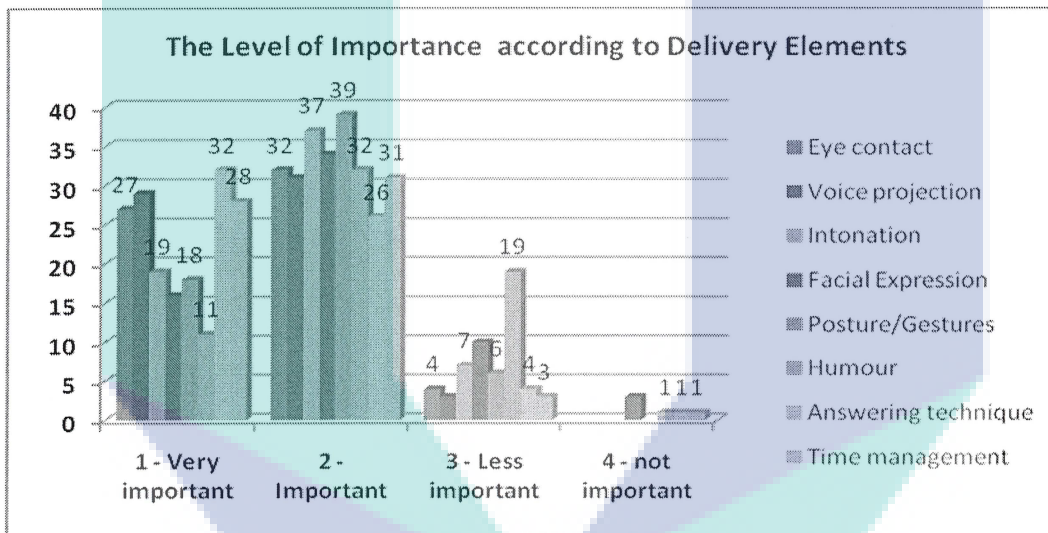


Figure 11 (a)



Figure 11 (b)

Figure 11 (a) clearly shows that there is a clear distinction between the domain scale of important and not important for all the elements of delivery. However, the only element which received more votes for very important compared to important is answering technique. For the elements of eye contact, voice projection and time management, there is only a slight increase in number for important than very important whereas the number of votes for important for intonation, facial expression, postures and gestures and humor is considerably higher to very important.

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On the other hand, Figure 11 (b) indicates that humor has the highest number for not important (19) compared to other elements. This is probably because engineers' presentation includes issues of problem solving that requires serious scrutiny and judgment that humor is not seen as necessary during the presentation which also reflects why answering techniques scores the highest for very important. It can be generally concluded that delivery is regarded as an important criteria in an oral presentation.

