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Rhetorical Analysis of Aristotelian Appeal of *Ethos* in Academic Research Compositions

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Abstract

The appeal to *ethos* in research abstracts (RAs) is claimed to increase writers' appeal of authority and credibility. Hence, the study compared the percentages in the usage of Clout (power) domain with two rhetorical resources (RRs) to measure the Aristotelian's appeal to *ethos* in composing native and non-native English RAs for their rhetorical similarities and differences. A theory-based mapping table was used to map the two RR, which are Pronouns (PN) at the lexical level and Future Tense (FT) at the sentential levels. Through content analysis, the percentages of the Clout domain with these two RR were examined in 480 RAs from journals of native English (ENL) and English as a second language (ESL). The data were autogenerated by the LIWC2015 quantitative software application tool for the purpose of contrastive rhetoric analysis. Based on the findings, the writing of ESL RAs showed a nearly similar level of English rhetorical nativeness in the demonstration of clout domain with pronouns as well as future timeframes in writing research abstracts. However, the analysis of personal and impersonal pronouns showed opposite results. In terms of implications, the study demonstrates these two RR as some of the best rhetorical resources to be emulated by proficient non-native academic writers in their attempt to compose an academic research abstract as rhetorically appealing as those of the native English writers.

Keywords: Appeal to *ethos*; Modern Theory of Contrastive Rhetoric; Pronouns; Future Tense Timeframes; LIWC2015

Analisa Gaya Retorika Berbentuk Rayuan *Etos Aristotle* Dalam Penulisan Kajian Akademik

Abstrak

Gaya retorika berbentuk rayuan *etos* dalam penulisan abstrak kajian (RAs) diduga meningkatkan tahap daya rayuan dan kredibiliti penulis. Oleh itu, kajian ini membandingkan peratusan Dimensi Klout (Autoriti) melalui penggunaan dua alat retorika (RRs) yang digunakan untuk mengukur tahap daya rayuan *Etos Aristotle* dalam penulisan abstrak bahasa Inggeris Natif dan bukan Natif dari aspek tahap kesetaraan dan perbezaan penggunaan alat-alat ini. Jadual pemetaan berasaskan teori dirangkakan untuk memetakan dua RR ini, yang merupakan Kata Ganti Nama Diri (PN) pada peringkat perkataan dan Ayat Berangka Masa Depan (FT) pada peringkat penulisan ayat. Berdasarkan analisa kandungan, peratusan kewujudan Dimensi Klout melalui kekerapan penggunaan dua RR ini dikaji di dalam 480 abstrak kajian berbahasa Inggeris Natif (ENL) dan bahasa Inggeris sebagai bahasa kedua (ESL). Proses analisa data tersebut dibuat secara automatik menggunakan aplikasi perisian kuantitatif yang dikenali sebagai LIWC2015 yang mana ia biasanya digunakan bagi menganalisa penulisan beretorika. Berdasarkan dapatan kajian ini, penulisan abstrak Inggeris sebagai bahasa kedua menunjukkan tahap kenatifan bahasa Inggeris yang hampir sama dengan tahap kewujudan Dimensi Klout. Hal ini berdasarkan kekerapan hampir natif bagi penggunaan Kata Ganti Nama Diri (PN) dan Ayat Berangka Masa Depan (FT) dalam penulisan abstrak kajian. Walau bagaimanapun, analisa lanjutan bagi penggunaan Kata Ganti Nama Diri jenis bukan peribadi (*impersonal*) menunjukkan hasil dapatan yang secara unik bertentangan dengan dapatan keseluruhan. Dari segi sumbangan implikasi, kajian ini membuktikan bahawa dua jenis alat retorika ini merupakan instrumen retorika terbaik yang boleh diguna pakai oleh penulis-penulis abstrak bahasa Inggeris bukan natif dalam usaha menghasilkan penulisan abstrak kajian akademik beretorika yang menarik agar gaya retorika mereka hampir setaraf dengan bahasa Inggeris natif.

