Persuasive presentations in engineering spoken discourse*

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ABSTRACT: Oral communication skills are now recognised as fundamentally important in engineering workplaces. This recognition is reflected in recent graduate attributes in which “effective communication skills” is included alongside more technical disciplinary knowledge. This paper examines how this graduate attribute – “effective communication skills” and, more specifically, oral presentation skills – is embedded into the teaching and learning of a capstone engineering subject. An analysis of spoken presentations given by students in this subject suggests that being convincing includes students making choices about both the structure of their talks and their use of personal pronouns. The study found, for example, that it was possible to highlight the role of the researcher and establish a strong rapport with the audience through the use of personal pronouns in a talk that followed a traditional Introduction-Methods-Results-Discussion structure. We conclude by suggesting that an awareness of these choices and of their disciplinary significance may be of benefit to students.

1 INTRODUCTION

In the current climate of curriculum reform in university education in Australia, there is an appropriately strong focus on graduate attributes, such that when students graduate they will not only have demonstrated their knowledge of a discipline, but they will also have the skills to use that knowledge beyond the classroom. An educational institution is now expected to define the attributes or skills that graduates will develop in their courses, and to provide evidence that all graduates will have demonstrated their capability to perform in these skills at a minimum standard. Students’ capabilities to solve problems, work in teams, think and behave ethically, read, write, listen, and speak effectively are all now in the spotlight and are an institutional concern. The development of these capabilities is no longer left to the individual teacher, nor even to a cluster of teachers who are responsible for a particular course. Both the definition of the attributes and the provision of the evidence that students have reached a certain level of skill are now core business and are thus institutionalised.

The discipline of engineering was one of the earliest disciplines to embrace graduate attributes as a curriculum driver (Palmer & Ferguson, 2008). In response to the requirements of the profession, the focus of the curriculum has shifted from inputs (in terms of curriculum content) to educational outcomes (both knowledge and skills) (Palmer & Ferguson, 2008). According to some literature, the implementation of graduate attributes into engineering curricula has bought substantial improvements to engineering education in Australia over the last decade (Maier & Rowan, 2007; Walther & Radcliffe, 2007). However, there are differing views about the effectiveness of these changes. Maier & Rowan (2007), for example, cited a report from the Business Council of Australia demonstrating that engineering graduates are still not fully equipped with job skills such as “problem-solving, communication or entrepreneurship” (BCA, 2006, pp. 14). It takes time for curriculum reform to reach the workplace; meanwhile engineering faculties face the ongoing challenge of how to effectively embed graduate attributes, how to assess such attributes and how to work out ways to review the effectiveness of such innovations. At the level of classroom pedagogy, there is much to learn about the teaching of graduate attributes.

In this study we focus on a single graduate attribute – communication skills – and, even more specifically, on oral presentation skills. We report
on an investigation into how the oral presentation is embedded in teaching and learning; in our case, in a final-year engineering capstone subject, designed to bridge the gap between the academy and the workplace. Our aim is to bring together various perspectives on the oral presentation task, and to examine the actual practices of students and staff in the process of presenting and assessing this task. There is a wide range of interrelated skills required to give a successful presentation; including, for example, stance, eye contact, speed of delivery and intonation, not to mention choice of content and supporting visual material. In considering what it is that makes an engineering presentation memorable or convincing, we have chosen here to narrow our focus to several strategies (related to organisation and language) that the more successful students use to convince their audience. This type of research, we argue, has the potential to improve our understanding of the links between such a task and development of the relevant graduate attributes.

In the next section, we discuss the main themes in the literature on oral presentations, and in particular in the discipline of engineering and that of science, which is closely related. It will be clear to readers that there is a diversity of views on what is considered a convincing presentation.

