

THE IMPORTANCE OF ORAL PRESENTATIONS FOR ENGINEERING STUDENTS

Dini Hadiani

Politeknik Manufaktur Negeri Bandung
Jl.Kanayakan No.21- Dago Bandung- 40135
Phone/Fax : 022. 250 0241/ 250 2649
Email: hadiani_dini@yahoo.com

Abstract

This paper presents the qualitative analysis of the students' experiences in giving oral presentation in the ESP classroom. It is claimed that oral presentation is an important skill for engineering students to acquire. This is a learned skill and one that is frequently called upon in the workplace. Students' oral presentation in the classroom, therefore, is considered an important element in gaining positive learning experiences. The main purpose of this study is to find out the importance of oral presentation skills for undergraduate students. This study was conducted among 31 Polytechnic students whose study background is engineering. Utilizing a qualitative method of enquiry, data were obtained through questionnaires and interviews. Research findings reveal that most of the students perceive the importance of oral presentation skills. They also gain the wider range of communication skills especially in giving technical explanations on product design or manufacturing processes. The study concludes that the students are aware of the importance of oral presentations in the classroom, and how they are interested in developing the communicative classroom. This study recommends that as oral presentation brings positive learning experiences, this activity should be given regularly to students. It is hoped that it can motivate the students to improve their communication skills.

Keywords: *Oral presentation, Engineering Students, communication skills*

1 Introduction

Teaching English for specific purposes (ESP) for engineering students has its own challenges. The learners need English as means of doing their work efficiently but first of all for being able to communicate. What is important with ESP is the fact that it is designed to meet the specific needs of the learners and is centered not only on the language (grammar, lexis, register), but also on the skills and discourses (Maria, 2009). Thus, improving the engineering students' English skill is not only to make them know English, but also to improve their communicative competence.

Communicative competence refers to the ability of a speaker to communicate the message correctly in order to achieve its communication goal (Kakepoto, et.al. 2013). Oral presentations which are parts of communication skills are important skills for engineering students to acquire. Engineers need to be able to communicate their technical expertise effectively (Cullen, 2002).

The importance of oral communication for engineering students and engineers has been widely reported, with emphasis on non-native speakers of English. As stated by Batley (1998), many engineers may have strong quantitative skills while remaining comparatively weak in verbal skills. It indicates that engineers have limited abilities to present effectively. This becomes a problem since employers are demanding graduates who have excellent not only written but also oral and listening skills. Another study by Alshare and Hindi (2004) explored the role of students' presentation in the classroom. It revealed that both students and instructors agreed that a student's presentation in the classroom has become an important element in delivering positive learning experiences" (Alshare & Hindi, 2004, p. 6). Nevertheless, little do the studies concern about what makes oral presentations important to students in engineering field. Thus, this study attempts to find out the importance of oral presentations viewed from engineering students.

2 Literature Review

2.1 Oral Presentations

It is said that most teaching at the university was earlier limited to give formal lectures, however, nowadays it attempts to involve actively the students in the learning process (Wallace, 2004). Furthermore, it is elaborated by Chen (2011) that one common way for students to do so in university classrooms around the world is to give academic oral presentations in English because of the role that English plays in the world now.

Oral presentation can be defined as "... typically and partly spoken, partly visual form of communication" (Ming 2005, p. 118), and it is normally limited in time and occurs in organizational settings. This idea is supported by Harmer (2007) who states that oral presentation henceforth OPs are not designed for informal spontaneous conversations; because they are prepared, they are more 'writing like', which is good for fluency and for avoiding hesitation, gaining time, etc. Additionally, among other advantages of OPs King (2002) declared that OPs fill the gap between language use and language learning, and make use in an integrated manner all the four language skills.

From ESP course perspectives, effective OPs are viewed at "Structuring, visuals, voice, and advance signaling as well as language" (Duddley- Evans and Maggie 1998, p. 112). The elaboration of such view is as follows:

Structuring a Presentation. It is like structuring written communication in which the listener needs a map to follow with a start, middle and an end (Dudley-Evans and Maggie, 1998).