Kata kunci: Daya Rayuan *Etos*; Teori Moden Retorika Kontrastif; Kata Ganti Nama; Ayat Berangka Masa Depan; LIWC2015

1. Introduction

Appeal to *ethos* in academic writing refers to the appeal to the author's credibility and authority in communicating their textual message to their audience. According to Mohamad (2022), this appeal is commonly manifested in the features of academic writing related to academic research affairs. Aside from appeal to *ethos*, Myllylä (2019) also highlighted the importance of applying rhetorical appeals to *logos* and *pathos* in academic writing. It is more effective to take all three modes of persuasion into consideration when composing academic texts. However, Mohamad (2022) underlines the specific significance of rhetorical appeal to *ethos* in writing research abstracts to increase the writers' appeal of authority and credibility as a rhetorical means of convincing the readers to read the full research articles as well as increasing the chances for successful research publications.

Kaplan (1966) with his classical theory of contrastive rhetoric, and Connor (1996) with her modern theory of contrastive rhetoric, explored the presence of rhetorical strategies in the academic texts written by academic English writers. Apart from academic texts, lexical strategies were also explored in non-academic settings. This is substantiated by Baharum et al. (2019) who argued that the application of lexical strategies in achieving certain levels of "beauty" standards of persuasive writing to appeal to general readers. Since the time of the classical theory of contrastive rhetoric, contrastive differences in the way academic writing is composed have been shown in the non-native English writers and the native English writers' lexical and textual styles of academic writing. Several recent studies have explored the similarities and differences shown by native and non-native English writers in their use of rhetorical features in academic written discourse (Mohamad, 2022; Mohamad et al., 2022; Smith-Keiling & Hyun, 2019). According to Connor (1996), similar degrees of rhetorical features would reflect the ESL writers' near-nativeness level of English language rhetoric whereas differences may suggest their clear features of English non-nativeness in academic writing. Instead of making a sweeping generalisation about the ESL writers' overall non-nativeness in their rhetorical competence, Velasco (2020) proposes that English native and non-nativeness ought to be categorically determined based on their use of specific rhetorical features. The variety of specific rhetorical devices produced by effective writers would enable

them to enhance their communicative competence and the quality of their message, being the characteristic of credible language users in applying the skill in numerous contexts (Berhad & Hamid, 2012).

The supremacy of academic research writing in the English language worldwide appears to be one of the contributing factors to the near-nativeness of English language rhetoric among ESL writers. Numerous exposures to the native English language and native English scholarly work have positively contributed to the ESL writers' acquisition of English near-native rhetorical competence in composing their academic writing. Near-native rhetoric of English language in written discourse was also studied by Römer and Arbor (2009) as a response to the dominant interest in the studies of near-nativeness competence in spoken discourse. These researchers attributed their concerns about the lack of English nativeness to the writers' differences in rhetorical choices. Thus, emulating the rhetorical choice of the native English writers may help reduce the academic worry in terms of misinterpretation of the content. In line with this argumentation, Lei and Yang (2020) concluded about the importance of English nativeness in their study on the academic writing of non-native English PhD candidate writers, master-level native student writers and native English expert writers. They assert that academic experience plays a more important role in the level of English nativeness in the writing of research articles. In their additional conclusion, near-native English rhetoric in academic writing can possibly be attained by adult ESL writers through intensive efforts, immersive language experiences and rigorous training in academic writing (Lei & Yang, 2020; Li, 2020).

It is also important for ESL writers to acquire the rhetorical nuances shown in the native English writers' academic papers. Wicaksana (2016) found that ESL writers tend to show a rather limited rhetorical choice in writing their persuasive genre of texts. According to Jamian (2016), ESL writers' lack of rhetorical choice in academic writing strategies is commonly associated with their lack of knowledge in the specific rhetorical choice to be used in academic writing. Previous content analysis studies were conducted on various types of rhetorical choices to find out the frequencies in the use of certain rhetorical strategies. Some studies were found to examine the broad types of academic writing appeals and specific types of rhetorical features used in academic English for general to specific academic purposes in terms of overall textual quality, three types of persuasive appeal (i.e., logic, ethics, and emotions). It was discovered that several rhetorical features were associated only with appeal to logical dimension (Chanyoo, 2018; Don & Srinivass, 2017; Durst et al., 1990; Saud, 2018). Meanwhile, it was found that rhetorical appeal to *pathos* apparently played a critical function in academic writing, not only in promotional types of texts (Mohamad, 2022). As a result, the rhetorical appeal for ethical dimension was not fully explored in terms of the significance of their rhetorical features. Thus, the present study attempted to further examine the rhetorical choice associated with the appeal to *ethos* for ESL writers to consider in writing their academic text.

