Justification Resources in English Thesis Abstracts Written by Chinese and Malay Doctoral Students

Xu Lihua, Noor Mala Ibrahim

Language Academy, Universiti Teknologi Malaysia, Johor Bahru, Malaysia
Email: xulihua@graduate.utm.my, m-nmala@utm.my
Corresponding Author Email: xulihua@graduate.utm.my

Abstract
Justification resources are crucial dialogic resources for writers to express their intersubjective positionings and negotiate writer-reader relations. Thesis abstracts play an essential role in the construction and dissemination of new knowledge. Little attention, however, has been paid to the use of justification resources in thesis abstracts. Therefore, this corpus-based research aims to examine the use of such resources in English thesis abstracts from a cross-cultural lens. Based on a corpus of 124 English thesis abstracts by Chinese and Malay doctoral students in the discipline of linguistics, this research investigates if the use of justification resources differs between Chinese and Malay doctoral students in their English thesis abstracts. Quantitative analysis showed that although the normalized frequency of justification markers in Chinese students' thesis abstracts was higher than that in their Malay counterparts' texts, Mann-Whitney *U* test showed no significant cross-cultural difference. In-depth textual analyses found that Chinese students used more informal, and had a wider range of, justification markers than Malay students, but these two groups of students deployed three identical methods to justify the authorial stances. These results revealed that Chinese students' English thesis abstracts are more dialogized, contractive and informal in comparison with their Malay counterparts' texts which are less dialogized and contractive but more formal. Findings of this research have some pedagogical implications for the teaching of non-native learners' academic English writing.
Keywords: Justification Resource, Thesis Abstract, Appraisal Theory, Engagement, Chinese/Malay PhD student

Introduction
In scholarly writing, thesis abstracts, located at the beginning of its accompanied theses, "summarize and highlight the most important thoughts/ideas of their text" (Klimova, 2015, p. 909). Within thesis abstracts, linguistic features such as justification expressions generally

play a crucial role in "selling the study and impress the readers" (Liu, Hu, & Hu, 2022, p. 1), enhancing readers' perception of scientific credibility of the propositions put forward by the writers, and facilitating the alignment between "the textual voice and the reader" (Fryer, 2022, p. 50). Justification expressions, a subcategory of White's (2012; 2003) Engagement system, embody linguistic expressions which convey the causal connection, and are essential resources of intersubjective stance writers or speakers deploy to engage with and prevail on readers or audiences (White, 2012).

Extant studies e.g., Fryer (2022); Geng & Wharton (2016); Lam & Crosthwaite (2018); Wang (2018) have accentuated the importance of justification expressions in the coherence and persuasiveness of academic writings. Nevertheless, much attention has been paid to the comparison of the use of these resources by L1 and L2 writers, neglecting the possibility of cross-cultural differences in the employment of justification resources in non-native English-speaking writers' academic communication. In addition, although the research has investigated the deployment of justification resources in a few genres of English written discourse, such as discussion sections of doctoral theses e.g., Geng & Wharton (2016), book reviews e.g., Wang (2018), research articles e.g., Choo (2022); Fryer (2022), argumentative essays e.g., Chung et al (2022); Lam & Crosthwaite (2018), as well as textbooks Choo (2022), there have been few systematic studies that have examined the use of these resources in the thesis abstract, especially in the doctoral thesis abstract.

The expression of justification, serving as fundamental cohesive devices of texts Ziv (1993), "is crucial for communication" Maat & Sanders (2000, p. 57) and successful persuasion of putative readers. Accordingly, understanding the deployment of justification resources in English thesis abstracts is not only significant for writer-reader valid communication but also sheds light on linguistic patterns for persuasion in academic writings. The distinct use of justification markers across different cultures can reflect not only linguistic differences but also generic conventions, cultural traditions, and writing styles. Consequently, a comparative examination of justification resources in thesis abstracts from different cultures can provide insight into how cultural norms influence the use of linguistic resources of justification in the research communication.

