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A Keyword Analysis of Stance and Engagement in Three-Minute Thesis (3MT) Presentations

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ABSTRACT

Due to the increasing influence of promotional culture on academic discourse, new marginal genre texts with informative and promotional purposes are emerging. In this study, we investigated a novel promotional but under-researched academic spoken genre, 3MT (threeminute thesis) presentations, which only allow the speakers 3 minutes to promote their research findings. We generated keywords of this genre using size effect metrics to identify the features of 3MT presentations delivered by PhD candidates and trained undergraduate ESP learners. The addressors were compared in their use of personal pronouns to present their stance and to interact with the audience. The results revealed that the PhD candidates tended to highlight the values and rationale of their research, whereas the ESP learners placed greater emphasis on their methodology. The PhD candidates were better at using rhetorical devices, i.e. reader pronouns and inclusive we, to invite the audience into their discourse community. Some similarities between the two groups were also identified. For example, 'you' was less deployed by both groups compared with its use in other academic spoken genre texts. Our study shows that genres are not only evolving and changing but are also heavily affected by technology advancements. Findings can also help ESP practitioners better prepare learners to make persuasive presentations in minimal time by employing personal pronouns.

Keywords: three-minute thesis presentations; attendant genres; stance and engagement; personal pronouns; promotional academic discourse; keyword analysis

INTRODUCTION

Promotional values have infiltrated academic discourse, and promotional genres have become a rapidly developing area of discourse research (Bhatia, 2005). Promotional discourse for rhetorical purposes has also become a key feature of technology-mediated communication in academic settings (Pérez-Llantada, 2016). Numerous promotion-based technological modalities, devices and platforms enable the delivery of information to readers without the constraints of distance, time, or storage. Yet, these designs may lead to overloaded data, making them difficult to be digested by a non-specialist audience due to an increasingly reduced attention span (Rossette-Crake, 2019). Hence, time and word limits are commonly proposed to avoid the likely fatigue of processing longer academic texts. New devices of presenting academic papers such as Audioslides and highlights, that is, "three to five bullet points that help increase the discoverability of your article via search engines" (Elsevier, 2020) are required by some world-leading journals published by Elsevier to help writers attract the audience's attention to the major results of the research.

Although Swales and Feak (2011) class genres into two major types, i.e. open and occluded (supporting), Yang (2016) further divided each of them into another two types, i.e., host and attendant genres, depending on their interrelationship. Host genres aim to create new knowledge or information, while attendant genres focus on sharing or promoting information. Many promotional academic texts can be classed as attendant genres, meaning that they are appended to their original host genre, i.e. research articles (RAs). They are created after their host genre (RAs) is completed. Hence, attendant genres are not part-genre or sub-genres of

RAs as they can be presented separately as a particularity. Their main function is to highlight the research findings, and their structures or lexical devices are sufficiently unique to make them genres in their own right. Several studies have been conducted to examine their moves and steps, lexis selections, or the authorial position and reader involvement by applying Swales' (1990) model of genre analysis or Hyland's (2005) framework of stance and engagement to analyse the persuasive discourse in the attendant genres. One latest example is the 3MT (3-minute thesis) academic speech presentation, which is still relatively under-researched in the literature since its first introduction in Australia in 2008.

The 3MT presentation competition, developed by the University of Queensland and launched in 2008, is an innovative platform to offer research students the opportunity to orally present their studies to a non-specialist audience within 3 minutes using one slide (UQ, 2018). This takes into consideration the reduced attention span of readers in the digital age (Rossette-Crake, 2019). It is a research communication event to encourage researchers to communicate effectively using plain language, to be aware of their audience and to express their ideas concisely (AWEC, 2018). The competition has been held by over 600 universities in more than 60 countries (Hu & Liu, 2018). Although the 3MT presentation is short and mainly intended for graduate students, it helps them to employ effective communication skills for use in future academic arenas and prepares them for the PhD *viva voce* (Feak, 2016; Mežek & Swales, 2016).

Due to the time limit and visual aid restriction, the language deployed in 3MT presentations is carefully and purposefully selected in order to present and highlight the key features of the research. It usually provides information on the rationale, decision-making or collaborative procedure of the research (Pérez-Llantada, 2016), and deploys personal pronouns to claim authorial stance and to engage the listeners. This emerging genre that has become increasingly common in universities around the globe is certainly worth investigation (Feak, 2013; Hu & Liu, 2018). Thus, to complement what Hu and Liu (2018) have done, the present study aims to examine this genre at a micro lexical level, specifically focusing on personal pronouns, to understand how they are deployed by speakers to claim authorial stance and show engagement with the audience.

