Hedging in the Discussion Sections of English and Malay Educational Research Articles

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ABSTRACT

Academic writers resort to hedging as one of the interpersonal metadiscourse categories needed to present their findings cautiously in the hope that their research contribution can be accepted by the academic community. Such acceptance, to a great extent, depends on how propositions and claims are presented to the academic community. The purpose of the present study was to compare and contrast the hedges used in the Discussion sections of educational research articles in English with those in Malay. To provide additional insights, information was elicited from both English and Malay specialist informants on their perceptions of hedging in research article writing. This study contributes to an understanding on the use of hedges throughout the Discussion sections of the research articles from the two languages and possible contextual and socio-cultural factors which may have influenced their use. The corpus of the present study is made up of the Discussion sections of English and Malay research articles published between 2012 and 2017. The analytical framework of this study is based on Hyland’s (1996) four hedging functions, which are writer-oriented, attribute-oriented, reliability-oriented, and reader-oriented. Our analysis shows that overall, hedges are found in more English than Malay discussions. The greater number of hedges in the English data is in principle expected as English is a remarkably hedging culture. A closer examination reveals that English writers tend to subtly bring the value of the writer’s contribution to the fore, tone down the force of the arguments, and bring forth the tentative nature of the conclusion drawn on the issue examined. The findings provide pedagogical implications in an English for Academic Purposes (EAP) classroom.

Keywords: Hedging; claims; academic writing; pragmatic competence; writer-oriented hedges

INTRODUCTION

The term ‘hedges’ was first introduced by Lakoff (1972, p. 175) as “words whose job is to make things fuzzy”. The subject of hedging has received increasing attention in research over the past years as hedges play an important role in academic writing (Tran & Duong, 2013). Writers employ hedges (e.g., appear, may, probably, perhaps) to withhold the writer’s commitment, to help present claims with precision and “give deference and recognition to the reader and avoid unacceptable over-confidence” (Hyland 1996, p. 449). Hyland held that being able to employ hedges appropriately is crucial to successful academic writing. However, this ability is a complex task even for those second language (L2) speakers with relatively high proficiencies in lexis and grammar of English (Hyland, 1994; Loi, Lim &
Wharton, 2016; Skelton, 1988). This is consistent with Wishnoff’s (2000, p. 123) views that students struggle with such pragmatic competence in their academic writing. The influence of a learner’s first language is also evident in the second language writing (see Duszak, 1994). Thus, Duszak (1994) suggests that the use of discoursal resources which are valued in the non-native speakers’ communication may lead them to write English academic prose that is unclear to an English audience. As more non-native English speakers are communicating in written academic English, more also tend to use discoursal patterns typical of their own tongue but alien to English, thus explaining why their English articles often attract less interest and receive less appreciation (Duszak, 1994, p. 291). The problem faced by second language learners (L2) is that they are not only learning a foreign or second language, but also acquiring cross-cultural competence in the use of hedges.

Motivated by the pedagogical concern in an English for Academic Purposes (EAP) classroom of English as a Second Language (ESL) students in Malaysia, the present study attempts to examine a contrastive study between English and Malay research articles in the use of hedges. In addition, the present study attempts to fill a lacuna in past studies. Even though researchers across different languages (e.g. Ali, Chua & Siti Jamilah Bidin, 2012; Dontcheva-Navratilova, 2016; Doyuran, 2009; Falahati, 2004; Jogthong, 2001) have shown considerable interest in examining the use of hedges, no contrastive studies have focused on this subject in scholarly articles written in English and Malay.

The present study focuses on the discussion section given that the section is widely acknowledged as one of the most important parts in the research articles in which the writers tend to use hedges most frequently to present and interpret the findings of the study, compare and contrast their findings with related literature, and answer the research questions presented earlier in the introduction (Salager-Meyer, 1994; Tran & Duong, 2013). Hyland’s (1996) pragmatic framework of hedging categorization is used as the framework of this study. Possible contextual and socio-cultural influences in the differing types of hedges employed by the English and Malay discourse communities are also discussed. In relation to the above, the present paper has the following objectives:

1. To ascertain the similarities and differences between the Discussion sections of English and Malay research articles in the frequencies of forms and functions of hedges;
2. To explore possible contextual and socio-cultural influences on the use of hedges in the Discussion sections of English and Malay research articles.

**LITERATURE REVIEW**

Lakoff (1972, p. 195) first introduced the term ‘hedge’ and defined hedges as “words or phrases whose job is to make things fuzzy”, but over the years, different researchers have further described from different angles and categorized hedges in different contexts. Salager-Meyer (1994, p. 154), for instance, claimed that any linguistic expressions that indicate fuzziness can be considered as hedges. She divided such linguistic expressions into four categories, namely “shields”, “approximators”, “expressions of the author’s personal doubt” and “direct involvement” and “emotionally charged intensifiers”. In a more specific context, Crompton (1997, p. 281) provided a functionally-based definition of hedges employed in academic writing, proposing that “a hedge is an item of language which a speaker uses to explicitly qualify his/her commitment to the truth of a proposition he/she utters”. Citing an example, Crompton (1997, p. 283) stressed that one can consider a reporting verb as a hedge, if an author uses it to report his own proposition and not others”. He pointed out that “I
suggest that pigs fly” is a hedged statement but “Smith suggests that pigs fly” is not one (Crompton 1997, p. 283).

Consequently, the term ‘hedges’ in the literature does not have a common description (Varttala, 2001). As mentioned by Hyland (1998), the existing definitions are employed differently by different authors and direct definition of the notions is scarce. Considering the existence of various definitions of hedges, writers initiated the studies on hedges using definition(s) of the term ‘hedges’ proposed in a specific study. Hyland (1996, p. 435) emphasized that scientific research writing can only be completely comprehended by considering the “institutional, professional and linguistic contexts” in which they are used by writers. Relating to this rationale, he suggested a comprehensive pragmatic categorization of scientific hedges to provide a rationale for writers’ use of hedges. Hyland (1996, p. 437) divided the functions of non-factive statements to two main categories, namely “content-oriented and reader-oriented”. The “content-oriented” category includes both “accuracy-oriented” (comprising “attribute-oriented” and “reliability-oriented”) and “writer-oriented” hedges (see Hyland 1996, p. 438). “Content-oriented” hedges help to present claims with precision relating to “both the terms used to describe real-world phenomena and the degree of reliability the writer invests in the statement” as well as to “signal reservations in the truth of a claim to limit the professional damage which might result from bald propositions” while reader-oriented hedges “give deference and recognition to the reader and avoid unacceptable over-confidence” (Hyland 1996, p. 449). Hyland (1996) presented core examples to demonstrate notable features (lexical signals and hedging strategies) which realize the different hedging orientations.

Given the review above, it should be pointed out here that the term ‘hedge(s)’ in this study is defined by combining Lakoff’s (1972) and Crompton’s (1997) related concepts, and this means that ‘hedges’ is defined as linguistic expressions indicating fuzziness, which are used to explicitly qualify writers’ commitment to the truth of a proposition in a research article. While ‘hedges’ are linguistic expressions or resources employed by writers to indicate fuzziness, ‘hedging’ is defined as the use of such linguistic expressions or resources to indicate the aforementioned fuzziness (through which writers explicitly qualify their commitment to the truth of a proposition in a research article). In other words, ‘hedges’ is a noun that refers to the linguistic resources which indicate fuzziness while ‘hedging’ is a gerund that refers to the use or employment of such linguistic resources. It also needs to be pointed out at this juncture that Hyland’s (1996) method of categorizing hedges, as explained above, is adopted in this study because of its relevance in analysing hedges in academic texts.

Contributing to the hedging research, researchers have investigated the subject of hedges based on genre and various rhetorical sections of scientific papers (e.g. Elheky, 2018; Hassani & Motahareh, 2014; Hashemi & Shirzadi, 2016; Hyland, 1995 & 1996; Dontcheva-Navratilova, 2016; Mirzapour, 2016; Myers, 1989; Salager-Meyer, 1994 & 1997; Thi Thuy, 2018). One of the noteworthy studies was conducted by Salager-Meyer (1994, p. 155), who analyzed fifteen English medical articles and identified the frequencies of hedges according to categories that she proposed (i.e., “shields”, “approximators”, “authors’ personal doubt”, “emotionally-charged intensifiers”, and “compound hedges”) within two genres of written discourse, namely case report and research paper. Her research results showed high frequency of occurrence of hedges such as ‘shields’, ‘approximators’, and ‘compound hedges’. Her study also showed that the Discussion sections in the research papers and Comment sections (i.e. Discussion sections) have the highest number of hedges whereas the Method sections include the lowest number of hedges.