This paper, therefore, attempts to deal with the gaps in earlier literature by exploring the utilization of justification resources in thesis abstracts produced by doctoral students from different cultural backgrounds. Specifically, this paper, based on Martin and White's (2005) Appraisal theory, aims to investigate cross-cultural similarities and differences in the use of justification resources in a corpus of 124 English thesis abstracts composed by L1 Chinese and L1 Malay doctoral students, and provide potential interpretations for identified variations.

In the remaining sections, the theoretical framework of this research is first introduced in section 2. Section 3 provides a review of the earlier comparative research concerning justification markers in various genres. The limitations of extant research in attending to cross-cultural variations in the employment of justification resources in different genres are also highlighted. Section 4 elaborates the research design, data collection, data coding and data analysis used in this study. Subsequently, section 5 reports and discusses quantitative and qualitive results and provides instances of justification markers utilized in the examined thesis abstracts. Finally, section 6 concludes with the major findings, implications and limitations of this research, as well as recommendations for future study.

Theoretical Framework

Justification resources convey the causality which "is an important concept" (Stukker & Sanders, 2012, p. 169). The expressions of causality have oft-times been addressed in extant literature under the headings such as causal connectives Maat & Sanders (2000), internal conjunction Halliday & Hasan (1976); Martin (1992) and justification (White, 2003, 2012). The current paper adopts White's labeling for these causal locutions, as the appraisal theory they fall within has been looked upon by Hyland (2005) as "the most systematic analyzing tool that offers a typology of evaluative resources available in English" (p. 174).

Appraisal theory, developing and extending the interpersonal description of Systemic Functional Linguistics (SFL), is concerned with the interpersonal meaning of language beyond the clause, namely, with texts (Martin & White, 2005). As a holistic model of language and social context, it is interested in evaluations the text utilizes to achieve its goals and sensitive to the social context evaluative language are used in (Macken-Horarik & Isaac, 2014, p. 68). It deals with what has traditionally been referred to as 'affect', 'modality', 'epistemic modality', 'evidentiality', 'intensification' and 'vague language' (Martin & White, 2005).

Appraisal expressions are the discourse semantic resources speakers or writers employ to take or mediate an intersubjective stance so as to construe "power and solidarity" (Martin & White, 2005, p. 32). It includes three subsystems: Attitude, Engagement and Graduation. Of particular relevance to this research is Engagement subsystem, which concerns those linguistic resources of dialogistic or intersubjective stance/positioning which "provide the means for the authorial voice to position itself with respect to, and hence to 'engage' with, the other voices and alternative positions construed as being in play in the current communicative context" (Martin & White, 2005, p. 94).

