E·S·P·Today
JOURNAL OF ENGLISH FOR SPECIFIC PURPOSES AT TERTIARY LEVEL

Sujata S. Kathpalia*

Language and Communication Centre
Nanyang Technological University, Singapore
msskath@ntu.edu.sg

THREE-MINUTE THESIS PRESENTATIONS: SIMPLIFICATION AND ENGAGEMENT STRATEGIES

Abstract

The Three-Minute Thesis (3MT) presentation has appeared as a new genre to meet the changing needs of graduate students in the academic world. Although some research is available on the generic structure and strategies characteristic of this genre, a comprehensive and in-depth account of this genre is lacking. Therefore, the objective of this study is to provide a holistic analysis of the rhetorical structure and linguistic features of this genre using 25 recordings of 3MT presentations. The focus is on simplification and engagement strategies used by PhD students to target a non-specialist audience and engage them to build rapport with them. The findings indicate that simplification is achieved by omitting conceptually complex moves, conflating moves for brevity and simplicity, and defining scientific terms and concepts. In addition, engagement strategies such as attention-getting, explanatory, interactive and personalised strategies are used to capture and maintain the attention of the audience. The findings show that 3MT presentations have evolved into a unique genre with distinct features through recontextualisation which involves both simplification and engagement, enabling PhD students to share and promote their own research simultaneously, with a non-specialist and disciplinarily heterogeneous audience.

Key words

three-minute thesis presentation, engagement, linguistic features, rhetorical structure, simplification, unique genre.

* Corresponding address: Sujata S. Kathpalia, Nanyang Technological University, Language and Communication Centre, 48 Nanyang Avenue, SHHK-02-34, Singapore 639818.

https://doi.org/10.18485/esptoday.2024.12.2.1

E·S·P·Today
Vol. 12(2)(2024): 196-220
e-ISSN:**2334-9050**

1. INTRODUCTION

The Three-Minute Thesis (3MT) competition originated at the University of Queensland (UQ) to celebrate the new research findings discovered by PhD students and its goal was to encourage them to hone their "academic, presentation, and research communication skills" by explaining their research in three minutes to a non-specialist audience (University of Queensland, n.d.-a). First held at UQ in 2008 for 160 PhD contestants, it has expanded to 900 universities across 85 countries and is currently conducted by UQ in virtual and live formats as the Asia-Pacific 3MT competition. Unlike other academic genres which are meant for specialists, the 3MT is pitched at an educated non-specialist audience and it not only serves the important function of building PhD students' presentation skills but also provides an excellent opportunity for networking with students from other universities and publicizing their research beyond the university setting to relevant people and organizations that could eventually lead to research funding and even jobs in leading organizations.

An enormous amount of work is available on public speaking (e.g., Sellnow, 2005) and professional communication (e.g., Zaremba, 2012) but the advice offered in most of these publications tends to be superficial as the focus is on the overall introduction-body-conclusion of a speech, appropriate language and register, and paralanguage features such as voice, body language and fluency. Although some work on academic presentations for undergraduate and graduate students is available in English for academic purposes (e.g., Bell, 2008; Freiermuth, 2022; Reinhart, 2002), specific work on 3MT presentations is limited and tends to focus on individual aspects such as rhetorical structure, or engagement features of these presentations (e.g., Hu & Liu, 2018; Hyland & Zou, 2021, 2022) rather than providing a consolidated analysis of this speech genre that has gained importance in recent years.

Given the importance of 3MT competitions from the point of view of personal and professional development and opportunities, the aim of the present article is to address the following questions:

1) What are the simplification strategies used in 3MT presentations to target the non-specialist audience and complete the presentation in three minutes?
2) What are the engagement strategies employed by competitors to engage the audience?

Based on these research questions, the two concepts that are relevant for this study are simplification and engagement strategies used in 3MT presentations, which are a response to the unique rhetorical situation where presenters have to address a non-specialist and disciplinarily heterogeneous audience while being judged by a panel that assesses them according to a stringent set of criteria (University of Queensland, n.d.-b). To meet the criteria, contestants have to simplify not only the rhetorical structure but also the content of their presentations when

compared to other research-process genres. At the same time, they need to hook the non-specialist audience by using certain engagement features that establish interpersonal rapport with the audience. Both these concepts will be further elaborated in the literature review section.

This study is meant for ESP teachers as well as for aspiring PhD students to help them prepare for the 3MT competition, assist them in promoting their research at the competition, and respond to the often-asked question 'What is your research about?' in professional networking situations, job interviews and even social settings. Although PhD students are familiar with the traditional spoken (e.g., conference/poster presentations, graduate seminars, and PhD defenses) and written (e.g., abstracts, dissertations, and journal articles) research genres as part of their research enculturation and training at university, they would benefit from ESP courses in the newly emerging genres such as the 3MT presentations that are hybrid in nature as they draw from the generic resources of existing academic and non-academic genres. This training is even more important for graduate students as the 3MT presentations are set in a competing environment that requires peak performance from them, in front of a panel of judges.

2. LITERATURE REVIEW

2.1. Simplification in 3MT presentations

Some researchers have applied Swales's (1990) genre approach to 3MT presentations by analysing their overall communicative purpose and the rhetorical functions of individual moves to show how this new genre has been simplified (Hu & Liu, 2018) or recontextualised (Carter-Thomas & Rowley-Jolivet, 2020) to adapt to a non-specialist audience. While both studies cited are concerned with tailoring the 3MT genre to the knowledge base of non-specialist audiences, the former focuses on the rhetorical structure of 3MT presentations from the perspective of disciplinary variations and the latter on the rhetorical and explanatory strategies used to make the content comprehensible to the non-expert audience. Hu and Liu (2018) conducted a genre analysis of a corpus of 142 3MT presentations by PhD students from four different disciplines (biological sciences, mechanical engineering, education, and history) classified according to hard/soft disciplines and pure/applied disciplines, with an equal number of award-winning and non-winning presentations.

Beginning with a contextual analysis of this new research genre, Hu and Liu (2018) point out that the 3MT presentations are like other academic presentations such as conference presentations, lectures and seminars but unlike these genres, they are presented in a competition following a list of strict criteria and are pitched at an audience that is heterogeneous in terms of discipline. Although sharing some similarity to other oral research-process genres (e.g., conference/poster

presentations, graduate seminars, and PhD defenses) and written academic genres (e.g., abstracts, research articles, and dissertations), 3MT presentations are a unique response to a new rhetorical situation with the main rhetorical purpose of disseminating and promoting one's PhD research, with the goal of winning a competition. The novel context of this genre leads to some generic differences and the hybrid nature of the genre prioritizes simplification and engagement for better audience comprehension and rapport.