Falahati (2004) looked into hedges in Introduction and Discussion sections of English and Farsi research articles in the field of medicine, chemistry and psychology. The findings showed that Farsi research articles were less hedged than English ones. It was also reported
that firstly, in general, the Introduction sections favoured fewer hedges than the Discussion sections of research articles. Secondly, hedges were distributed differently across disciplines. The most highly hedged disciplines were English research articles in the field of psychology and Farsi research articles in the field of medicine.

Dahl’s (2008) findings on English research articles from the disciplines of linguistics and economics showed that hedges in the linguistics discipline exhibit a greater variation in terms of linguistic forms (e.g. modals, adverbs, lexical verbs). On the other hand, hedges in economics typically consisted of lexical verbs (e.g. suggest). Dahl (2008) stated that overall, more hedges were used in linguistics than economics claims. The study nevertheless, did not obtain a clear-cut difference between the two disciplines.

The aforementioned studies have shown that there is considerable variability in the use of hedges in research articles across both disciplines and languages. In past cross-cultural studies, researchers compared and contrasted hedging in research article sections written by native speakers of other languages with those written by native English speakers. While these cross-cultural studies were generally motivated by an awareness on the importance of English as the language of research, scant attention was directed to how the use of hedges differs across research articles presented in English and those written in certain major languages, such as Malay, which is widely used as a lingua franca in Southeast Asia. In other words, the present study has aligned itself with such cross-cultural studies, and more importantly, it fills a previous research gap by comparing the use of hedges in research articles in Malay (a language which has not been given much attention to) with those in English.

METHODOLOGY

The present study has qualitative and quantitative components given that it involves both qualitative descriptions and quantitative analyses of the frequencies of forms and functions of hedges employed in the Discussion sections of educational research articles across the two languages (i.e., English and Malay). Information was also elicited from specialist informants on their perceptions on hedging in academic writing via emails. It aims to contribute to an understanding of how hedges are exploited throughout the Discussion section and how contextual and socio-cultural factors may have influenced their use.

The corpus of the present study is made up of the Discussion sections of English and Malay research articles published between 2012 and 2017. Twenty English research article discussions were selected based on purposive sampling followed by stratified random sampling. Thirty articles were initially selected from each journal restricted to empirical research papers, which follow the standard Introduction-Method-Results-Discussion (IMRD) structure. Theoretical papers were thus excluded and only articles with a distinct Discussion section, which is a section labelled explicitly as the ‘Discussion’ and not as “Findings and Discussion” or “Discussion and Conclusion” were selected as the samples. Later, 20 articles were selected from the pool of 30 articles, for each language, to form the actual corpus of the present study through a stratified-random sampling. To obtain a stratified-random sample, the 30 articles were stratified into five subgroups (2012-2017). The decision to use stratified random sampling instead of pure random sampling was (i) to ensure a considerable degree of objectivity, in order that articles from different issues (published in 2012-2017) could be represented in the actual sample and (ii) since the articles were from two different journals. Twenty English articles were selected from the International Journal of Educational Research published by Elsevier. The journal is abstracted in Scopus with an impact factor of 1.138 (in 2017). Twenty Malay research articles were selected from Malaysian Journal of Learning and Instruction which publishes articles in both English and Malay in the field of education. Malaysian Journal of Learning and Instruction (MJLI) is abstracted in Emerging
Sources Citation Index (ESCI) since 2016 and Scopus 2012. It is a local academic journal published by Universiti Utara Malaysia. The discipline of education was selected so as to fill the gap in past studies. Past studies have largely looked into hedging in articles of other fields such as environmental science (Boyandi, Gholami & Nasiri, 2012), applied linguistics (Hashemi & Shirzadi, 2016; Hassani & Motahareh, 2014), applied linguistics and chemistry (Mirzapour, 2016), applied linguistics and chemical engineering (Tran & Duong, 2013), and science (Hyland, 1996) compared to the field of education. Moreover, the researchers’ expertise in the education field will facilitate coding and ensure a more reliable interpretation of the descriptive features in the study. At the end of the sampling procedure, the selected individual articles in the actual sample size were identified by a letter and a number. For example, E1 refers to article number 1 in the English corpus, and M1 refers to article number 1 in the Malay corpus. In the analysis, only the code concerned is referred to.

The analytical framework of the present study followed that of Hyland’s (1996) four hedging functions, which were (i) ‘writer-oriented’, (ii) ‘attribute-oriented’, (iii) ‘reliability-oriented’ and (iv) ‘reader-oriented’. These functions were mainly realized by a range of lexical markers and hedging strategies. According to Hyland (1996, p. 444), in order to approach hedging in research articles, we can acknowledge that hedging has certain prototypical realizations, such as “epistemic modal verbs”, “adverbs”, “adjectives” and “nouns”.

In the coding procedure, alongside the sentence context, linguistic items which realized particular functional categories were considered. Take for example in E4 below, we code ‘overall’ as a style disjunct (linguistic item) that realized an accuracy-oriented hedge (hedging function)

E4

**Overall**, the Doodle Den after-school programme was found to lead to moderate improvements in children’s literacy ability assessed through standardised direct measures of the children’s literacy, and triangulated through detailed teacher ratings of their literacy ability.

Hyland’s (1996) “taxonomy of hedges” (principal realization devices) was used as a guideline in the coding (p. 450). The taxonomy is reproduced in Figure 1.

<table>
<thead>
<tr>
<th>Accuracy-Oriented</th>
<th>Writer-Oriented</th>
<th>Reader-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedges propositional content</td>
<td>Hedges writer commitment</td>
<td>Hedges assertiveness</td>
</tr>
<tr>
<td>Attribute type</td>
<td>Epistemic lexical verbs</td>
<td>Epistemic lexical verbs</td>
</tr>
<tr>
<td>Precision adverbs</td>
<td>judgemental</td>
<td>judgemental</td>
</tr>
<tr>
<td>content disjuncts</td>
<td>evidential</td>
<td>deductive</td>
</tr>
<tr>
<td>style disjuncts</td>
<td>Impersonal expression</td>
<td>Personal attribution</td>
</tr>
<tr>
<td>downtoners</td>
<td>passive voice</td>
<td>Personal reference to methods</td>
</tr>
<tr>
<td>Reliability type</td>
<td>abstract rhetors</td>
<td>model</td>
</tr>
<tr>
<td>Epistemic lexical verbs</td>
<td>empty subjects</td>
<td></td>
</tr>
<tr>
<td>Epistemic modal adjectives</td>
<td>Thematic epistemic device</td>
<td>Other alternatives</td>
</tr>
<tr>
<td>Epistemic modal nouns</td>
<td>Attribution to literature</td>
<td>conditionals</td>
</tr>
<tr>
<td>Content disjunct adverbs</td>
<td>Impersonal reference to method</td>
<td>indefinite articles</td>
</tr>
<tr>
<td>Limited knowledge</td>
<td>model</td>
<td>involve reader</td>
</tr>
<tr>
<td>Experimental conditions</td>
<td></td>
<td>direct questions</td>
</tr>
</tbody>
</table>

FIGURE 1. Summary of Hedging Functions and Principal Realisation Devices
The present study established the reliability of coding by engaging the researcher in coding the two sets of data on two occasions. The second coding was carried out two months after the first one. This internal consistency of coding is useful as a procedure to check on data carried out on different occasions separated by a relatively short interval (Joseph & Lim, 2018; Lim, 2003, 2014; McCrae, Kurtz, Yamagata & Terracciano, 2010). The results of the two rounds of coding were then compared. When the coding of the particular hedges differed between the two sets of coding, the researcher would refine the coding. This attempt involved repeated readings and making use of the linguistic elements in Hyland’s (1996) taxonomy of hedges (p. 450) as a guideline. In the present study, linguistic realizations of each of the four types of hedges were labelled using ‘category’ and ‘item’ (as presented below). Internal consistency of scales can be useful as a check on data on different occasions separated by a relatively brief interval. The coding results of this study showed that the four types of hedging orientations were contributed by:

**Category 1: Writer-oriented hedges**
- Category 1 Item 1 (impartial subjects with epistemic speculative verbs)
- Category 1 Item 2 (reference to wider bodies of knowledge)
- Category 1 Item 3 (reference to underpinnings, elsewhere in the text)
- Category 1 Item 4 (passive construction)
- Category 1 Item 5 (the hypothetical conditionals)
- Category 1 Item 6 (qualification indicating the precise standpoint from which to judge the claim)

**Category 2: Attribute-oriented hedges**
- Category 2 Item 1 (adverbs of precision)
- Category 2 Item 2 (adverbs as style disjuncts)

**Category 3: Reliability-oriented hedges**
- Category 3 Item 1 (modal verbs),
- Category 3 Item 2 (evidential verbs)
- Category 3 Item 3 (epistemic adjectives)
- Category 3 Item 4 (adverbs of certainty which weaken the force of an attribute)

**Category 4: Reader-oriented hedges**
- Category 4 Item 1 (contrastive connectors)
- Category 4 Item 2 (first-person pronouns)
- Category 4 Item 3 (noun referring to the researcher(s) himself/herself/themselves)
- Category 4 Item 4 (adverbs which leave the claim open to the reader’s judgment)

The results of the coding were subjected to (i) a statistical data measuring the frequencies of occurrence of the categories and their forms (linguistic realizations of the functions), and (ii) hedges density. Hedges density allows a comparison across samples and is defined as number of hedges per sentence.

In addition, information was elicited from specialist informants on their perceptions of hedging in academic writing via emails. The specialist informants’ views can offer additional insights that supplement the accompanying corpus-based contrastive analysis (cf. Bhatia, 1993). These informants were eight writers from the English corpus who volunteered to participate in the research. They are affiliated with universities in English-speaking countries. On the other hand, only two Malay writers volunteered to participate in the study, and as such, the present study included eight additional Malay lecturers who have
volunteered to be informants for the Malay data. They have published in both local and international journals. These eight Malay informants are affiliated to a local university in Malaysia. English informants were coded as ‘Informant E1’, ‘Informant E2’ and so on, while Malay informants were given codes such as ‘Informant M1’ and ‘Informant M2’. Questions asked in the questionnaire are presented in Appendix B. The present study used open-ended interview prompts closely related to the research objectives. This method enabled other topics to be followed up.

**FINDINGS AND DISCUSSION**

Hedging in the two sets of research article discussions was examined in the light of Hyland’s (1996) four categorizations of scientific hedges, which are (i) ‘writer-oriented’ (ii) ‘attribute-oriented’ (iii) ‘reliability-oriented’ and (iv) ‘reader-oriented’. Overall, both sets of data employ the four groups of hedges outlined by Hyland (1996) with the highest average density for writer-oriented 0.26 (English) versus 0.27 (Malay) and the lowest average density for reader-oriented hedges [0.06 (English) versus 0.01(Malay)]. There is a higher average density of reliability-oriented hedges than that of the attribute-oriented ones in the English corpus (0.16 versus 0.12) while it is otherwise in the Malay corpus; that is, the latter has higher average density than the former (0.10 versus 0.08) (See Table 1 and Table 2).

<table>
<thead>
<tr>
<th>Hedging Orientation</th>
<th>Counts</th>
<th>Writer-oriented</th>
<th>Attribute-oriented</th>
<th>Reliability-oriented</th>
<th>Reader-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counts</td>
<td>1893</td>
<td>835 (44.1%)</td>
<td>376 (19.8%)</td>
<td>497 (26.3%)</td>
<td>185 (9.8%)</td>
</tr>
<tr>
<td>No. of sentences</td>
<td>3152</td>
<td>3152</td>
<td>3152</td>
<td>3152</td>
<td>3152</td>
</tr>
<tr>
<td>Average density</td>
<td>0.26</td>
<td>0.12</td>
<td>0.16</td>
<td>0.06</td>
<td></td>
</tr>
</tbody>
</table>

Note: Total number of occurrences: 1893

<table>
<thead>
<tr>
<th>Hedging Orientation</th>
<th>Counts</th>
<th>Writer-oriented</th>
<th>Attribute-oriented</th>
<th>Reliability-oriented</th>
<th>Reader-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counts</td>
<td>844</td>
<td>492 (58.3%)</td>
<td>185 (21.9%)</td>
<td>146 (17.3%)</td>
<td>21 (2.5%)</td>
</tr>
<tr>
<td>No. of sentences</td>
<td>1847</td>
<td>1847</td>
<td>1847</td>
<td>1847</td>
<td>1847</td>
</tr>
<tr>
<td>Average density</td>
<td>0.27</td>
<td>0.10</td>
<td>0.08</td>
<td>0.01</td>
<td></td>
</tr>
</tbody>
</table>

Note: Total number of occurrences: 844

A closer examination shows the following findings. 1893 hedges are found in the English data. Out of this total, the number of writer-oriented hedges found is 835 (44.1% of the total number of hedges in the data) while a total of 844 hedges are found in the Malay data. Out of this total, 492 writer-oriented hedges (58.3%) are found.

The two most frequently employed writer-oriented hedges constitute 61.5% of the total writer-oriented hedges in the English data. This means that more than half of the writer-oriented hedges are marked with ‘reference to wider bodies of knowledge’ (37.4%) and ‘impersonal subjects with epistemic speculative verbs’ (24.1%). In the Malay data, the two most frequently employed writer-oriented hedges constitute 59.7% of the total writer-oriented hedges. This means that more than half of these hedges are marked with ‘impersonal subjects with epistemic speculative verbs’ (33.3%) and ‘references to wider bodies of knowledge’ (26.4%). Table 3 illustrates the types of writer-oriented hedges found in the two sets of data with their raw numbers and corresponding percentages.
As shown in the quantified data in Table 3, the two most frequently occurring writer-oriented hedges in the two sets of data are ‘impersonal subjects with epistemic speculative verbs’ and ‘references to wider bodies of knowledge’. When employing ‘impersonal subjects with epistemic speculative verbs’, writers foreground the impersonal subject ‘the present research’, ‘the research’, and ‘dapatan kajian’ (findings of the study) instead of ‘the researcher’ (see E1, E8, M1 and M4). This was done in order that the researcher who made the claim is pushed into the background to “reduce the writer’s direct commitment to the claim and thus make the writer less vulnerable” (Informant E2). The examples that follow illustrate this phenomenon. In this article, emphasis (bold) has been added to mark hedges. Translations are presented in parenthesis.

E1

The present research makes a number of new contributions to knowledge.

E8

Accordingly, the research provides new insights into understanding students’ experiences within …

M1

Dapatan kajian mendapati sekolah yang berpencapaian tinggi memang menunjukkan pengurusan sekolah yang prihatin dengan… [The findings show that high-achievement schools have certainly shown that school management which is concerned with …]

M4

Dapatan kajian menunjukkan bahawa factor keluarga mempunyai pengaruh yang signifikan terhadap pembelajaran regulasi kendiri. [The findings show that family factors have significant influences on self-regulated learning.]

As shown in Table 3, ‘reference to wider bodies of knowledge’ is one of the two most frequently occurring writer-oriented hedges for the two sets of data (see Table 3), and this shows that writers also tend to use both the integral (E9; M17) and non-integral citations (E11; M8) as the ultimate authority upon which to base their arguments. The following examples exemplify this phenomenon:

E11

Open discussion stimulates student engagement more than other communication forms, such as, … (IRE script – see Mehan, 1979).
M 8
Penemuan ini sinonim dengan majority hasil kajian terdahulu yang mendapati pelajar mahu melanjutkan pelajaran ke kolej untuk memenuhi keperluan keluarga khususnya … (Saenz et al. 2007; Smith 2009; Gofen 2009; Smith 2008).
[The findings are synonymous with the majority of past findings that show students wanting to pursue their studies in college to meet the needs of their family in particular … (Saenz et al. 2007; Smith 2009; Gofen 2009; Smith 2008).]