LITERATURE REVIEW

PROMOTIONAL LANGUAGE AND STRATEGIES IN ACADEMIC ATTENDANT GENRES

Competition exists not only in academia (Furedi, 2010) where researchers have to publish constantly to secure teaching positions, promotions and research grants, but also among the academic publishers who play the main role of delivering knowledge globally. Readers' downloads and library subscriptions bring profits to the publishers. Thus, a number of additional written and oral devices, texts or platforms have been developed to encourage scholars to promote their research. The host genres of research publications and these attendant genres such as journal descriptions, book blurbs, CFPs (Calls for Papers), bio-statements, highlights, audioslides or 3MT are promotion-embedded, as the former may claim new knowledge while the latter attempts to increase visibility or readability. A host genre can always exist independently, whereas an attendant genre as a newly emergent academic genre can only exist in conjunction with a host and draws less attention, possibly due to its space restriction and peripheral status (Tse, 2012).

A thesis or dissertation is a host genre characterized by certain features; for instance, personal pronouns are more often used to state the authors' stance in soft than in hard science domains (Samraj, 2008), and writers use inter-textual citations to strengthen their positions (Thompson, 2005). Authors from different disciplinary backgrounds and research training deploy meta-linguistic and marked nouns diversely to present convincing arguments and express appropriate stance (Charles, 2003), and they attempt to connect readers with the texts

by using higher level metatextual references (Bunton, 1999). PhD theses are generally structured according to Swales' (1990) CARS (creating a research space) model (Bunton, 2002; Flowerdew & Forest, 2009; Kwan, 2006). However, the 3MT presentation may exhibit distinguishing features in terms of its content structure, stance declaration, audience engagement and word usage due to its promotional function.

The open or public written attendant genres which are publicly accessible have received attention in the literature. For instance, journal descriptions, book blurbs, prefaces, biostatements, CFPs, highlights or department websites are composed of certain moves or steps of text structures (Swales, 1984) and rhetorical devices are deliberately deployed to illustrate the promotional intentions. Hyland (2011, 2015) and Hyland and Tse (2012) examined authors' self-written bio-statements which can appear in journal papers, books or academic websites, and which aim to help manage the academic's public image by featuring personal achievements. As many as 95% of the clauses in the narrative sentence structures stress the importance of what the academics claim to be and what they do. Although bio-statements are a brief genre text, they play the role of representing collective recognition and membership and thus engage the authors in their discourse community. Yang (2016) studied a new genre text with a lessattended status, the *highlights* preceding many Elsevier journal articles, analysing text, keywords and the writers' stance and engagement. He concluded that "different disciplines have different highlight preferences, and [the study] found contradictions with the conventional assumptions regarding disciplinary differences in personal pronouns in the making of claims in the soft and hard disciplines" (p. 89).

The most common of the public spoken academic genres is paper presentations (CPs) in academic conferences, which is, in fact, a key genre in academic speech to share information about original research. They serve to highlight research which may later be published in proceedings, academic journals or books. Rowley-Jolivet (2002a, 2005) and Carter-Thomas and Rowley-Jolivet (2003) conducted a series of investigations on CP. A three-move structure of CP including 'Setting up the framework, Contextualising the topic, and Research rationale' was generated, and some linguistic characteristics such as 'the contextual motivation for using pseudo-clefts but not passives' (p. 12) were found. CPs have a very distinct feature compared with written genres, specifically, interaction with the audience. Rowley-Jolivet (2005) found that CP presenters used personal pronouns to evoke a real person in the text to explicitly identify their relation to the audience and to claim their authority. CPs also include more visual and multimodal communication, which helps to structure the discourse and express logical coherence (Rowley-Jolivet, 2002b).

Differing from the much longer CPs, 3MT only gives speakers 3 minutes, signifying that a more deliberately-designed structure and careful word choice are required to highlight the research within the very limited time available. Hu and Liu's (2018) research may be the only investigation to date focusing on analysing the generic structure of 3MT presentations across disciplines. They identified the eight move types of 3MT presentations, namely orientation, rationale, framework, purpose, methods, results, implication and termination. A 3MT presentation generally follows this order, but not all moves necessarily appear. Among them, the moves of framework and results are believed to be the unique features of the 3MT genre, but the moves of rationale and implication appear most frequently as many of these studies are on-going and have not yet finalised their results. This is similar to CPs (Rowley-Jolivet, 2002a). Hu and Liu (2018) also found disciplinary variances in structuring 3MT presentations. The speakers from hard discipline sciences tended to address methods more, while those from soft discipline sciences were inclined to talk more about the framework of their study. Pure-discipline presenters emphasise results significantly more frequently than applied-discipline speakers. The 3MT appears to be a new form of academic genre to promote doctoral research, rather than one that latches on to a 'host genre'; thus, examining how

speakers employ certain linguistic features to claim voice and interact with listeners in order to persuade the audience can bridge the gap in studying genres.