To complement the previous studies mentioned above, this study sought to examine two rhetorical resources which are pronouns (PN) and future tense (FT) timeframes. This is because these two rhetorical resources have been associated with an appeal to *ethos* to fulfil the Aristotelian mode of persuasion. ENL and ESL groups of research abstracts were studied to analyse the overall presence of appeal to *ethos* and the frequency of these two rhetorical resources in terms of their percentage scores. The research endeavours were demonstrated in the following research questions.

- i. Are there significant differences of percentages between ENL and Malaysian ESL groups of RAs in their overall rhetorical appeal to *ethos*?
- ii. Are there significant differences of percentages between ENL and Malaysian ESL groups of RAs in their use of pronouns (PN)?
 - a. Do the ENL and Malaysian ESL groups of RAs differ in the percentages of personal (PP) and impersonal pronouns (IP)?
- iii. Are there any significant differences of percentages between ENL and Malaysian ESL groups of RAs in their use of the future tense timeframes (FT)?

2. Literature Review

According to Aristotle and Kennedy (1991), appeal to *ethos* is a mode of persuasion related to the social power, authority, charisma, honesty, and dynamism of the writers in written discourse. Myllylä (2019) describes that *ethos* is commonly used when the writers present their ideas in an enthusiastic and engaging manner with an aim to have an impact on the minds of the readers. As suggested by Baharum et al. (2019), the rhetorical impact could be achieved through various language uses applied at the lexicogrammatical levels of writing. In addition, Aristotle and Kennedy (1991) explicate the common presentation of *ethos* as the mode of persuasion because it aims to exhibit the writers' general accuracy, reliability, credibility, and competence by taking into consideration the values and expectations of the audience. Based on the description of the LIWC2015 model, appeal to *ethos* is found to be equivalent to the clout (power-related) dimension measured by the authority of the writers, their social status, confidence, leadership, and credibility (Mohamad, 2022; Pennebaker et al., 2015). Smith-Keiling and Hyun (2019) maintain that clout dimension is an appropriate psycholinguistic tool to examine the academic writing of psychosocial research studies as it helps reflect the psychosocial features embedded in the text. In contradiction, the clout dimension is not so suitable to assess the academic writing of scientific types of papers. This claim echoed with a study on the clout dimension used to measure the writers' appeal to *ethos* which found to be a significant feature manifested in the writing of research abstracts in social studies due to the psychosocial characteristics of the academic writing (Mohamad, 2022).

The use of pronouns (PN) and future tense (FT) comes with the Aristotelian element of appeal associated with the *ethos* mode of persuasion (Mohamad, 2022). Pronouns are a type of rhetorical resource composed at the lexical level in a text meanwhile future tense is the type of rhetorical resource composed at the sentence-based level in a text. Pronouns can be used to demonstrate the authorial voice of the writers, which further determines their visibility or rather their lack of visibility in academic writing (Choi, 2021; Li, 2021; Wang et al., 2021). Meanwhile, future tense is used to exhibit the dynamism of the writers' information by indicating the writers' emphasis on future actions and endeavours (Khelifi & Bouri, 2018; Myllylä, 2019). In a study of research abstracts in language and linguistics, it was discovered that there were multiple correlations between the rhetorical appeal to *ethos* and the use of pronouns and future tense in writing research abstracts (Mohamad, 2022). The finding verifies the function and aim of the appeal to *ethos* which is to demonstrate the active tone of authorial voice of the writers (Aristotle & Kennedy, 1991).