Visuals. These are defined as anything that can be seen and help listeners to follow, pay attention and interest to the oral presentation (Anderson et al. 2004). Besides, Duddley-Evans and Maggie (1998) confirm that visuals are worth a thousand words. Yet, if they are good and used well.

Voice. It is argued that as a presenter, the ability to pace your speech and use your voice to create impact is the single most important skill you need. The presenters will be more effective if they are in control of their voice by the use of stress, pausing, intonation, volume, and silence (Powell, 2002; Duddley-Evans and Maggie 1998).

Advance Signaling. It is believed that advance signaling or signposts are considered as important features of academic presentations. They help the presenter follow the structure of the information and arguments on the part of the listener; also, they lead to recognize visuals' significance. For example, when we use advance signaling to introduce the talk as in "I'd like to talk about..." or to conclude the talk as in "I'd like to finish by saying that..." (Allen 2008, p. 2)

Language. In oral presentations, language is considered to be made of both words and nonwords, and that an effective language demands the selection of vocabulary to report appropriately to the situation (Bert, 2009). Moreover, Freeland (2008) showed that choosing simple syntax and vocabulary rather than long, subordinated sentences and technical jargon also appeal more to listener' aural perception. Pauses are also considered as integral part of language use that helps to gather thoughts and allow listeners to think about what the presenter is saying.

2.2 Oral Presentations in The ESP Classroom

Oral presentations have acquired significant position in academics (Campbell et al., 2001) ranging from medical and engineering fields. Oral presentation is one of the seven important oral communication skills that entry level job candidates should possess (Campbell et al., 2001).

The focus of oral presentations is often on substantial preparation, stand-up, prepared talk associate with visuals. Teachers should, therefore, equip students with the skills such as how to organize their ideas across logically with clear structuring. The teacher also needs to help students to understand the materials they use and they are exposed to when preparing OPs and to push them to be fluent when presenting. In addition, teachers should, according to Harmer (2007), give students the necessary time to prepare their talks. Moreover, He also claims that oral presentation is the skill that is learnt and improved through feedback and rehearsal from a native speaker or the teacher. For King (2002) teachers should also discuss the problem of speech anxiety with the students and try to get solutions for this problem from speech communication literature. As a result

the students are expected not to feel that they are alone. This is expected to raise the students' self-confidence (King, 2002). Also, the reminder should be given to the presenters to use communicative English and avoid creating boredom.

ESP requires students to be responsible for their learning in which the new role of the teacher as a facilitator of learning has shifted the traditionally authoritative role. As it is stated by Al-Issa and Redha (2010) that in an oral presentation classroom, teachers are facilitators of cooperative learning and delegate autonomy and leadership to be represented by the student.

It should be kept in mind that oral presentations involve more time and effort in planning the lesson and teaching strategies. Moreover, in OPs classroom teachers are not only demanded to be as guides, organizers, consultants, resource persons, and supporters in the classroom, but also as King (2002) declared that they should hold questions and answers sessions, provide feedback, and evaluation of students performance. So, teachers' role in classroom OPs is stepped as follows:

Step 1: Handing Out Guidelines. Carefully prepared guidelines help students accept full responsibility for giving OPs. Stating clear objectives and reasons for giving OPs can lead students to take part with great satisfaction and acceptance.

Step 2: Grouping and scheduling student presentations. A large classroom is one of the challenges faced by teachers in planning presentations. Therefore, teachers should put students in groups to save time in a given classroom, and they should work toward having groups with a variety of cooperative techniques.

Step 3: Choosing Topics and Gathering Information. In order to achieve the student's self-expression and creativity, the teacher should, then, let them select topics that they prefer, as King (ibid) claimed that it is interesting to see the variety of topics presented by students. In addition, teachers should also help students with some resources.

Step 4: Handling Technical Problems. To handle some technical problems that students may face during their OPs such as the misuse of visual aids, teachers should expose students to some supporting materials that they can use. Teachers should also insist on the importance

of both rehearsal and performance before the day of the presentation. In addition, they should teach students how to use certain strategies when presenting, using, for instance, power point slides, keeping eye contact with the audience, and remind them to refer to the text on the slides when presenting orally.