The results of Hu and Liu's study (2018) revealed eight distinct moves: Orientation (listener orientation and content orientation), Rationale, Framework, Purpose, Method, Results, Implication, and Termination. Illustrating the move structure with examples, the authors indicate that not all the moves occurred in every presentation. Out of the eight moves, six of them were obligatory (Orientation, Rationale, Purpose, Methods, Implication, and Termination) whereas two were optional (Framework and Results). The optionality of these moves is attributed to the unique characteristic of the 3MT genre targeting a non-discipline-specific audience and the on-going nature of the research at the time of reporting it at the competition. Describing the framework of a study is easier in the presence of shared knowledge between the audience and presenter; therefore, explaining it would require an additional cognitive load on the audience and using jargon would go against the judging criteria of the competition. As for the low frequency of the Results move, it is mainly because most PhD students participate in the competition before they have obtained concrete findings, forcing them to focus on the rationale and implications of the study rather than reporting incomplete results.

In relation to rhetorical structure, Carter-Thomas and Rowley-Jolivet (2020) reiterate that 3MT presentations have the same eight moves as identified and illustrated in Hu and Liu's (2018) study. In terms of move selection (Carter-Thomas & Rowley-Jolivet, 2020), the moves Theoretical Framework and Results are the least frequent in both the social science and physical science talks mainly due to time constraints. Other reasons for their low frequency include the conceptual complexity of the former move and the lack of research findings regarding the latter move as the 3MT presentations are usually scheduled well before the results have been obtained. As for the depth of explanation (Carter-Thomas & Rowley-Jolivet, 2020), both the Theoretical Framework and the Method are rather cursory when compared to a thesis abstract, which is comparable in length to a 3MT presentation. While in a viva and thesis, a solid theoretical framework, rigorous method, and robust results play an important role in assessment, these moves are deliberately superficial and simple in the 3MT talks and are probably recontextualised to pitch the content at a non-specialist audience. Even the Rationale, Purpose, and Implications, although always present, are simplified by relating them to the direct concerns of the public rather than highlighting their scientific content.

The findings of both studies are fairly similar in terms of moves and their frequency in this new genre of 3MT presentations. These studies, especially the one by Carter-Thomas and Rowley-Jolivet (2020), highlight the phenomenon of

simplification through move omission and dilution of content to meet the criteria of 'Comprehension' in the 3MT competition. In this context, Starfield and Paltridge (2019) point out the challenges that graduate students face in the changing landscape of academia where they have to communicate with a diverse set of people with differing levels of knowledge in various ways. Other scholars (Gross & Harmon, 2016; Luzón & Perez-Llantada, 2019) explain this changing landscape of research communication by pointing out that research no longer belongs to a small set of specialised researchers in the scientific community but is meant to be shared with the general audience. In fact, Marwick and Boyd (2011) use the term "context collapse" to describe the merging of different audiences and the blurring of boundaries between academics and the general audience. To address this intermediate audience, graduate students have to be able to attain "rhetorical dexterity" (Paré, 2019) and simplify their discourse accordingly. Although both studies reviewed in this section mention simplification strategies, they fail to mention move conflation (Kathpalia, 2022) which is the phenomenon of combining moves with different functions within the same clause, making it difficult to identify which part of the clause represents a particular function. Move conflation is particularly common in genres that have space/time constraints and this will be further addressed in the results and discussion section of the paper.

2.2. Engagement in 3MT presentations

3MT presenters must ensure that their audience is convinced by their arguments and conclusions during the competition. To promote audience engagement in this competitive and time-constrained context, presenters use a variety of engagement features to hook the non-specialist heterogeneous audience and build interpersonal rapport with them. Using Hyland's engagement framework (2005), Hyland and Zou (2022) analysed 120 3MT presentations from the hard (60 presentations) and social sciences (60 presentations), specifically focusing on disciplinary preferences. According to the framework, there are four main engagement strategies that writers/speakers use to connect with their readers/listeners: Reader mentions, Directives, Appeals to shared knowledge, and Personal asides. These surface features of engagement involve readers/listeners as real players in the discourse and convey both interpersonal solidarity and rhetorical positioning. While Reader mentions and Asides increase in-group disciplinary solidarity, the other devices (Questions, Directives, and Appeals to shared knowledge) pull the reader into the discourse by rhetorically positioning them as critics with alternative views whose interpretations need to be guided and negotiated.

The overall results of the study revealed the use of a large number of engagement devices in the hard science (53.7/1,000 words) and soft science (33.3/1,000 words) presentations, with the former overtaking the latter in terms of density of these features. This could be because the hard science presenters

probably feel the need to make the highly specialized content of their presentations more accessible and engaging to a non-specialist heterogeneous audience who may have very little interest in or exposure to such scientific content in their everyday lives (Hyland & Zou, 2022). More specifically, the results showed that all the engagement features were used more frequently by the hard science presenters except for questions and hearer references ('we' and 'you') which were the most dominant in both hard and soft science presentations, probably to build cordial relations with the audience and a sense of shared interest in the presentation topic.

In addition to engagement, Hyland and Zou (2021) also examined stance in 3MT presentations as it is an inherent element of genres used for communicating with others, to convey the personal attitudes and evaluations of a writer/speaker. The way stance is reflected in spoken genres like 3MT presentations is of particular interest in the academic world, especially to graduate students who are embarking on their research journey. To present their arguments persuasively to an interdisciplinary audience, it is important for them to position themselves appropriately regarding their propositions and audience. To investigate how PhD presenters achieve this in their presentations, Hyland and Zou (2021) analysed 140 3MT presentations across the physical and social sciences using Hyland's (2005) model of stance comprising the following resources: hedges, boosters, attitude markers, and self-mentions. The frequency of these four stance features was calculated per 1,000 words in this corpus-based study and the findings indicate that 3MT presentations are heavily stance-laden (72.3 devices per 1,000 words) perhaps due to their high-stakes context, live and heterogeneous audience, speech form and strict 3-minute duration (Hyland & Zou, 2021). Of particular interest in the present study is the use of self-mentions, particularly first-person singular pronouns (e.g., I/my/me) and plural pronouns (e.g., we/our/us) that are used by 3MT presenters to highlight their research contributions and personalise their presentations.

According to Carter-Thomas and Rowley-Jolivet (2020), strategies used in 3MTs are very different from those in traditional research genres (e.g., research articles) but similar to those in newer digital genres (e.g., scientific blogs). Some of the engagement strategies they identify include: short, simple, interactive and metaphorical titles; one single static slide with minimal text for maximum visual impact; personalisation devices such as first-person pronouns and personal opinions/stories rather than scientific proofs as warrants; question-and-answer pairs to predict audience queries and reservations; humour to relax the audience; and "street credibility" or "a common framework based on shared cultural values" (Carter-Thomas & Rowley-Jolivet, 2020, p. 11) by referring to popular films and TV series that their peers are familiar with.