2 THE ENGINEERING ORAL PRESENTATION

In the discipline of engineering, the oral presentation has been an integral component of assessment for some time, but has played a relatively minor role in comparison to its written counterpart: the engineering report. This is typically reflected in the relative weighting of the two tasks; for example, in the capstone subject investigated for our research, the oral presentation was worth 15% compared to 70% for the report. This imbalance in weighting of oral and written tasks in engineering reflects the more general situation at university in which writing is considered to be the main medium through which disciplinary knowledge is constructed and communicated. This is true despite the recognition that in the engineering profession (as in many other professions), oral skills are considered at least as important as written skills (Darling & Dannels, 2003). Given this focus on written tasks in the academy, we should not be surprised that the research literature tells us far more about these and how they function, than about their oral equivalent (Hyland, 2002; Thompson, 2002). An example from Rowley-Jolivet (2002, pp. 105) is shown in table 1 as it clearly illustrates some of the differences between spoken and written scientific genres; an excerpt from a spoken conference presentation is compared to its corresponding section in the written proceedings.

As can be seen in table 1, the use of personal pronouns in the conference presentation conveys an impression of the researchers “taking full responsibility and even underlining their participation in the research projects” (Rowley-Jolivet & Carter-Thomas, 2005, pp. 60). In contrast, in the written version of the paper, the passive is prominent and the researchers are nowhere to be seen.

In the engineering profession, there is relatively little research to date on what constitutes a convincing presentation. We know from the survey by Van De Mieroop et al (2008) of 40 professional engineers that they demonstrated a clear preference for “informative” presentations. These engineers also judged the introductions of their own presentations to be purely informative, even when an analysis of the talk showed these to consist of overtly rhetorical features that functioned to get the audience's
attention and create rapport. Like the informants in Winsor’s (1996) research on writing, these 40 professionals were strongly of the view that the focus of engineering talks should be numerical and factual, delivered “without intervening belief, practice or discourse” (Miller, 1998, pp. 288).

Research into student presentations in the discipline of engineering is similarly limited, with two recent studies, Darling (2005) and Dannels (2009), providing us with very different pictures. Darling’s (2005) research described the enactment of presentations in a mechanical engineering design subject. She observed that the talk around the mechanical engineering oral presentations (for example, staff instructions and feedback to students) conveyed the idea that data, particularly those involving numbers, were preferable to verbal communication, apparently because they could not be misinterpreted (pp. 27). She found that students presenting their designs typically avoided reference to themselves (for example, rarely using first person pronouns), and focused their attention instead on the object (either the design product or visual/mathematical representations of this). In this study, Darling also found that students typically displayed little engagement or eye contact with the audience. In contrast, Dannels, in a study of chemical engineering presentations in a capstone subject, found that the student presentations that were judged successful by engineering staff were what Dannels categorises as “rhetorically personalised” and “orally immediate” (pp. 410-414). Dannels’ descriptions of successful students showed that they connected with their audience in a number of important ways: for example, by emphasising in their introductions how the proposed design might be relevant to the audience, and by maintaining “clear and consistent eye contact with the audience” (pp. 413). Successful presenters used expressions like “To help explain this concept, I’d like you to think about ...” and “To give you a point of comparison that you’ll recognise, you can see in this chart ...”; whereas unsuccessful presenters tended to use more detached language, (eg. “If one were to try this design”, and “There’s a possibility that someone might conclude that ...” (pp. 413). As Dannels (2009) concluded, a crucial part of learning how to present effectively is becoming aware of the roles and relations between participants involved in any presentation.

One of the preoccupations of the research cited in this section is the interpersonal dimension of oral presentations. This includes, for example how speakers manage their relations with their audience and how they portray their relationship to their material in ways that are perceived as convincing. This preoccupation with the interpersonal aspect relates in particular to the demands of face-to-face spoken communication, which are very different from those of written communication. We have seen in the research cited that pronoun choices have been found to be salient in communicating speakers’ attitudes towards their material and in creating rapport with audiences. The overall structure (eg. IMRD and/or narrative) may also be an important feature distinguishing spoken and written texts. Based on this previous research, our study focuses on the following questions:

- RQ1. What are the rhetorical structures of the more successful student presentations?
- RQ2. What pronouns do the more successful presenters use to refer to themselves, their project and their audience? What is the function of these pronoun choices?