*Elements in Visual Aids*
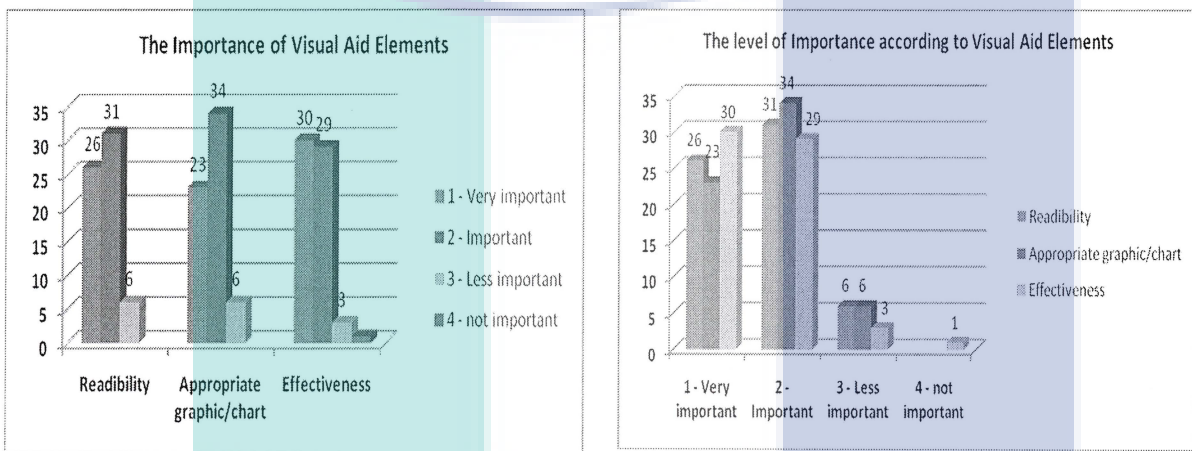


Figure 12 (a) and (b)

There are three elements for the visual aids criterion which are readability, appropriate graphic or chart, and effectiveness. Figure 12 (a) illustrates that all elements are considered important. The effectiveness of the visual aids has only 1 vote higher for very important than important. Meanwhile, the number of important for readability and appropriate graphic or chart is slightly higher than very important.
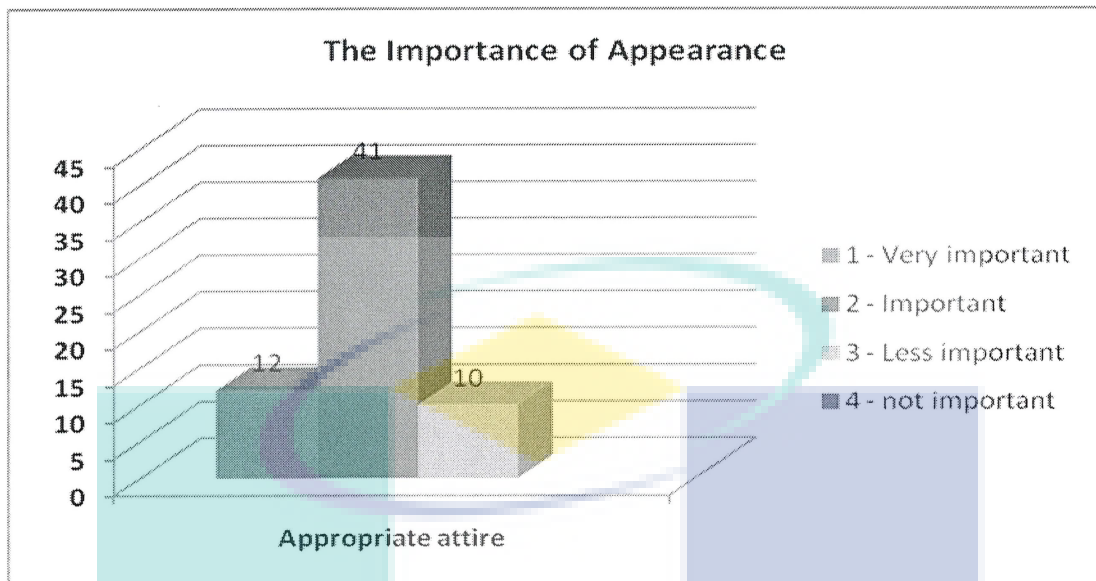
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*Elements in Appearance*



Figure 13: The Importance of Appearance

Being an engineer means being a professional. Thus, appearance is important to indicate and maintain professionalism. Only about 15% of the respondents felt that appropriate attire is a less important element to be considered.

