## Comparison of Hedging Devices in Published Research Articles by Indonesian and English Native Writers: A Corpus Based Study

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**Abstract:** This study aims to compare how Indonesian and English Native writers use hedges in their published research articles. The source of data was 40 research articles published in English written by Indonesian and English Native writers. The study investigated three sections of each research article (Introduction, Discussion, and Conclusion) where hedging devices are usually used. To get the hedge frequencies, the data were analysed using concordance program called *AntFileConverter* (1.2.1) and *AntConc* (3.5.0). The types of hedges were categorized based on hedges taxonomy adapted from Selager-Meyer. The result of the study provides the implication that Indonesian scholars need a special instruction especially which focus on hedges proposition.

Key Words: hedges, research articles, corpus based study

**Abstrak:** Penelitian ini bertujuan untuk mengetahui bagaimana penulis Indonesia dan penutur asli bahasa Inggris menggunakan *hedges* pada artikel penelitian terpublikasi. Sumber data diambil dari 40 artikel berbahasa Inggris yang ditulis oleh penulis Indonesia dan penutur asli bahasa Inggris. Penelitian terfokus pada tiga bagian utama dari artikel penelitian (Pendahuluan, Diskusi, dan Kesimpulan) dimana *hedges* sering digunakan. Untuk menghitung frekuensi *hedges*, data dianalisis menggunakan program kecocokan, yaitu *AntFileConverter* (1.2.1) and *AntConc* (3.5.0). Tipe *hedges* dikategorikan menurut taksonomi yang diadaptasi dari Selager-Meyer. Hasil penelitian memberikan implikasi bahwa para praktisi pendidikan Indonesia memerlukan intervensi pedagogis yang dirancang khusus untuk membekali mereka dengan pengetahuan tentang *hedges*.

Kata kunci: lindung nilai, artikel penelitian, studi berbasis corpus

#### INTRODUCTION

been proved rhetorically powerful to influence the readers' attitudes towards the subject matter of a text. Since 1980s, hedging devices have been viewed as pragmatic phenomena that are prevalent in academic writing, particularly show in Research Articles (RAs). Research article is a medium by which researchers report their claims to their discourse community while at the same time anticipating acceptance or rebuttal of the claim. Stating a claim is a face threatening act that warranted mitigation. As a result, hedges will help the researcher to mitigate the claim. According to DiMarco and Mercer, (2004) other function of hedges besides mitigating the claim of the writers, is that it helps the writers

showing their claim simultaneously, questioning the current beliefs and keep the writers' position among readers. Specifically, Cabanes P. P, (2007) stated that there are three main rhetorical functions of hedges in research articles which are showing politeness toward the readers, making self-boundary from the consequences of unsuitable claims and taking into consideration some degrees of exactness.

Considering the importance of hedges in academic writing, tremendous amount of studies has been conducted on this topic. Behnam, Naeimi, and Darvishzade, (2012) conducted a study by comparing the use of hedges used in qualitative and quantitative research articles. As the result of the study, they found that the use of hedges between qualitative and quantitative research articles were significantly different.

It was revealed that the discussion sections of qualitative articles used hedging devices more than in quantitative one. In contrast with the study conducted by Benham et al (2012), the results of study conducted by Hashemi and Shirzadi (2016) showed that the use of hedging devices in the discussion sections were quantitative applied linguistics articles as the highest frequency, mixed methods study were on the second place and followed by qualitative articles. Hinds, (1987) proposed a possible explanation for the difference which is writer versus reader responsibility languages. He stated that in some languages like Chinese and Japanese which is reader responsibility type, the objective of the author in writing is to focus on propositional content more than to convince the reader so much. It can be indicated that the use of hedging devices has relation with language or culture. Moreover, Bloor and Bloor, (1991) stated that hedges and culture are entangled. They also stated that in different languages especially in academic writing there are obviously particular differences in degrees of directness and concessions acceptable.