In focusing on the language that successful students use in presenting their projects, this paper aims to contribute to our knowledge of the language of the oral presentation in the discipline of engineering.

3 METHOD

The context of this study is a final year capstone subject, called “Research Project”, within the Department of Civil and Environmental Engineering in a large Australian engineering faculty. As indicated by the name of the subject, the focus is on training for research, with the emphasis on development of the academic skills of designing and conducting research, writing a technical report, and presenting
findings with a poster and an oral presentation. The students undertake individual research projects under the guidance of an academic supervisor from the department. They also attend lectures on practical aspects of conducting research projects and communicating their findings. The breakdown of the assessment is: research proposal (10%), poster (5%), final written report, with by far the greatest weighting (70%) and oral presentation (15%).

Our project focuses on one component of this assessment regime: the oral presentation. According to the coordinator of the subject, this was the first time in their degree that students had been assessed on a formal individual oral presentation. The presentations were given on the final day of study, as part of a formal “conference” program. Students were allocated 20 minute time slots (15 minutes talk and 5 minutes for questions), and were grouped according to four topics: water policy, markets and trading; landfill and urban aesthetics; ecohydrology; and land and water quality. For each topic, one student took the role of the chair, which included responsibility for introducing speakers and for managing the question time. The audience for the talks consisted of the students’ supervisors, other teaching staff from the department and peers. The presentations were assessed by the 12 engineering teaching staff who attended, using a criterion-referenced scale which had previously been presented and explained to the students. The presentation was marked out of 15. The criteria were divided into two: the formal presentation worth 12 marks (4 for each of content, presentation and delivery) and the response to questions and discussion worth 3 marks (2 for content, 1 for presentation and delivery). To obtain the final grade for each student, the marks awarded by the 4 or 5 engineering staff present for each presentation were averaged.

3.1 The data

The main data for this study comprised 17 student presentations, ranging in length from 12 to 17 minutes. The researchers videotaped the presentations on the day and collected students’ PowerPoint slides. On completing their presentations, 11 of the students were interviewed (with interviews lasting from 7 to 16 minutes). Five of the supervisors, including the coordinator of the subject, were also interviewed in the following weeks. Both the videotaped presentations and the student and staff interviews were later transcribed. Other sources of data included accompanying documentation from the subject and the researchers’ observations of related teaching events during the semester.

3.2 The analysis

The presentations are divided into three groups according to the final presentation marks. Notably, none of the students was judged as unsuccessful, with the marks ranging from 67% to 93%. A comparable range was found in Dannels’ (2009) study of presentations in a capstone chemical engineering subject. In our study, students were divided into three groups: high, 85-95% (n = 3); medium, 75-84% (n = 9); and low 65-74% (n = 5). This division enabled us to focus on the more successful presentations, as judged by the engineering staff (see Jacoby & McNamara (1999) on indigenous assessment). For this paper, we focus on two presentations from each of the high and medium groups.

As mentioned earlier, our analysis focused firstly on observable patterns in the overall structure of the presentations. Here we identified the extent to which each presentation followed an IMRD, narrative or other structure. The other element of our analysis was personal pronoun use. The analysis of “I” “you” and “we” was restricted to instances of their use as the grammatical subject of a clause, as in the following examples:

- so firstly I looked at the dispersal distances
- you can see the riverbank
- we saw that the riverbanks were the most effective.

To understand the function of such pronouns, we also investigated their location and the verbs that accompanied them. We were interested in whether these verbs referred to activities involved in conducting the research versus presenting the project.

In this study, we employ a case study approach, and acknowledge that our findings are not generalisable, but are potentially transferable to other similar settings; those that Patton (2002) referred to as “fitting” (see also Dannels, 2009).

4 FINDINGS

In this section, we report on the two related issues: students’ choice of rhetorical structure and their use of personal pronouns. With respect to overall structure, of the 12 students in the high and medium groups (that is, all those that were graded at 75% or more), the vast majority – indeed 11 out of the 12 – chose to present their talk with the traditional scientific structure of IMRD. They also used vocabulary integral to the IMRD model to provide clear signals for the sections of their talks, as exemplified below.