Influenced by Bakhtin's/Voloshinov's notions of dialogism and heteroglossia, Engagement subsystem includes "those meanings which in various ways construe for the text a heteroglossic backdrop of prior utterances, alternative viewpoints and anticipated responses" (Martin & White, 2005, p. 97). All meanings in this system which have traditionally been explored "under such headings as modality, polarity, evidentiality, intensification, attribution, concession, and consequentiality" (Martin & White, 2005, p. 94) are viewed as dialogic and stanced. Engagement meanings fall into two broad categories: monoglossic and heteroglossic, the latter of which can be further classified into expansive and contractive. Expansive meanings function to open up the dialogic space for alternative views or other voices, while contractive meanings serve to narrow down the dialogic space for alternative views or other voices (Sawaki, 2020).
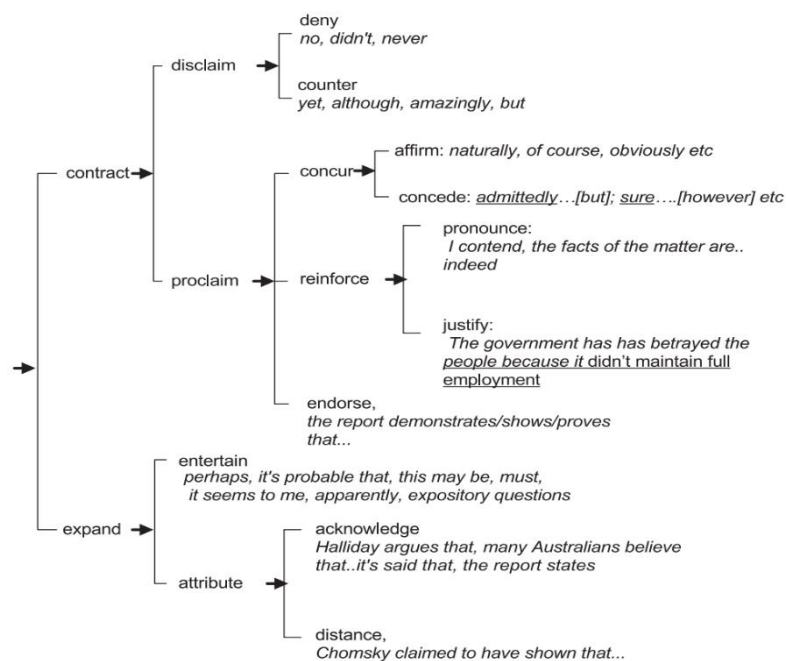
Figure 1: *The Engagement System (adapted from White, 2012, p. 65)*

As shown in Figure 1, justification is one of subtypes of contractive meanings, which is utilized to "construe a particular type of consequentiality" (White, 2003, p. 274) so as to justify, substantiate or argue for the writer's propositions. Justification meaning is explicitly realized by linguistic resources encompassing causal connectives and conjunctions such as *because, since, owing to,* and *therefore*. These resources are characterized by two notable rhetorical effects. On the one hand, they are dialogic and heteroglossic in that through their use, the writer is constructed as someone who is involved in the persuasion of the putative reader who might hold different or opposed alternative views in relation to the ongoing proposition advanced by the textual voice and need to be won over (White, 2003). On the other hand, they are dialogically inert for the reason that all contractive resources "act in some way to increase the interpersonal cost to those who would challenge the viewpoint currently being advanced by the text" White (2003, p. 268), and thereby "they contract space for the inclusion of alternative perspectives" (Lancaster, 2011, p. 3). Due to these two rhetorical effects, the use of justification resources can enhance the writers' accountability to their propositions, whereas the "validity or warrantability" Fryer (2022, p. 12) of their propositions are accordingly maximized. Previous studies closely pertinent to justification resources are reviewed in the following section.

Previous Studies on Justification Resources
An increasing number of studies have investigated Engagement resources, but there has been much less research concerning justification resources compared to other subcategories of Engagement resources due to the fact that they are "a later addition to the Engagement sub-system" (Choo, 2022, p. 131). Through the self-built corpus, extant studies have examined the employment of justification resources in distinct academic (sub)genres including discussion sections of doctoral theses e.g., Geng & Wharton (2016), book reviews e.g., Wang (2018), research articles e.g., Choo (2022); Fryer (2022), argumentative essays Chung et al (2022);

