

## **Communicative Competence in Technical Oral Presentation: Perspective of ESL Educators and Professional Engineers**

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### **ABSTRACT**

Communicative competence is one of the most highly sought after skills of prospective graduates among employers. In spite of its importance, the notion of communicative competence has been deemed fuzzy in Communication and Engineering studies. This fuzziness has undoubtedly led to tensions among stakeholders like educators and professional engineers across disciplinary tenures in interpreting the said notion. The study seeks to investigate the perceptions and understanding of educators and professional engineers of the notion in terms of two main elements of communicative competence: linguistic and rhetorical competence. The educators are language lecturers who conduct a speaking course for final-year Engineering-project students while the professional engineers are engineers from various Oil Producing Units (OPU) of the national oil company, PETRONAS, who have been selected as examiners to assess the said students' technical oral presentation. The professional engineers have been chosen by the university selection committee based on their years of working experience and professional expertise in engineering. Both language lecturers and the professional engineers were interviewed to gauge their perceptions on linguistic and rhetorical features deemed necessary to enhance communicative competence for the workplace. Both groups articulated awareness of the similarities and differences between the sub-sets of communicative competence, namely, technical, disciplinary, rhetorical style, interactive and interpersonal competence. Sublime differences in the way educators and professionals from different disciplines perceive communicative competence indicate possible reference to learning theory. Despite such disparity, pedagogical efforts are required to enhance communicative competence on such opportune platforms prior to the graduates' entry to the workplace.

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## INTRODUCTION

For effective workplace participation to occur, employers accord grave importance to communication skills as being one of the most important workplace competency requirements expected of engineering students (Venkatesan & Ravenell, 2011). The ability to possess and utilise such skills competently is deemed an asset to any professional workplace organisation as such skills enhance workplace productivity in the global engineering workplace of the 21<sup>st</sup> century (Davis, 2010). The concept of effective communication skills is synonymous with the notion of communicative competence. Communicative competence is associated with one's adaptation of a communication situation by demonstrating the use of skills in appropriate knowledge relevant to the communication situation and context (Lailawati Mohd. Salleh, 2008). This means that communicative competence is linked with the demonstration of one's communicative skills, knowledge and ability particular to a communicative context. Thus, to be considered competent, a set of competency skills must be displayed.

## LITERATURE REVIEW

The need to develop communicatively competent individuals is accentuated in the Engineering curriculum context following a pedagogical emphasis on learner outcomes

stipulated in the Outcome Based Education (OBE). OBE emphasises the need for students to exhibit learner outcomes at the end of an intended course. In fact, one of the learner outcomes specified in the Engineering curriculum indicates the need for engineers to "communicate effectively" (Hovde, 2005). This shift in pedagogical emphasis toward communicative competence has resulted in tensions among English as a Second Language (ESL) educators and professional engineers at the workplace. The cardinal utility of communicative competency requirement is not yet clearly identified (Cunningham, 2008). In addition, the literature resonates with the apparent divide between the stakeholders (i.e. ESL educators and professional engineers) over the communication skills requirement necessary for workplace technical and scientific oral communication needs (Hafizoah Kassim & Fatimah Ali, 2010; Morton, 2012).

As such, ESL educators and professional engineers are in a dilemma over the best mix of subsets of communicative competence needed to create that magic for engineering students in technical oral presentations. What then constitutes the best mix of communicative competence sub-sets necessary for effective technical oral presentations? Such tensions between ESL educators and professional engineers on prospective students' learner outcomes are indicated in communicative competency studies which reveal varying competency requirements among engineering students. Among the sub-sets of communicative

competence that prospective engineers should possess are i) technical, ii) linguistic oral immediacy, iii) meta-cognitive and iv) rhetorical explanatory competence (Bhattacharyya, 2012a).