Step 5: Holding Question & Answer Sessions. This session can be used as King (2002) described it as "quality control" that is necessary and helpful in ensuring effective presentations in which the teacher can discover difficulties that students can face such as those related to ways words are pronounced in English and ways of saving them.

Step 6: Preparing Peer and Teacher Evaluation. Oral presentations can be assessed formally or informally. Formal assessment is used to assess students in order to get marks for their performance. Furthermore, peer evaluation is a kind of feedback for the presenter in which students will learn from the strong and weak points of their peers when presenting.

3 Methodology

The research approach used for this study was a qualitative case study design. It is concerned with "a small scale, a single case" and focused on one particular instance of educational experience or practice (Stake, 1995; Freebody, 2003 in Emilia, 2005). A single case of this study referred to the investigation of the importance of oral presentations in one polytechnic in Bandung. The participants of this research were 31 students of semester 6 in technical English class. They come from the Foundry engineering department.

To collect the data, the instruments used in this research were students' questionnaires and interviews. A set of questionnaire was distributed to the students to determine the students' opinion of the importance of the oral presentation skills. The questionnaire consists of (5) questions, and (7) statements. The participants are asked to choose the appropriate answer from a number of choices of closed-form type. Besides, a likert scale is used from which respondents choose one option that best aligns with their view and which is arranged from (Strongly Agree henceforth 'S A', Agree

henceforth 'A', Disagree henceforth 'D', Strongly Disagree henceforth 'S D').

Interviews were done in Indonesian to avoid misunderstanding. It was conducted in open-ended and semi-structured format. Interviews were recorded by tape recorder. It contains verbal questionnaires consisting of questions designed to elicit specific answers (Frankel & Wallen, 1996). The interview data were inserted while discussing the main data resulted from the questionnaire.

4 Findings and Discussion

The research results provided valuable insights on the importance of oral presentation skills for undergraduate engineering students. The findings are presented in the average percentages on the basis of questionnaires. The interview data were inserted to justify the results obtained from questionnaires. The results are elaborated below.

The first aspect on the questionnaires is the students' level of English proficiency. The result can be seen in table 1.

Table 1 Students' rating of their level of English proficiency

Option	Number	Percentage (%)
Beginner	6	19
Lower intermediate to intermediate	20	65
Upper intermediate to advance	5	16
Total	31	100

The answers on Table 1 show that the highest percentage of students (65%) claim that their level in English is from lower-intermediate to intermediate. The other (19%) state that they are beginners. Some others (16%) say that they have an upper-intermediate to an advanced level. It was admitted by some students when interviewed, saying that they could not understand and use English in the classroom due to their poor English. Consequently, they were often demotivated to study English. Furthermore, their background of learning experience supports their achievement as argued that in their high school they did not like English subject nor take any English course because they had no motivation.

Related to the students' previous experiences in giving oral presentation in English, the result is elaborated in table 2.

Table 2 Students' previous Experiences in Giving Oral Presentation in English

Option	Number	Percentage (%)
Yes	10	32
No	21	68
Total	31	100

As shown on Table 2, the percentage of students who do not have the experiences of giving oral presentation in English is (68%) who are about twice the percentage of of students (32%) who have experiences in giving oral presentations in English. In the interview session, some students acknowledged that they had never had any experiences in giving OPs in English because they never got the opportunity to do it. Meanwhile other students argued that they had the experience to give OPs when they were in Senior high school. It was also reported when interviewed that this experience was obtained because the students joined an English club, or English course.

Concerning the topic chosen for oral presentation. The students' answers are seen in table 3.

Table 3 Topic's Suggestion for Oral Presentation

Option	Number	Percentage (%)
Teacher	4	12.5
Student	20	65
Both	7	22.5
Total	31	100

As shown on Table 3 (65%) of the subjects say that is the students who suggests topics for oral presentations, others (22.5% of the respondents) claim that both teacher and students contribute to this; while some others (12.5%) state that topics are suggested by the teacher. It is clear from the results that the topics are usually presented by the students. This situation is confirmed in the interviews by the students saying that the students were asked to select their own topics based on their preferences. The students also said that the teacher still gave guidance in determining the topic chosen, so it is still based on the students' need. This is in line with King's (2002) statement that the teacher should let the students select topics that they prefer, in order to achieve the student's self-expression and creativity.