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3 Most staff stayed for a limited number of presentations; generally the ones that they supervised and several others. Only two staff viewed and assessed all presentations.

4 Students were asked permission to have their presentations video recorded. In two cases, permission was not given.

5 A similar procedure has been followed by Swales et al (2001) and Morton & O’Brien (2005).

6 Only one student in the high and mid-ranked groups constructed her talk as a narrative rather than using an IMRD structure.
Such vocabulary included terms like: a “literature review”, “experiment”, “findings” and “discuss”:

- so first of all I had an experiment (Luke)
- and my results um I used two-way contingency tables and the Pearson’s Chi Chi squared analysis (Angus)
- for the next section I will discuss the findings focusing on the spatial distribution (Su’ad).

This strong preference for an IMRD structure is perhaps not surprising, given that the oral presentation was framed as one of a set of tasks designed as research training in a subject called “Research Project”. As one student reported in her interview, “they just want you to feel what it is like to be PhD student”. The five lecturers interviewed agreed that the task required students to conduct an experiment, collect data and analyse it. The presentation “doesn’t really simulate a workplace” said one lecturer, “it is closer to an academic style where you do know some of the audience, where the audience is relaxed, where you have an opportunity to present your research findings”.

A count of pronoun use across the three groups (high, medium and low) showed no simple relationship between students’ frequency of use of the personal pronouns and their grades (as is shown by a selection of the data in figure 1). A qualitative analysis of the successful presentations (high and medium), however, revealed three discernible patterns of rhetorical structure and accompanying pronoun choice. In the remainder of this section, we describe these three patterns. The first pattern is a conventional IMRD structure, which makes relatively little use of personal pronouns; we call this the “impersonal IMRD” style. The second pattern is the “personalised IMRD” style in which the IMRD structure is presented, but in a style characterised by frequent use of personal pronouns. The third pattern is the “personalised narrative”, which is used for a different type of project (not based on IMRD) and features frequent use of the personal pronouns. For each of these three patterns it will be evident that pronoun use is not just a matter of frequency of use, but importantly, a matter of where in the talk the pronouns are used and their function.

4.1 The impersonal IMRD style

As mentioned previously, the traditional IMRD model is characterised by the use of the passive voice, which creates an impersonal style. This feature will be exemplified here by Su’ad, who was in the highest scoring group of students.

By using the passive, Su’ad’s role as a researcher who makes decisions about methodology and conducts the subsequent analysis is rendered invisible:

- each weather station is treated as one data station
- a list of criteria was set out

It is not surprising therefore to find that Su’ad is sparing in her use of the first person pronoun “I”, with just 13 instances in her entire talk of almost 17 minutes. She uses it with verbs in the future tense (in the active voice) to signpost the upcoming sections of her talk:

- today I would like to present my research paper entitled spatial distribution
- next I will define the space and time boundary.

This use of the first person pronoun “I” to signal the structure of a talk (or a text) is referred to as a “metatexual strategy” by Rowley-Jolivet & Carter-Thomas (2005); and this is the purpose for which Su’ad employs “I” in 11 of the 13 instances, with 10 of them in the overview she gives in her introduction. In this use of “I”, she is referring to herself as the presenter rather than the researcher.

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7 Pseudonyms are used for students’ names.
Her use of “you” is even less frequent ($n = 6$) and is for directing the audience to what they should look at and how they should interpret the slides. This function of “you” can also be thought of as “metatextual”:
- as you can see from this table
- as you can see the interpolated map it was unsuccessful at the beginning.

Her use of “we”, as with “I”, is limited to just more variation in terms of its location in her talk and its function. She uses it in three sections: the introduction ($n = 2$), method ($n = 5$) and results ($n = 6$). In the excerpts below we see first how she uses it to direct the audience’s attention (similar to her use of “you”); secondly, she signposts the upcoming section; and in the third excerpt we see her using “we” in a style which is somewhat like the language of mathematics:
- from this table we can see that Victoria received lower rainfalls
- so now we come to the findings of this research study
- if it is normal distribution then we will use normal form.