E9
While Strieker et al. (2012) argue specific job-embedded professional development approaches (classroom coaching, teacher study groups) helped to foster…

M17
Kanammah dan Ng (2009) dan Amy (1998) juga menyokong dapatan kajian ni yakni, …
[Kanammah and Ng (2009) and Amy (1998) also support the findings of this study, namely …]

Two types of attribute-oriented hedges are employed in the two sets of data. They are (i) adverbs indicating the degree of precision, and (ii) adverbs in the form of style disjuncts. In the English data, the most frequently employed attribute-oriented hedges are adverbs indicating the degree of precision (56.9%) followed by adverbs used as style disjuncts (43.1%). The former is only 1.3 times higher than the latter. However, it is otherwise in the Malay data. The most frequently employed attribute-oriented hedges are not adverbs indicating the degree of precision, but adverbs in the form of style disjuncts, and the latter is almost two times (1.89 times) higher than the former (34.6% versus 65.4%). Table 4 below illustrates the above quantitative data.

<table>
<thead>
<tr>
<th>No.</th>
<th>Realization Device</th>
<th>English Raw No.</th>
<th>English %</th>
<th>Malay Raw No.</th>
<th>Malay %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adverbs (degree of precision) (partially, quite)</td>
<td>214</td>
<td>56.9</td>
<td>64</td>
<td>34.6</td>
</tr>
<tr>
<td>2</td>
<td>Adverbs (style disjuncts) (e.g. approximately, generally)</td>
<td>162</td>
<td>43.1</td>
<td>121</td>
<td>65.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>376</td>
<td>100</td>
<td>185</td>
<td>100</td>
</tr>
</tbody>
</table>

English and Malay writers use the two types of attribute-oriented hedges (i.e. ‘adverbs of precision’ and ‘adverbs as style disjuncts’), to hedge the accuracy of claims when presenting findings and arguments. In the English data, the ‘adverbs of precision’ compared to ‘adverbs as style disjuncts’) are more frequently used (56.9% versus 43.1%). Some ‘adverbs of precision’ in English research article discussions are ‘tended to’ (E10); ‘almost’ (E6) and ‘most’ (E6) while among the ‘adverbs of precision’ found in the Malay data are ‘hanya’ (only) (M3) and ‘all’ (kesemua) (M11):

E10
Similar to earlier studies of younger students (Boekaerts & Rozendaal, 2010) boys tended to over-evaluate their performance to a greater extent than girls.

E6
Almost half (45.3%) of all participants allocate saved income towards “home items” such as …
E6  
**Most** participants agreed that there were financial requirements in order for their children to attend school; …

M3  
Manakala strategi KPL pula **hanya** membenarkan pelajar mara atau undur secara linear dari satu segmen ke segmen yang lain mengikut kehendak mereka dengan menekan butang mara dan undur yang disediakan.  
[However, KPL's strategy **only** allows students to move forward or backward linearly from one segment to another following their wants by pressing the forward and backward buttons provided.]

M11  
**Kesemua** surat yang dikemukakan ini adalah penting bagi menunjukkan bukti segala aktiviti yang dijalankan adalah secara sah atau rasm daripada pihak pengurusan.  
[**All** letters submitted are important to show the evidence that all activities have been conducted validly or officially by the management.]

In contrast, ‘adverbs as style disjuncts’, compared to ‘adverbs of precision’, are more frequently used in Malay research article discussions (65.4% vs. 34.6%). In the data, ‘adverbs’ (‘style disjuncts’) such as ‘secara umumnya’ (generally) (M19) and ‘secara keseluruhannya’ (overall) (M16) tended to be used. Some examples are presented below:

M19  
Hasil kajian **secara umumnya** konsisten dengan kajian yang dilakukan dalam kalangan jururawat Hospital Estonian dan kakitangan perbankan di Coimbatore…  
[The results of the study are **generally** consistent with the study conducted among Estonian Hospital nurses and banking staff in Coimbatore…]

M16  
Dapatan daripada Jadual 7 menunjukkan bahawa **secara keseluruhannya** terdapat perbezaan skor min kompetensi emosi pemimpin secara signifikan dalam kalangan reponden lelaki berbanding dengan responden perempuan…  
[The findings from Table 7 show that **overall**, there is a significant difference in the mean score of the leader's emotional competence among the male respondents as opposed to the female respondents …]

On the other hand, in the English data, modal verbs are the most frequently employed reliability-oriented hedges, constituting almost half (49.6%) of the reliability-oriented hedges. Similarly, in the Malay data, modal verbs are also the most frequently employed reliability-oriented hedges, comprising 32.2% of the total number of such hedges. Epistemic adjectives (26.0%) are the second most frequently employed reliability-oriented hedges in the Malay data. While adverbs of certainty constitute 18.5% of the reliability-oriented hedges in the Malay data, they make up 28.6% of such hedges in the English data. This means that adverbs of certainty constitute the second most frequently employed reliability-oriented hedges in the English data while they form the least used reliability-oriented hedges in the Malay data. The following table shows the statistical data:
As shown in Table 5, the two sets of data favour the use of modal verbs among other reliability hedges. Some of the modal verbs employed in the English data are ‘may’ (E13), ‘might’ (E14) and ‘could’ (E11) while they are ‘dapat’ (could) (M4), ‘berkemungkinan’/’mungkin’ (may/might) (M7 and M13) and ‘barangkali’ (may/might) (M3) in the Malay data. The occurrences of modal verbs are, however, proportionately slightly more in English than Malay research article discussions, with 49.5% and 47% of the English and Malay research article discussions respectively.

Referring to these two types of hedging orientations, namely attribute and reliability orientations, both English and Malay writers use attribute (e.g. style disjuncts, adverbs of precision) and reliability hedges (e.g. modal verbs) to hedge accuracy and reliability of the claims made when making deduction (E13; E14), presenting suggestions for future studies (E11) and presenting results of the study (M4: M13). In relation to this aspect, Informant E1 noted that hedges are used to “avoid making too absolute statements that can become false”. Some examples from the corpora are given below to illustrate this phenomenon:

E13
This trend may have been encouraged by the fact that international students paid higher tuition and fees …

E14
Thus the valence of the action tendency might be caused by …

E11
Future research could also usefully explore whether these findings have broader implications for …

M4
Seterusnya, hasil kajian ini tidak dapat membuktikan perbezaan dari segi pengalaman pentadbiran berdasarkan kelompok-kelompok kompetensi emosi pemimpin di sekolah berkesan dan…
[Furthermore, the results of this study could not prove the difference in terms of administrative experience based on emotional competence groups of leaders at effective schools and…]

M13
Kesan dari faktor tersebut mungkin telah mengakibatkan kumpulan pelajar dalam mod tahap realistik 3D-R memperoleh min skor ujian sebutan yang terendah berbanding dengan kumpulan pelajar tahap realistik yang lain.
[The effect of the factor might have resulted a group of students in the Realistic 3D-R level mode in getting the lowest mean score for pronunciation compared to other realistic level students.]
Under the category of reader-oriented hedges, in the English data, as shown in Table 6, the two most frequently employed reader-oriented hedges constitute 86.5% of the total reader-oriented hedges. This means that more than three quarters of the reader-oriented hedges are marked with contrastive connectors (74.6%) and first-person pronouns (11.9%). On the other hand, in the Malay data, the two most frequently employed reader-oriented hedges constitute 85.7% of the total reader-oriented hedges. This means that more than three quarters of these hedges are marked with contrastive connectors (61.9%) and nouns referring to the researcher(s) himself/themselves (23.8%).

<table>
<thead>
<tr>
<th>No.</th>
<th>Realization Device</th>
<th>English</th>
<th></th>
<th>Malay</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Raw No.</td>
<td>%</td>
<td>Raw No.</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>Contrastive connectors</td>
<td>138</td>
<td>74.6</td>
<td>13</td>
<td>61.9</td>
</tr>
<tr>
<td>2</td>
<td>First-person pronouns</td>
<td>22</td>
<td>11.9</td>
<td>3</td>
<td>14.3</td>
</tr>
<tr>
<td>3</td>
<td>Nouns referring to the researcher(s) himself/themselves</td>
<td>16</td>
<td>8.6</td>
<td>5</td>
<td>23.8</td>
</tr>
<tr>
<td>4</td>
<td>Adverbs which leave the claim open to the reader’s judgment</td>
<td>9</td>
<td>4.9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>185</td>
<td>100%</td>
<td>21</td>
<td>100%</td>
</tr>
</tbody>
</table>

In this group of hedging orientation (reader-oriented), English and Malay data share a similarity, that is contrastive connectors are favoured in both the English and Malay data (74.6% and 61.9%). However, as shown in the statistical data, contrastive connectors are found proportionately more in English than Malay corpus. The second most frequently found reader-oriented hedges in the English data are first-person pronouns (11.9%) while there are nouns referring to the researcher(s) himself/themselves in the Malay data (23.8%). Only 4.9% of the total number of reader-oriented hedges consist of adverbs which leave the claim open to the reader’s judgment in the English data while such adverbs are not found in the Malay data.