Several studies were done on the use of personal and impersonal pronouns to explore the degree of authorial presence in academic writing (Choi, 2021; Day, 2013; Jekhny & Bapir, 2021; Li, 2021; Wang et al., 2021). In a study of 400 sample research articles and research abstracts from electrical and engineering journals, Wang et al. (2021) examined the systematic use of 'we' to examine the degree of use of this personal pronoun in academic research writing. It was concluded in their study that the use of 'we' personal pronoun has shown a general increase as the preferred choice of pronoun over the use of 'I' personal pronoun. However, the range of time for the increase was not indicated in the research. Li (2021) conducted a similar study examining the authorial voice changes through 'we' and 'I' pronouns in research abstracts in applied linguistics with the range of publication years from 1990 to 2019. The number of writers of an academic text determines the degree of the authorial presence in which multiple writers would demonstrate their collaborative presence in writing their academic papers in a personally dialogical but not threatening way than single writers who would be perceived as more explicitly imposing, straightforward in projecting their ownership of research. However, according to the researchers, both ways were still used to demonstrate the personal tone of the text in the research abstracts to persuade the readers to read the full version of the articles as part of the journal style to accommodate the readers' interest and increase the journal readership. Nonetheless, Day (2013) showed an opposite opinion about the use of 'we', 'I' and 'you' that should be avoided as academic writing is not supposed to be written in an overly personal tone. A more impersonal tone of a text is expected through impersonal pronouns such as the use of 'it', 'the researcher', 'the paper' and other similar forms of impersonal pronouns. Choi (2021) also studied the use of personal and impersonal pronouns in 33

research papers written by Korean ESL writers and 25 research papers written by native English writers. The dominant use of inanimate pronouns of ‘it’, ‘the paper’, and ‘the article’ and the abstract pronoun of ‘the researcher’ were shown by all writers compared to the personal pronouns of ‘I’ and ‘we’. Despite sampling both groups, the study only focused on the frequency of use of personal and impersonal pronouns without any attempt to explore the differences between the native English and ESL writers. However, the study specifically conducted a contrastive analysis between personal and impersonal pronouns that echoes the opinions postulated by Day (2013) on the importance of impersonal pronouns in academic writing.

In addition, future tense is another rhetorical resource with appeal to *ethos* correlated with temporal significance (Mohamad, 2022). According to Myllylä (2019), sentences constructed in future tense are used in academic writing according to their temporal purposes. This is also supported by Maroko (2014) that tenses help the writers manage their time-related references due to their specific function of framing certain points of time within the targeted duration and showing the connections with the other points in time. In fact, different time frames are commonly used in different contexts, sections of a text, and disciplines. According to Martinez (2010), the choice of tenses was associated with the types of discourses based on their study of tenses in academic texts of technical, scientific, humanities, economic, and business-related disciplines. Many studies examined the use of past and present tense at the expense of future tense (Alek et al., 2022; Kotuta & Duangprasertchai, 2020; Maroko, 2014) in which the former tenses were found to be more commonly associated with the rhetorical appeals to *logos* and *pathos* whereas future tense associated with the appeal to *ethos* frequently played a significant role to appeal to the readers in an academic text (Mohamad, 2022; Sa-adkaew et al., 2012). This is validated by Hussain et al (2020) who maintain that potential research endeavours derived from the conclusions of previous findings tend to be manifested in the employment of future tense. Meanwhile, in a study of 100 research articles sampled from Scopus journals, it was found by Jomaa and Yunus (2020) that future tense was reflected through the finite operators associated with the use of modal verbs. Finite modal operators framed in the future tense such as ‘may’ and ‘will’ were employed by writers to show their stance, project their voice, and demonstrate their probable future actions. Meanwhile, the finite operators of ‘should’ and ‘must’ were used to indicate future inclinations and obligations. It was also shown that Sa-adkaew, Jungsatitkul and Draper (2012) underlined the importance of future tense to indicate the potential research undertakings which contain the rhetorical appeal to *ethos* as the mode of persuasion.

3. Methodology

The study employed content analysis research design by examining the percentages for the frequency of two rhetorical resources (RRs). This method of quantitative analysis of qualitative data was adopted by various researchers in content analysis by exploring the frequent use of specific linguistic items in a specific genre or types of discourse (Berhan & Hamid, 2012; Mohamad, 2022; Mohamad et al., 2022; Zolkalpi et al., 2022; Mohamad, et al., 2023). In the present study, the two RRs referred to pronouns (PN) at the lexical level and future timeframe (FT) at the sentential level associated with appeal to *ethos* in which the appeal could be measured by the LIWC2015 clout dimension. The two RRs were extracted from the Researcher’s Mapping and Selection Table designed by Mohamad (2022) involving nine linguistic devices based on a methodological framework integrated from three theoretical models: Aristotelian elements of discourse (Aristotle & Kennedy, 1991), the LIWC2015 Psycholinguistic Dimensions (Pennebaker et al., 2015), and the Compositionality Model (Bulté & Housen, 2018) in academic research writing.