EMPLOYING PERSONAL PRONOUNS TO CONVEY STANCE AND ENGAGEMENT

Hyland's (2005) stance and engagement model is a common approach for genre analysts to study the interaction between authors and readers in academic discourse. This model may also be applicable to examining the interaction between speakers and audience in academic speeches. Writers/speakers elaborate certain linguistic features or rhetorical strategies to claim their authorial stance and also acknowledge their addressees' presence. By *stance*, the addressors present themselves and deliver their judgements, opinions and commitments by deploying rhetorical devices such as hedges, boosters, attitude markers and self-mentions to express their attitudes, involvement and arguments. By *engagement*, addressors show how they relate to their addressees or connect to the audience by using linguistic features such as reader pronouns, directors, questions, shared knowledge and personal asides (Hyland, 2005). Stance arises from dialogic interaction between interlocutors and joint engagement in evaluative activities (Kärkkäinen, 2006). Using stance and engagement to evaluate one's work and connect to readers is an essential feature of judging a successful piece of academic writing (Hyland, 2004).

Yang (2017) may have been the first to analyse the employment of personal pronouns in a spoken promotional genre, audioslides, to identify how speakers project themselves and relate to their audience. Audioslides are encouraged by one international publisher as a way to interact asynchronously with the audience. They integrate 'both written and spoken acts, give authors opportunities to explain their research in their own words, demonstrate their propositions to convince the audience, and promote their work' (p. 26). They can help readers quickly understand the subject matter and the relevance of the paper (Elsevier, 2014) and may stimulate a download of the article. He concluded that projecting self-presence is much more prevalent than engaging the audience in the audioslides, and the use of personal pronouns was found to differ from the assumed knowledge in written texts. For instance, the first person plural pronoun, we, can be used inclusively to connect to the audience or exclusively to claim authorship and recount teammates' efforts in doing research. Besides, the first person singular pronoun, I, can be used together with the past, present and future tenses in active voice like in CPs to 'express actions and opinions congruently and take personal responsibility for their decisions and interpretations' (Carter-Thomas & Rowley-Jolivet, 2003, p. 4). I can appear across various sections when speakers address the introduction, methodology, results and discussion (IMRD). Speakers use you to direct the audience's attention, elicit agreement, or express gratitude, which is very similar to CPs where speakers try to build rapport with their audience (Carter-Thomas & Rowley-Jolivet, 2003; Rowley-Jolivet & Carter-Thomas, 2005).

Research using stance and framework to analyse academic writing across various disciplines has been extensively documented (e.g. Hyland, 2005, 2012a.b.; Hyland & Guinda, 2012; McGrath & Kuteeva, 2012; Taki & Jafarpour, 2012); however, applying it to the study of spoken academic genres is relatively new. Differing from journal paper writers, 3MT presenters have to evaluate their propositions and also build an interpersonal connection with a real audience within a constrained amount of time. Thus, they need to project their authorial stance while relating to their audience with precisely-selected self-mentions and reader pronouns to bring them into the discourse (Hyland, 2005). The present investigation aims to investigate how 3MT presenters attempt to achieve this by employing some key lexical items. Keyword analysis can help reveal how these words are used and collocated, and what could be highlighted in the presentations in order to achieve their promotional purpose.

KEYWORD ANALYSIS

Keywords are those words in a text which are used more frequently than they are in a reference corpus (Bondi & Scott, 2010; Scott, 2012; Scott & Tribble, 2006). The lexical significance in a set of academic texts can be identified using one specific form of qualitative analysis, keyword analysis (Groom, 2009). Its use can facilitate 'a clear understanding of colligational and collocational relationships which generically significant words take on in the discourse' (Tribble, 2013, p. 137). The merit of using keyword analysis is that it offers an empirical discovery method based on word frequency and distribution as keywords differ in accordance with different text collections. Analysing them helps relate words to texts and their situated cultures (Stubbs, 2010). Keyword (or keyness) analysis of measuring statistical significance metrics has recently been criticised as a blunt instrument, and its reliability has been questioned as it cannot disclose all linguistic features of the selected texts. Results are only useful if "we understand the nature and extent of the contribution of statistical significance to establishing keyness" (Gabrielatos, 2018, p. 234). Thus, using effect size metrics is a more reliable way to explain candidate key items (Gabrielatos, 2018) and can better identify the actual priorities of promoting research in 3MT presentations.

In the research on the evaluative features of discourse, there is growing interest in keyword analysis and in sketching the lexico-grammatical resources of the studied texts (Martin & White, 2005). Keywords, regardless of whether they are under- or over-used, indicate the significance and importance of lexis (Tribble, 2013), and are also often "a way of identifying which words best distinguish the texts of a particular author or group of authors from another" (Hyland, 2012a, p. 68). There is also a close association between keywords and the disciplinary cultures, assumptions, and value systems in academic discourse (Groom, 2009). There has been a considerable amount of research on keywords in various genre types (see Scott, 2012), some of which has found differences in their use in the soft and hard science domains (Yang, 2013). Analysing the candidate key words and their collocations can help clearly reflect not only which areas of doctoral research are often stressed by 3MT presenters, but also how speakers project their self-images and interact with the audience.