Being the most frequently used reader-oriented hedges in both sets of data, some examples on the use of contrastive connectors [however (E20); nevertheless (E12); although (E3); ‘walaupun’ (although) (M6); ‘namun’ (nevertheless/however) (M1 and M13)] are presented in the examples that follow:

E20  
**However**, there are two primary limitations to the study.

E12  
**Nevertheless**, the results clearly highlighted that those with different confidence biases appeared to be influenced in different ways …

E3  
It is still plausible to assume that self-concept and self-efficacy beliefs may influence each other, **although** their close relation may ensure that any predictive models using both factors are harder to interpret…

M6  
[Although inconsistent with JCT, the findings of the study are consistent with Behson’s (2012) and Humphrey et al.’s (2007) studies which indicate the task significance in the framework affects significantly the actual knowledge of the work.]

M1
[Nevertheless, this study is quite different from the study of Igo and Skitmore’s (2006) which uses the Quinn and Rohrbaugh framework (1983) that is…]

M13
Namun, faktor pemilihan tahap realistik karakter animasi talking-head dalam reka bentuk adalah penting diambil kira.
[However, the factor of choosing the realistic stage of the talking-head animation character in the design is important to be taken into account.]

The present findings have shown that Malay data generally has a lower percentage of use in the four hedging orientations (see Table 1 and Table 2) and a smaller repertoire of items in all the four orientations (see Appendix A) than English data.

The findings also point to some differences qualitatively. On the whole, the findings also show that as far as non-factive knowledge is concerned, more knowledge claims are presented in mitigated form in English than Malay research article discussions. As shown in the following examples M9 and M5, modals of a high degree of certainty are used [e.g. ‘memang’ (certainly) (M9), ‘jelas’ (clearly) (M5)] in presenting findings.

M9
Dapatan kajian mendapati sekolah yang berpencapaian tinggi memang menunjukkan pengurusan sekolah yang prihatin dengan kehendak dan keperluan pelajar.
[The findings show that high achievement schools have certainly shown that the school management is concerned with the wants and needs of students.]

M5
Hasil kajian jelas menunjukkan pelajar yang bermotivasi juga mempunyai aspirasi untuk melanjutkan pelajaran ke IPT.
[The findings clearly show that motivating students also have aspirations to pursue their studies to HEIs.]

The tendency in using obligation and necessity modals such as ‘memang’ (certainly) and ‘jelas’ (clearly) to present findings in the Malay corpus is consistent with the findings of past non-English studies; for example, Chinese texts (e.g. Kang, 2006; Li, 2000; Liu, 2007 & Yang, 2006) use assertive expressions such as ‘you should’ and ‘we must’ to interact with readers (Deng & Liu, 1989; Li, 2007; Xu & Gong, 2006, cited in Li & Wharton, 2012, p. 353). Yang (2006) held that the tendency of using a more authoritative and direct tone may be due to the language nature of the specific discipline. Also, such a tendency is found to be culture-dependent and topic-dependent in the writings of Korean, Japanese and Chinese speakers (Hinkel, 1995; Kwachka & Basham, 1990). In general, studies examining hedges in EAP show that non-native speakers tend to use a more authoritative tone than native speakers do (Algi, 2012). Similarly, a Malay informant’s (Informant M2) views seem to agree with the use of a more authoritative tone, for example, in counter-claiming:
Informant M2
Sebagai penyelidik yang cuba untuk menyatakan bantahan/atau tidak setuju dengan hasil kajian-kajian sedia ada, jadi penyelidik akan menggunakan perkataan-perkataan yang mempunyai sifat tegas seperti yang telah dinyatakan iaitu kajian ini jelas menunjukkan/kajian ini jelas membuktikan…

[As a researcher who is trying to express objection / disagreement with the results of existing studies, the researcher will use words that have a firm character as shown in the use of phrases like “this study clearly shows / this study clearly proves that...”]

In contrast, in English data, there are generally more realizations of hedging statements (see Appendix A). English writers seem to avoid marking their statements using confident predictions (Milton & Hyland, 1999). Instead, they use probabilities, which the academic genre requires.

In E11, for example, the writer uses reliability-oriented hedges ['epistemic modal verbs' (e.g., may; perhaps)] and attribute-oriented hedges ['adverbs of precision' (e.g., overall)] to seek precision in expression. He also used writer oriented hedges such as (i) the ‘impersonal subject with epistemic speculative verb’ [e.g., the overall findings suggest (E11)] to reduce the writer's direct commitment to the claim especially for claims to some extent dependent upon the researcher’s knowledge and intuition, and (ii) non-integral citations (e.g., ‘Huang, 2011’; ‘Marsh et al., 2005’) to rely on the extensive bulk of background literature to support his claims. E11 below exemplifies this phenomenon:

E11
The overall findings suggest that the two contrasting theoretical perspectives of the self-regulated learning model (Butler & Winnie, 1995) and the social-cognitive theory of behaviour (Bandura, 1989, 1997) may still be explanatory, but perhaps for different ages and contexts. Biased self-evaluations may be associated with or important for younger students: while mathematics is compulsory in England, an enhanced self-concept may link with attainment (Huang, 2011; Marsh et al., 2005) and …

In another example (E13 – English data), a ‘contrastive connector’ (i.e., although) is used, when hedging the limitations of the study. By using the hedge, the author can be seen as modestly showing that he has explored the limitation and they have approached their work critically. A future research direction is also toned down with the use of a modal verb ‘could’ as in “could help explain...’. This shows that prediction about the future is bound to be tentative rather than absolute.

E13
Although this study contributed important findings to the literature about …, the main limitation of the study should be highlighted: Since…, research should aim at including larger samples to have more generalizable results. Future research should also focus on other skills-related (…) and non-linguistic (for e.g. motivation and memory systems) variables which were not included in the present study that could help explaining the intricate mechanisms that determine…. With evidence coming from these studies, the superior role of…can be understood to a greater degree.

English writers also seem to be cautious in making claims about the significance of the study. E14a shows that in hedging some strengths of the study, a modal verb (i.e. may) is used to offer a possible solution and a ‘qualification indicating the precise standpoint from which to judge the claim’ (i.e. to my knowledge) is used to indicate less than full commitment towards the precision of what is stated. Such strategy can ‘limit the professional
damage which might result from bald propositions’ (Hyland, 1996, p. 456). E14a is presented below:

E14a
This study has several strengths. The originality of the study is the focus on how different school systems may affect school connectedness and mental health among adolescents. To our knowledge, this is the first study to examine age trends in…

In another example (E14b), the author hedges the findings of the study by acknowledging a limitation of the study and prior to presenting the limitation; the author has drawn the reader’s attention to what has given rise to this limitation. ‘Adverbs which leave the claim open to the reader’s judgment (e.g., unfortunately) and ‘contrastive connectors’ (e.g. however) are used to show that the propositions are not to be taken categorically:

E14b
Unmeasured confounding may be an issue in this paper. Students’ mental health could be affected by their parents’ mental health as poor mental health of parents is a risk factor for poor mental health of children (Jane-Llopis et al., 2011; Villalong-Olives et al., 2013). However, none of the surveys measured mental health of parents. Connectedness to school is related to ….Unfortunately; it was not possible to include these aspects of connectedness in this study.