Recently, there are some studies which focus on the distribution of hedges across different languages and cultures. Yagýz and Demir (2014) conducted a study on the hedges strategy used by Turkish and Anglo-sphere scholars. The result of their study indicated that Anglo-sphere or native English writers use more hedges when compared to Turkish writers. It was done in order to mitigate the writers' statements and for other purposes. Some studies are conducted by comparing research articles written in English and Asian Languages to examine the hedges used, i.e, Hu and Cao (2011) Chinese-English and Japanese-English (Itakura, 2013). In particular, study which reveals the preferences of Indonesian and Native English writers in terms of using hedges were conducted by Sanjaya (2013) and Sanjaya, Sitawati, and Suciani (2015).

In 2015, Sanjaya conducted a study in the field of English Language Teaching (ELT). His study focused on the hedges distribution in research articles by Indonesian and English Native authors. The results revealed that hedging devices were used more in English research articles than Indonesian research articles significantly. As the implication, special instructions are needed by Indonesian scholars, especially which focus on hedging propositions in English. Other study of hedges in the field of ELT was conducted by Resmayani (2016). On her study, she investigated the use of hedges and boosters by Indonesian EFL learners across genders and study program. As the results of the study, she found that learners in English Language and Literature (ELL) employed more vocabulary of hedges and boosters variants in their discussion sections compared to learners in English Language Teaching (ELT) study program. Accordingly, it was necessary to enhance vocabulary of learners in ELT study program in delivering doubt and certainly to avoid monotonous style of research reports writing, especially in discussion sections. Asfina, (2017) also conducted a study which investigated hedges and boosters used by with ELT students. She compared the hedges and boosters distribution in the background study of ELT students' thesis proposals (written and spoken). The results of the study provide the implication for ELT practitioners to improve their teaching methodology and evaluation with regard to ELT students' use of hedges and boosters by putting these devices as parts of priority in teaching both academic writing and speaking for academic purposes.

Studies on the use of hedges related to ELT that have been mentioned previously have some limitations. Both of the studies conducted by Sanjaya (2013) and Sanjaya et al., (2015) compared research articles written in English and Bahasa Indonesia by the native speakers of the respective languages. Meanwhile, to be published in international journal, a research article must be written in English. Thus, this study is attempted to compare published research articles written by Indonesian as the Non Native Writes (NNWs) and English native writers as the Native Writers (NWs). To gain the objective of the study, the following are the research questions for this study: 1) how are hedges distributed on the three different sections and types in the RAs written by NNWs and NWs before being normalized?, 2) how are hedges distributed on the three different sections and types in the RAs written by NNWs and NWs after being normalized?, 3) are there any differences between NNWs' and NWs' published research articles in terms of hedges distribution in each section (Introduction, Discussion and Conclusion)?, 4) are there any differences between NNWs' and NWs' published research articles in terms types of hedges used?

## **METHOD**

Specifically, this study intends to describe the comparison of occurrences of this met discourse device in terms of the types and frequency in the corpora. To achieve this goal, descriptive qualitative method of research is deemed necessary. This term refers to studies that investigate the quality of materials (Fraenkel, Wallen, & Hyun, 2012). In this case, for the purpose of identifying pattern, themes or biases, this study focuses on the detailed and systematic examination on how Indonesian and English Native authors used hedges in their published research articles. The information included step to tabulate the frequency of each characteristic found in the material being studied. Thus, this research employs quantitative as well as qualitative data analysis. The primary data of this study are research articles from two different journals of English Language Teaching. Specifically, the sampling is typical sample. This sampling technique is considered or judged to be typical or representative of what being studied. Thus, the subject of the study is taken by choosing a total 40 research articles which published in the last 3 years. It is consisted 20 published RAs written by Indonesian writers as the Non Native Writers (NNWs) drawn from TEFLIN Journal (State University of Malang Press) and 20 published RAs written by English Native authors as the Native Writers (NWs) drawn from ELT Journal (Oxford University Press). The status of the writer of being Non Native or Native of English is decided based on the name of the writers, nationalities and their affiliated universities. In RAs written by two or more writes, the first writer is regarded as the writer of RA. The entire corpus is generated from three research articles sections: Introduction, Discussion, and Conclusion section. The articles taken from *TEFLIN* Journal and ELT Journal included in the corpus have all these sections. Hedges taxonomy adapted from Salager-Meyer (1994) were used to analyze the types and variant of hedges in the subject of the study. In order to analyze the frequency of hedges in the NNWs' and NWs' research articles, a corpus software called AntFileConverter (1.2.1) and AntConc (3.5.0) were used. AntFileConverter (1.2.1) is an application which converts files in (.pdf) format into plain (.txt) files, so that it can be analyzed through another program which is AntConc (3.5.0).