Technical competence refers to content mastery, application of technical knowledge through use of specific technical language and jargon in discussion points of a presentation (Robinson *et al.*, 2005). Linguistic oral immediacy suggests use of interactive language, visual language, analogies and humorous experiences to create that sense of connectedness with the audience (Dannels, 2009). Meta-cognitive competence is associated to “one’s knowledge concerning one’s own cognitive processes and products or anything related to them” (Kalaimani & Kaliamoorthy, 2007). Rhetorical explanatory competence, on the other hand, refers to the presenters’ ability to justify, interpret, apply and rationalise decision-making judgments based on personal motivation (Dannels, 2009). The study implies a combination of selected linguistic and rhetorical competence to be used in technical oral presentations.

Another study mentions the importance of technical and oral immediacy competence as essential communicative competence features necessary for students’ performance in technical oral presentations (Bhattacharyya & Sargunan, 2009). In other words, discrepancy exists among ESL educators on the cardinal features required in the sub-sets of communicative competence. The studies indicate that varying perceptions on communicative competence dwell among ESL educators.

Similar concerns are also expressed over competency requirements from the engineers’ perspective. A study expressed the importance of interactive competence (Bhattacharyya & Zullina Hussain Shaari, 2012). Other studies argue about the need for critical thinking, decision-making competence and communication skills as essential qualities required of prospective graduates (Venkatesan & Ravenell, 2011). Others emphasise non-technical skills like communication skills as an essential requirement in engineering education studies (Bhattacharyya, 2012b; Zareva, 2013). Thus, this study is undertaken to ascertain communicative competency requirements as perceived by the stakeholders involved in technical oral presentations. Such knowledge enables stakeholders (i.e. ESL educators and professional engineers) to attain their own goals within the said community of practice as stipulated in the learning theory (Lave & Wenger, 1991).

In addition, concerns are also expressed regarding the English Language for Specific Purpose (ESP) curriculum design of engineering students involved in oral presentations. Studies indicate the need to relook at specific language and communication genre aimed at meeting the needs and communicative practices of particular learners or professional groups (Hyland, 2007). Hyland’s 2007 study stressed the need for educators to relook at tailoring language and communication courses to equip learners with essential ESP genre and discourse used in specific disciplines.

Contradictory to generic language courses, ESP is intended to cater for specificity with specific linguistic features and genre used in specific disciplines (Hyland, 2002). However, in reality, application of such specificity is increasingly threatened by the move towards generic skills transferable to other multidisciplinary fields. Such a move further curtails already limited ESP language materials used in terms of grammar, lexis, register, study skills, discourse and genre.

Thus, in the context of this study, the findings seek to ascertain queries on communicative competence in technical oral presentation by the following research questions:

1. What is the communicative competence requirement perceived by ESL educators and professional engineers in technical oral presentations?
2. What are the similarities and differences between ESL educators and professional engineers' perceptions of linguistic and rhetorical competence in technical oral presentations?

## METHODOLOGY

For the purpose of this study, 6 ESL educators and 12 professional engineers were selected by the snowball technique sampling from a larger pool of respondents. The ESL educators were selected from an existing pool of 11 ESL educators. Out of the total number of 11 ESL educators, only 9 ESL educators fulfilled the researcher criteria as they taught the said cohort of students.

However, out of the 11, two were unable to fulfil the criteria as they had just returned from their staff development programme. As such the two (by default) were eliminated as viable research participants because of no teaching contact with the said cohort of final-year engineering project students. They taught elective courses offered in the second year of the Engineering programme.

Having identified the pool of selected ESL educators, the researcher sent an email to the 9 ESL educators on the purpose of the study. Six ESL educators expressed interest in sharing their views. The 6 ESL educators were selected as they provided presentation input in the foundation years to the existing cohort of students.

Similarly, an email invitation was sent to a pool of 66 professional engineers who were directly involved in the evaluation of the students' technical oral project presentation. The names of these professional engineers were provided by the coordinator of the final-year project selection committee of the university. The researcher received a response from 12 professional engineers who expressed their interest and willingness to be part of the study. The participants were selected based on the convenience sampling strategy based on the willingness and availability of the participants to be studied (Creswell, 2008).