In addition, English writers also use reader-oriented hedges, such as the first-person pronoun (i.e. ‘we’) in hedging deductions. It is assumed that the author hedges the deduction when he is not able to obtain results that provide enough evidence for him to make such deduction on the issue under investigation. This phenomenon is more prominent in the English data because as shown earlier in Table 1 and Table 2, the average density of reader-oriented hedges in the English data is 0.06 while it is only 0.01 in the Malay data. This means that the average density of reader-oriented hedges in the English data exceeds that in the Malay data by six times. The result also suggests that more English than Malay writers, seem interested to invite the reader to participate in negotiating the status of the proposition. According to Varttala (2001), such an approach can be seen as “confirming to the social conventions guiding knowledge accreditation within their scientific community” (Varttala, 2001, p. 84). E8 exemplifies such a phenomenon given that the first-person pronoun ‘we’, as shown in the example, is used to make reference to the writer. According to Hyland (1996, p. 452), “reference to the writer explicitly marks a statement as an alternative view rather than as a definitive truth; the hedge signals a personal opinion, allowing the reader to choose the more persuasive explanation”. In other words, when the first-person pronoun ‘we’ is used to refer to the researchers themselves, this reflects that the writers are acknowledging their “personal responsibility for the validity of propositional content” and thus seeking for reader involvement in the ratification of the claim (Hyland, 1996, p. 441).

E8
We found that the measure of pupils’ perceptions of teachers’ teaching behaviour reliable and valid for use in secondary education in Indonesia…More importantly, results of Rasch analyses revealed that …

Hedged claims, according to Hyland (1998), are new knowledge claims, and this is in line with Myers’s (1989, p. 13) statements that the hedging of new knowledge claims are “so common that a sentence that looks like a claim but has no hedging is probably not a statement
of new knowledge”. Having said this, the findings of this study also show that the author sometimes appears to be less compelled to hedge new knowledge claims for the following possible reasons. Firstly, the author is more convinced of his argument himself and is able to support it with evidence from the literature (i.e. ‘clearly observed…’) (E16) (also see Brooke, 2016). Secondly, he wants to make the research contribution stand out as Myers (1992) argues that such main knowledge claim can act as “an assertion for which the author hopes to be cited - and credited in future articles” (p. 296). Thirdly, he will give the reader an impression that the author is an expert in the field, when a higher degree of assertion is used (Chang & Schleppegrell, 2011). Lastly, he is merely presenting straightforward findings as noted by Salager-Meyer (1994, pp. 161-162) that such presentation consists of “a quite straightforward presentation of findings and it presents a clear description of the results”.

In contrast to the above reasons, hedges (e.g. ‘suggests’, ‘suggested’) are used to subtly bring to the fore the value of the writer’s contribution, tone down the force of the arguments and bring forth the tentative nature of the conclusion drawn and generalizations made, as illustrated in E2 below.

**E2**

The Senate Inquiry found that there was in fact a decline in the opportunities for quality HPE in Australian schools although there was unanimous support for the learning areas. Data gathered indicates that qualifications of teachers who are responsible for teaching HPE remain a major problem...Comments suggested that this would have been even higher but many principals in small schools answered ‘no’ because they didn’t believe this to be an option... Data gathered suggests that only one of the three major problems identified by the 1992 Senate Inquiry remains of concern today ... Data suggests two of the three major problems have improved significantly; resources and time allocation...

The example in E2 suggests a kind of negotiation is occurring between the writer and the reader in accepting the claim (see Loi, Lim & Wharton, 2016; Hyland, 1998). This phenomenon is also consistent with Loi, Lim and Wharton’s (2016) findings that English writers attempt to have their propositions accepted by the discourse community by negotiating. In negotiating, reader-oriented hedges constitute one of the common groups of hedges used to “give deference and recognition to the reader and avoid unacceptable over-confidence” (Hyland, 1996, p.449). In the same vein, Myers (1989) argues that an author would be seen as invading the reader’s realm and forcing them to accept what he claims in academic discourse, and accordingly threaten their negative face if the author claims his findings with a high degree of certainty.

Therefore, the use of reader-oriented hedges (which enable the writer to leave a claim open to the reader’s judgment) may also help to attract the reader’s attention in an increasingly competitive research environment (cf. Bloor & Bloor, 1993). In relation to the present corpora, a higher competition for attention should have occurred in the English data as the data is published in an international educational journal with an impact factor, as compared to a local journal for the Malay data. Consistent with the above view, the present data shows the existence of a higher frequency of reader-oriented hedges in English compared to Malay research article discussions (9.8% versus 2.5%) (see Table 1 and Table 2).

Findings of the present study also demonstrate how scholars from the two linguistic backgrounds (Malay and English) exploit hedges. A lower number of hedges and their hedging variations (in terms of linguistic forms) found in the Malay research article discussions than in English ones are in principle expected because English is a remarkably hedging culture (Hyland, 1996, cited in Loi, Lim & Wharton, 2016).
Information elicited from Malay specialist informants has also shed some light on the hedging culture exhibited via the Malay texts. Most of the Malay informants held that hedging in Malay texts is not influenced by the Malay culture. Among the comments are hedging is probably due to writer’s competency and experience (Informant M3) as well as principles and ethics (Informant M1):

Informant M3
Sebagai penyelidik yang menyedari batasan-batasan dalam sesuatu kajian, penggunaan ayat yang dilembutkan itu adalah wajar dan diketahui oleh penyelidik tersebut. Mungkin perkara ini banyak dipengaruhi oleh kemahiran dan pengalaman penulis tersebut. Walaubagaimapun, Saya tidak bersetuju jika perkara ini dikaitkan dengan budaya Melayu.

[As a researcher who is aware of the limitations in a study, the use of a hedged statement is appropriate and known to the investigator. Perhaps this is much influenced by the writer's skill and experience. However, I do not agree if this is related to Malay culture.]

Informant M1
Kenyataan yang harus dilembutkan atau tidak dalam artikel Bahasa Melayu tidak dipengaruhi oleh kemahiran atau budaya tetapi ditentukan oleh prinsip dan etika...

[The statement to be hedged or not in the Malay language article is not influenced by skills or culture but is determined by principles and ethics...]

Only two Malay informants held that hedging in Malay texts is probably related to the socio-cultural factors as the fine art of communication is also found in the Malay culture (Informant M5) and the politeness element in the culture discourages writers to use strong words that may offend the readers (Informant M7):

Informant M5

[In my opinion, we cannot deny the influence of context and socio-cultural in using both hedged and unhedged words in the writing of Malay-language articles. This is because the fine art of communication is also found in Malay culture. Thus, there is an influence to a certain extent.]

Informant M7
Ya, sosiobudaya memainkan peranan yang penting dalam penulisan terutamanya Bahasa melayu kerana Bahasa melayu merupakan yang penuh dengan keindahan kata-kata dan adab sopan supaya tidak menyinggung para pembaca.

[Yes, the socio-cultural factor plays an important role in writing mainly in that of the Malay because the Malay language is full of words that connote beauty and good manners in order not to offend the readers.]

Informant M7’s views are however in contrast with our deduction that the Malay language seems to value less hedged texts as hedging is used to a lesser extent in the Malay discussions compared to the English.

Hedging also suggests that writers chose to present their claims and propositions with caution in order to meet the corresponding discourse community’s expectations (Hyland, 1995) as there is always a sense of “uncertainties, indirectness, and non-finality” (Mauranen,
1993, p. 115) in the academic world. Bonyadi, Gholami and Nasiri (2012) commented that it is better to write “pickles can be viewed as vegetables” compared to “pickles are vegetables” as the former shows a claim presented in a cautious manner (Varttalla, 2001, p. 9, cited in Bonyadi, Gholami & Nasiri, 2012, p. 1181). Such thought is reflected in Informant E5’s statement that hedging suggests that “conclusions have been fully thought through rather than poured out in a stream of consciousness via one-way linear logic”. He adds that “implications of statements are usually highly context specific and thus in need of limitation of generalization to area of focus”. Informant E7 has similar views:

Informant E7
We state hypotheses and try to test them through various statistical techniques. We are never 100% certain about our findings. There is always possibility for errors (sampling errors, data collection errors etc.). So, it is wise and theoretically (and ethically) appropriate to express this uncertainty in your discussion. One could be certain if one expresses a personal opinion on an issue, but if scientific evidence is needed, then one must be cautious.

Informant M5
Bagaimanapun, dalam penulisan akademik, hendaklah bersifat akademik. Penulisan akademik hendaklah ditulis secara adil, tidak bias. Sekiranya perlu kepada kelembutan atau ketegasan, ia hendaklah ditulis juga secara akademik. Tidak bersifat menghentam secara ekstrem mana-mana kajian yang kita tidak bersetuju dan tidak juga bersifat menyokong secara ekstrem kajian yang kita setuju.
[However, in academic writing, it should be academic. Academic writing should be written in a fair and unbiased manner. If necessary, it is written with statements reflecting tenderness or firmness. It should be written academically. Our comments should not be extreme when counter-claiming and supporting past studies.]