In order to develop a more comprehensive and nuanced understanding of the unique characteristics of 3MT (Hu & Liu, 2018), this study examines how undergraduate EAP learners prepare a 3MT talk after explicit classroom instruction, and compares and contrasts their word use with that of more experienced researchers, PhD candidates. It aims to answer the following questions:

- (1) What is the candidate key lexis deployed in 3MT presentations by PhD candidates?
- (2) How does PhD candidates' use of personal pronouns claim their stance and engage their audience?
- (3) How does EAP learners' use of personal pronouns claim their stance and interact with their audience after targeted instruction?

RESEARCH METHODS

THE PARTICIPANTS AND THE CORPORA

The official website of 3MT enables viewing of the videos of all of the winners, shortlisted and nominated participants of the previous competitions (https://threeminutethesis.uq.edu.au/watch-3mt). 43 student researchers signed up for the Academic Writing course. Because we wanted them all to become familiar with the specific structure and requirements of 3MT presentations, each of them had to watch a winning 3MT presentation individually. Thus, we collected a total of 43 videos dated from 2012 to 2017 to

compose the major corpus of this study. With a trained team of 43 student researchers who were also participants of the study, we transcribed all of the videos. Due to the focus on personal pronoun use, specific terminology was not fully transcribed but was replaced by an X; this did not affect the analysis.

In addition to the major corpus (MAC), we compiled a minor corpus (MIC). It was comprised 10 3MT presentations by the 43 student researchers. This was because we were interested in comparing and contrasting how our EAP learners performed after the explicit instruction on how to compose and deliver 3MT presentations effectively with the experienced PhD candidates. The participants were final-year English-major students at a national polytechnic university in Taiwan with an average English proficiency of CEFR B2 level. They had to complete a 6,000-8,000-word research-based project in their final year with their team members (10 groups totally) in order to graduate.

In 2018, the students were trained to deliver their presentations in 3 minutes and a competition was held in accordance with the regulations set by the UQ. We used 2 class hours each week for 4 weeks to introduce 3MT presentations, demonstrate the generic structure of 3MT, and used the results of the keyword analysis in MAC to raise the students' awareness of the characteristics of this genre. Particular attention was focused on how to project authorial stance and engage the audience by using personal pronouns, and what areas of their research projects should be highlighted in the presentations. The purposes of having EAP learners present their research in 3MT mode were to understand whether they used the same taught features to promote their studies, and to compare their performance with that of the winning PhD 3MT presenters.

INSTRUMENTS AND ANALYSIS

We used WordSmith version 7 (Scott, 2016) to create two word-lists (MAC and MIC) as the study corpus, and the BNC (British National Corpus, with spoken word types only, 10,224,947 words), BAWE (British Academic Written English, 6,506,995 words) and BASE (British Academic Spoken English, 1,644,942 words) were used as the reference corpora to generate keywords. They were selected because they represent ordinary spoken English, academic written English and academic spoken English respectively, and thus could help reveal the salient lexical features concerning the topic of examination (Alkhammash, 2020). BAWE was used as a reference corpus because we wanted to know to what extent the lexical choices of 3MT presentations are similar to or different from its written PhD thesis or research. To identify the keywords of the 3MT genre, only PhD presentations were used as the study corpus because the data size is larger than undergraduate's presentations and the former texts are believed to be more representative of the genre. The total tokens, TTR (token types ratio), and keywords, including overused and underused keywords in the two corpora are shown in Table 1.

We used size effects metrics to determine the keywords and re-sorted the candidate key items using the Log ratio function rather than log-likelihood because "the size of the keyness as opposed to its statistical significance (related to the %DIFF procedure from Gabrielatos and Marchi [2011] produces smaller numbers and is easier to understand" (Hardie, 2014; WordSmith Tools Manual, 2019). However, we made no attempt to discuss all candidate keywords, but hoped to treat them as a whole, to represent the 'aboutness' of the 3MT presentations and to produce a general characterisation of this emerging genre in terms of specific lexical choices (Pojanapunya & Todd, 2018).

PhD candidates (MAC) English majors (MIC) 3,853/983 Tokens/word types 18,666/3,244 TTR (type/ token ratio) 17.38 25.51 BNC (overused keywords) 183 72 BNC (underused keywords) 14 2 BAWE (overused keywords) 199 65 BAWE (underused keywords) 7 2 BASE (overused keywords) 161 75 BASE (underused keywords) 17 2

TABLE 1. Overused/Underused key lexical items in MAC (PhD) and MIC (Undergraduates)

RESULTS AND DISCUSSION

In the following sections, we present the results of the top overused and underused key lexical items of MAC and MIC corpora in comparison to BNC, BASE, and BAWE, and reveal how the PhD candidates and undergraduates used personal pronouns to claim stance and engage with the audience.

TOP KEY ITEMS AND HIGHLIGHTS OF THE 3MT PRESENTATIONS ACROSS CORPORA

Compared to the reference corpora, the selected top keywords based on effect size metrics, including overused and underused words but excluding terminology, are shown in Table 2. Keywords help explain the characteristics of this genre. However, many of the over-used keywords are discipline-relevant terminology. It is natural for the presenters to exhibit the specific lexis in their knowledge domain as they are what their research is about. Thus, we were more interested in the non-disciplinary specific lexis and underused words since they are more indicative of the 3MT genre across disciplines.