In relation to the objective of giving oral presentation, the results are shown in table 4.

Table 4 Expressing the goal

Options	Number	(%)
To master the grammatical system of the English language.	8	26
To master the effective and appropriate communication in English	23	74
Total	31	100

From the results obtained, the percentage of students who like to master their ability to communicate effectively and appropriately in English is (74%). This is about three times the percentage of students (26%) who prefer to master the grammatical system of English through giving classroom oral presentations. As it is argued by students in the interviews saying that their goal of giving OPs was to improve their communication skill, so they could communicate in English fluently. Some students also mentioned that giving OPs in English in the classroom could be a form of training to talk to a group of people. It can be said that the students are more aware of the importance of developing their communicative competence as a fundamental element in learning a foreign language (Kakepoto, 2013) over (26%) of them who like to master their grammatical competence as a part of the whole communicative competence framework.

The next aspect on the questionnaires is the students' general opinion about giving oral presentations in the classroom. The result can be seen in table 5.

Table 5 Students' general opinion about oral presentations

Statements	Numbers	Percentage (%)
I was glad I had the opportunity to do that	22	71
I did not like it at all	9	29
Total	31	100

The answers on Table 5 show that most of students (71%) state that they appreciate the opportunity to give the oral presentations in the classroom because as they claimed in the interview that they got some practice in giving oral presentations in English which would help them later (during their studies/career). They also said that OPs also helped them improve their English communication skills especially in giving technical explanations on product design or manufacturing processes. Meanwhile some students (29%) state that they did not like the activity because as they claimed in the interview that they had no motivation, some were shy, others were not courageous, others

were lack of confidence, and others thought that listening to/watching a presentation is boring.

Regarding the students' opinion about the advantage of giving oral presentation to improve their grammar, based on the result from the questionnaire, it can be stated that the students totally agree with the statement. It can be seen that 77% of the students agree and strongly agree with the statement.

Table 6 Oral presentations and grammar

Statement	SA	A	D	SD
Giving oral presentations improves my grammar	15 (48%)	9 (29%)	5 (16%)	2 (7%)

The results of interviews revealed that many students admitted that giving OPs improves their grammar. They mentioned that before they give OPs they should know and be able to make the correct sentences to be presented, so they will be clear and easily understood by the audience. Unfortunately, there were still students who could not take the advantage of OPs due to their poor English. They admitted that it was still difficult for them to give OPs because they were lack of grammar proficiency. Based on the result, this indicates that OPs are rich sources for learning the grammar of English. This is in line with Freeland (2008) who states that OPs fill the gap between language use and language learning.

Concerning the other advantage of oral presentation which improves vocabulary, based on the questionnaire most of the students agree with the statement.

Table 7 Oral presentation and vocabulary

Statement	SA	A	D	SD
Giving oral presentations improves my vocabulary	12 (38.5%)	10 (32.5%)	8 (25.5%)	1 (3.5%)

Based on the result, a considerable percentage (38.5%) of students, in statement 2, strongly agree that OPs help them to acquire a good deal of English vocabulary. This may be due to each time when they search for a new topic, they will learn new words of the language, as the students claimed in the interviews. They mentioned that when they prepared the OPs they tried to find references related to the topic chosen, and consequently they found new words. The other students also said that they found new interesting and important vocabularies from the other students' presentation with different topic. This indicates

that OPs are interesting activities to build a range of English vocabulary (Freeland, 2008). Related to the advantage of oral presentation which can help the students improve their pronunciation. The result is shown below.

Table 8 Oral presentations and pronunciation

Statement	SA	A	D	SD
Giving oral presentations improves my pronunciation	14 (45%)	10 (32%)	5 (16%)	2 (7%)

The result shows that the majority of the students (45%) strongly agree that oral presentations help them to have a good pronunciation in English over (30% 'A'+ 32% 'D'+ 7% 'SD'). The interviews showed that the students found the advantage of OPs in terms of improving their pronunciation. They said that during the question and answer, and feedback session the teacher usually gave correction if the students misspronounced some words which they admitted very helpful for them. This shows that oral presentations do really aid the students to speak accurately through developing their pronunciation in English. It corresponds to King's (2002) statement that teacher can facilitate the students' difficulties in pronunciation in questions and answers sessions.