According to Biber and Jones (2009), it is important to make sure that the scores are comparable when examining the counts of features across text. Therefore, the analysis of the data on this study is conducted on the normalized occurrences of hedges. The following is the formula of normalized frequency as suggested by Resmayani (2016):

$$N_{bedges} = \frac{N \text{ of occurrences}}{N \text{ of words in the text}} \times 1000 \dots (1)$$

Therefore, the results of the calculation of normalized frequency of hedges are in per thousand words (ptw). For example, if in a text of 9,375 words 54 hedges are found, the normalized frequency is 5.76 ptw. The researcher discussed and interpreted the data by comparing and describing the occurrences of hedging devices in published research articles by Indonesian and English Native writers. Any supporting documents such as research reports and books containing findings and theories related to this study are employed to gain more information about the imminent of the findings in this study.

#### **RESULTS**

## Occurrences of Hedging Devices in Published Research Articles Written by **Indonesian and English Native Writers**

In order to identify the variants and count the frequency of hedges in the corpora, the researcher used the features of Concordance providing Key Word in Context (KWIC), Concordance Plot and File View in *Antconc* (3.5.0). Only the lines which possess characteristics of hedges were counted. It was found that the pattern of hedges used from the highest to the lowest based on its type and frequency of by Indonesian and English Native writers' published research articles were similar: S – Ap – Ex – Em – Ch. In terms of hedges frequency in each section of the research articles, the researcher also found similar pattern from both in NNWs' and NWs' research articles: discussion section - introduction section conclusion section. The clear distribution patterns of hedging devices are presented in the Table 1 and Table 2.

In total there were 2050 hedges found in NNWs corpus and 1614 in NWs corpus. In terms of types of frequency, both corpora had similar pattern with the highest frequency was Shields (S) type (NNWs = 69.41% and NWs = 64.25%). Followed by Approximators (AP) type in the second place (NNWs = 27.12% and NWs = 32.16%). EM (Emotionallycharged intensifiers) type was in the third place in both corpora (NNWs= 3.02% and NWs = 3.03%). The fourth highest frequency was Ex (Expressions which express personal doubt and direct involvement) type: (NNws = 0.39% and NWs = 0.49%). Both corpora had a very small number of Ch (Compound hedges) type as the lowest frequency of hedges (NNWs = 0.04% and NWs = 0.06%).

Table 1. The Distribution of Hedging Devices in Research Articles by Indonesian Writers (NNWs)

No.	Sections	Number of Sample	Hedges Frequency					Total hedges of each sections
			S	Ap	Ex	Em	Ch	
1.	Introduction	20	275	146	2	23	0	446
2.	Discussion		1055	377	6	32	1	1471
3.	Conclusion		93	33	0	7	0	133
Total hedges of each types		1423	556	8	62	1	2050	

Table 2. The Distribution of Hedges in Research Articles by English Native Writers (NWs)