Lam & Crosthwaite (2018), as well as textbooks (e.g., Choo, 2022). For instance, Geng and Wharton (2016) investigated justification formulations in the discussion sections of PhD theses. They found that the research data were interestingly deployed by doctoral students in the thesis discussion section as justification strategies to convince the readers and contract the dialogic space for alternative views. In another study, Wang (2018) examined the use of justification resources in the genre of book reviews, and found that they "generally acted to provide logical reasoning, explanation, and exemplification for a certain evaluative position" (Wang, 2018, p. 221), and *for example*, *e.g.*, *because*, *since*, as well as *thus* were the top five justification markers employed in the examined genre. In a recent study, Choo (2022) examined the use of justification resources in the genres of research articles and textbooks in English. Similar to Wang's (2018) findings, her qualitative analysis also revealed that justification resources were normally utilized to "offer reasons and explanations in the texts" (p. 131). And the most frequently used Justify markers in her study were *such as*, *for example*, *because*, as well as *therefore*. Fryer (2022) explored the use of justification markers in the general genre and constitutive sections of medical research articles. He discovered that justification, commonly realized by "finite or non-finite adverbial clauses of reason" (p. 158), prepositional phrases, conjunct-adverbs and implicit ways, was frequently used in medical research articles to "Justify or clarify the reason(s) or purpose(s) for the claim(s)" (p.158) and was seemingly a major contributor to the construal of a sense of openness and accountability" (p.162) for the text. In the abstract section, Fryer found that Justify was the second most frequently used proclaim resources but seldom appeared in the research limitation phase of this section. In addition, Lam and Crosthwaite (2018) probed into the use of appraisal resources in the genre of argumentative essays, finding that justification expressions were employed by L2 students as the primary tactic of *proclaim* to justify their statements by offering reasons. In a similar vein, Chung et al (2022) examined the deployment of appraisal resources in the genre of argumentative essays written by L1 Vietnamese undergraduate students. Supporting Lam and Crosthwaite's (2018) research results, they also observed that justification markers occurred more frequently than other subtypes of proclaim markers in their corpus. They contributed the overuse of these markers to students' endeavor to "show their reasoning skill in the target language" (p.26).

The above-mentioned studies have also investigated the use of justification resources from different comparative lenses. A half of them have compared the employment of justification markers by writers from different cultural or linguistic communities. Geng and Wharton (2016), for example, compared the use of English justification formulations in thesis discussion sections composed by L1 Chinese and L1 English PhD students, and found that although Chinese doctoral students capitalized on more justification markers than the native English PhD students did, no significance difference was observed in their normalized frequences. Thus, they concluded that "at the highest level of education, writers' first language may not exert as much impact on academic writing as it arguably does when writers are at a lower level" (p. 89). In Lam and Crosthwaite's (2018) cross-cultural research, they compared the use of justification markers in English argumentative essays produced by L1 Chinese and L1 English students, and found that despite the fact that no statistically significant cross-cultural difference was identified, Justify was the exclusively type of dialogically contractive resources that L1 Chinese students drew on more frequently than NES writers, suggesting that the former group seemed to use explicit reasoning to exhort readers to accept their viewpoints. Chung et al (2022) conducted a cross-linguistic comparison of the use of justification markers in argumentative essays written by L1 Vietnamese undergraduate

students in Vietnamese and English languages. They also found no significant cross-linguistic variation in the use of these resources.

The remainder studies have compared the use of justification markers from cross-disciplinary, cross-gender, cross-time, as well as cross-(sub)genre perspectives. Wang (2018), for instance, compared the use of justification resources in English book reviews written by different female and male writers respectively from the disciplines of medicine and applied linguistics in two time periods. Choo (2022) conducted twofold comparisons of the use of justification resources from cross-disciplinary (including pragmatics and physiology) and cross-genre (including research articles and textbooks) perspectives. Fryer (2022) compared the use of verbal, mathematical and visual justification markers in different subgenres of English medical research articles.

By dint of the review of previous literature, several issues that deserve further explorations have been identified. First of all, there is a noticeable lack of corpus-based investigations into the deployment of justification resources based on Martin and White's appraisal theory. Second, no corpus-based research has looked at the use of justification resources in the genre of thesis abstracts written by non-native English speaking PhD students in the discipline of linguistics from a cross-cultural lens. With the growing body of Chinese students pursuing PhD degree in Malaysia in recent years, the comparison of corpus data of English thesis abstracts written by Chinese and Malay PhD students might highlight a number of problems which Chinese students in Malaysia may experience when writing thesis abstracts. Also, Jiang (2019) pointed out that the findings of corpus-based studies of academic writings can provide pedagogical implications for L2 writing teaching, curriculum design and the compilation of teaching materials, as well as boost L2 learners' genre awareness. Therefore, to address these two issues, this paper, based on Martin and White's appraisal theory, aims to examine the cultural influence on the employment of justification resources by comparing English thesis abstracts written by L1 Chinese and L1 Malay doctoral students. Specifically, it seeks to answer the following two questions:

(1) Is there any statistically significant difference in the use of justification resources between English thesis abstracts produced by Chinese and Malay PhD students in the discipline of linguistics?