The other advantage of oral presentation is the students can learn engineering topic in an effective way. The result can be seen below.

Table 9 Oral presentations and ESP topic

Statement	SA	A	D	SD
I can learn engineering topic in an effective way through oral presentation	14 (45%)	15 (48%)	2 (7%)	-

Almost all of the students (93%) in statement above, strongly agree and agree that by using OPs they can learn engineering topic in an effective way. This may be due to the topic chosen for their presentations. In the interviews, the students said that they were asked to choose a topic they know well related to the engineering field. They should search for many references, so that they are ready to present it in the classroom. The students also said that they could also learn the engineering contents from the topics which were presented by their friends in the classroom. This indicates that OPs are an effective way to learn ESP (engineering) topic (Dudley-Evans, et.al. 1998).

Regarding the next advantage of oral presentation which states that the students can

present engineering topic in an efficient way. The result is elaborated below.

Table 10 Oral presentations and its efficiency

Statement	SA	A	D	SD
I can present engineering topic in an efficient way	16 (52%)	9 (29%)	6 (19%)	-

Based on the result of questionnaire, a considerable percentage (52%) of students, in statement above, strongly agree that OPs help them to be able to present engineering topic in an effective way. This may be due to the ample preparation they should make before giving the presentation. The students mentioned in the interview that they should make good preparation and rehearse before giving OPs by having a simulation in which they could learn how to structure it, to use the effective visuals, to control the voice, to apply appropriate signalling, and to employ the correct language. This indicates that OPs are a good solution for students to be able to organize their ideas across logically with clear structuring (Harmer, 2007). He also adds that oral presentation is the skill that is learned and improved through feedback and rehearsal from a native speaker or the teacher.

Related to the statement about the other advantage of oral presentation which can overcome the students' fear of speaking in front of people, the result of the questionnaire shows that most of the students agree with the statement.

Table 11 Oral presentations and self-confidence

Statement	SA	A	D	SD
I can overcome the fear of speaking in front of an audience	17 (55%)	10 (32%)	3 (9.5%)	1 (3.5%)

Based on the result above, a great number of percentage (87%) of student agree and strongly agree that giving oral presentations in the classroom can overcome the fear of speaking in front of an audience. It can be said that OPs may give psychological effect to students because the students feel comfortable in learning ESP subject. As the students admitted in the interview, saying that even some of them still had problems their self-confidence raised after giving OPs. They said that this was because of the supports from the teacher and their friends in the classroom. It indicates that the teacher can be a person who can give solution if the students encounter problems. It

is in line with King (2002) who claims that oral presentation is expected to raise the students' self confidence.

Concerning the assessment method of oral presentations in the classroom, based on the questionnaire most students agree with the statement.

Table 12 Oral presentations and evaluation

Statement	SA	A	D	SD
Assessment is given with numerical (points) and descriptive criteria	25 (81%)	5 (16%)	1 (3%)	-

Almost all students (97%) agree and strongly agree that the assessment methods should be based on numerical (points) and descriptive criteria. This may be due to the feedback given by the teacher is not only in a form of scores but also some comments and criticisms to improve the students performance in giving oral presentation. The students said in the interview that in evaluating their OPs the teacher did not only give the scores but also gives feedback based on their performances. The students also said that by having peer evaluation they had more feedback not only from the teacher but also from their friends. This corresponds to King's (2002) statement that the teacher should provide feedback and evaluation of students' performance which can be done formally or informally.

From the findings, on the whole, the students seem to be very interested in holding classroom oral presentations. Moreover based on their answers, oral presentations can clearly lead them to develop to a more extent of their communicative skills. Nevertheless, this can happen if the students are encouraged to use such a type of activity in the classroom.

5 Conclusion

Students are aware of the importance of oral presentations in the classroom, and how they are interested in developing the communicative classroom. Moreover, the results show that oral presentations help the students create their learning environment, improve their English communication skills, and foster confidence. As oral presentations brings positive learning experiences, it is therefore recommended that the activity should be given regularly to students. By doing so, it is expected that the students can improve their communication skills.

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