Following scholars like Calsamiglia and Van Dijk (2004), Myers (2003) and Bondi et al. (2015), Carter-Thomas and Rowley-Jolivet (2020, p. 2) use the term "recontextualisation" to explain that scientific knowledge is not only made available to the wider public, but it is also conveyed to them in an engaging and interesting way. They also point out that recontextualisation can happen at different levels of discourse – rhetorical, lexical and semantic. In their own study, they make a

preliminary effort to examine the recontextualising strategies from the two aspects of tailoring content to a wider audience and arousing their interest. While the former is achieved by a rhetorical analysis of the presentations and explanatory strategies, the latter is established by identifying personalisation, interactional and attention-getting strategies.

With the exception of Carter-Thomas and Rowley-Jolivet's study (2020), the rhetorical structure and engagement features in most past studies have been researched separately rather than holistically to highlight the simplification and interpersonal processes involved in this new genre. Although these studies are a good starting point for graduate students preparing for 3MT presentations and for those training them to use rhetorical and interpersonal resources effectively in this genre, it is interesting to analyse its macro (i.e., rhetorical) and micro (i.e., linguistic) aspects simultaneously and in more depth to provide a holistic account of this genre to graduate students and their trainers for pedagogical applications. Any genre/discourse analysis of text would be incomplete without analysis at several levels of its realization, including the rhetorical and linguistic levels (Bhatia, 2004; Kathpalia, 2022). Therefore, this study provides a consolidated analysis of the 3MT genre at both levels to illustrate how the two are interconnected and reinforce each other to meet the needs of the unique rhetorical situation, which is influenced by the guidelines of the competition such as brevity, simplicity and engagement.

3. METHODOLOGY

3.1. Data collection

The data for this paper comprises 3MT presentations in science and technology from the University of Queensland (UQ) website. The 3MT competition is held at institutional and international levels, with the winner of each heat representing their institute at the Asia-Pacific or international level. A total of 25 videos were included in the data, specifically those in the categories of winner (14), runner-up (9), and people's choice (2) from the UQ website in the sequence in which they appeared on this website. Following the concept of data saturation (Saunders et al., 2018), it was felt that a small data size of 25 should suffice for this qualitative study as further data collection/analysis would not produce additional value-added insights in terms of simplification or engagement features. The data was collected based on ranking of the 3MT presentations rather than on categories of hard and soft science disciplines as the focus of this study is not on cross-disciplinary variation. However, the sample was examined post data collection to determine the disciplinary categories and it was found that coincidently all the presentations were from the hard sciences including pure and applied sciences. More specifically, they belonged to the Medical and Health Sciences (8), Molecular Science (2),

Microbiology (2), Engineering (5), some niche scientific areas (6) and other isolated disciplines like Architecture and Environmental Management (2).

The presentations were first transcribed using a speech-to-text app Otter.ai and then the transcriptions were re-examined to ensure that the presentations were captured correctly, and amendments were made in the case of inaccuracies or incoherent text. The word length of each transcript was checked, and it was found that the mean length of the presentations was 443.04 words. The transcribed presentations were analysed from two specific perspectives: rhetorical and linguistic, to identify the strategies used for simplification and engagement that enable PhD students to convey their research in a factual yet engaging manner to a wider audience. At the macro level, Hu and Liu's (2018) framework of move analysis of 3MT presentations was applied for the rhetorical analysis of the data. The move analysis involved identifying the moves, their presence, sequence, and frequency in the 3MT presentations in the data. At the micro level, Mattiello's (2019) definition categories were applied for the lexical analysis and a combination of strategies identified by Carter-Thomas and Rowley-Jolivet (2020) and Hyland and Zou (2022) was applied for the analysis of the engagement strategies. This analysis involved identifying the engagement devices, their category (attention-getting, explanatory, interactive, or personalised strategy), frequency and spread in the 3MT presentations in the data. Further details about the rhetorical and linguistic analysis are provided in the following sections.

3.2. Analysis of simplification strategies

The simplification strategies in the 3MT genre were examined at the macro and micro levels to show how cognitively complex moves are either completely omitted or diluted and how specialist terminology and concepts are expressed in 3MT presentations to fit the knowledge level and expectations of the intended audience. At the macro level, Hu and Liu's (2018) move structure of 3MT presentations was used as a starting point to analyse the rhetorical structure of the 3MT presentations in the present study (see Table 1). According to their study, the typical moves included in the 3MT genre are as follows:

MOVE	NAME	DESCRIPTION
Move 1	Orientation	Listener orientation: Greeting the audience, giving a self-introduction and/or engaging the audience Content orientation: Introducing the topic and providing background information on the topic
Move 2	Rationale	Stating motivation behind the research
Move 3	Framework	Setting out a theoretical position and/or framework
Move 4	Purpose	Stating research objectives/research questions
Move 5	Method	Describing material, method, and approach

Move 6	Results	Sharing findings
Move 7	Implications/Significance	Drawing conclusions, discussing implications, significance and contributions, or offering recommendations
Move 8	Termination	Ending the presentation by thanking the audience and/or stimulating further thought

Table 1. Moves and their functions in 3MT presentations (adapted from Hu & Liu, 2018)

The aim was to determine whether the rhetorical structure of this new genre has been simplified with the inclusion of the Orientation and Termination moves, the omission of certain moves like the Framework and Results moves, and even the conflation of moves. Some of these strategies like the omission and conflation of moves also contribute to keeping the presentations short as contestants have to deliver the most important content about their PhD research in three minutes.

At the micro level, an attempt was made to examine the lexical simplifications at play in the 3MT genre. In scientific presentations meant for expert audiences, presenters tend to use technical terminology/concepts without providing their definitions and extended explanations. However, the 3MT presenters have to pitch their talk at a non-specialist audience and they cannot assume that their audience is familiar with discipline-specific terminology or basic concepts in other disciplines. An attempt was therefore made to analyse the presentation in the present study using some of Mattiello's (2019) definition categories (such as periphrasis, figures of speech, negation, etc.) that she applied to scientific TED talks along with other categories that emerged during the analysis of the present data. For this, the transcripts were examined to check whether definitions of technical terms are consistently provided by the speakers. Table 2 sets out the simplification strategies analysed at the lexical level through different types of definitions:

DEFINITION CATEGORY	DESCRIPTION
Description	Elaboration: Giving an expanded description of a term using two or more sentences Exemplification: Using everyday examples to explain scientific concepts without the use of jargon Classification: Grouping of related things into classes or categories depending upon their characteristics Material and process descriptions: Describing the different functions of an object/device and explaining the steps involved in its operation
Juxtaposition	Placing two things close together, often to compare, contrast, explain, or to create an interesting effect
Naming/Labelling	Sharing the common and scientific names/labels for specialized terms and concepts
Negation	Defining something by stating the exact opposite or what it lacks
Paraphrase	Using longer phrasing to expand on scientific terms and concepts

Table 2. Definition categories in 3MT presentations

While most of the definition categories in Table 2 are conventional ways of defining terms (e.g., Description, Naming/Labelling and Paraphrase), Mattiello (2019) also discovered some emphatic forms of definitions (e.g., Juxtaposition and Negation) in her analysis of TED talks. In another study (Liu et al., 2023) on 3MT presentations, the term "code glossing" has been used to describe this strategy. The findings related to these simplification strategies will be shared in the results and discussion section of the paper.