No.	Sections	Number of Sample	Fı	requen	cy of	Hedge	s	Total hedges of each sections
			S	Ap	Ex	Em	Ch	
1.	Introduction	20	247	113	1	14	1	376
2.	Discussion		592	294	5	30	0	921
3.	Conclusion		198	112	2	5	0	317
	Total hedges	s of each types	1037	519	8	49	1	1614

In terms of hedges frequency in each section of the research articles, the researcher also found similar pattern from both in NNWs' and NWs' research articles. The highest frequency of hedges were in discussion section (NNWs = 71.76% and NWs = 57.06%). The moderate frequency was introduction section (NNWs = 21.76% and NWs = 23.30%) The lowest frequency was conclusion section (NNWs = 6.48% and NWs = 19.64%).

The example of sentences containing hedges in NNWs' and NWs' research articles is shown in Excerpt 1 and Excerpt 2.

NNWs' research articles

## Excerpt 1:

"...students as they may experience anxiety, which hinders them from giving a successful oral performance." (NNWs\_4\_Intro)

NWs' research articles

## Excerpt 2:

"However, for many language learners, engaging in classroom discussions can be a difficult and daunting task." (NWs\_11\_Intro)

## Normalized frequency of Hedging Devices in Research Articles Written by Indonesian and **English Native Authors**

It was revealed that the result of normalized frequency of hedges was different from the previous calculation where the frequency had not been normalized yet. The normalized frequency of hedges in RAs of NWs and NNWs are provided in Table 3 and Table 4.

After calculating the normalized frequency, the result showed that NWs' research articles contained more hedges with 24.22 per 1,000 words than NNWs' research articles with 19.87 per 1,000 words. In NNWs' research articles, the highest frequency of hedges was in discussion section with 21.34 hedges per 1,000 words. Conclusion section was the second highest with 20.03 hedges per 1,000 words. The lowest frequency of hedges was in introduction section with 16.16 hedges per 1,000 words. Different from NNWs' research articles, NWs' research articles had the highest frequency of hedges in conclusion section with 40.92 hedges per 1,000 words. The second highest was discussion section with 23.35 hedges per 1,000 words. The lowest frequency of hedges was similar

Table 3. Normalized Frequency of Hedges in Research Articles by Indonesian Writers (NNWs)

No.	Sections	Number of Sample		Hedge	s Frequ	iency	Total hedges of each sections	
			S	Ap	Ex	Em	Ch	
1.	Introduction	20	9.96	5.30	0.07	0.83	0.00	16.16 ptw
2.	Discussion		15.31	5.47	0.09	0.46	0.01	21.34 ptw
3.	Conclusion		14.00	5.97	0.00	1.05	0.00	20.03 ptw
	Total hedges	s of each types	39.27	16.74	0.16	2.34	0.01	19.87 ptw

Table 4. Normalized Frequency of Hedges in Research Articles by English Native Writers (NWs)

No.	Sections	Number of Sample		Hedge	s Frequ	iency	Total hedges of each sections	
			S	Ap	Ex	Em	Ch	
1.	Introduction	20	12.70	5.81	0.05	0.72	0.05	19.33
2.	Discussion		15.01	7.45	0.13	0.76	0	23.35
3.	Conclusion		25.56	14.45	0.25	0.64	0	40.92
Total hedges of each types			53.27	27.71	0.43	2.12	0.05	24.22 ptw

to NNWs' research articles which in introduction section with 19.33 hedges per 1,000 words. For better understanding, the comparison could be seen in Figure 1.

Overall, NWs' research articles contained more hedges in all types of hedges except Emotionallycharged intensifiers (Em) type than NNWs' research articles. Both corpora had similar pattern with the highest frequency was Shields (S) type (NNWs = 39.27 ptw and NWs = 53.27 ptw). The second highest frequency was AP type (NNWs = 16.74 ptw and NWs = 27.71 ptw). Em type was in the third place in both corpora (NNWs= 2.34 ptw and NWs = 2.12 ptw). The fourth highest frequency was Ex type (NNws = 0.16 ptw and NWs = 0.43 ptw). Both corpora had a very small number of Ch type as the lowest frequency of hedges (NNWs = 0.01 ptw and NWs = 0.05 ptw). The clear illustration of hedges occurrences based on types in RAs of NWs and NNWs is presented in Figure 2.