**4.2.5** *Other Criteria Emphasized during a Project-based Oral Presentation*

Here is the list of other criteria given by respondents: (most of the sentences have been modified to make them grammatical, but the essence of the comments is maintained)

1. Confidence
   a. The presenter should have physical and emotional stability so that he or she becomes more relax and confident
   b. Confidence, appropriate, readiness, humble
   c. Simple, poignant, to the point, effectiveness – clarity of thought process
   d. The presenter must show good image/personality and have good self confidence
   e. Analysis skills: analytical thinking using toold for problem solving , problem identification and able to provide recommendation /solution to the management

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    f. Presenters must have thorough knowledge of the subject presented . This will translate or manifest itself in the fluency of presentation

    g. Presenters must have 100% confidence in the presentation

2. Interactive

    a. Friendly – walk around make people relax

    b. Relate and interact

    c. Presenters must be able to interact with audience

3. Audience

    a. Know the audience background

    b. Audience : Different group of audience will need different mode of presentation

    c. Etiquette and how to address the audience appropriately

4. Knowledgeable

    a. Engineers must be well-versed in the subject matter to ensure the presentation is effective

5. Others

    a. Objectives, implications and causal effect need to be connected to prevent a 'hung' audience

    b. Relate to some real-life cases of possibilities to ensure clearer understanding

    c. Venue of the presentation must be cosy. It plays an important role to atract audience

    d. Keep it short and simple

    e. Rely on text

    f. Enthusiasm : Most local grads lack of fighting spirit

    g. Concise and efficient usage of words

    h. Team work

    i. Stage layout

    j. Sometimes it is good and needed to bring a sample or model of the project or design.

## 4.3 Discussions

### 4.3.1 Comparison of Emphasis on Oral Presentation Criteria between Engineering Lecturers and Industry Personnel

As reported earlier, each engineering faculty has its own marking scheme and different criteria are used to evaluate students' project-based oral presentation skills. Upon further scrutiny, the differing elements were grouped into 10 criteria which are almost comparable to the criteria given to the industry. Taken that as a starting point, the findings will be discussed by comparing the emphasis given on oral presentation criteria used by engineering lecturers and the industry personnel.

In terms of organization, no marks are allocated in the FYP marking scheme. However, about 87% of the industry personnel gave up to 20% weighting for organization which include introduction, statement of the objectives, arrangement of the ideas, and concluding remark. Instead, in FYP marking scheme, elements such as synopsis, problem statement, literature review and objectives are considered important in the content. For the weighting of content, engineering lecturers allocate almost 30% of the total marks which is similar to the weighting given by the industry. The technical content (description of gantt chart, equipment, hardware and software used) is given separate marks by the lecturers to highlight its importance.

One of the most astounding contrast in the findings is the weighting given for language. Some faculties do not put much emphasis on language as the weighting awarded is as low as 5% whereas the industry personnel thought that language is very important especially in the aspects of correct technical terms used and fluency. This finding is very crucial to the language lecturers in order to motivate students to improve their language proficiency and fluency.

Another valuable finding is the weighting given for delivery. Majority of the industry personnel were willing to award up to 30% marks for delivery component while the engineering lecturers allocated less than 15% for this criteria. However both groups paid essential emphasis on time management and answering techniques.

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In the aspects of visual aids and appearance, the percentages given by the faculty are almost in accord with those from the industry. For visual aids, the percentages allocated by the lecturers and industry personnel are 8% and 10% respectively while percentages for appearance are 7% and 10%.

In summary, industry personnel gave great emphasis on 4 criteria: organization of presentation, content, language and delivery. The engineering faculties, on the other hand, emphasize more on content, question and answer techniques and communication skills such as confidence and fluency. This discrepancy should be noted and taken into account by all engineering lecturers for future final year project oral presentation assessment or any project-based oral presentations in order to be relevant to the industry.