TABLE 2. Selected top over- and under-used keywords in the 3MT genre

Cf. BNC

- Overused: (1) your,(2) you, (3) wouldn't,(4) world, (5) what, (6) vision, (7) using, (8) understand,(9) today, (10) thesis, (11) that, (12) thank,(13) supervisors, (14) related, (15) rejection, (16) our,(17) now, (18) my, (19) learners, (20) just
- **Underused**: (1) were, (2) was, (3) the, (4) she, (5) said, (6) his, (7) her, (8) he, (9) had, (10) by, (11) at, (12) #

Cf. BAWE

- **Overused**: (1) your, (2) you, (3) wrong, (4) wouldn't, (5) well, (6) why, (7) what, (8) we, (9) wasn't, (10) want, (11) wanna, (12) vision, (13) us, (14) today, (15) this, (16) think, (17) thank, (18) tell, (19) so, (20) see
- **Underused**: (1) was, (2) the, (3) of, (4) by, (5) as, (6) #

Cf. BASE

- **Overused**: (1) we, (2) vision, (3) using, (4) thesis, (5) thank, (7) smells, (8) scaffold, (9) roommate, (10) retire, (11) research, (12) renewable, (13) project, (14) PhD, (15) our, (16) negative, (17) my, (18) lose, (19) life, (20) imagine
- **Underused**: (1) you, (2) were, (3) was, (4) think, (5) things, (6) there, (7) that, (8) of, (9) if, (10) he, (11) had, (12) got, (13) going, (14) at, (15) about

Note: ¹ The candidate key items are ordered from the highest to the lowest keyness. ² # denotes any numerals.

We found several interesting categories across the three corpora. First, most of the first and second personal pronouns and indicatives (e.g. *I, your, our, you, we, my*) are generally overused with high keyness, signifying the frequent authorial voice and interaction with the audience. However, the third person pronouns or indicatives (e.g. *she, her, his, he*) with reference to BNC and BASE are underused, representing the uniqueness of 3MT presentations where third persons such as previous researchers are not presented in the talks or in the

reviewed literature. Another explanation is that the collections of MAC and MIC mainly come from the hard disciplines where human research participants are seldom involved, so acknowledging their presence is rare, unlike in the soft disciplines. Another underused category is past tense verbs (e.g. *was, were, had, got*); their unusually low frequencies demonstrate one feature of 3MT presentations. The speakers address what is happening, present the findings and also offer solutions to the problems identified. Besides, due to the time constraint, previous studies are less likely to be discussed.

Secondly, the 3MT speakers use questions and directives to show their engagement with the audience (Hyland, 2005). To start the presentations, they ask the audience questions such as "Why don't we need to...?" Or "Why is there...?" and direct the audience to join their research by using the word, imagine, significantly frequently as in: "Imagine the world [if] there is no...." or "Imagine that if we are in....". This was to include the audience in their presentations by inviting them into the scenarios which the presenters encountered in their research. In addition, the most obvious device for acknowledging the audience's presence could be the phrase, thank you, which is a distinct feature of academic spoken genres compared to research papers and always appears at the end of the presentations to recognise the audience's participation from the beginning to the end.

Also, the presenters used the phrases, *let's* or *let me*, very often to demonstrate that they are inviting the audience to join their discourse or research community (e.g. *Let's think that...* or *Let's do it together*) and they are expressing their absolute authority and expertise in doing the research such as "*Let me give you an example about*" or "*Let me explain it in this way...*".

Thirdly, the presenters also often attempted to highlight the importance, value, and cause/effects of their studies. They embedded their values, opinions, evaluation and judgements by over-using words such as because, actually, or hope. They emphasise their research to offer a solution, hope, or vision regarding the current problems (e.g., By doing that I hope this system could provide...; I hope my research will finally give....). They implicitly claim their contributions and findings by frequently using the causality connector 'because' and the adverb 'actually'. These overused keywords indicate that their research was able to identify the causality and connection to the problems and present the truth of knowledge and values. For instance, speakers say "It turns out that actually the answer is both", "The future is actually behind us...", "So I actually managed to do...", "...for a placenta to function correctly. Because, sometimes we need to look...", or "....it is a real challenge because it takes a lot of years." These words serve the functions of boosters or attitude markers (Hyland, 2005) to display the speakers' stance and authority. Owing to the unique time limitation of 3MT presentations and the specific disciplinary domain of the collection, the ways in which speakers show their stance and engagement are directly appealing and differ from those used in research papers and other academic spoken genres like CPs or lectures.

USING PERSONAL PRONOUNS TO CLAIM STANCE AND ENGAGE THE AUDIENCE IN 3MT PRESENTATIONS

In this section, we present how the first person and reader pronouns were used in the 3MT presentations, which are believed to be the most direct way to claim authorial position and show acknowledgement to listeners.