3.3. Analysis of engagement strategies

The 3MT presentations in the present study will also be analysed from the perspective of audience engagement. A combination of strategies and devices mentioned in past research studies (Carter-Thomas & Rowley-Jolivet, 2020; Hyland & Zou, 2022) were applied to the transcripts in the present study. In addition to these, other strategies and devices that emerged during the examination of the data were also included in the analysis. Inspired by Carter-Thomas and Rowley-Jolivet (2020), these strategies were categorised into attention-getting, explanatory, interactive, and personalised strategies along with typical devices used for their realization. A list of these strategies and devices has been presented in Table 3:

ATTENTION-GETTING STRATEGY	DESCRIPTION
Dramatization	Use of an exaggerated or excessively theatrical style in the delivery of speech content
Humour	Use of jokes to relax the audience and make them feel comfortable
Repetition	Repetition of key words, phrases, and/or sentences
Statistics	Use of sensational figures and percentages to highlight the centrality/importance of the research topic
EXPLANATORY STRATEGY	**DESCRIPTION**
Analogy	Comparing things that have similar features for the purpose of explanation or clarification
Hyperbole	Making exaggerated statements or claims that make someone/something bigger and better than they are
Idiom	Using an expression or phrase that does not have a literal meaning (i.e., the meaning is not deducible from individual words in the phrase)
Metaphor	Using a figure of speech that describes a person or object by referring to something that is considered to possess similar characteristics
Personification	Attributing a human quality or characteristic to something non-human or representing an abstract quality in human form
Simile	Using a figure of speech to compare two unlike things with the words "like" or "as" for a more emphatic or vivid description

INTERACTIVE STRATEGY	DESCRIPTION
Appeals to shared knowledge with audience	Use of explicit signals to mark something as shared or accepted knowledge in relation to books, films/TV shows or news
Audience mentions	Use of first-person plural pronouns 'we/us/our' and second-person plural pronouns 'you/yours' to include the audience and indicate shared perspective
Directives	Use of imperatives and obligation modals to instruct listeners to carry out certain actions and/or to interpret an argument in a particular way
Personal asides	Use of direct comments to strengthen the bond with listeners
Question-Answer sequences	Use of many questions, especially question-and-answer dialogue to predict audience queries or reservations and even to organize the discourse
Reference to the slide and its description	Directing audience attention to the slide or parts of the slide, often accompanied by descriptions
Rhetorical questions	Use of thought-provoking questions to the audience without expectation of a verbal response
Scenarios	Use of imaginary scenarios that are not only striking but also close to a situation within the grasp of the audience
PERSONALISED STRATEGY	**DESCRIPTION**
Anecdote/Storytelling	Use of stories rather than scientific facts to elaborate on the topic of research
Self-mention	Use of first-person pronouns by speakers to share personal information about themselves

Table 3. Engagement strategies and devices in 3MT presentations

In Table 3, the devices under the four categories are more varied and exceed those identified by Hyland and Zou (2022) and Carter-Thomas and Rowley-Jolivet (2020) in their studies as it includes additional devices that emerged during the analysis of the present data. They are also arranged in a more organised manner under the four broad categories whereas in the latter study the organization is rather loose with many of them being placed under engagement strategies (e.g., Titles, Visual impact, Personalisation, Questions, and Humour and street cred) without an attempt at relating them to the four categories of attention-getting, explanatory, interactive, and personalised strategies mentioned in the introduction of their paper. Another interesting point to note is that some of the strategies (e.g., explanatory strategies) play the roles of engagement and simplification at the same time, making it difficult to categorise them as belonging to one or the other.

In the current study, an attempt was made to sort out the devices into their appropriate categories such that all the engagement devices that are emphatic were categorised as attention-getting strategies, those that are figures of speech (e.g., Analogy, Hyperbole, Idiom, Metaphor, Personification and Simile) were categorised as explanatory strategies, the reader-centred ones were categorised as interactive strategies, and the speaker-centred ones were categorised as personalised strategies. With particular reference to figures of speech, it appears that they can either be categorised as simplification or engagement strategies as they serve the

dual function of simplifying content and engaging the audience simultaneously. The strategies identified in the 3MT genre are very different from those in traditional research genres but more common in popular science genres such as TED talks which are targeted at non-specialist audiences (Bajtková, 2018; Mattiello, 2019). These will be applied to the data in the present study and typical examples will be presented in the next section.

4. RESULTS AND DISCUSSION

4.1. Simplification strategies in 3MT presentations

The rhetorical analysis of the 3MT presentations in this study is consistent with that of previous studies conducted by Hu and Liu (2018) and Carter-Thomas and Rowley-Jolivet (2020), with minor variations. In these studies, the Framework move has a low frequency of occurrence whereas in the present study it is missing in all 25 presentations. As for the Results move, it is present in all the presentations except two and in three of the presentations, the presenters only share the expected findings of their study. Table 4 sets out the frequency of the moves in the present study:

MOVE	NAME	NUMBER	PERCENTAGE
Move 1	Orientation	25	100%
Move 2	Rationale	25	100%
Move 3	Framework	0	0%
Move 4	Purpose	25	100%
Move 5	Method	25	100%
Move 6	Results/Expected results	23	92%
Move 7	Implications/Significance	24	96%
Move 8	Termination	25	100%

Table 4. Moves and their frequency in 3MT presentations

The 3MT presentations in the present study belong to the pure and applied hard sciences; therefore, the move frequency findings were compared with those of Hu and Liu's (2018) findings for these disciplinary categories. In their study, the moves Orientation, Rationale, Method, Implication, and Termination have a high frequency of occurrence (over 90%) in pure and applied hard disciplines, Purpose has a moderately high frequency of occurrence (over 70%), Results has a varied level of occurrence in pure hard science presentations (over 70%) versus applied hard

science presentations (below 35%), and Framework had a very low frequency (below 3%). In comparison, all the moves had a high frequency of occurrence in the present study except Framework, which was completely omitted, and Results had a higher frequency as both Results and Expected results were taken into consideration in the frequency count.