#### DISCUSSION

# Occurrences of Hedges in Research Articles written by Indonesian and English Native Writers

In terms of hedges frequency in each section of the research articles, similar pattern was found from both in NNWs' and NWs' research articles: Discussion Section – Introduction Section – Conclusion Section. The pattern is presumably affected by the total words' sequence of each section. As stated by (Sanjaya et al., 2015) it is reasonable to conclude that the longer the text the greater the chances that it contains greater frequency of the device used. From the total 103,154 of words in NNWs' research articles; there were 68,919 of words in *Discussion Sections* or equal to 66.81% of all words. Meanwhile, NWs' research articles consisted of 66,634 with 39,438 words of *Discussion Section* or equal to 59.19% of all words. In line with the pattern where *Introduction* section con-

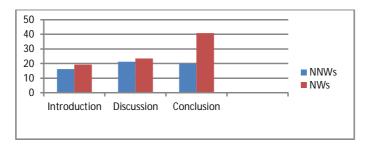


Figure 1. Occurrences of Hedges on each Section of the Research Articles (in ptw)

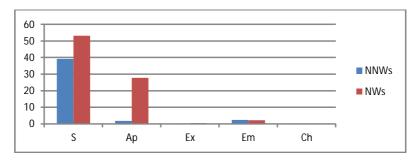


Figure 2. Occurrences of Hedges based on Types (in ptw)

tained second highest number of hedges, the total words of Introduction section was also in the second place from all sections. It was 26.75% off all words in NNWs' research articles and 29.19% of all words in NWs' research articles. There were very small number of hedges occurred in the Conclusion Sections. In line with the statement proposed by (Sanjaya et al., 2015) that in conclusion section the writer interpret and propose the theoretical or practical implication of the findings which presented in the result section. From the total 103,154 words in NNWs' research articles; only 6.44% were in the Conclusion Section. Similarly, NWs' research articles 11.62% of all words in the conclusion section.

In terms of types and frequency, it was found that the distribution pattern of the types of hedges used (from the highest to the lowest frequently used) by NNWs and NWs were similar: S - Ap - Em - Ex- Ch. The highest frequency was Shields (S). It is in line with Asfina's (2017) study that (AP) type was found as the second highest frequency in both RAs of NNWs and NWs. In line with Wang, (2010) who stated that not all subjects which exist in the world are finite, some of them are indistinguishable by themselves, e.g. short, blue, small. Many things do not have a clear exactness, therefore, when we are not really certain of the quantity, frequency, time and degree, of some matter, we prefer fuzzy language. Emotionallycharged intensifiers (Em) type was in the third place in both corpora. However while comparing written and spoken discourse, Asfina (2017) found different pattern in the using of this type of hedges. In the spoken discourse, an Emotionally-Charged intensifier (Em) was used less than direct involvement (Ex). Riekkinen, (2009) and Salager-Meyer (1994) argue that this phenomenon indicates that in written discourse, to make the claim less threatening, the writer show their reaction more than state their personal argumentation. In contrast, in spoken discourse, they show their reactions less than state personal argumentation. The fourth highest frequency found in RAs of NWs and NNWs was ex type. Different result was revealed in a study conducted by Sedaghat (2015) who investigated the use of hedges in English and Persian editorial column. He didn't find any occurrences of this type of hedges in both corpora. Both corpora had a very small number of Compound hedges (Ch) type as the lowest frequency of hedges. Similar result showed in a study in conducted by Seskauskiene (2008) focusing in written discourse. She found that either longer words or phrases were the least frequent hedges found in her study. In the same line, Agustina (2014) on her study, she revealed that all types of hedges were used by her research subjects, including Compound hedges (Ch), particularly in the written discourse.