According to Aristotle and Kennedy (1991), two Aristotelian elements of discourse consist of 1) appeal to *ethos* as the mode of persuasion and 2) *topoi* or also known as choice of words in language use. The second theoretical model was introduced by Pennebaker et al. (2015) with their LIWC2015 Psycholinguistic Dimensions. In the present research, it refers to the clout (power-related) dimension, which was associated with the choice of words for the writers’ authorial power, the demonstration of authority, and the choice of language related to their relative status in social affairs. As for the third theoretical model, it was the compositionality model introduced by Bulté and Housen (2018), containing

the operational levels of texts which included the lexical and sentential levels in an academic research text. The operational levels were then aligned with the second Aristotelian element of *topoi*.

As shown in the frequency analysis of nine linguistic devices used in the composition of research abstracts, there were significant multiple correlations among the rhetorical resources of pronouns, and future tense sentences with the appeal to *ethos* measured by the LIWC2015 clout domain (Mohamad, 2022). To align them with the compositionality levels of an academic research text proposed by Bulté and Housen (2018), the rhetorical resource of pronouns (PN) was then mapped with the lexical level, meanwhile, the rhetorical resource of future tense timeframes (FT) was mapped with the sentence-based level of composition. It was also justified that each rhetorical resource mapped on the table was selected based on the characteristics and relevant appeal to *ethos* as shown and validated in the previous literature (Mohamad, 2022).

Table 1: An extract of the researcher’s theory-driven mapping table for two rhetorical resources (RRs) based on Aristotelian three (3) elements of discourse, the LIWC2015 clout dimensions model and the compositionality model (Mohamad, 2022)

Aristotelian Two (2) Elements of Discourse by Aristotle & Kennedy (1991)		1) MODE OF PERSUASION: Appeals to <i>Ethos</i>	
		APPEAL DESCRIPTORS	
		Language suitable for audience, appropriate, fair, and future focused organisation of presentation, appropriate choice of vocabulary, correct use of grammar, focus on dynamism, direct social actions of involvement in future related matters	
		THE RESULTING EFFECT	
		It demonstrates the writers’ competence, reliability, credibility, values, vigour, and respect for the audience.	
		MAPPING OF THE LIWC2015 CLOUT DIMENSION (Pennebaker et al., 2015) & TWO RHETORICAL RESOURCES (RRs)	
2) <i>TOPOI</i> (choice of words in language use)	Compositionality Model by Bulté & Housen (2018)	Lexical level	<u>Rhetorical Resource 1 (RR1): Pronouns (PN)</u> <i>(Personal and impersonal)</i> E.g., ‘I’, ‘we’, ‘they’, ‘my’, ‘our’, ‘theirs’ as opposed to ‘it’, ‘its’, ‘those’, ‘these’, ‘the researcher’, ‘the paper’
		Sentence- based level	<u>Rhetorical Resource 2 (RR2): Future Timeframes (FT)</u> E.g., The study <i>will</i> contribute..., The paper <i>should</i> consider..., <i>In future</i> , the findings <i>can</i> help...

Table 1 shows that appeal to *ethos* as the mode of persuasion is mapped with the LIWC2015 clout dimension. The Rhetorical Resource 1 (RR1) refers to the use of pronouns mapped with the lexical level of composition in academic research writing. The use of pronouns is further defined by two types: personal and impersonal pronouns. The instances of personal pronouns include 'I', 'we', 'they', 'my', 'our', 'theirs' and the equivalent forms as opposed to the impersonal pronouns 'it', 'its', 'those', 'these', 'the researcher', 'the paper' and the similar forms of impersonal pronouns. As for the Rhetorical Resource 2 (RR2) mapped at the sentence-based level of composition, this refers to the use of future timeframes in writing academic research papers. It is specifically defined herein as the usage of sentences with modality or modulation. These future time frames in the form of modality and modulation demonstrate the focus of academic writing on future inclination and obligation respectively. For example, it would be identified as a single count of sentential constituent when a sentence with the modality of 'will' is preceded by a subject and it is then followed by another verb (e.g., the research will be useful..., the findings will aid...). The same is applied to the sentences with the usage of modulation such as 'should' to indicate future obligation. The sentences with the modality and modulation such as 'can', 'might', and 'could' are the other forms of sentences that would be identified to present the writing of academic research at the sentence level.