### 4.3.2 Proposed New Marking Scheme for Final Year Project Oral Presentation

Based on the weighting given by the industry and the average percentage given for each criterion across faculty, the following new marking scheme is proposed:

Table 5: Proposed new marking scheme criteria for project-based oral presentation

| NO. | CRITERIA | WEIGHTING |
|-----|----------|-----------|
| 1. | Organization | 10% |
| 2. | Content | 30% |
| 3. | Language | 20% |
| 4. | Delivery | 20% |
| 5. | Visual Aids | 10% |
| 6. | Appearance | 10% |
| | Total | 100% |

The weighting for each criterion is derived from the highest percentage obtained through the questionnaire to the industry. However the total percentage for all the criteria amounted to only 90%. In order to accumulate 100%, the average weighting

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given by the faculty is examined. As illustrated in Table 3, the highest percentage is given to content, thus in the proposed new marking scheme, the weighting for content is increased from 20% (given by the industry) to 30% as allocated by the faculties. This new proposed marking scheme is very much aligned with the assessment practiced by the industry.
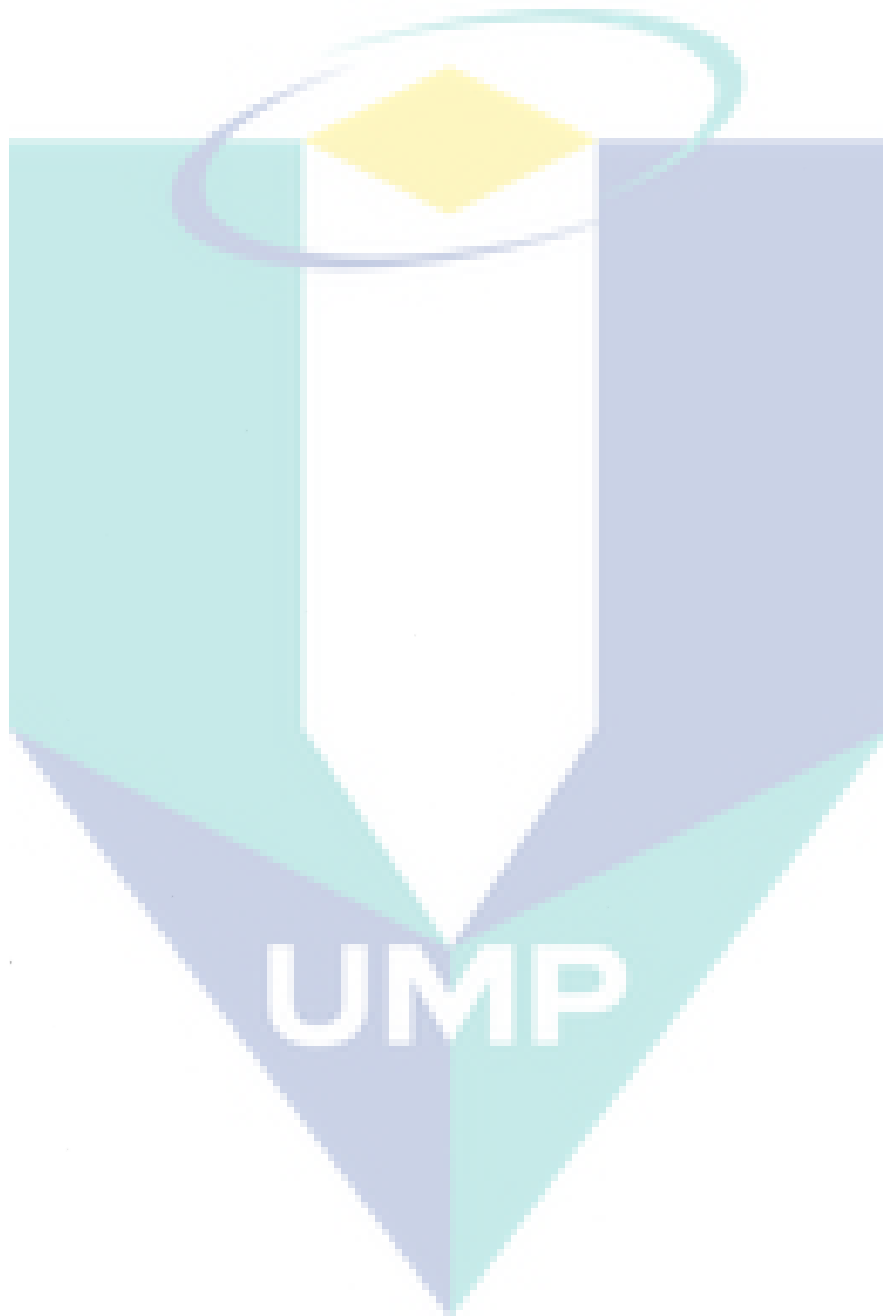
# CHAPTER 5
## CONCLUSION AND RECOMMENDATIONS