## Normalized frequency of Hedging Devices in Research Articles Written by Indonesian and **English Native Writers.**

After being normalized, RAs of NWs of English had higher number of hedges than RAs of NNWs of English. There was similar result in the study conducted by Sanjaya et al., (2015) which indicated that there are more sentences in English corpus which use more than one hedge. It can be suggested that compared to Indonesian, English applied linguists were much more mitigating of their claims. Besides the total frequency on each RAs, there was also difference in the sequence of hedges distribution from the highest to the lowest frequency on each section after both RAs were being normalized. In RAs of NNWs of English the sequence before being normalized was Discussion-Introduction-Conclusion while after being normalized it was Discussion-Conclusion-Introduction. It may be concluded that per 1,000 words, Discussion Section remain in the highest position. Study conducted by Falahati, (2006) indicated that Discussion sections of RAs, in general, favor more hedges than the Introduction sections. The main reason why discussion section of the RAs is heavily hedged is that by generalizing the findings it will make the opportunity of making mistakes higher. The writers try to use hedging devices in order to protect themselves against the rebuttal of their ideas by the readers. It is supported by (Swales, 1990) that to make claims about the findings of the study, to summarize the results of the study, state conclusions and suggestions based on previous research for the readers are the main rhetorical function of the Discussion section.

However, it was recently revealed that per 1,000 words, conclusion section contain more hedges compared to introduction section which has higher number of words. Similarly, a study conducted by Yagýz and Demir, (2014) showed that in Conclusion Section NNWs used hedging devices over 200 while in Introduction Section it was only over 100. Sanjaya et al., (2015) on his study, revealed that the writer interpret and propose the theoretical and practical implications of the findings presented in the results section discussion and conclusion sections, a rhetorical activity that involves speculation, and moralization of propositions is almost predictable.

Overall, NWs' research articles contained more hedges in all types of hedges except Emotionally-charged intensifiers (Em) type than NNWs' research articles. Based on the function of this type of hedges, according to Salager-Meyer (1994), this phenomenon indicates that NWs project their reaction more than state their personal evaluation and make their statement less threatening. On the contrary, NNWs state their personal evaluation more than project their reactions.

#### **CONCLUSION**

The present study investigated how hedges are used in published research articles by NNWs and NWs, focusing on three sections (Introduction, Discussion, and Conclusion). The data consists of 40 published RAs which derived from two international journal of ELT. As the result shows, the overall hedges frequency in RAs of NWs is higher compared to NNWs. According to Bloor and Bloor (1991) some cultural issues or other pragmatic reasons may become the possible reason of the difference. It could change from one culture to other culture proportionally, because the use of hedges in academic writings may not be preferred by some cultures. Not only is the overall hedging frequency used is higher in RAs of NWs, but also in terms of hedge type used in RAs. The result revealed that NWs are ahead of NNWs in most all types of hedges except (Em) type. In terms of the distribution of hedges on each section, RAs of NNWs and NWs showed different pattern. In RAs of NNWs the highest frequency of hedges was in discussion section, while in RAs of NWs was in the conclusion section. Based on the result of the study, we can conclude that indeed Indonesian scholars are in need to be given special attention on the importance of hedges in academic writing especially research articles.

The results of the study provide the implication that Indonesian scholars need a special instruction especially which focuses on hedges proposition. However, this study is limited on investigating the use of hedges only in the field of ELT. Further research suggested investigating and comparing hedges in other disciplines of English articles written by Indonesian and English Native writers to find whether hedges are used differently. It is also possible to compare research articles written by Indonesian with other lan-

guage background; for example, between Indonesian writers and other Asian Countries writers to find the similarities. Comparing other met discourse markers such as boosters in research articles is also considered as possible.

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