3.1 Sampling

This study employed 480 research abstracts in English language and linguistics taken for a span of 6 years (2013 until 2018) from 88 indexed journals. The research abstracts were selected from 33 native English Language (ENL) and 55 non-native English as a Second Languages (ESL) journals related to English language, English Linguistics, and Teaching English as a Second Language (TESL). The first reason the journals from both groups were chosen was that this selection represented the main variable of the research which sought to see the differences of academic writing patterns shown by these writers. Therefore, it was operationalised that the Native English language (ENL) journals refer to journals published in the context of native English countries including the United States, United Kingdom, and Australia. Meanwhile, non-native ESL journals refer to journals published in Malaysia where English is used as a second language (ESL). The second reason these journals were selected was that the topics of the papers were the scope of the present research. The scope of journals was specifically determined to be on English proficiency, language, linguistics, and education. All the journals selected in this study have no-charge policy in reading and using the research abstracts, thus permission was not required for their usage of academic research purposes.

3.2 Data Collection and Analysis Procedure

The data collected from the sampling of research abstracts were imported into an analysis tool known as the LIWC2015 application software to automatically analyse the frequency of occurrence of the two RRs of pronouns and future timeframes. The frequency counts were then automatically converted into percentage scores and exported into a Microsoft Excel file for the researcher to take the percentages related to the two rhetorical resources for further quantitative examination. Both rhetorical resources were measured in an interval scale of measurements. By using SPSS, the percentages were analysed with an independent sample t-test as there were two sets of data involving two groups: ENL and ESL research abstracts, with their equivalent size of samples.

4. Analysis and Discussion

4.1 Differences in percentages between ENL and Malaysian ESL groups of RAs in their rhetorical appeal to *ethos*

Table 2 illustrates the results of an independent sample t-test results for percentage scores of the LIWC clout dimension in ENL and ESL research abstracts used to answer if there were any significant differences of percentages between the two groups of RAs in their rhetorical appeal to *ethos*.

Table 2: Results of independent t-Test for appeal to *ethos* measured by the percentages of the LIWC clout dimension in ENL and ESL RAs

Appeal (LIWC Dimension)		Mean	Std. Deviation	<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
<i>Ethos</i> (Clout)	ENL	66.49	12.52	0.62	478	.529	.059
	ESL	67.20	11.88				

According to Table 2, both ENL and ESL groups showed more than 50 per cent of Clout dimension with their appeal to *ethos* in writing their research abstracts. A contrastive analysis also revealed that both groups of the ENL research abstracts ($M = 66.49$, $SD = 12.52$) and ESL research abstracts ($M = 67.20$, $SD = 11.88$) did not show any significant differences in the degree of the LIWC clout dimension, $t(478) = 0.62$, $p = .529$. In addition, the effect size ($d = .059$) did not fall in any of the minimum ranges of effect size, which thus validates their insignificant difference. Due to their insignificant difference, it can be concluded from the finding that both ENL and ESL research abstracts showed a nearly similar degree of appeal to *ethos* as shown by their nearly similar level of overall percentages for clout dimension.

4.2 Differences in percentages between ENL and Malaysian ESL groups of RAs in their use of pronouns

Table 2 illustrates the results of an independent sample t-test for percentages of the use of pronouns in ENL and ESL research abstracts. Thereafter, a contrastive analysis result was shown for two sub-categories of the rhetorical resource: personal and impersonal pronouns.