In summary, this talk is in the style of a traditional written research report. It does not convey the student's journey through the research process, so there is no sense of a narrative of Su’ad as the decision-maker and doer of the research activity. When she uses personal pronouns, she does so to highlight her role as presenter rather than as researcher, and to facilitate the audience’s understanding of the structure of the talk and their comprehension of the results. However, our data shows that this is not the only way of presenting a successful talk that is based on the IMRD model.

### 4.2 The personalised IMRD style

To exemplify an alternative style, the personalised IMRD, we provide presentation excerpts from two students: Angus, another student in the highest ranking group, and Luke, from the mid ranking group. Angus’s talk, like his research, also follows an IMRD model; however, unlike the impersonal IMRD style, he personalises the motivation for his research for the audience, just like the successful engineering students in Dannels’ (2009) study did. In his introduction, Angus provides an explanation of the need for his study by connecting, and directly appealing, to his audience:

*Now I know most of you probably there are sitting there half asleep and thinking who really cares about willows and that’s because most of you probably think when you think of willows you think of um these beautiful green trees like this and um you probably don’t realise what the detrimental impacts of willows such as salix fragilis actually have on our native environment.*

Such an appeal to the audience is clearly different from anything you would expect to see in written form, even in a popular magazine. Angus begins his appeal by asserting that the audience members are tired (his talk is the 12th talk for the day) and that they have no understanding of the importance of his topic. He then explains that they should rethink their view by looking beyond the apparent beauty of the trees and thinking instead about the potential of the trees to harm the environment. Of interest in this analysis is Angus’s use of personal pronouns in this rhetorical strategy. He begins with his own assessment of the audience’s state (using “I know”); he addresses them directly as “you” and concludes by bringing himself and the audience together with “our environment”.

Looking more broadly, Angus’s use of pronouns across the entire talk is quite different to that seen in the impersonal IMRD style. Not only does he use pronouns more frequently (“I”, $n = 34$; “you”, $n = 13$; “we”, $n = 4$) than Su’ad, he uses them in all sections of his talk and for a wider range of purposes. He uses “I” to introduce his research and also makes frequent use of “I” in his method section (21/34 of his uses of “I”), conveying a sense of himself, a student, as active researcher. Angus presents his research as a narrative of his own decision-making, activity and discovery. As is typical of narratives, the verbs here are in the past tense; and in all these activities, Angus is prominent as the thinking/acting subject.

*So basically I released ah propagules individually and followed them downstream ... I then recorded the dispersal distance ... so I had 50 propagules of each of the 3 size classes ... from this I realised that there were four main retention mechanisms ... so I decided to um investigate the long-term abilities of these ... in order to do this I left propagules in where they lay.*

An even more striking expression of a clear self-identity is found in Luke’s talk. In his use of “I” ($n = 71$) Luke is explicit about his ownership of his project. He uses ‘I’ to state his motivation for the project, to signpost sections, to describe and justify his decision-making processes regarding the analysis, and to put forward his interpretation of the results of his experimental work:
- and the literature review really showed me that I uh I couldn’t find a whole lot of information on extensive green roofs
- so first of all I had an experiment
- that is how I verified my ah my ah decisions
- and I think it’s certainly possible and I think it’s well worthwhile people looking into um.

The pronoun “you” is also used fairly frequently by these two highly ranked students, Angus ($n = 13$) and Luke ($n = 31$). Its function is primarily to direct
the audience’s attention to the visuals on their slides (a metatextual function), but also to ensure that the visual information on the slides is “read” or interpreted in the way intended by the speaker:

• you can see the riverbank (Angus)
• as you can see here the internal temperatures of the green roof did stay a lot more stable than the um external (Luke).

Luke also uses “you” to give the audience the experience of being in his role as the experimenter:

If you’re running this scenario now based on the previous slide you can sort of see that especially in winter you’re going to save a lot of heating energy if you have a green roof.