The opening and closing moves in the 3MT presentations are unlike those in other oral research-process genres such as conference presentations, graduate seminars, and PhD defenses. These moves seem to serve the dual purpose of attracting the attention of the non-specialist audience and explaining the topic of the research to them in a simple and non-academic manner, similar to the opening and closing moves of TED talks (Chang & Huang, 2015). The absence of the Framework move in this genre is probably due to the conceptual complexity of this move as pointed out in previous studies (Carter-Thomas & Rowley-Jolivet, 2020; Hu & Liu, 2018) as well as to keep the presentation short. It could also be due to the current training contestants receive before their presentations and the fact that trainers and contestants alike are refining this new genre to meet the guidelines and rubrics of the competition. As for all the other moves, they have a high frequency of occurrence, but their content is diluted to make them suitable for a non-specialist audience. The focus in these moves is on direct concerns of the public rather than on scientific content as evident in the examples below:

(1) Orientation: How many times have you brought groceries home and ended up throwing them out before you even had a chance to eat them? You are unknowingly contributing to one of the least addressed global polluters – Global food waste. (3MT19)

(2) Rationale: We know that about 60% of all autism cases are caused by gene mutation. But it's still very unclear why or how these mutations lead to autism. (3MT9)

(3) Purpose: The goal of my research is to identify how these gene mutations change the brain. (3MT9)

(4) Method: My research has found a cost-effective solution using photocatalysis. You know how plants perform photosynthesis using sunlight and carbon dioxide to produce food. Similarly, I have developed a catalyst that under the right conditions uses sunlight to convert the harmful organics present in pome into less harmful methane and carbon dioxide gases. These gases then bubble out to the liquid phase leaving behind cleaner and less polluted water. (3MT25)

(5) Results: My initial findings indicate a pollutant reduction of up to 80% which means I solved a major headache for the industry at a very low cost. (3MT25)

(6) Implications: This way we have been successful to cure cancer in our experimental mice. You'll be happy to know that in Buffalo's very own Roswell Park, we are refining this treatment for patients. So no more painful surgeries. Goodbye knives! And the best part is: by focusing the light only on cancer, we prevent any harmful side effects on the rest of the body. (3MT15)

(7) Termination: It is my hope that this research will continue to create a space to empower and amplify the voices of long-term care residents by discussing their lived experiences and also working together to advocate for change. Thank you. (3MT2)

Another variation in the findings of the present study is the phenomenon of move conflation, where two or more moves are combined. This phenomenon ensures that the talk is brief, and contestants are able to keep it within the three minutes allocated to them for the competition, while at the same time covering only cursory information about the research without going into the complexities which may be beyond the understanding of the non-specialist audience. Move conflation was found mostly in Moves 4 and 5 (2 examples) and Moves 5 and 6 (3 examples). The examples below illustrate move conflation, showing how the Method which is greatly simplified is embedded in the Purpose and Expected results moves (see underlined text):

(8) Moves 4 and 5 (Purpose and Method): To explore it [the impact of a disabling school environment on participation of children with disabilities] further in my PhD, I used a qualitative approach and interviewed Indian designers to explore how they understand physical disability and disability related design modes, and how such understanding is translated into their community school design in Mumbai's informal settlement. The study identified Indian designers' knowledge, attitude and practice related to inclusive design, with implication to children's participation at school. (3MT3)

(9) Moves 5 and 6 (Method and Expected results): Running with a population survey of 200 respondents with multistate random sampling techniques, we will get much information from farmers to know their level of awareness of renewable energy sources and if they are willing to pay for renewable energy. It they are not, I will find out the factors responsible. Now through my research, I'll be able to identify farmer's socio-economic, farm specific and additional factors that traces their 'willingness to pay' decision. (3MT18)

This phenomenon of combining moves is usually common in genres with length constraints such as book blurbs (Kathpalia, 2022) rather than only for the purpose of simplification.

Simplification is also apparent at the level of vocabulary as contestants are advised against using specialist terminology in the 3MT instructions that they receive prior to the competition (Carter-Thomas & Rowley-Jolivet, 2020). As they have to find ways of explaining concepts in their disciplines without the use of jargon, they often use short and extended definition categories such as naming/labelling terms, describing and paraphrasing them in simple language and using examples from everyday life as is common in popular science genres. An extensive list of definition categories was also identified in the current study and is presented in Table 5:

DEFINITION CATEGORY	EXAMPLE
Description	Elaboration: This is where CAR (Chimeric Antigen Receptor) T-cells come in. CAR T-cell therapy works by: - removing the patient's T immune cells, the killer of the immune system, - genetically editing in a cancer targeting receptor, and then - reinfusing those cells back in where they can now specifically target and kill cancerous cells. (3MT1) Exemplification: As an architect myself, I used to think that building a ramp, modifying a washroom, and providing a lift is what accessibility is all about. However, there is much more to that; more than the physically accessible school spaces designed. For instance, the colour, the seating arrangement, the entire interior environment, the interactive spaces, the whole science behind child friendly environment can promote inclusion of children with disabilities. (3MT3) Classification: They [cyanobacteria] are small greenbacks, which have essentially two cool features. The first one is that they're able to grow with the help of photosynthesis, meaning they can use the energy provided by the sun to actively sequester CO_2 from the atmosphere and incorporate it into their metabolism. That's why they're also sometimes referred to as micro algae. The second cool feature about cyanobacteria is that under certain environmental conditions, they can use the carbon dioxide from the atmosphere and convert it into a bio polymer called PH. (3MT8) Material and/or process descriptions: Meet my Dengue Detective; it holds three basic components: light, antibodies, and a tapered optical fibre which has not been used before … Now visualize this tapered optical fibre as that glass tunnel I immobilise antibodies to capture the virus. Next, I transmit light to travel through this fibre tunnel and indicate the presence and quantity of the virus and voila, dengue is detected and quantified. (3MT20)
Juxtaposition	One in every 59 children is diagnosed with autism, a disorder that affects the way the brain develops in ways that make socializing very challenging. (3MT9)
Naming/Labelling	So what's happening is Phil is suffering from onchocerciasis, commonly called river blindness. (3MT6)

Naming and Paraphrase	I specifically look at these green rope-like structures called microtubules that build a spindle-like structure. (3MT7)
Negation	A simple beast can be beaten with power, but cancer is no beast. (3MT1)
Paraphrase	I'm using a participatory action research approach. And what this means is that the research is done both with and for these long-term care residents. (3MT2)

Table 5. Examples of definition categories in 3MT presentations

It was interesting to note that 21 out of the 25 3MT transcripts had definitions to convey the meanings of scientific words and concepts to the non-specialist audience. The most predominant definition category was a combination of naming and paraphrasing (33%) while the least predominant was negation (4%). The frequency of the different definition categories in the data is presented in Table 6 in descending order:

DEFINITION CATEGORY	NUMBER	PERCENTAGE*
Naming and Paraphrase	7	33%
Paraphrase	6	27%
Naming/Labelling	5	24%
Description	5	24%
Juxtaposition	2	10%
Negation	1	4%

* Note: The total percentage exceeds 100% as some transcripts had more than one type of definition.

Table 6. Frequency of definition categories in 3MT presentations

The definition categories of naming, paraphrase, and a combination of the two seem to be the most popular strategies for simplifying the content in the presentations, adding up to a total of 84%. Although the definition categories vary, it is important to note that the purpose of the different definition categories is basically to ensure that the audience can understand the presenter's research even if they do not belong to the same discipline. Conveying the content to the audience in lexically simple terms using a conversational style is the top priority of a 3MT presenter as is evident from the examples in this section.