The ESL educators were language lecturers who have been selected as part of the study as they conducted a speaking course and provided language input during the foundation years of the students' Engineering programme. The professional

engineers were engineers serving the various Oil Producing Units (OPU) of the national oil company, PETRONAS, who are involved in the assessment of engineering students' technical oral presentations. Professional engineers selected possessed a minimum of five years' working experience as such workplace exposure provides related workplace expertise in the said area of discipline. Henceforth, professional engineers will be referred to as engineers.

Both the language lecturers and engineers were familiar with the engineering students. These students had received language input from the language lecturers and the same cohorts of students were assessed by the engineers during the final-year oral presentation session. The final-year project presentation sessions will henceforth be referred to as technical oral presentations.

Technical oral presentations refer to technical and scientific project presentations conducted by final-year engineering students in the second semester of the final-year engineering programme. All engineering students are required to complete the said project as part of the Engineering curriculum requirement prior to graduation. The conceptualisation and literature review and methodology of the project is finalised during the first semester of the students' final-year programme. Students are required to deliver the project findings in the second semester of the final year. It is during the oral presentation that engineers (who are part of the panel of examiners) evaluate the students' presentation. The panel of examiners is determined by the university's selection committee.

The qualitative phase was conducted to gain an "emic perspective" and record "words of participants" in order to avoid researcher biasness (Patton, 2002). Semi-structured interviews were chosen as this form of interviewing provided the flexibility to rephrase questions to ensure correct interpretation of the questions.

Prior ethical sanction was obtained to conduct the said study from the participants of the university. All participants were notified that interview sessions would last for 40 minutes to an hour. Prior to the interview sessions, the participants signed a consent form to acknowledge the purpose of the said investigation. The participants were not coerced into providing any feedback and had the liberty to opt out of the study if they so wished.

The interview method was selected as a research tool as it enables researchers to explore the "range of opinions, the different representations of an issue, and is not centred on counting opinions of people" (Bauer & Gaskell, 2000). Interviews provide the opportunity for researchers to "listen carefully to what people say or do in their life setting" and "position themselves" in the research to "acknowledge how their interpretation flows from their own personal, cultural, and historical experiences" (Creswell, 2007). In cases where clarification was required, loosely semi-structured interviews were conducted with participants to ascertain the ambiguities and provide further clarification. See Appendix 1 for Interview questions.

During the interview, participants were required to comment on communicative

competence with specific focus on linguistic and rhetorical competence necessary for engineering students involved in technical oral presentations. Of course, generalisations cannot be assumed in such a research design but the findings provide an indication of linguistic and rhetorical competence constructed from the participants' perspective.

Interview feedback was transcribed and thematically analysed using the theoretical framework to analyse the qualitative data (Creswell, 2003). Creswell's framework includes six main steps as "organizing and preparing the data; reading through all data; coding; narrating descriptions and themes; and interpreting data".

Besides thematic analysis, the Computer Assisted Qualitative Data Analysis Software (CAQDAS) NVivo version 8 was also used to statistically analyse the interview responses. The text was divided into small units followed by "labelling the exact words of the participants by hand or electronically by software data analysis program" (Creswell & Clark, 2007). Percentages were tabulated to indicate the level of agreement and tensions among the educators and engineers on the linguistic and rhetorical competency requirement in technical oral presentations. Evidence of verbal responses is provided to signify the participants' response to a particular sub-set of communicative competence.

## FINDINGS AND DISCUSSION

The content of the interview was analysed qualitatively. The analysis revealed four sub-sets of communicative competence: technical, disciplinary, rhetorical style and interactive and interpersonal competence. These were perceived as the most important among engineering graduates. The findings suggest added linguistic and rhetorical features are necessary to enhance communicative competence in technical oral presentations.

As mentioned, technical competence indicates mastery of technical content and application of such knowledge in a communicative context (Robinson *et al.*, 2005). Disciplinary competence infers ability to include use of conceptual and simplified terminology, technical definition, new academic findings within parameters of study, economic value, real world application and problem solution order (Sharma, 2007).