Informant M7
Sebagai penyelidik yang semestinya ingin memberikan sumbangan baru dalam penyelidikan, sikap sederhana (humble) perlu ada. Elakkan penggunaan perkataan yang cuba mengangkat diri seolah-olah menunjukkan betapa megahnya penyelidikan yang dihasilkan seperti kajian ini membuktikan/kajian ini jelas menunjukkan... Cukup menggunakan perkataan yang bersahaja.
[A researcher who claims a new contribution in his investigation needs to have a simple attitude (humility). Avoid using ‘self-praise’ words which could be connoted as an excellent research accomplished by you. These words are such as “this study proves / this study clearly shows...”. In this case, it is sufficient just to use hedged words.]

However, this phenomenon can also be possibly due to the Face issue which could be interpreted as a public self-image (Brown & Levinson, 1987). In a more prominent society, members of a local academic discourse are aware that it is less likely that their local fellow colleagues will criticise their writing. Therefore, the authors may not see a great need to protect themselves from possible readers’ refutations by having to hedge their claims (cf. Ahmad, 1997; Duszak, 1994; Jogthong, 2001; Loi, Lim & Wharton, 2016; Shim, 2005; Taylor & Chen, 1991).
Powell (1985) and Nash (1990) suggest that hedges can protect writers’ reputations and reduce the possible damage from categorical commitments. In this way, hedges act like an insurance or as Jalilifar (2011, p. 185) puts it, hedges “launch effective arguments to convince their target discourse community of their conclusions and also protect themselves against possible stigmatization”. On a similar note, informant E2 notes that hedges provide the writer with “an ‘escape route’ should he/she wish to take it, which is very definitely about self-protection, in as much as the writer might use it in anticipation of needing to ‘escape’”.

CONCLUSION

In this study, the researchers have found a range of rhetorical variations between research article discussions written by Malay and English writers. Malay research article discussions generally use hedges to a lesser degree than English discussions do (see Table 1 and Table 2). The less common usage of hedges in Malay discussions (non-English texts) is consistent with the findings of Vassileva (2001), Bonyadi, Gholami and Nasiri (2012) as well as Yang (2006) that show that compared to English texts, their sampled non-English texts, namely Bulgarian, Farsi and Chinese texts respectively employed fewer hedges. Bonyadi, Gholami and Nasiri (2012) held that the less common use of hedges in the non-English (such as Farsi) texts examined in their study is due to the nature of the Farsi language which highly values less hedged texts. Similarly, hedging to a lesser extent in the Malay discussions compared to the English seems to reflect that the Malay language also values less hedged texts. This characteristic is, however, in contrast to “the credibility of using hedges” in the international scientific community (p. 1186).

The present findings are largely aimed to provide pedagogical implications to English as a Second Language (ESL) students in an English for Academic Purposes (EAP) classroom. Nivales (2011) held that students must learn to use hedges in their academic prose in order for their ideas to be ‘taken seriously’ by the academic community (p. 43). However, simply telling student writers that they must learn to hedge more in English than they do in Malay seems to be a recipe for disaster as this is likely to lead to students qualifying statements that they do not need to (and this often does happen in EAP writing courses). In order to avoid or reduce the inappropriate use of hedges in an EAP classroom, the findings of this study can familiarize students with the rules and conventions regarding the use of hedges in academic writing. Teachers can provide sentences that illustrate the important features and lexical signals that realize the four different hedging orientations (cf. Hyland 1996). This is in line with Schmidt’s (1993) suggestion that at the initial stages of foreign language pragmatic acquisition, which is before the production practice, relevant input should be given to learners. In addition, teachers can familiarise their students with the four hedging functions with sufficient amount of contextualized authentic examples so that students could utilize hedges when and where necessary.

This study has also thrown some light on the possible differing socio-cultural factors which influence the hedging expectations between the two languages. Such awareness can assist learners in making more conscious choices to include appropriately hedged statements in their academic prose especially when it comes to using certain types of hedges which are “polysemous” and they might have differing “pragmatic implications” in students’ mother tongue (cf. Algi, 2012, p. 158).

As a result of exposing L2 learners to the necessary input as suggested above, instructors will be able to aptly position learners in an academic genre and further help the learners to present their propositional claims appropriately. When claims are made appropriately, this can avoid a distortion of the value of the claim being presented as a result of any underuse, overuse or misuse of the markers (cf. Ali, Chua & Siti Jamilah Bidin, 2012).
Overall, the present study has provided pertinent information on the use of hedges in English and Malay discussion sections based on a relatively small research corpus which is limited to only two educational journals. Future studies can be carried out on a larger research corpus. In addition, studies can be conducted to examine the role of hedges in English and Malay academic texts in different disciplines. Further research can also consider looking at (i) academic word lists (AWLs) used in other contexts involving different hedging words, and (ii) how students use AWLs (inclusive of hedging words) in other types of academic discourse (cf. Nur Ainil, Khazriyati & Rozainee, 2018).

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Thi Thuy, T. N. (2018). A corpus-based study on cross-cultural divergence in the use of hedges in academic research articles written by Vietnamese and native English-
speaking authors. *Social Sciences. Vol. 7(70), 1-13.*


The following table is indicative of the notable realization devices found in the corpora of the present study. These features realize particular hedging functions (‘writer-oriented’, ‘attribute-oriented’, ‘reliability-oriented’ and ‘reader-oriented’) examined in the present study.

**APPENDIX A**

The following table is indicative of the notable realization devices found in the corpora of the present study. These features realize particular hedging functions (‘writer-oriented’, ‘attribute-oriented’, ‘reliability-oriented’ and ‘reader-oriented’) examined in the present study.