## 5.0    Introduction

This chapter discusses the limitations, implications of the study and suggestions for further research in the area of communications skills focusing on oral presentation skills.

## 5.1    Limitations

Throughout the process of conducting this study, several limitations have been identified.

### 5.1.1    FYP Oral Presentation Marking Schemes

It was found that each marking scheme collected from each faculty is different in terms of its latest update, allocation of percentage for oral presentation to the total marks of students' FYP, and the number of presentations for FYP.

*Update*

Update of the oral presentation marking scheme is different for each faculty. One faculty updated the marking scheme every year whilst another has never been updated. The researchers believed that this somehow affected the results. This is indicated in the difference of emphasis given for each criterion.

*Allocation of Percentage*

Each faculty's allocation of percentage to oral presentation to the total marks of the FYP is different. One faculty allocated as low as 2% while most faculties allocated between 20%-35% to the oral presentation. Although the percentage can be calculated to a general percentage, the results obtained were not a total representative of all the faculties. However, through the allocation of percentage, it can be concluded how one faculty views the importance of oral presentation in their students' works.

*The number of presentations conducted*

Some faculties obliged the students to comprehensively cover FYP in two semesters naming it FYP I and FYP II. Some faculties only did it in one semester. FYP I usually

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involve the initial research into the project which include refining the problem, and finding the equipment and tools to be used in which all activities all recorded in students' log book. Students were also required to present their progress in an oral presentation. FYP II presentation covers the whole project, thus has a broad coverage on the oral presentation criteria. Some faculties included both FYP I and FYP II oral presentations in the total marks, and some did not. Therefore, with these differences, the results obtained from the content analysis and as comparison to the industry's criteria might not be a representative to all faculties.

### 5.1.2 Questionnaire to the Lecturers

The comparisons made between the engineering lecturers' and industry personnel's view on the importance of oral presentation's criteria and its elements were done based on the questionnaire to the industry and the content analysis of the oral presentation marking schemes. Therefore, there is incongruence in terms of types of data for comparison.

Similar questionnaire administered to the industry's personnel was developed and administered to the engineering lecturers. However, the number of response received from the engineering lecturers was too small to be considered as representative of sample population. In this case, the data was insufficient and would not be acceptable for comparison with the number of response from the industry; therefore, the data was not used and described in this report.

Hence, there might be discrepancies in the results since the type of data used for comparison is not similar.

### 5.2 Implications of the Study for Future Research

Based on the discussion presented earlier, several possible implications and recommendations have been identified.

- Since the oral presentation marking schemes obtained from each faculty are different in many aspects which might result in discrepancies in the total results, it

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is best that for future research the marking schemes are collected from courses in which differences of the marking schemes discussed in the limitation are reduced.

- It has been mentioned that the data collected from the lecturers' questionnaire was not used due to the small number of responses. In order to ensure that comparison between the faculty and industry elicits more reliable results, the questionnaire should be re-administered. The researchers should find ways to ensure that cooperation from the engineering lecturers are obtained in order to answer the questionnaire.

## 5.3    Conclusion

In conclusion, oral presentation is indeed an important aspect of an engineer's work. Therefore, the need to understand what is actually being practiced and exercised at the industry on the oral presentation matter will help not only the language curriculum developer and but of the engineering faculties as well in developing guidelines, modules and marking schemes that are tailored towards that needs. Our students' oral presentation skills will be enhanced and sharpened based on what is needed at the industry.

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