Rhetorical style captures the use of personalised language patterns, analogy and social motivation in a project presentation. Rhetorical style reflects the presenter's awareness of how language can be used to "show" and "tell" to evoke emotions and convey descriptive meaning to the audience (Zarefsky, 2005). Interactive and interpersonal competence denotes the use of turn-taking, clarification, repetition and use of affirmative and negative statements which lessen the disparity between the presenter and audience (Dannels, 2001). Interactive language also provides presenters the viability to express their social and ethical



commitment toward a particular cause (Arnó Macià, 2009).

In other words, linguistic and rhetorical competence infers technical competency, mastery in use of discipline specific genre and findings, contextualisation of “functional and phenomenological aspects of findings” and the linguistic verbal application of the interactive element as essential features to create that magic in technical oral presentations. Thus, successful presentations require a mix of technical mastery, contextualised genre and a personal oral narrative style to interact with the audience.

As illustrated in Table 1, the results indicate that both groups (i.e. language lecturers and engineers) placed a differing level of emphasis on the four sub-sets of communicative competence, namely, technical, disciplinary, rhetorical style and interactive and interpersonal features.

#### *Theme 1: Technical competence*

With reference to Table 1, engineers (92 %) accorded a higher level of importance to technical mastery than language lecturers (83.3 %). In this study, the concept of technical competence implies the use of technical jargon and non-technical

terminology, technical and scientific evidence, methodological explanation of a technical problem and functional and contextual application of a problem statement.

In the context of this study, language lecturers associated technical competence with mastery of technical and non-technical jargon. For language lecturer A, a presenter is deemed technically competent when able to have the subject matter of that particular area; they must also use technical terms or registers relating to that particular field. If it is a presentation by Chemical Engineering students, they would use technical terms familiar to chemical registers.

Language lecturers associate technical competence with students’ familiarity of technical genre used in the said discipline. Engineers, on the other hand, determine technical competence by a presenter’s ability to contextualise the technical knowledge to the context and field of specialisation. Engineer A views technical mastery as the following:

*I want them [students] to be fluent, when they are being asked, they are being questioned, they know what they are talking about, they*

TABLE 1  
The Sub-Sets of Communicative Competence

No	Competence	Language lecturers’ perceptions (%)	Engineers’ perceptions (%)
1	Technical	83.3	92
2	Disciplinary	0	33
3	Rhetorical style	50	33
4	Interactive and interpersonal	83.3	67

*[students] know what to respond. Basically it is about the knowledge, the technical knowledge.*

However, it is the engineers who indicate greater emphasis on the said competency requirement in technical oral presentations.

The above statement provided by Engineer A clearly reflects the importance placed on technical knowledge for engineering students to be deemed communicatively competent presenters. Engineers are of the opinion that presenters must possess in-depth technical knowledge of the subject matter to be able to deliver a presentation successfully. Knowledge of technical content provides the required input which in turn enables a presenter to use technical language similar to professionals in the professional environment. Technical knowledge provides the necessary genre specific to a particular discipline and allows a student to eventually “speak like an engineer” (Dannels, 2002).

The findings reveal that engineers perceive technical competence in a more holistic and contextualised concept while language lecturers’ perception is more genre specific. This finding also supports the notion that language practitioners such as language lecturers are inclined to use academic language due to the social situation and setting of the said community of practice (Gaynor *et al.*, 2011).

Although minimal differences exist in what constitutes technical competence (i.e. its function in an academic or professional context), what is apparent is that language lecturers and engineers indicate an awareness of the importance of technical competence as a sub-set of communicative competence.

### *Theme 2: Disciplinary competence*

In terms of the next sub-set of communicative competence i.e. disciplinary competence, the language lecturers were of the consensus that this feature remained the prerogative of the professionals in the area of discipline. As seen in Table 1, language lecturers accorded 0 % emphasis as the disciplinary and content matter was deemed to be in the hands of professionals in the said discipline. Engineers, on the other hand, registered 33 % level of importance for the said feature. This finding is reflective of the situated theory of learning where participants’ legitimate peripheral participation is reflective of the community’s workplace environment (Lave & Wenger, 1991).