<table>
<thead>
<tr>
<th>Language</th>
<th>English</th>
<th>Malay</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authorial Resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impersonal subjects with epistemic speculative verbs</td>
<td>…findings show that ... (E10); the findings also indicated... (E11); evidence from the findings show that ... (E11); the current work demonstrates ... (E12); this case study demonstrates ... (E12); the results suggested that ... (E13); the results also suggest... (E13); the studies discussed above demonstrate ... (E13); the students’ responses suggest that ... (E13); the results of this study show that ... (E13); one of the more conclusive findings of this study suggests that ... (E14); the view of this paper is ... (E11); the results also show ... (E13); results indicated that ... (E15)</td>
<td>Dapatkan kajian menunjukkan (M1; M12; M13) Sampel kajian berpandangan bahawa (M3); kajian ini menunjukkan (M12); Teori Pengetesan Status menyatakan ... (M12); keputusan ini menunjukkan ... (M12); Hasil ini menunjukkan ... (M13); keputusan kajian juga turut menunjukkan...(M13); dapan kajian seterusnya menunjukkan ... (M13); dapan ini menunjukkan... (M13); dapan juga menunjukkan ... (M14); sampel kajian juga menyatakan ... (M14); analisis komitmen organisasi secara keseluruhan mereka (Jadual 2) menunjukkan bahawa ... (M16); penemuan kajian menunjukkan ... (M16); hasil kajian menunjukkan ... (M16)</td>
</tr>
<tr>
<td>Reference to a wider bodies of knowledge</td>
<td>This corroborate Raley, et al (1994) that ... (E3); Because health care employees are exposed to ... (Katrinli et al., 2010; Needham et al., ...) (E4); it also fails to confirm ... such as feminism (Slovic, et al., 1982; Gagnon &amp; Smith, 1973) which explains ... (E6); ... Is also needed ... (Fullan, 2001; Karmeli, 2000); this is in concordance with previous outlined limitations in ...as previously described (Troyina &amp; Carrington, 1993) (E12); the results warrant the conclusion that ... (Sutton &amp; Rubin, 2004,p.77) (E13); It appears that ...for example, ... (Ayres &amp; Hopf, 1987,p.2);</td>
<td>Hasil kajian ini bertepatan dengan kriteria penilaian berdasarkan Wiggins (1989) serta Ryan dan Miyasaka (1995) (M7); Dapat dana menguatkan lagi penemuan Johari et al. (2015) ... (M11); Pendapat ini disokong oleh beberapa kajian yang telah dijalankan oleh Wiley (1990)... (M5); Dapat kajian ini menyokong dapan Abdul Shatar (2007)... (M5)</td>
</tr>
<tr>
<td>Reference to underpinnings elsewhere in the text</td>
<td>considering the above mentioned explanation about ... (E4); As shown in Table 2, ... (E7); as noted in Table 8 ... (E13);</td>
<td>Jadual 2 (M16); lihat Jadual 3 (M11); lihat Jadual 4 (M11), Jadual 1 menunjukkan bahawa ... (M8); Jadual 2 memaparkan (M12); Berdasarkan Rajah 1 ... (M16)</td>
</tr>
<tr>
<td>Passive construction</td>
<td>needs to be conducted. (E2); would be required (E2); is also recommended ... (E2); can be suggested (E4); it is underlined that (E4); the scale was analyzed (E5); was also established (E6); it should be noted that ... (E6); it can be stated that ... (E7); subscales were examined ... (E7); it is argued that ... (E7); it can be concluded that ... (E7); ... difference was observed ... (E10); it was revealed that ... (E11); it can be concluded ... (E11); it can therefore be concluded (E11); it should be noted ... (E11; E13); can be interpreted ... (E13);.. can be concluded exclusive (E15)</td>
<td>Berdasarkan kenyataan ini, dapat dirumuskan bahawa... (M4); Ini bermakna secara statistiknya telah dapat dibuktikan bahawa... (M7); Oleh itu, kajian lanjutan disyorkan menggunakan sampel yang lebih besar... (M6)</td>
</tr>
<tr>
<td>The hypothetical conditionals</td>
<td>if(EE1; EE15; EE16; EE17)</td>
<td>Sekiranya (M3; M6; M12); jika (M4; M8; M12; M13); seandainya (M1);</td>
</tr>
<tr>
<td>Qualification indicating the precise standpoint from which to judge the claim</td>
<td>In this context (E4); In such atmosphere, (E4); as far as prepositional knowledge is concerned ... (E9); looking from this point of view ... (E9); as far as language is concerned ... (E9); under these circumstances ... (E12);</td>
<td>dalam konteks ini, ... (M4); dalam konteks pembinaan karakter guru, ... (M14); Berdasarkan sorotan literatur (M15)</td>
</tr>
</tbody>
</table>
### Attribute-oriented resources

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverbs (degree of precision) (partially, quite) and style disjuncts (e.g. approximately, generally)</td>
<td>Approximately (E2); often (E2; E13); mostly (E4; E9); consistently (E5); relatively (E7); quite (E8; E9); commonly (E9); most (E9); widely (E9); usually (E9; E12; E16); sometimes (E9); tend to (E9; E15); more highly (E9); too often (E9); fully (E9); partially (E10); generally (E10; E11; E13); merely (E11; E14); particularly (E11; E14); partly (E11); basically (E11); majority (E11); only (E11; E14); almost (E13); overall (E13); in general (E13; E15); especially (E13); frequently (E13); entirely (E13); often (E14); exactly (E15); amat (M6); sebahagian besar (M6, M8), secara keseluruhan (M6; M16); sentiasa (M4); kebanyakan (M10); secara umumnya (M11); hampir (M11); biasanya (M15); selalu (M15); sering (M6)</td>
</tr>
</tbody>
</table>

### Reliability-oriented Resources

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modal verbs</td>
<td>may (E20, E1, E7); might (E13, E12), could (E1, E7, E9)</td>
</tr>
<tr>
<td>Evidential verbs</td>
<td>appear (E1; E9; E14; E15); seem (E10); nampaknya (M2)</td>
</tr>
<tr>
<td>Adverbs of certainty (which weaken the force of an attribute)</td>
<td>possibly (E6; E15); probably (E112); eventually (E12); mungkin (M13), berkemungkinan (M6)</td>
</tr>
<tr>
<td>Epistemic adjectives</td>
<td>Plausible explanation (E3); possible explanation (E3); possible to think (E9); possible environment (E14); (Not Applicable)</td>
</tr>
</tbody>
</table>

### Reader-oriented Resources

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contrastive connectors</td>
<td>Although (E1; E12; E14); however (E2; E3; E7; E9; E11; E12; E13; E15); even though (E6); though (E10); Walaubagaimanapun, ... (M9; M10; M12; M13; M14); walaupun terdapat ... (M10); walaupun (M2; M13; M16); meskipun (M3)</td>
</tr>
<tr>
<td>First-person pronouns</td>
<td>We interpret... (E1); we are encouraged about ... (E1); our objectives (E5); we analyzed (E5); we concluded (E5); we recommend (E5); we also suggest (E5); when we examined ... (E7); we see that ... (E7); in our view ... (E12); we computed ... (E13); Kami merumuskan bahawa... (M7); Kami mencadangkan yang (M9)</td>
</tr>
<tr>
<td>Nouns referring to the researcher(s) himself/ themselves</td>
<td>The researcher ensured ... (E8); the researcher claims that ... (E8); the author noted ... (E11); Penyelidik mendapati ... (M9; M16); kajian pengkaji ...(M9); Seterusnya, pengkaji membentuk kategori-kategori maklumat ... (M13)</td>
</tr>
<tr>
<td>Adverbs which leaves the claim open to reader’s judgment</td>
<td>Arguably (E11, E5), interestingly (E16); (Not Applicable)</td>
</tr>
</tbody>
</table>

Note: (1) Recurring units in the same research article discussion are listed only once. (2) ‘Reference to wider bodies of knowledge’ does not reflect all the incidences found in the corpora, and as many such incidences have been found, only some selected examples are listed here.
APPENDIX B

English specialist informants were asked the following questions:

1. When do you tend to hedge your statements in your research articles?
2. Do you think that appropriate amount of hedging in research articles writing is necessary? Why?

Malay specialist informants were asked the following questions:

1. Sebagai penulis Melayu dalam artikel penyelidikan yang ditulis dalam Bahasa Melayu, apa jenis penegasan atau dakwaan yang anda menghadkan/membatasi/melembutkan (hedge) dan jenis kenyataan/penegasan/dakwaan yang anda tidak akan menghadkan/membatasi/melembutkan dalam artikel penyelidikan anda? Dalam erti kata lain, kenapa anda memilih hanya untuk menghadkan atau melembutkan penegasan/dakwaan tertentu dan bukan kenyataan/penegasan/dakwaan yang lain? [As a Malay research article writer, what sorts of claims would you hedge and what kinds of claims would you not? In other words, why do you choose to hedge certain statements and not some other statements in your research article writing?]

2. Adakah anda lebih cenderung untuk tidak melembutkan dakwaan anda apabila tulis bagi penerbitan artikel dalam Bahasa Melayu tetapi lebih cenderung untuk melembutkan dakwaan apabila tulis bagi penerbitan artikel dalam Bahasa Inggeris? Mengapa? [Do you tend not to hedge your claims when writing for Malay publications and do otherwise when publishing in English? Why?]

3. Adakah anda lebih cenderung untuk tidak melembutkan dakwaan apabila anda tulis bagi penerbitan jurnal tempatan tetapi lebih cenderung untuk melembutkan dakwaan apabila tulis bagi penerbitan jurnal antarabangsa? Mengapa? [Do you tend not to hedge your claims when publishing in a local journal and do otherwise when publishing in an international journal? Why?]

4. Adakah anda berpendapat bahawa penggunaannya kata-kata untuk melembutkan dakwaan/penegasan/kenyataan dalam artikel penyelidikan Bahasa Melayu adalah mungkin disebabkan oleh pengaruh konteks dan sosibudaya ke atas teks Bahasa Melayu? Tolong beri penjelasan kepada jawapan anda. [Do you think that hedging in Malay research articles is probably due to the contextual and socio-cultural influences on the Malay texts? Please elaborate your answer.]

5. Jika anda mempunyai pendapat tambahan berkaitan dengan aspek pelembutan nada dakwaan/penegasan (hedging) dalam penulisan artikel penyelidikan dalam Bahasa Melayu dan/atau Bahasa Inggeris, sila nyatakan pendapat anda di bawah: [If you have additional views in relation to the aspect of hedging in research article writing, kindly include your views below.]

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