Table 3: Results of independent t-Test for percentages of pronouns in ENL and ESL RAs

Lexical-Rhetorical Resource for appeal to <i>Ethos</i>		Mean	Std. Deviation	<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
Pronouns (PN)	ENL	5.23	2.25	1.37	478	.170	0.126
	ESL	4.97	1.87				

Table 3 shows that both groups of ENL RAs ($M = 5.23$, $SD = 2.25$) and ESL RAs ($M = 4.97$, $SD = 1.87$) did not show an significant difference in their use of pronouns, $t(478) = 1.37$, $p = .170$. It was also found that the effect size ($d = .170$) did not fall in any of the minimum ranges of effect size, which thus validates their insignificant difference. In other words, both ENL and ESL RAs showed a nearly similar level in their use of pronouns. This can be attributed to the ESL writers' near-native English skill in using this rhetorical feature to approximate the ones shown by native English writers potentially due to the former's substantial academic exposure to the common patterns of native English academic writing.

4.3 Differences in percentages of personal and impersonal pronouns in ENL and Malaysian ESL groups of RAs

Table 4 illustrates the results of contrastive analysis on two subcategories of the rhetorical resource: personal and impersonal pronouns with an independent sample t-test.

Table 4: Results of independent sample t-Tests on percentages of personal and impersonal pronouns in ENL and ESL RAs

Subcategories of Lexical - Rhetorical Resource for appeal to <i>Ethos</i>			Mean	Std. Deviation	<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
Personal Pronouns (PP)	ENL		1.68	1.53	3.90	478	.000	.356
	ESL		1.20	1.11				
Impersonal Pronouns (IP)	ENL		3.55	1.61	1.54	478	.122	.141
	ESL		3.77	1.46				

Based on the above table, it was found that the group of ENL RAs ($M = 1.68$, $SD = 1.53$) showed a significantly a greater percentage in their personal pronouns than the group of ESL RAs ($M = 1.20$, $SD = 1.11$), $t(478) = 3.90$, $p < .05$. It was further confirmed that the effect size (Cohen's $d = .356$) fell in the small range of effect size. Based on the findings, it can be concluded that ENL RAs were more likely to demonstrate the use of more personal pronouns than ESL RAs.

However, it was discovered that both groups of ENL RAs ($M = 3.55$, $SD = 1.61$) and ESL RAs ($M = 3.77$, $SD = 1.46$) did not show significant differences in their use of impersonal pronouns, $t(478) = 1.54$, $p = .122$. It was also confirmed by the effect size (Cohen's $d = .141$), which fell below the minimum range, thus confirming their insignificant result. From the findings, it can be concluded that both groups of ESL and ENL RAs show a nearly similar level of application in the impersonal pronouns.

4.4 Differences in percentages between ENL and Malaysian ESL groups of RAs in using the future tense timeframes

Table 5 illustrates the results of independent sample t-tests on the percentages of future timeframes in ENL and ESL RAS to see if there were any significant differences in percentages between the two groups of RAs in their use of the future tense time frames.

Table 5: Results of independent sample t-Test on future time frames in ENL and ESL RAs

Sentential Rhetorical Resource for Appeal to <i>Ethos</i>			Mean	Std. Deviation	<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
Future Timeframes (FT)	ENL		5.45	6.23	.80	478	.420	.072
	ESL		4.99	6.48				

Based on Table 5, both ENL RAs ($M = 5.45$, $SD = 6.23$) and ESL RAs ($M = 4.99$, $SD = 6.48$) did not show significant differences in their percentages of future timeframes, $t(478) = .80$, $p = .420$. It was validated that the effect size ($d = 0.072$) also fell below the minimal range, thus confirming their insignificant findings. It can thus be concluded that both ENL and ESL RAs showed a nearly similar level of frequencies in using future time frames in writing research abstracts.

Based on the above findings, it shows that both native and non-native English research abstracts have a high degree of clout dimension, which is related to the demonstration of the writers' authorial power, authority, and credibility in the writing of research abstracts. This is in line with the appeal to the rhetorical function of *ethos* as suggested by Aristotle and Kennedy (1991) on the importance of writers' confidence, authority, and credibility to effectively communicate the content of their messages. Both groups of research abstracts showed their high level of appeal to *ethos* as one of their modes of persuasion in academic research writing.