(2) Are there any qualitative differences/similarities in the use of justification resources between English thesis abstracts produced by Chinese and Malay PhD students in the discipline of linguistics?

Methods
To answer the research questions, a corpus-based mixed analysis of justification resources integrating quantitative and qualitative methods was conducted. To be specific, the quantitative method was used to respond to the first question, while an in-depth textual analysis was employed to answer the second question. To construct two parallel and comparable subcorpora, English thesis abstracts, completed in the period of 2012-2021 by doctoral students respectively from the discipline of linguistics of Chinese and Malaysian top five universities in the 2022 QS World University Rankings, were collected. After iterative examinations, we finally selected 64 eligible samples for each subcorpus and converted them into *.txt* formatting. Justification resources were coded both automatically and manually based on the self-built annotation scheme of Engagement system in the UAM (Universidad Autónoma de Madrid) Corpus Tool (version 3.3x) O'Donnell (2022) which was typically "developed as an analytical tool for text in accordance with SFL perspectives on language"

(Sawaki, 2020, p. 185). Due to the abnormal distribution and the heterogeneity of variance of the final data, the non-parametric Mann-Whitney U test was carried out by SPSS 27 so as to compare the significant difference of the frequencies of occurrences of justification markers across cultures. Due to the different lengths of the examined texts, the raw counts of justification markers were normalized by 1000 words. In-depth textual analysis was performed to compare differences and similarities in the linguistic features and functions of justification markers across cultures, and some typical instances of these resources adapted from the original texts were analyzed to showcase their dialogic functions in context.

Results and Discussion
Quantitative Results and Discussion
Table 1 presents the descriptive data about the two parallel subcorpora in the current study. It can be observed that the overall corpus totally includes 76, 587 words, and the two subcorpora exhibit varying lengths. In more detail, there are 55, 107 English words in the L1 Chinese corpus, with an average of 889 words for each abstract, whereas the L1 Malay corpus comprises 21, 480 words, with an average of 889 words per abstract. The length of thesis abstracts composed by Chinese PhD students is more than twice as long as those produced by their Malay counterparts, indicating that the former is remarkably longer than the latter.

Table 1
Descriptive Data of the Parallel Subcorpora

	L1 Chinese	L1 Malay	Total
No. of texts	62	62	124
No. of words	55, 107	21, 480	76, 587
Avg. words	889	346	618

As demonstrated in Table 2, there are 447 justification markers used by L1 Chinese students and 144 justification markers deployed by their Malay counterparts. These resources in Chinese students' texts (normalized frequency = 7.19) occurred more frequently than that in Malay students' texts (normalized frequency = 6.00). This uncovers that Chinese students' texts tend to be more dialogized and heteroglossic in relation to the use of justification markers.

Table 2
The Result of Mann-Whitney U Test on Justify

Corpus	f	f per 1000 words	Mann–Whitney U test				
			Mdn	U	z	p	r
L1 Chinese	447	7.19	6.31	1620.00	-1.510	0.131	-0.14
L1 Malay	144	6.00	5.59				

alpha=0.05 (two-detailed)