4.2. Engagement strategies in 3MT presentations

The analysis of the 3MT transcripts regarding engagement strategies revealed that these strategies were abundantly used by the presenters to capture and maintain the attention of the audience, to interact with the audience during the presentation, and to deliver the content to them in a coherent manner. These strategies are

presented as attention-getting, explanatory, interactive and personalised strategies and are realised by means of many devices, as is evident from the analysis below.

The main function of the attention-getting strategies is to grab and hold the attention of the audience. The goal of presenters in 3MT talks is not to convince the audience that they are good researchers with excellent "command of theory, rigorous research methods, reliable and significant results" (Carter-Thomas & Rowley-Jolivet, 2020, p. 11), but to use other non-technical means of creating a common ground and conducive listening environment. Presenters use devices such as dramatization, humour, repetition, and statistics to draw the audience's attention and to convince them that their research topics are central and therefore worth exploring. Examples of these devices are given in Table 7.

ATTENTION-GETTING STRATEGY	EXAMPLE
Dramatization	Ladies and gentlemen, my research took this discarded Ackee seed, found that it has considerable amount of starch and has the potential to provide Jamaica's economy with a localised starch source that is useful in several food and non-food industries. (3MT4)
Humour	When I first arrived in Australia, what really blew me away was how you could drink water straight from the tap here. You see back at home, you can't do that. You'd have to filter the water, boil it, and then pray. (3MT25)
Repetition	Opening: They say an accident won't arrive with a bell on its neck. Closing: Through my research, I want to play my role in ensuring that there's a bell strapped onto the neck of every last cable failure lurking in a nuclear power plant. (3MT17)
Statistics	One third of all food that we produce for human consumption is wasted. (3MT19)

Table 7. Examples of attention-getting devices in 3MT presentations

Dramatization is a good way of staging the research problem at the presentation but requires theatrical skills that do not come easily to most presenters. It is usually a combination of a fun fact delivered in a theatrical manner in the style of an entertaining stage performer. The same can be said about humour which is an excellent way of establishing common ground and sharing one's research in a light-hearted manner but carries the risk of falling flat on the audience if not delivered well. The easiest way of gaining the attention of the audience, however, is to repeat key information and share sensational statistics related to the research problem to convince the audience about the significance of the main research issues. In fact, these methods are often used in academic articles and presentations with expert

readers/listeners to highlight the urgent need for research on a particular topic of interest and seem to work equally well with a non-expert audience.

Figurative language is an important explanatory strategy in 3MT presentations which differentiates it from traditional scientific presentations. Using figures of speech paints a picture in the mind of the audience, which is more engaging than simple, plain talk that focuses on conveying literal meanings of complex ideas. As mentioned earlier, figures of speech not only engage the audience but also simplify the scientific content for the audience. This strategy of using analogy, hyperbole, idiom, metaphor, personification, and simile (see Table 8) is similar to the strategy used by presenters in TED talks to simplify complex ideas and engage a scientifically less informed audience (Bajtková, 2018; Mattiello, 2019). Figurative language has the advantage of stimulating the audience's imagination to make the presentation more enjoyable and creates a sense of proximity between the presenter and the audience by making them feel that they are part of the discussion (Scotto Di Carlo, 2014).

EXPLANATORY DEVICE	EXAMPLE
Analogy	Let us consider the entire room as a human body. All the contestants, myself included could be the internal organs of the body, and the rest of you guys, Paul included, could be the awesome immune system. It is your job as the immune system to protect the contestants, or the organs, against germs, and you're doing a great job. It is also your job to protect them against cancer. (3MT15)
Hyperbole	Once it's [Plastic] released to the environment it's going to remain there for hundreds of years. (3MT8)
Idiom	So, we're really just seeing the tip of the iceberg here. (3MT8)
Metaphor	But the microtubules inside the spindle pull and push the whole spindle around to orient it correctly, such that the parent and progeny inherit equal number of replicated genes. (3MT7)
Personification	It [cancer] is a synchronised army, a refined chess player. (3MT1)
Simile	By doing that, I have discovered that the action of one dynamic microtubule can influence the action of a completely different microtubule, just like coordinated dancers in a flashmob routine. (3MT7)

Table 8. Examples of explanatory devices in 3MT presentations

These figures of speech work by narrowing the gap between new knowledge and our previous experiences. They are the foundation of our conceptual system and as such evoke connections between new concepts and our everyday lives and thoughts (Lakoff & Johnson, 2003).

Interactive strategies in presentations are a way of conveying to the audience that the speakers are aware of their presence and are communicating with them

directly using specific surface features or devices in their speeches. As Hyland and Zou (2022, p. 25) aptly put it, "writers/speakers intervene to involve listeners as real players in the discourse, rather than merely as observers and build a connection with them." To make this connection, these authors recommend the use of interactive devices in their presentations such as Appeals to shared knowledge, Audience mentions, Directives, Personal asides, and Questions. Two other devices that were discovered in the present sample include Reference to the slide and its description as well as Scenarios that urged the audience to imagine real-life situations related to the topic of the presentation. Table 9 provides examples of these devices from the 3MT transcripts of the present study.

INTERACTIVE DEVICE	EXAMPLE
Appeals to shared knowledge	… but all the rivers in Malaysia are so muddy and polluted. If Nemo fell inside, you will never find him. The movie Finding Nemo would just be this brown screen. (3MT25)
Audience mentions	And together, we'll all see the world for what it truly is. (3MT6)
Directives	Raise your hand if your phone or your laptop has ever died on you. (3MT17)
Personal asides	I want you guys to do something for me. (3MT5)
Question-Answer sequences	Can we find the same salmonella in wastewater that we can see in the clinics? And we can. The next thing we can do is ask more interesting questions like - can we see trends in the wastewater that we can see in the clinics? And I found that yeah, we can do that too. (3MT11)
Reference to the slide and its description	Some types of transformations, as you can see them highlighted in red, can be additive components, expandable elements or even shape shifting of the entire structure. (3MT13)
Rhetorical questions	What are your best memories from childhood? (3MT3)
Scenarios	Imagine you're on vacation on the Canary Islands … (3MT8)

Table 9. Examples of interactive devices in 3MT presentations

The two main purposes of using these devices, according to Hyland and Zou (2022), are firstly to promote solidarity and peer membership among people in the audience with the use of audience mentions and asides and secondly, to help them with interpretations of the content through the use of questions, directives and references to shared knowledge. This kind of alignment with the audience as well as guidance to understand the content is even more important in 3MT presentations as the audience are not necessarily from the same disciplinary background as the speakers and therefore less informed than the speakers on the topic of the presentation. The other two devices play a similar role by pulling the audience into the discourse, with Referring to the slide focussing the audience's attention on a

concrete object/resource at the presentation venue and Scenarios urging the audience to picture an imaginary situation that will help them understand a complex idea (Carter-Thomas & Rowley-Jolivet, 2020; Ciapuscio, 2003). Typically, presenters evoke elaborate and striking scenarios that are within the grasp of their audience by using commands like "Imagine that", "Picture this" and "Just think of". Whether evoking striking scenarios to stage their talks or using other inclusive devices to draw the audience into the discourse, the presenter's goal is usually to make the audience feel that they are at the centre of the communication.