This use of “you” to involve the audience as participants in the research has also been noted by Rosse & Prince (1997) in science talks.

The pronoun “we” is used sparingly by Angus (n = 4) and not at all by Luke. As seen with the impersonal IMRD style, Angus uses “we” to direct the audience to look at the relevant visual and to “read” it in the way he describes it:

• so uh cos if we looked at the ah the two sites in comparison
• so from this we see that river banks were the most effective.

4.3 The personalised narrative style

The structure that characterises the third pattern is quite different from the previous two, and this difference is largely due to the different nature of the projects. The talk chosen to exemplify this structure (Elly’s talk) is about a project on the same general topic as Luke’s project; supervised by the same lecturer and receiving the same mark. But the two talks are different in every other respect. Elly’s talk is a narrative in which she recounts her experience of being in his role as the experimenter:

Um so I wanted to do this project because um roof gardens are a really great way of um dealing with a lot of problems ... and for years and years um properties in the US and Europe have been enjoying all these benefits and Melbourne and Australia in general is really lacking in this way which is a bit of a shame and I wanted to look into first why um but also then how I can help do something about this.

Not only does she identify the lack of uptake of the technology in Australia, but also importantly her desire to help address this lack.

She uses “I” to convey her thought processes in developing the project design:

So in my research project I decided to look into the variables that I thought would be most key in affecting the mass of a roof garden and they were the growth media the watering regime and the plant selection.

Although she has no methods to constitute an experiment, she uses “I” to recount the narrative of her actions in conducting her project:

• so for my data collection I visited the Victorian indigenous Nursery in Fairfield.

She also uses “I” for two metatextual functions, to signal the structure and coherence of her talk and to focus the audience on the relevant visual:

• um so here I have listed the benefits that can be enjoyed by both different types of structures.

The use of “I” to direct the audience’s attention to the slides contrasts with both the impersonal and personalised IMRD patterns in which “you” and “we” are used for that purpose.

In terms of frequency, Elly makes even more use of the pronoun “you”, with 55 instances. Elly’s use of “you” serves to draw the audience into her narrative; by putting them into a scenario and then walking them through the logic:

If you’re trying to have er a roof garden with lots of different types of species that you’re gonna either have a formula for one specific one that works really well and then you sort of um lose out on all the other plants or you have to just use one plant and that’s not so great so I think in the end if you were going to use hydroponics you would have to have like really you’d have to be really well advised.

The final pronoun we consider here is “we”. Although it is seldom used by Elly (n = 5), she uses it at two pivotal points: at the start, when she uses “we” to include the audience in her goal, and then to appeal to them as fellow consumers (“we could start to raise the profile of green roofs and then everybody would see them and it would be like yeah OK we’ll have that”), and in her conclusion, she uses “we” to include the audience in her dream:

When I started off the project I had this dream of finding erm like a Melbourne specific template for a roof garden system and how it would be yeah just we would be able to retrofit it and it would be just like this and it would be perfect.

To summarise, Elly is explicit about her personal commitment to the goal of her project, which is to facilitate the uptake of a green technology. She uses “I” to outline the structure of her project and her talk.
5 DISCUSSION AND CONCLUSION

In this section, in addition to the two questions of rhetorical structure and pronoun use, we also discuss the potential value of the three main patterns observed.

5.1 What are the rhetorical structures of the more successful student presentations? (RQ1)

Two rhetorical structures used by successful students have been identified and described. The IMRD structure identified in the first two patterns (the impersonal IMRD and the personalised IMRD) is directly related to the nature of the projects. The narrative structure of the third pattern (the personalised narrative) is used for a project that did not involve empirical research. Interestingly, of the five talks that were judged less successful, only two had an IMRD structure.

5.2 What pronouns do the successful presenters use to refer to themselves, their projects and their audience? What is the function of these pronoun choices? (RQ2)

The analysis showed the wide range of choices available to successful presenters in their use of “I”, “you” and “we” to refer to themselves, their project and their audience.