In this context, engineers associate disciplinary competence with one’s ability to substantiate purported claims with contextualised scientific justification. Disciplinary competence is associated with the presenters’ ability to grasp and comprehend the data outcome. This sentiment was expressed in the following statement by Engineer B:

*The learners had to show that their papers are based on certain technical postulations which had to be technically proven either by experimentations, simulations etc. At the same time, they had to show their ability to grasp the subject matter.*



This statement concurred with studies that cited the need for critical information to be obvious in technical oral presentations (Dixon, 2008). Disciplinary competence can be likened to the accurate contextualisation and description of technical and scientific data in the said field of discipline.

On the other hand, as indicated in Table 1, language lecturers do not place any emphasis on disciplinary competence as this aspect is considered the prerogative of educators in the discipline. Language lecturers are of the perception that disciplinary competence is the onus of disciplinary experts in the field. This finding confirms similar feedback on an earlier paper which discussed communicative competency requirement between two other focal groups, i.e. ESL educators and content experts or engineering lecturers (Bhattacharyya & Zullina Hussain Shaari, 2012). Bhattacharyya and Zullina also indicated reliance on content experts instead of ESL educators in terms of disciplinary competence.

This apparent lack of emphasis by ESL educators on ESP and discipline-specific content matter may possibly be attributed to the lack of exposure and expertise in designing ESP and genre-specific materials as current trend is focussed on generic skills (Hyland, 2002). This matter of the lack of ESP materials had inadvertently resulted in the ESL educators' limited exposure to and knowledge of genre-specific and ESP teaching and learning materials. The lack of ESP materials could have inhibited the engineering students' learning of target

situations and exposure to ESP genre-specific terms necessary for effective workplace participation.

### *Theme 3: Rhetorical style competence*

As indicated in Table 1, rhetorical style competence is also considered essential in technical oral presentations. The language lecturers accorded 50 % level of emphasis while the engineers indicated a lower level of emphasis (33 %). This finding clearly signifies language lecturers' higher level of emphasis on the said construct.

In the context of the study, rhetorical style is defined through self-mention markers such as "I" or "We" (Zareva, 2013). Phrases such as "I think...", "I wish to point out..." or "I decided..." indicates personal engagement of the presenter in the project. Rhetorical style is also expressed by personal motivation, analogy or inference to societal motivation in a presentation.

In this context, the language lecturers expressed the need for the presenters to personalise and indicate personal ownership of the project findings. The language lecturers were of the opinion that use of such rhetorical features such as use of "I", "We" or phrases like "In my analysis" enhances audience engagement with the presenter and data findings (Durden & Jack, 2009). Inevitably, the use of such markers demonstrates a sense of ownership of the presenter towards the project. Hyland (2005) echoes this belief and reiterates the use of self-mention and engagement markers to create a sense of "community" between the speaker/writer/text and audience. The

said sentiment was expressed by language lecturer B in the following response:

*They do not make it like it was personally written, not written... but personally delivered for a particular audience; they do not use words like, "I" or "I want to show you"...or... "it is what we feel"... , these pronouns that show what you are talking about has got to do with everybody...I think that is missing..."*

What can possibly be inferred is that in comparison to engineers, language lecturers stress on the rhetoric of a presentation. To linguists, the logos (logic) is not the sole consideration, but other canons of rhetoric dimension such as the pathos (emotions) and ethos (credibility) are equally important (Gurak, 2000). The use of such markers accentuates engagement and interaction between the audience and the presenter to an otherwise overtly technical presentation (Fraile *et al.*, 2010).