Personal involvement in the form of singular ("I") and plural ("we") first-person pronouns is a predominant feature of 3MT presentations to show where the presenter stands in relation to their arguments and the audience. These are explicit linguistic markers that presenters use to show their stance of personal involvement and authorial identity (Hyland, 2005) when delivering a speech. Storytelling is basically an extension of this phenomenon where presenters share anecdotes about themselves or people they have known to lend credibility to their talk (Hyland & Zou, 2021) or to gain sympathy or admiration from the audience as caring individuals (Carter-Thomas & Rowley-Jolivet, 2020). The personalised devices found in the data are presented in Table 10:

PERSONALISED DEVICE	EXAMPLE
Anecdote/Storytelling	I call this guy Phil. Sadly, Phil cannot tell the difference between dark and light … (3MT6)
Self-mention	As an architect myself, I used to think that building a ramp, modifying a washroom, and providing a lift is what accessibility is all about. (3MT3)

Table 10. Examples of personalised devices in 3MT presentations

Rather than using past literature or scientific proofs to strengthen their arguments as is the case in research genres, the use of anecdotes and self-mentions in their talks enables presenters to highlight their personal convictions. As for the use of plural first-person pronouns (i.e., "we/our"), it is common practice among PhD students in the hard sciences even though their thesis is single authored. The reason for this is that much of their research work is collaboratively conducted in research teams with fellow graduates or as part of their supervisors' funded projects.

Although the ultimate goal of all these engagement devices is the same, some of them were more popular than others in the sample. They have been arranged in descending order of popularity in Table 11:

ENGAGEMENT DEVICE	NUMBER	PERCENTAGE
Repetition	25	100%
Self-mention	22	88%
Audience mentions	20	80%
Figurative language	17	68%
Statistics	16	64%
Question-Answer sequences	11	44%
Scenarios	9	36%
Anecdote/Storytelling	8	32%
Personal asides	8	32%
Rhetorical questions	8	32%
Reference to slide and its description	4	16%
Directives	2	8%
Dramatization	2	8%
Appeals to shared knowledge	1	4%
Humour	1	4%

Table 11. Frequency of engagement devices in the data

Apart from the high frequency of some of these engagement devices, the analysis also revealed that they occurred in bundles, with each transcript incorporating between 4 to 10 out of the 15 device types that were identified. The average number of devices per transcript was calculated to be 6.

Yet another aspect of some of these engagement devices was that of their extended use, straddling several different moves in the 3MT presentations. The propensity for extension was more common in devices such as figurative language (Example 10), scenarios (Example 11), and storytelling (Example 12) in which Move 1 is a combination of the scenario and storytelling devices:

(10) Extended metaphor

Move 1 (Orientation): Cancer has traditionally been thought of as a beast and untameable evil entity with intention opposing our own. And how do you respond to a beast with strength and aggression? You knock it down as hard as you can. This is why treatments have often centred on finding the most potent killers and using them with as much intensity as we can.

Move 8 (Termination): And so, it seems an understanding that the nature of the beast is that it really is no beast at all. We may finally be able to overcome it. (3MT1)

(11) Extended scenario

Move 1 (Orientation): Now imagine that [the] stadium was completely empty and it still took you the same amount of time to leave, as it did with all those obstacles. Just because

you couldn't walk fast. Unfortunately, that is [the] reality faced by 800,000 Americans this year who struggled to walk after having a stroke.

Move 8 (Termination): So whether you've had a stroke and you're just trying to get back to your car after the game, or you're doing a 30 mile hike in the rain with 50 pounds of gear, I hope that my ankle joint will get you there faster. (3MT21)

(12) Extended storytelling

Move 1 (Orientation): Imagine you're vacationing in Hawaii. And you're surfing on Waikiki Beach. You finally get behind that big wave, but you misjudged its speed and your feet tumble over your head as you wipe out. Oh wow, you'll get the next one right. Unfortunately for Mr. B, whom I looked after during my residency, that tumble left him paralyzed below the neck and changed his life forever.

Move 8 (Termination): Back in residency I remember telling Mr. B not to give up and that one day, scientists would find a way to help him walk again. To which he'd starkly replied yeah when pigs fly, If I could talk to Mr. B today I would tell him no, when pigs walk. (3MT10)

The extended devices in openings and closings of the 3MT presentations serve the function of sandwiching the talk and having a consolidated impact on the audience. Yet another way in which coherence is achieved in these presentations is by weaving the engagement devices across many of the moves in a speech to stitch them together. Apart from extended devices across the opening and closing moves of 3MT presentations, the analysis showed that in some instances, the same engagement device is mentioned in several moves and runs through the entire presentation. The data has many examples of extended devices, especially metaphors that are mentioned in several moves and function as glue to hold the different parts of the speech together. In 3MT5, the drug cocktail metaphor to treat diabetes mellitus runs right through the speech and likewise in 3MT9, the traffic signal metaphor is used repeatedly in many of the moves to explain how the brain works in autistic children, the new treatment and its results, and the implications of the research. The recurrent engagement devices in these examples not only make the talk more interesting and coherent but also simplify the content for the non-expert audience. The extended devices in 3MT presentations seem to play the multiple roles of simplification, engagement, and text coherence.

5. CONCLUSION

The rhetorical and linguistic analysis in the previous sections has thrown light on the strategies and devices used by presenters to keep their 3MT presentations simple, brief, engaging and coherent. While simplicity and brevity are achieved by omitting, diluting, and conflating the moves of these presentations, engagement is achieved by using a range of devices to hook the audience. Other strategies to

simplify the content and make it coherent include the use of definitions and extended engagement devices. The extended use of some of these devices also serves the purpose of ensuring that the presentation is coherent and has a consolidated impact on the audience. In addition to these strategies and devices, an attempt is also made to define complex terms and concepts, keep the language simple and use an informal conversational style to breach the distance between the expert speakers and the general audience.

Unlike other university discourses, this newly launched genre has evolved into a unique form with distinct features through recontextualisation that involves both simplification and engagement where PhD students promote their own research themselves in a coherent manner. It seems to fit well with the judging criteria of easy comprehension, audience engagement and informal communication style without trivializing the research content. Clouding the distinction between academic and promotional genres, expert and general audiences, and academic talks and stage performances, this new genre requires PhD students to master a new set of skills to succeed in their university and professional careers.