This table also displays that no statistically significant cross-cultural difference was identified in the use of Justify markers between L1 Chinese (Mdn = 6.31) and L1 Malay (Mdn = 5.59) doctoral students in their English thesis abstracts, U = 1620.00, z = -1.510, p = 0.131, r = −0.14, suggesting that although Justify resources were used more frequently in Chinese students'

thesis abstracts than in the Malay students' thesis abstracts, there is no significant distinction between them from a statistical perspective. This is line with Geng and Wharton's (2016) and Lam and Crosthwaite's (2018) cross-cultural studies of academic discourse, which commonly found that L1 Chinese students deployed more justification markers than L1 English students, but no significant difference was located between them. This result might be attributed partly to the different length of thesis abstracts and partly to the disciplinary enculturation. According to Tse and Hyland's (2006, p. 777), longer texts can necessitate "both more textual signals and more reader Engagement", therefore, longer thesis abstracts written by Chinese students in this research perhaps encouraged the more use of justification resources. However, due to the deep disciplinary enculturation both Chinse and Malay PhD students have undergone at the highest level of education, they seem to have such a proficient mastery of English justification resources to justify their propositions that their first language failed to make enormous effect on the number of these resources in the examined genre in this study. This might explain why no statistically significant difference was observed in the use of justification resources between Chinese and Malay students. Linguistic forms and dialogic functions of justification resources will be qualitatively examined via an in-depth textual analysis in the section which follows.

Qualitative Results and Discussion

Major cross-cultural variations in the lexical-grammatical features of justification resources and similarities in methods to justify the authorial stances were found between Chinese and Malay doctoral students by the in-depth textual analysis. To begin with, through the recursive reading of the annotated Justify markers in this study, we found that the first major cross-cultural distinction lies in the linguistic realizations of justification markers. The most used frequently ten Justify markers in the whole corpus were *based on/upon, such as, therefore, thus, in order to, due to, so, to, as*, *hence* and *because*.

Table 3
Top Ten Justification Resources by Culture

	L1 Chinese	L1 Malay
	based on	such as
	such as	as
	therefore	based on
	thus	in order to
	so	thus
	in order to	therefore
	like	to
	due to	due to
	to	hence
	because	because

As shown in Table 3, in L1 Chinese students' corpus, *based on, such as, therefore, thus, so, in order to, like, due to, to,* and *because* were most regularly employed, whereas in L1 Malay students' corpus, *such as, as, based on, in order to, thus, therefore, to, due to, hence,* and *because* were observed to be the most prevalent Justify markers. *like* and *so* which occurred with a high frequency in Chinese students' thesis abstracts merely appeared for one time in Malay students' texts. Moreover, the use of the abbreviated form *e.g.* to justify the authorial

voice was merely found in the texts of Chinese students. This could be interpreted as Malay students' inclination towards a concise and formal writing style in thesis abstract writing, resulting in a low frequency of colloquial expressions such as *like*, *so* and *e.g.*

The next cross-cultural distinction observed was that Malay PhD students depended on a notably narrower selection of Justify resources than their Chinese counterparts to reinforce their propositions. For instance, Malay students utilized *such as, for instance, like* and *for example* to provide examples to support their positions, whereas their Chinese counterparts exhibited a broader vocabulary repertoire by including *e.g., such …as, take …for as an example, to mention just a few,* etc. This result is in contradiction with some earlier literature Coffin & Hewings (2004); Lam & Crosthwaite (2018) which consistently reported that L1 Chinese writer had a more restricted range of evaluative language compared to other L1 writers. However, it is consistent with Loi and Lim's (2019) finding that there was a bigger repertoire of evaluative options in English data than in Malay data. This could also be associated with the different length of Chinese and Malay students' thesis abstracts. "Space, it seems, is a crucial factor in how and when Engagement is construed in MRAC abstracts" (Fryer, 2019, p. 228). The longer texts could provide more space for Chinese students to exert a higher linguistic flexibility in the use of Justify resources, whereas the shorter texts may drive Malay students to prioritize the brevity of language rather than its diversity in the limited space.