As for the engineers, the findings in Table 1 indicate that rhetorical style is less emphasised (33 %) than it is by the language lecturers. The possible explanation to this occurrence may be attributed to the learning theory which accentuates the influence of a working environment toward one's perception and behaviour (Lave & Wenger, 1991). In this context, the engineers would equate rhetorical style to personal motivation. This sentiment was indeed expressed in the following excerpt by Engineer C:

*These are your words, these are your findings, and this is what that needs to be stressed out*

For the engineers, it was essential that the presenters be personally motivated in sharing the findings and outcome of the study. The presenters were encouraged to personalise their findings as such markers reflect a presenters' enthusiasm in sharing the outcome of a project. Engineers equate rhetorical style to the presenters' ability to infer societal motivation in a presentation. Once again, engineers stress on contextualisation of findings to meet the needs of society and the environment. In other words, communicative competence from an engineer's perspective is realised when societal needs are addressed. This viewpoint is stressed by the following remark by Engineer D:

*Any presentation shall portray its own authentication [style mark] that is, the real emphasis shall be put to meet to the intent or purpose of the presentation itself, the target audience, the scenarios, the environment*

Undoubtedly, both the language lecturers and engineers indicated that awareness of the need to personalise a presentation as being important. For the language lecturers, rhetorical style competence was accentuated by use of self-mention while the engineers included evidence of societal motivation as an indicator of the competency requirement.

Despite some variety in the categorical concept, this study demonstrates a higher emphasis by the language lecturers on the said construct. The language lecturers considered such competence an essential feature in achieving communicative competence in technical oral presentation.

*Theme 4: Interactive and interpersonal competence*

As for interactive and interpersonal competence, Table 1 shows that the language lecturers accorded 83.3 % to the said feature while the engineers indicated 67 % emphasis on the said feature. It is evident that the language lecturers gave a higher level of importance to this competency requirement.

With reference to the study, interactive and interpersonal competence embodies the use of interactive language markers (turn taking, clarification, affirmative and negative statements) to create a social and ethical commitment towards a particular cause (Arnó Macià, 2009). Studies indicate that the use of such interactive markers help “reduce tension and build bridges with an audience” (Eunson, 2008, p. 493). In other words, engagement is enhanced between the presenter and audience.

In the context of this study, the language lecturers equated interactive and interpersonal competence to the ability to interact actively with the audience. The presenters were expected to create that two-way exchange of information with the audience. This sentiment was evidenced by language lecturer C who exclaimed:

*The interaction skill, that one for me rates rather high...the ability to engage with the audience, the ability to interact...because I feel only certain number of students can do that*

The above response by language lecturer C visibly shows a high emphasis and importance accorded to the interactive element in a presentation. To this language lecturer, such skill was highly exceptional and only attainable by a few. In other words, presenters need to be trained to interact and engage an audience in their presentation. Presentations should display a two-way exchange as stipulated in the framework of speaking (Hymes, 1972). Studies also indicate that the importance of features such as audience rapport and attention is enhanced in a presentation (Koch, 2010). To the language lecturers in this study, interactive and interpersonal competence demonstrated the presenters’ ability to communicate competently.

In relation to the engineers, findings from Table 1 indicate that the engineers accorded a lower level of emphasis (67 %) to this criterion in comparison to language lecturers. Once again, the possible explanation to such occurrence could probably be linked to the learning theory which amplifies the legitimate peripheral participation of communities of practice in professional setting (Lave & Wenger, 1991). In this study, the engineers associated interactive and interpersonal competence to the presenters’ ability to defend questions

posed by the audience. In other words, interactive and interpersonal is denoted by the presenters' ability to respond with appropriate answer(s) to questions by the audience. This viewpoint is highlighted in the following response provided by Engineer E who said:

*how fast they can answer on the spot; ...the moment that you ask, he got to start thinking how does it fit in into your work and try to relate to the question and try to give the appropriate answer*

The feedback provided above emphasises the need for presenters to be able to clarify and justify their responses when queried. It is important that the presenters can provide immediate response to questions posed during such sessions. The immediacy of response produced creates that engagement and two-way exchange between the presenter and the audience. The engineers were keen on presenters who tried to substantiate their project findings when queried. This feature is deemed an essential trait required in the future workplace. As mentioned in the literature, employers (like the OPU) require competent presenters to be able to work in global teams and gain a competitive edge over global competitors (Mohammad Ali Moslehifar & Noor Aireen Ibrahim, 2012).