THE USE OF FIRST PERSON PRONOUNS TO CONVEY THE SPEAKER'S STANCE

Table 3 tabulates the frequencies and percentages of the PhD candidates' use of personal pronouns to claim their voice and acknowledge the presence of the audience in their presentations.

Presenting stance	Engaging audience			
I	250/ 1.32%	YOU	229/ 1.22%	
MY	122/ 0.65%	YOUR	74/ 0.39%	
ME	20/ 0.13%	YOURSELF	4/ 0.02%	
WE	221/ 1.18%	AUDIENCE	2/ 0.01%	
OUR	46/ 0.24%			
US	36/ 0.19%			

TABLE 3. Frequency and percentage of the personal pronouns showing stance and engagement in PhD presentations (MAC)

The present corpus (MAC) reveals that the hard discipline PhD candidates have confidence in what they believe and what they do by frequently mentioning themselves to highlight their unique position in and exclusive relation to the issues they have researched and addressed. They would use the first person pronouns, always followed by a simple past-tense or continuous-tense action verb related to conducting research, to highlight how much effort they had devoted to their research and the actions they had taken. Examples include:

- In my research, I used a technique that reduces visual....
- What if I told you that third main in fact be a
- And I am gonna give a solution for the....
- So past three years, I've been developing strategies to help....

In addition to the use of singular 'I', the plural 'we' was also excessively deployed in the presentations. Differing from I which is used for exclusive purposes only, we, also a first person pronoun, can have an inclusive or an exclusive intention. Exclusive we is the less obvious marker of authority for sharing responsibility and carrying ambiguity compared with I (Okamura & Shaw, 2014), while the extensive use of inclusive we is natural and less pushy than singular I. The former may refer to the speaker, the research teammates or the supervisor to acknowledge their involvement and efforts; examples include:

- Once the link is made, we then study the gas and water...
- So, in fact, we used the marker and we found that...
- So, we take different breast cancer cells...
- So, we came up with this novel technique, where we extend....

In contrast, when inclusive *we* is used, the presenter attempts to pull the audience into his/her discourse community. Instances of this usage are:

- Well, we all know we are going to age and...
- As we grow older, many of us will lose...
- But the factor means we know very little about this phenomenon, and ...

However, sometimes the 3MT presenters use *we* and *I* interchangeably to refer to themselves as the authors (Vassileva, 1998); two examples are:

- ...we can produce hydrogen anywhere we want. Now if I want to simply take...
- I'm interested in a relationship between how we move our eyes and how we move our attention.

It is also worth noting that the collocations with *I* and *we* also differ slightly. 'Can' and 'need' are the two most common words after *we* to stress the legitimacy of doing research, and depict a bright vision of what research can achieve. Exemplars include:

- If we can do this, we can produce...
- So, what we need is to develop a better...

In contrast, *I* is frequently collocated with 'have' and 'found'. The speakers use them to describe their previous experiences and progress of exploring similar issues to establish credibility of conducting the current research. For instance,

- I'm using this XXX I have made in the lab, which can use...
- I have found that antibiotic as ...
- I have also found a probable deficit and...

The presenters tended to use *I* to describe what had been done solely by themselves, but *we* to address what will be achieved collaboratively in the future with the audiences' recognition and participation.

As Hyland states, self-mentions refer to the use of first person pronouns and possessive to present propositional, affective and intrapersonal information" (Hyland, 2001; cited in Hyland, 2005, p. 181) and *I* or *we* could be the most explicit expressions for the addressors to adopt a particular stance with conscious decision-making. Although it is commonly assumed that authors in the hard sciences downplay and subordinate their voice compared with those in the soft sciences while writing research papers (Hyland, 2005), this shared knowledge cannot be equally applied to the spoken academic genre texts as demonstrated above in the present study.

THE USE OF READER PRONOUNS TO ENGAGE THE AUDIENCE

In the MAC (PhD candidates), you appears most frequently in phrases like Thank you, Do you know....?, As you can see, You may(might) think/ask/have heard/know..., or What do you do...?. Sometimes, the presenters use you to switch the audience to the researchers in the hope of simulating a real research scenario, immersing the audience in and engaging them with the research contexts, thus achieving solidarity. For instance:

- ...would that be better if you have certain search engines...?
- ...take all of your furniture away when you finished painting...
- ...you love your X and you fly those bags with pride...

We also found that *you* sometimes transmits an underlying purpose of promoting the value of the research to obtain the audience's recognition; for example:

- ...my project one day can save you from going blind...
- ...could very well be the key in helping you and me save the planet.
- If this network is well-organised, you can retrieve....
- ... of any mouse aging so far, and ladies, you will be happy to learn that...