Besides, we observed conspicuous similarities across cultures in the methods to justify the authorial stances. A meticulous examination of Justify instances in their context found that they primarily acted to justify the preceding or subsequent propositions by means of three overt major methods: constructing cause-and-effect relationship, providing examples and making a conclusion, which were also documented in Wang's (2008) study. The first method was linguistically realized by formulations foregrounding the cause or the result such as *because, because of, in that, for, since, therefore, thus, as a result, in order to, due to*, etc., which are underlined by the bold line in the instances respectively extracted from L1 Chinese and L1 Malay subcorpora. Representative usage of this category of Justify markers was exemplified in Examples 1-2. In Example 1, the proposition after the conjunction *because* justifies the practical significance of the research in its preceding proposition, whereas in Example 2, it is the proposition before the adverb *hence* conveying the existing research gap substantiates the validity of the significance of the research necessity articulated by the proposition after it. It can be seen from these examples that by elucidating the correlation between causes, which are often represented as reasons or factors, and effects, which are usually represented as outcomes or consequences, these markers serve to demonstrate how distinct propositions are interconnected and how one proposition provides a justification for the legitimacy of another proposition.

1. Practically, this study is conducive to translation teaching and translator training because it identifies the translation patterns of the appraisal epithets in the Chinese-English translation of political discourse, with a large number of concordance lines displaying the examples of professional translation. [L1 Chinese]
2. However, they still suffer from low proficiency level due to lack of practice and opportunity to receive sufficient feedback in classrooms. Hence, there is a need to provide a system or resource to allow the ESL pupils to learn and practice their speaking skills. [L1 Malay]

The second method to make a justification is via offering some illustrative examples to elucidate, clarify and support certain propositions. This was typically realized in this study by

linguistic markers including *such as, like, e.g., for example, for instance, such …as, to mention just as few,* and *taking … as an example* or by specific examples in parentheses closely following the proposition, which are illustrated in the following examples. In Example 3, the adverbial phrase *for example* was utilized by the student writers to demonstrate that the proposition after this phrase serves as the evidence to support the existence of similarities in the preceding propositions. In Example 4, the preposition *like* signifies that *immediate feedback and appropriate training* exemplify a specific case of the broader classification of *motivational factors*. The example provides evidence to Justify the student writer's assertion that motivational factors played remarkable roles in engaging language learners online. By the inclusion of concrete instances, the second method to make a justification helps the readers have a better understanding of, and lends greater credence to, the proposition.

3. There are some similarities. For example, identical construction types are involved concerning adjective-verb conversion in the two languages. [L1 Chinese]
4. Other motivational factors like immediate feedback and appropriate training played prominent roles in engaging language learners online via i-Class. [L1 Malay]

Making a conclusion or summary on the basis of a series of earlier logical reasonings and discussions is the third method to provide a rationale for the proposition. And it was found in this research that such a method was linguistically realized by a few markers including *in summary, to sum up, to conclude, in sum, in short, all in all*, *as a conclusion*, etc. Examples 5-6 illustrate this category of justification. Prepositional phrases *in sum* in Example 5 and *in conclusion* in Example 6 indicate that the subsequent propositions are advanced on the basis of the previous discussions in thesis abstracts. In essence, the prior discussions and these conclusions exhibit a cause-and-effect connection, with the former serving as the cause and the latter as the effect.

5. In sum, it was more common for HLP&HLK students to use general deduction strategy together with hypothesis confirmation strategy. [L1 Chinese]
6. In conclusion, this research provides valuable insights on the issues, demonstrating some systematic descriptions of the lexical features and patterns of Malaysian English used on Facebook and the construction of online identity that comes along with it. [L1 Malay]

Furthermore, beside the explicit justification articulated by the discourse markers discussed above, this study also identified implicit justification strategies which construe a cause-and-effect semantic relationship without Justify markers. Additionally, it has also been observed that research issues frequently function as a cause to validate the research necessity (see Example 2) or the research purpose (see Example 7) in the move of research background in thesis abstracts.