The findings and discussion provided indicate that both ESL educators and engineers possess some understanding and awareness of the importance of communicative competence in technical

oral presentations. Although different communities of practice may associate certain definitional criteria as part of the construct of a competency feature, ESL educators and professional engineers agreed that linguistic and rhetorical competencies are essential features of communicative competence. In fact, these sub-sets of communicative competence add to the dimension of communicative competencies perceived important by engineering graduates and engineers (Bhattacharyya, 2012a).

In addition, despite the slight differences in the level of emphasis by ESL educators and engineers towards each sub-set of communicative competence, there was awareness and receptivity expressed by the said communities of practice on the linguistic and rhetorical dimension of the construct. The engineers were aware of the need for the presenters to be equipped with the rhetoric of presentation. Increased practice and exposure to public speaking activities should be encouraged to familiarise presenters with the art of public speaking. Presenters require time to acquire the rhetoric dimension in oral presentations (Gurak, 2000). Clearly, both ESL educators and engineers need to synergise and be acquainted with the communicative competency requirement of technical oral presentations.

## CONCLUSION AND FUTURE DIRECTION

It is evident that ESL educators and engineers are aware of the importance of the sub-sets of communicative competence. However,

there is also a suggestion that there are gaps on certain sub-sets of communicative competency requirement i.e. disciplinary competence. ESL educators clearly indicated that it remained the prerogative of experts in the discipline to dictate the genre and language use. However, such discrepancy if left unchecked will continue to escalate the differences in communicative competency requirement between ESL educators and engineers. The victims of this will be the presenters who lack the required ESP training and material.

It is for this reason that ESL educators need to create opportunities to enhance their knowledge and perspective on disciplinary competence. With such receptivity, ESL educators can then work towards enhancing ESP language and communication materials necessary for presenters to function in the target workplace. As engineers expect presenters to possess such communicative skills, ESL educators need to be familiar with genre and technical language used in the engineering discipline.

No doubt, theoretically, both communities of practice differ distinctively in their own professional context; however, collaboration between ESL educators and engineers will eventually equip prospective presenters to acquire the specific genre and craft of public speaking necessary for a professional environment. Eventually, with time, input, practice and collaboration between ESL educators and engineers, communicative competence will be enhanced for presenters to confidently walk the talk of engineers so required at the workplace.

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## **APPENDIX 1**

### **INTERVIEW QUESTIONS WITH ESL EDUCATOR / PROFESSIONAL ENGINEER**

1. What are the educators/engineers' expectations of Engineering graduates' oral communication proficiency?
2. Are prospective engineers engaged in a lot of oral communication activities?
3. How would you define a technical oral presentation? What are some essential criteria of a technical oral presentation?
4. What are some essential skills expected in a presentation? Please explain.
5. What skills and attribute should a presenter possess to ensure the success of his or her presentation? Why is this so?
6. What is the educator/engineers' focus when listening to a presentation, and why?
7. Do you have any comments on the aspect of audience knowledge? Please explain.
8. Do you have any comments on language use in the technical oral presentation? Please explain.
9. During the critique session, a panel of examiners both from the academic community and the industry will be present to evaluate the student presentation. Do you notice any similarities or differences in the angle of questioning posed by the panel of examiners?
10. In relation to the technical oral presentation evaluation criteria, are there areas for possible suggestions for improvement? Do you think other criteria should be listed besides introduction, methodology, question and answer, findings and non-verbal cues?
11. In evaluating the presentation, what is your comment on the possible challenges that contribute to students' possible lack of the essential skills and attributes required to be an effective presenter? How do we overcome such challenges?
12. In your opinion, what are some crucial communicative skills and competences that you expect engineers of tomorrow to possess?
13. Do you have any other suggestions on how such competencies can be enhanced among the presenters?