As Hyland (2005) argues, engagement devices are usually implicitly embedded in texts. The addressors may use reader pronouns, the most explicit way, to include readers in the discourse and bring them into the arena where they can be led to the speakers' viewpoints. However, boldly engaging the audience is believed to be very rare in research articles or other academic talks. By doing this, 3MT presenters not only successfully show their interaction with the audience but also tactically achieve their promotional aim. In short, as mentioned above, when compared to the three reference corpora, the PhD candidate presenters apparently deployed the first person and reader pronouns tactically to establish rapport with their audience.

LEXICAL FEATURES AND PERSONAL PRONOUNS USED BY EAP LEARNERS

Undergraduate EAP learners were taught the structural and lexical features of 3MT, used by PhD candidates. Then, the learners had to design their own 3MT presentations. Table 4 shows the selected overused and underused keywords in the students' texts with reference to the three large corpora (i.e. BNC, BAWE and BASE). Specific terminology in hospitality and tourism disciplines were excluded.

LEXICAL PREFERENCES EMPLOYED BY EAP LEARNERS

It is interesting that the overused words are not very different from each of the three large corpora, and a number of them appear in all of the three corpora. This indicates that the learners tend to stress certain areas of their research, in particular, for addressing the research methods and findings in their 3MT speeches. Thus, *factor*, *respondents*, *questionnaire* or *research* appeared as overused keywords.

TABLE 4. Selected top over- and under-used keywords in student researchers' texts

Cf. BNC

- **Overused:** (1) willingness, (2) websites, (3) web, (4) we, (5) using, (6) use, (7) toward, (8) show, (9) respondents, (10) research, (11) questionnaire, (12) preference, (13) prefer, (14) people, (15) participants, (16) our, (17) online, (18) official, (19) most, (20) intention
- **Underused:** (1) was, (2) a

Cf. BAWE

- **Overused:** (1) you, (2) websites, (3) we, (4) want, (5) users, (6) toward, (7) think, (8) they, (9) thank, (10) students, (11) smart, (12) respondents, (13) questionnaires, (14) privacy, (15) preference, (16) prefer, (17) people, (18) participants, (19) our, (20) online
- **Underused:** (1) the, (2) #

Cf. BASE

- **Overused:** (1) willingness, (2) websites, (3) using, (4) users, (5) students, (7) smart, (8) show, (9) sharing, (10) service, (11) respondents, (12) research, (13) questionnaires, (14) privacy, (15) preference, (16) people, (17) participants, (18) our, (19) online, (20) official
- Underused: (1) you, (2) a

Note: ^{1.} The candidate key items are ordered from the highest to the lowest keyness. ^{2.} # denotes any numeral.

Compared to the keywords in MAC (PhD candidates), some differences were found in the MIC (undergraduate EAP learners) corpus. First, the undergraduate students tended to emphasise the methodology sections in their research; therefore, the words relevant to methods, participants and results are overused. Although most disciplinary-specific lexis was excluded from both keyword lists, a majority of the overused keywords in MIC are still content words related to research topics (e.g. *on-line, preference, website,* or *attraction*) unlike those in MAC, most of which are more ordinary lexis. The PhD candidates therefore demonstrated the ability to use plain language when explaining their research to a non-specialist audience in their presentations.

Secondly, English articles like *a/an* or *the* are underused lexis in MIC (undergraduate EAP learners) but not in MAC (PhD candidates). The significantly fewer appearances of articles used by the university students may demonstrate that Chinese-speaking English learners have difficulties using articles correctly due to the influence of their L1 where 'specificity' and 'definiteness' in speech acts are not so obvious or needed (Barrett, 2010; Huebner, 1983; Ionin, Ko, & Wexier, 2004; Thomas, 1989).

Despite the above divergences, there is also one agreement between the two corpora (MAC and MIC), that is the employment of numerals (#) is significantly more frequent than in BASE, but is underused compared to BAWE. It seems that writers can fully explain numerical data in academic papers, but this may not be so effective or necessary in 3MT presentations as

too much numerical information could be difficult for listeners to process in a limited period of time, and thus usually only significant numbers are reported. However, compared to other academic speech acts, the 3MT presenters talk about numbers more often. It is assumed that in classrooms or at conferences the audience may have printed handouts or textbooks. The speakers therefore mention numbers less often because they are likely presented in the printed copies. However, in the 3MT presentations, there is only one slide allowed and no handouts are prepared, meaning that the presenters have to address significant numerical data in their speeches. Indeed, the nature of 3MT presentations has a great effect not only on its generic structure (Hu & Liu, 2018), but also on what lexis is deployed and what information is displayed.

THE USE OF PERSON PRONOUNS BY EAP LEARNERS

The use of 'we' in the two corpora (i.e. PhD candidates and EAP learners) also differs slightly, as shown in Tables 3 and 6. The students used 'we' more frequently than the PhD candidates (1.49%: 1.18%). This is because all the research projects were done in teams in the former group so the speakers often acknowledged this collaborative work. However, in the latter group, the research was mainly done solely by the speaker under supervision; therefore, I appeared more frequently than we. Another difference between MIC and MAC in using the first person pronouns is that we and our are used as exclusive we and our, only referring to the presenter and teammates in MIC. Yet, they could be used with an inclusive function in MAC to invite and engage with the audience. Instances of this distinction in MIC include: "We do find significant results....", "So, we did the research about the situation...", "After our investigation, we found out that...." and "Based on our study, we would make the following...".