7. Despite the emphasis on the role of pronunciation in obtaining proficiency in the English Language and the rightful place it has been given in the Malaysian Secondary School English Language syllabus, pronunciation still struggles to gain the attention it deserves in the ESL classrooms. Thus, it is the purpose of this study to investigate the beliefs of selected ESL teachers that have led to their decisions on their classroom practices in pronunciation instruction. [L1 Malay]

The instances discussed above illustrate that justification formulations serve to provide a reason for the necessity, aim, result, conclusion and significance of the research. From a dialogic perspective, these resources construe the propositions as contentious and needing further reasons and evidences to substantiate their logicality, validity and reliability, and thereby depict the authorial voice as actively persuading the putative readers who are

portrayed as someone holding a different viewpoint from the writers and are to some extent dubious about and resistant to the authorial voice. Therefore, the writers deployed these formulations to argue for and support their assertations and eliminate the putative readers' doubt and resistance so as to win over and align them. For instance, the conjunction *because* in Example 1 construes the potential reader as someone who has a doubt about the writer's view that *the research is conducive to translation teaching and translator training* and the writer utilized the proposition after *because* to provide a reasonable justification for his/her preceding viewpoint. These formulations contract the dialogic space in that the readers need to pay greater interpersonal cost to refute these logical and legitimate reasons and evidences, but they enhance the acceptability of the writers' positioning.

Moreover, we found that throughout the entire corpus, the first method was employed the most frequently, followed by the second method, while the third method was the least frequently utilized one to make a justification for the proposition. This general patterning of use of justification markers in the genre of thesis abstracts is also consistently observed across the two subcorpora. This resemblance could be elucidated in terms of the constituent features and established standards of the genre of thesis abstracts. In general, the first method needs to be used in multiple constitutive elements of the genre of thesis abstracts such as the justification of research aims, methods and results. On the other hand, the third method needs to be typically employed at the beginning of the conclusion part. This is possibly the reason why the first method was utilized more often than the other two methods, while the third method occurred with the least frequency. In addition, the genre of thesis abstracts pursues linguistic conciseness due to the strict word count requirement, which might be responsible for the relatively limited deployment of the second method.

Conclusion

The aim of this study is to compare the use of justification resources in English thesis abstracts by L1 Chinese and Malay PhD students on the basis of Martin and White's (2005) appraisal theory. This research has revealed that quantitatively, although Chinese students used more justification markers in their longer abstracts than Malay students, there was no statistically significant cross-cultural difference; Qualitatively, L1 Chinese students used more informal, and had a wider range of, justification markers than L1 Malay students, but these two groups of students deployed three identical methods including constructing the cause-effect relationship, providing examples and making a conclusion to Justify the authorial stances. Therefore, it can be concluded that with reference to the utilization of justification resources, Chinese students' English thesis abstracts are more dialogized, contractive and informal in comparison with their Malay counterparts' texts, whereas L1 Malay students' thesis abstracts are less dialogized and contractive but more formal. These notable distinctions may be ascribed to divergent lengths of thesis abstracts and writing styles.

This research has some theoretical and contextual contributions. To begin with, it introduces Appraisal theory to explore the use of justification markers in the genre of thesis abstracts, extending the application of Appraisal theory to a new genre and thereby shedding light on the dialogic function of justification markers in academic writings. Second, it could enrich the literature on L2 novice writers' thesis abstracts and contribute to a better understanding of justification markers in the genre of thesis abstracts produced by L2 novice writers. Additionally, it has significant practical implications for the teaching of non-native learners' English academic writing and cross-cultural academic communication, especially for those occurring in L1 Chinese and L1 Malay contexts. For instance, the instances of justification

resources from this study could be provided for Chinese and Malay students in the explicit instruction of the use of these resources in varying academic writings to heighten their genre awareness. Despite these contributions, this research has its own limitations. To illustrate, it merely zooms in one genre in a single discipline. Therefore, further studies could compare the deployment of justification resources in multiple genres or disciplines.

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