5.2.1 Use of “I”

At a concrete level, the first person pronoun “I” is used to signpost the sections of the talk (the metatextual function). It is also used to convey the message that it was the presenter who actually carried out the research activities (in contrast to the use of the passive which renders the person invisible in the method). At a more abstract level, use of “I” conveys the sense of the presenter as the designer of the project, as the decision-maker, and the person who has interpreted the results and formed the conclusions and/or recommendations. It is also used to explain the presenter’s motivation for choosing the project.

5.2.2 Use of “you”

The use of “you” is somewhat more complex in terms of who is actually being referenced. In the case of directing the audience to the relevant visual (including the instruction about how to interpret the visual), the referent is clear: “you” refers to the audience in the role of receiver of the information being presented. But “you” is also used to create a scenario in which the audience is asked to step out of the audience role and imagine that they are, for example, considering installing a roof garden. With this strategy, the presenter is drawing in the audience to the issue being researched.

5.2.3 Use of “we”

The use of “we” provides an alternative pronoun for functions like signposting a section of the talk (similar to the use of “I”), and directing attention to a visual (similar to the use of “you”). “We” is also used to take the audience through the logic of an explanation about mathematical decisions in the same way that it is used in the written language of mathematics. Halmos (1981, pp. 37) labels it as “the editorial ‘we’” and defines its reference as “the author and the reader (or ‘the lecturer and the audience’).”

5.3 Are the patterns useful?

The findings of this study suggest that there are a variety of choices available to students in presenting their research in the discipline of engineering. Some of these choices are directly related to the type of project conducted by the student, for example, conducting an experiment, analysing policy or developing a design artefact. If the project is framed as a piece of empirical research, for example, then there may well be an expectation that the verbal presentation will follow an IMRD format. This study has shown, however, that within the IMRD format, students can choose to highlight the role of the researcher and establish a strong rapport with the audience through the use of personal pronouns.

It is important to note here that as well as the diversity evident in student presentations in this study, there was evidence of diversity in engineering staff expectations of the oral presentation. In our study, one lecturer revealed his predisposition to the IMRD structure in his appraisal of Elly’s talk as “a glorified lit review that doesn’t quite cut the mustard”. This opinion was, however, balanced by that of another lecturer who emphasised that presentations should be assessed on “style of delivery and supporting slides” rather than “significant scientific output”, and concluded that Elly was “a standout ... [showing] a level of maturity ... using slides as an aide de memoire ... engaging with her audience”.

Finding variation in the language used by the students in their presentations and in the way these presentations are responded to by staff is perhaps not particularly surprising. In this paper, we argue that a better understanding of some of this variety could
contribute to the discussions that staff and students could have about the choices and complexities of effective engineering presentations. Like Chanock (2005), we conclude that it is worthwhile for staff to draw students’ attention to the language of presentations in their particular disciplinary contexts. This might include students recording a rehearsal of their presentation, and examining their language and organisation. While further research is needed to determine whether or not the three patterns we have described in this study are useful for characterising variation, these patterns could be used to promote discussion about the wide variety of choices available to students, and the often implicit disciplinary values that are associated with such choices.

This analysis focuses on verbal language and, in particular, rhetorical structure and the use of pronouns; it does not take into account the role played by other factors including the body language accompanying the spoken language or the design of the visuals. It would be remiss, for example, not to comment on the unconventional start of the highly successful talk we chose to typify the impersonal IMRD. The presenter, Su’ad, began by playing an audio excerpt from a haunting song along with a series of striking visual images of dry land and drought conditions. She stood very still, facing the audience while this played and then simply said “well you might have the idea already of what I’m going to talk about”. It was the audiovisual prelude and the manner in which it was presented that made such a strong and emotional statement about the seriousness of the climate problem and its accompanying level of hardship.

This paper has examined the language practices of students and staff in presenting and assessing the oral presentation task in an engineering course. In particular it has focused on an analysis of rhetorical structure and pronoun choice in the spoken presentations. This type of information, we have argued, could be valuable in raising student and staff awareness of the choices and complexities of effective engineering presentations.

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REFERENCES


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