TABLE 5. Frequency and percentage of the lexis showing stance and engagement in MIC (Undergraduate EAP learners)

Presenting stance		Engaging audience	
I	1/ 0.03%	YOU	24/ 0.62%
MY	2/ 0.02%	YOUR	7/ 0.18%
ME	2/ 0.02%	YOURSELF	0
WE	58/ 1.49%	AUDIENCE	0
OUR	28/ 0.72%		
US	1/ 0.03%		

However, there are also some similarities between the two corpora. First, with reference to other academic spoken texts in BASE, the second personal pronoun *you* is underused in both 3MT corpora. Due to the time constraint, frequent interaction or engagement with the audience in presentations is less likely. Besides, unlike other academic speech situations such as class lectures or conference presentations where specific time is always reserved for the audience to respond and interact, there is no such mechanism in 3MT presentations. Yet, sometimes the inclusive *we* is used by the presenters to acknowledge the listeners' presence, which may also lead to less use of *you*.

To conclude this section, the great differences in the lexical choices of the PhD candidates and EAP leaners indicate that EAP learners may need more explicit instruction on and practice making effective 3MT presentations by only spotlighting the findings and strategically using first person and reader pronouns to claim stance and interact with the audience, rather than following the structure of RAs and the conventions of reporting findings.

CONCLUSION AND IMPLICATIONS

In this study, we investigated an emerging academic spoken genre, 3MT presentations, in which speakers have 3 minutes to promote their research findings. We generated keywords of this genre to identify the features of 3MT presentations, delivered by PhD candidates and trained undergraduate EAP learners. We also compared and contrasted the use of personal pronouns to present stance and interact with the audience. The results of the keyword analysis revealed that the PhD candidates tended to highlight the value and rationale of their research, whereas the EAP learners placed more emphasis on their methodology. Furthermore, the PhD candidates are better at using rhetorical devices, i.e. reader pronouns and inclusive we, to invite the audience into their discourse community. However, some similarities between the two groups of presenters were also identified. For example, you was less deployed by the two groups in comparison with other academic spoken genre texts.

The research has the following methodological and pedagogical implications for EAP research and practice. First, our study acknowledges the value of the emerging attendant genres in academic discourse. Although 3MT presentations have a marginal status compared to their PhD thesis or research, they are embedded with both informative and promotional purposes to highlight the main research. Evaluative, persuasive and promotional language is commonly seen across these genre types. Thus, it is argued that more research attention should be paid to them. Unlike research articles or PhD theses, which still mainly follow conventional structural moves, steps and lexis, the emerging promotional genres appear to rely more on the affordances of the Internet or multi-media. These multi-modal platforms empower them to be more flexible and diverse in terms of information delivery and rhetorical usage. Genres can evolve and change rapidly, and warrant genre researchers' further investigations at both the macro structural and micro linguistic levels.

Secondly, it is suggested that language teachers make EAP learners aware of the fact that the 'selling culture' is now inhabiting academic discourse (Fairclough, 1995). EAP learners have to be mindful of the flexibility and short length (in both time and space) of new promotional genres due to the prevalence of social network media. They are exposed to these emerging web-mediated genres on a daily basis. Thus, it is essential for language teachers to integrate the teaching of these novel attendant genres in EAP curricula. Besides, it is recommended that learners use various rhetorical devices as suggested in Hyland's (2005) stance and engagement model to accentuate their authorial voice and to interact with their audience; this requires EAP teachers' explicit instruction. In other words, without proper and explicit instruction on these emerging novel attendant genres, authors or speakers are likely to simply imitate the previous examples, possibly resulting in poor performance. Also, it is advisable to increase EAP learners' digital literacy skills and offer them exposure to various text constructions so that they will be able to communicate with peers in innovative techmediated platforms due to the expansion of the Web 2.0 digital environment (Campagna, Garzone, Ilie, & Rowley-Jolivet, 2012; Pérez-Llantada, 2016).

Some future studies can be carried out to complement this research. Firstly, as Gabrielatos (2018, p. 229) argues, it is possible that "the wording of the definition of keywords was influenced by (or reflected) the choice of the particular statistical significance metric in Wordsmith Tools", and candidate key items may differ, which should help clarify classifications and make the analysis more accurate. Secondly, future studies can expand the scope to examine other rhetorical devices in the stance and engagement model (Hyland, 2005) to provide a holistic view of how the addressors apprise their research and connect with their audience. Lastly, a comparison with 3MT presentations in soft disciplines is recommended. This could help evidence or confirm whether there are differences in how stance and engagement are expressed in the two domains such as those in the previous researched attendant genres.

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