To extend the findings of this study, future researchers may conduct an empirical study on comparing 3MT presentations with academic and non-academic written and speech genres to examine whether this new genre appropriates from existing genres such as thesis abstracts and TED talks at the rhetorical and linguistic levels. Furthermore, the role of multimodality in digital genres such as 3MT presentations, TED talks (Bajtková, 2018; Mattiello, 2019), video abstracts (Dontcheva-Navratilova, 2023), and online academic trailers (Maier & Engberg, 2023) could also be explored from the perspective of simplification and engagement. This will be pedagogically beneficial for PhD students as it will draw their attention to the similarities and differences between these genres at the macro and micro levels of realisation and sensitise them to the nuances of this new genre.

[Paper submitted 27 Jul 2023]
[Revised version received 11 Dec 2023]
[Revised version accepted for publication 31 Mar 2024]

Acknowledgement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The data collection for this paper was conducted in compliance with NTU-IRB guidelines (IRB-2023-072).

References

Bajtková, D. (2018). *TED talks: An analysis of language and delivery* [Unpublished undergraduate thesis]. Tomas Bata University.

Bell, D. (2008). *Passport to academic presentations: Student's book*. Garnet Education.

Bhatia, V. K. (2004). *Worlds of written discourse*. Continuum.

Bondi, M., Cacchiani, S., & Mazzi, D. (Eds.). (2015). *Discourse in and through the media: Recontextualizing and reconceptualizing expert discourse*. Cambridge Scholars Publishing.

Calsamiglia, H., & Van Dijk, T. A. (2004). Popularization discourse and knowledge about the genome. *Discourse & Society*, *15*(4), 369–389. https://doi.org/10.1177/0957926504043705

Carter-Thomas, S., & Rowley-Jolivet, E. (2020). Three minute thesis presentations: Recontextualisation strategies in doctoral research. *Journal of English for Academic Purposes*, *48*, Article 100897. https://doi.org/10.1016/j.jeap.2020.100897

Chang, Y.-J., & Huang, H.-T. (2015). Exploring TED talks as a pedagogical resource for oral presentations: A corpus-based move analysis. *English Teaching & Learning*, *39*(4), 29–62. https://doi.org/10.6330/ETL.2015.39.4.02

Ciapuscio, G. E. (2003). Formulation and reformulation procedures in verbal interactions between experts and (semi-)laypersons. *Discourse Studies*, *5*(2), 207–233. https://doi.org/10.1177/1461445603005002004

Dontcheva-Navratilova, O. (2023). Persuasion in multimodal digital genres: Building credibility in video abstracts. *ESP Today*, *11*(2), 213–236. https://doi.org/10.18485/esptoday.2023.11.2.2

Freiermuth, M. R. (2022). *Academic conference presentations: A step-by-step guide*. Palgrave Macmillan. https://doi.org/10.1007/978-3-031-21124-9

Gross, A., & Harmon, J. E. (2016). *The internet revolution in the sciences and humanities*. Oxford University Press.

Hu, G., & Liu, Y. (2018). Three minute thesis presentations as an academic genre: A cross-disciplinary study of genre moves. *Journal of English for Academic Purposes*, *35*, 16–30. https://doi.org/10.1016/j.jeap.2018.06.004

Hyland, K. (2005). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, *7*(2), 173–192. https://doi.org/10.1177/1461445605050365

Hyland, K., & Zou, H. (2021). "I believe the findings are fascinating": Stance in three-minute theses. *Journal of English for Academic Purposes*, *50*, Article 100973. https://doi.org/10.1016/j.jeap.2021.100973

Hyland, K., & Zou, H. (2022). Pithy persuasion: Engagement in 3 minute thesis presentations. *Applied Linguistics*, *43*(1), 21–44. https://doi.org/10.1093/applin/amab017

Kathpalia, S. S. (2022). *Persuasive genres: Old and new media*. Routledge.

Lakoff, G., & Johnson, M. (2003). *Metaphors we live by*. University of Chicago Press.

Liu, Y., Tang, R., & Lim, F. V. (2023). The use of code glosses in three minute thesis presentations: A comprehensibility strategy. *Journal of English for Academic Purposes*, *63*, Article 101239. https://doi.org/10.1016/j.jeap.2023.101239

Luzón, M-J., & Pérez-Llantada, C. (Eds.). (2019). *Science communication on the Internet: Old genres meet new genres*. John Benjamins. https://doi.org/10.1075/pbns.308

Maier, C. D., & Engberg, J. (2023). Multimodal knowledge communication in a recontextualized genre: An analysis of expertise dissemination and promotion strategies in online academic trailers. *ESP Today*, *11*(2), 261–279. https://doi.org/10.18485/esptoday.2023.11.2.4

Marwick, A. E., & Boyd, D. (2011). I tweet honestly. I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, *13*(1), 114–133. https://doi.org/10.1177/1461444810365313

Mattiello, E. (2019). A corpus-based analysis of scientific TED talks: Explaining cancer-related topics to non-experts. *Discourse, Context & Media*, *28*, 60–68. https://doi.org/10.1016/j.dcm.2018.09.004

Myers, G. (2003). Discourse studies of scientific popularization: Questioning the boundaries. *Discourse Studies*, *5*(2), 265–279. https://doi.org/10.1177/1461445603005002006

Paré, A. (2019). Re-writing the doctorate: New contexts, identities, and genres. *Journal of Second Language Writing*, *3*, 80–84. https://doi.org/10.1016/j.jslw.2018.08.004

Reinhart, S. M. (2002). *Giving academic presentations*. University of Michigan Press.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, *52*(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

Scotto Di Carlo, G. (2014). The role of proximity in online popularizations: The case of TED talks. *Discourse Studies*, *16*(5), 591–606. https://doi.org/10.1177/1461445614538565

Sellnow, D. D. (2005). *Confident public speaking* (2nd ed.). Thomson/Wadsworth.

Starfield, S., & Paltridge, B. (2019). Thesis and dissertation writing in a second language: Context, identity, genre [Editorial]. *Journal of Second Language Writing*, *43*, 1–3. https://doi.org/10.1016/j.jslw.2018.10.002

Swales, J. M. (1990). *Genre analysis: English in academic and research settings*. Cambridge University Press.

University of Queensland. (n.d.-a). *Three minute thesis*. https://threeminutethesis.uq.edu.au/higher-degrees-researchstart-your-3mt-journey-here

University of Queensland. (n.d.-b). *3MT competitor guide*. https://threeminutethesis.uq.edu.au/resources/3mt-competitor-guide

Zaremba, A. J. (2012). *Speaking professionally: Influence, power, and responsibility at the podium* (2nd ed.). M. E. Sharpe. https://doi.org/10.4324/9781315700656

SUJATA S. KATHPALIA is a Senior Lecturer at the Language and Communication Centre, Nanyang Technological University, Singapore. She is the coordinator, curriculum planner, and tutor of several communication skills courses offered to undergraduate and postgraduate students. Her research interests include genre analysis, academic writing, and English language teaching, and she has published extensively in top-tier journals in her discipline.