In addition, the writing of native English and non-native ESL research abstracts did not indicate any significant differences in their appeal to *ethos* along with their use of the rhetorical resources of pronouns and future time frames. Thus, the insignificant differences in ENL and ESL research abstracts imply the ESL writers' nearly similar level of application of the rhetorical appeal to *ethos* with the two rhetorical resources to the native English writers. According to these the operational definition of near-nativeness within a specific range of percentage scores proposed by Velasco (2020), the lack of significant differences in the application of linguistic or rhetorical devices in ESL academic writing can be equated with a nearly similar level of native English rhetorical competence. Based on this, it can be suggested from the findings of the present study that the writing of ESL RAs attained a nearly similar level of English nativeness in the demonstration of clout or power-related dimension and the use of pronouns as well as future timeframes in writing research abstracts.

Furthermore, analyses of the sub-categories of pronouns in the form of personal and impersonal pronouns revealed a slightly different finding. It was concluded that both native English and ESL research abstracts did not show any significant difference in their use of impersonal pronouns. However, the native English group of research abstracts was found to have significantly demonstrated a higher level of difference in their use of personal pronouns than the ESL group of research abstracts. In other words, the native English group was more personal in their writing of research abstracts compared to their non-native counterparts. This finding is supported by Wang, Tseng, and Johanson (2021), who argue for this trend in which academic writers have started to show their incremental use of personal pronouns to increase their engagement with the readers. It can be suggested from this finding that the attempt to be personally engaging is more reflected by the native English group than their non-native counterparts.

The lack of difference in the impersonal pronouns between the native English and ESL group of research abstracts were explained by Choi (2021) who concluded from their study that the ESL writers' cultural practices of the native language would influence their choice of impersonal authorial voices in their academic written discourse. However, the case is not reflected in this study in which the cultural practices of the ESL writers may not have affected the professional writing of research abstracts. In fact, they showed an approximately similar degree of impersonal pronouns, indicating the ESL writers' near-native English awareness of the native writers' conventional way of writing research abstracts with impersonal voices.

As for the demonstration of future time frames in writing research abstracts, both groups of native English and ESL writers showed low percentages of this rhetorical feature in which the application of future time frames was mostly reflected in the final sentences of their research abstracts containing the research recommendations. The finding concurred with a study conducted by Jomaa and Yunus (2020) in which they found that research abstracts from linguistics and literature journals showed the lowest frequencies of future tense manifested through future modal operators in which the feature was more common in the non-linguistic research abstracts - medicine RAs. The nearly similar levels of future time frames shown in native English and ESL research abstracts suggest that these research abstracts have a standardised method of underscoring their ideas about the future potential research at the sentential level by highlighting them at the end part of their research abstract writing. From the perspective of English grammatical competence, this nearly similar level of application points to the ESL writers' attainment of near-native English in writing their research abstracts categorically in terms of the rhetorical resource of future timeframes composed at the sentence-based level. As substantiated by Dąbrowska, Becker and Miorelli (2020), it is common for native and non-native English texts to have little grammatical differences in the writing of academic discourse which is found to be reflected in the application of future time frames in the present study of research abstracts.

5. Conclusion

Based on the above discussion, the research findings have demonstrated ESL writers' attainment of English near-nativeness in writing their research abstracts, especially in the demonstration of clout or

power-related dimension and the use of pronouns as well as future time frames in writing research abstracts. In terms of the impact of the study on the theory of contrastive rhetoric and the skill of abstract writing, the findings prove that it is no longer tenable to make an overall claim that the rhetorical features of ESL users in academic writing is described as non-native. The claim has now been invalidated by the proficient ESL writers in this study in which their usage of personal pronouns and future tense has successfully approximated the native English writers. Furthermore, the existing knowledge of contrastive rhetoric between ESL and ENL may be revisited to specifically show the rhetorical features which are either non-native or near to native English so that a more refined form of writing intervention can be considered to reduce the rhetorical gaps between the two groups.

Finally, one recommendation to be derived from this study is in terms of examining the frequencies of these two rhetorical resources in other sections of the research articles. This can be done by examining if a similar lack of differences is reflected in the other sections of the research articles. In addition, future research can explore other relevant types of rhetorical resources composed at the lexical, phrasal, or sentential levels associated with the Aristotelian appeal to *ethos* in the academic writing of research abstracts. This allows an in-depth description and contrastive analysis of the most frequent and the least frequent rhetorical features for the academic research writers' writing consideration so that they can emulate the best rhetorical writing resources shown by the proficient native English academic writers to produce a rhetorically appealing academic research abstract.

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